COMENIUS UNIVERSITY BRATISLAVA
FACULTY OF PHARMACY

Stanislava Kosírová et al.

SELECTED QUESTIONS FOR THE PATHOLOGY EXAM

FOR PHARMACY STUDENTS

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FOREWORD

The book you are holding in your hands is a supplementary study material for the final examination in the subject of Pathology for students of the Master's degree at the Faculty of Pharmacy, Comenius University Bratislava. It contains more than 2300 questions from Pathology, which you can use to test your overall knowledge of the subject, necessary for successful completion of the final examination. When creating the book, we based it on the subject content that a future pharmacist should know.

The book is divided into three parts. The first part presents a set of questions on general pathology, the second part is devoted to diseases according to different systems and the third part is devoted to simple case reports on selected diseases.

Within general pathology, the textbook contains questions on terminology in pathology and concepts that the student should be familiar with. Further, questions on the causes of disease and basic pathological processes such as developmental disorders, growth and differentiation disorders, progressive and regressive tissue changes, inflammation and tumours. The second part consists of selected questions on the pathology of the systems: central nervous system, cardiovascular, gastrointestinal, respiratory, endocrine, reproductive, excretory, immune, and sensory systems, as well as questions on disorders of bones, muscles, blood, and skin. In the third, special section of this textbook, you can test your knowledge of each disease with comprehensive case studies.

The book was written by teachers participating in the teaching of Pathology at the Faculty of Pharmacy, Comenius University Bratislava. The preparation of the questions was based on a number of sources, such as pathology textbooks, publications, and standard and diagnostic procedures of the Ministry of Health, as listed in the List of References used. The questions are in the form of a multiple choice of six options, with at least one correct answer in each question.

The authors thanks reviewer of this book doc. MUDr. Tatiana Stankovičová, CSc., who was for many years the professional guarantor of this subject at the faculty. Her valuable advices, insights, comments and modifications have contributed to the improvement of the quality of this textbook.

The team of authors wishes you all the best in your studies and good luck in the final exam. We hope that this book will help you to better prepare to pass it successfully.

We would also welcome your comments to help us further improve the text.

Bratislava, September 2022

doc. PharmDr. Stanislava Kosírová, PhD.

on behalf of the authors

CONTENTS

1. SELECTED QUESTIONS FROM GENERAL PATHOLOGY

1.1 PATHOLOGY INTRODUCTION, BASIC TERMS IN PATHOLOGY

1. A cough

    a. is a conditioned reflex
    b. is a defensive reflex
    c. its cause can be flu, but also heart failure
    d. is caused by irritation of nerve fibres n. glossopharyngeus a n. vagus
    e. its cause of cough is often hypertension
    f. it’s caused by irritation II. cranial nerve

2. Acromegaly

    a. is caused by an excess of vasopressin
    b. is caused by an excess of growth hormone
    c. is caused by an excess of antidiuretic hormone
    d. means enlargement of the hands, feet, forehead, sledge, nose
    e. means an increase in overall habitus
    f. is caused by pituitary adenoma

3. Agitation

    a. is a sick unrest
    b. also occurs in Alzheimer's disease
    c. is increased sensitivity to heat, cold, vibration and pain
    d. is a disorder of movements and speech coordination
    e. is associated with dopamine excess
    f. is controlled by the will

4. Agnosis represents

    a. movement disorder
    b. cognitive disturbance
    c. speech disorder
    d. forgetting
    e. rigidity
    f. sensitivity to light

5. Alimentary transmission of infection

    a. is the transmission of infection through food
    b. can occur with improperly cooked food
    c. can occur with improperly stored food
    d. is transmission of infection by direct contact with a sick person
    e. applies only to droplet infections
    f. the source of infection is the sick individual

6. Amyloid plaque

    a. are present only in the nervous systems
    b. is title for closure of brain artery
    c. is typically associated with metabolic disorders such as diabetes mellitus
    d. is non-soluble glycoprotein complex, often result of protein misfolding
    e. are present in neurodegenerative diseases such as Alzheimer's disease or Creutzfeld-Jacobs disease
    f. are bundles of starch formed due to non-complete digestion of oligosaccharides

7. Angina pectoris

    a. is a symptom which describes the chest pain
    b. usually occurs due to decreased blood flow via coronary arteries
    c. is the synonym for the heart attack
    d. we recognise two main form - stable and unstable
    e. unstable angina means that chest pain improves (less pain in time)
    f. stable angina is synonym for acute coronary syndrome

8. Anxiety

    a. is insomnia
    b. is depression
    c. is a hyperkinetic manifestation of a disease of the central nervous system
    d. is sleepiness
    e. may induce tension headaches
    f. may induce migraine

9. Aphasia

    a. is a sick unrest
    b. also occurs in Alzheimer's disease
    c. is increased sensitivity to heat, cold, vibration and pain
    d. is a disorder of coordination of movements and speech
    e. is the loss of speech, loss of the ability to communicate
    f. is a disorder of executive brain functions

10. Apnoe

    a. is respiratory arrest
    b. may be caused by airway obstruction
    c. induces sleepiness
    d. triggers Restless Legs Syndrome
    e. is a complication of migraine
    f. it is caused by the accumulation of tau protein in the temporal lobe of the central nervous system

11. Apraxia is

a. lability during walking
b. morbid restlessness
c. inability to perform purposeful movement
d. motor dysfunction
e. impaired cognition and perception
f. hypersensitivity to sensory stimuli

12. Aschoff's nodules

a. arise in the myocardium
b. arise in the thyroid gland
c. arise as a result of myocardial inflammation
d. arise as a result of myocardial infarction
e. are a typical symptom of dilated cardiomyopathy
f. are a typical sign of liver failure

13. Athetosis

a. are slow involuntary movements
b. are fast involuntary movements
c. is classified as bradykinesia
d. is classified as hyperkinesia
e. are rapid uncontrolled and irregular movements
f. are slow convoluted and writhing movements

14. Bradykinesia

a. is one of the cognitive symptoms of neurological diseases
b. is one of the motor symptoms of neurological diseases
c. means involuntary rhythmic movements of the limbs
d. means slow motion
e. means uncontrollable muscle activity
f. means a decrease in cognitive function due to developmental impairment

15. Burger's disease

a. mainly affects the aorta
b. is characterised by the presence of exudate
c. mainly affects heavy smokers
d. affects the small and medium-sized vessels and veins of the lower limbs
e. is characterised by the presence of occlusive inflammation
f. is a vasospastic disorder

16. Cataplexy

a. is the loss of muscle tone in the waking state
b. can be caused by emotion (laughter)
c. may occur during narcolepsy
d. may occur with insomnia
e. is a muscular tremor
f. is a disorder of circadian rhythms

17. Cataplexy is

a. claudication
b. transient loss of limb sensitivity as a result of exercise
c. sudden loss of muscle tone while a person is awake, triggered by emotions
d. headache localized around the eye
e. sudden muscle contraction and relaxation due to an epileptic seizure
f. sleep airway obstruction

18. Cavern

a. it is a cavity filled with fluid
b. it is a cavity filled with pus
c. it is typical for TBC or AIDS
d. it occurs mainly in the subcutaneous tissue
e. may cause pneumonia
f. it consists of granulation / fibrous tissue

19. Complications

a. neuropathy belongs to cardiovascular complication of Diabetes Mellitus
b. typical iatrogenic complication is a stroke
c. mean worsening in severity of a disease
d. may lead to the development of new diseases
e. are fever and fatigue
f. indicate the origin of a illness

20. Cretinism

a. is congenital hypothyroidism
b. is acquired hypothyroidism
c. it manifests only in adulthood
d. manifests during the first two years of life
e. is congenital hyperthyroidism
f. is acquired hyperthyroidism

21. Cyanosis

a. it is a high presence of non-oxygenated haemoglobin in the blood

b. the manifestation is a bluish discoloration of the skin
c. an example of cyanosis is hemoptysis
d. is a manifestation of varices in the lower limbs
e. may indicate peripheral vasoconstriction
f. it is a purple colour of the climate of the oral cavity

22. Cyanosis

a. is consequence of accumulation of blood in the tissue
b. is consequence of accumulation of blood in the interstitial space
c. bluish to dark blue discoloration of the skin and mucous membranes
d. is present congenital heart defects and various left-right short circuits
e. is central or peripheral
f. is during loss of blood from capillaries

23. Cyanosis

a. represents a cavity filled with fluid
b. is coughing up blood from the upper respiratory tract
c. is coughing up blood from the lower airways
d. is characterized by a pink foamed sputum
e. indicates a high level of unoxidized haemoglobin in the blood
f. is best visible on nail beds

24. Dysmenorrhea

a. means pain and difficulty menstruating
b. is sexually transmitted
c. it also causes migraine headaches
d. causes infertility
e. she is accompanied by breast pain
f. it produces a purulent discharge

25. Dyspareunia is

a. painful sexual intercourse
b. irregular menstruation
c. high-risk pregnancy
d. ectopic pregnancy
e. synonym of frigidity
f. synonym of promiscuity

26. Dyspnoea

a. indicates chronic cough
b. pain on inspiration
c. feeling "shortness of breath"

d. it always appears after exertion
e. the causes might be obstructive airways diseases
f. achieving normal breathing requires more effort

27. Dyspnoea

a. is a pressure pain primarily behind the centre of the sternum
b. the change in breathing is felt as shortness of breath
c. is one of the symptoms of myocardial infarction
d. occurs always in diabetes
e. is a symptom also e.g., in gastro-oesophageal reflux or gastric ulcer
f. is the defence mechanism of the respiratory system

28. Dyspnoea is

a. clearing of the airways by forceful expiration
b. subjective feeling of "shortness" breath
c. irritant inhaling
d. feeling of uncomfortable breathing
e. coughing up blood
f. pink sputum

29. Erosion

a. is a deep wound in the GIT
b. occurs only in the intestinal mucosa
c. is a shallow wound on the surface of the mucosa
d. does not occur on internal organs
e. may occur e.g., in the intestine but also in the oral cavity
f. it can also be caused by Helicobacter pylori

30. Erosion

a. is a deep wound in the GIT that permeates all the walls of the organ
b. is damage to the circular and longitudinal muscle in the GIT wall
c. is shallow damage to the mucosal layer of the GIT
d. occurs in the gastric mucosa in Helicobacter pylori infection
e. occurs in the oral cavity with gingivitis
f. does not occur on internal organs

31. Etiology

a. identifies factors causing an illness
b. is the cause or origin of a disease
c. describes the development of the disease
d. explains the development of a disease
e. defines the mode of treatment

f. describes the mechanism of the illness

32. Fatigue

a. it occurs, for example, in thyroid disorders or mental illnesses
b. is a symptom also e.g., in gastro-oesophageal reflux or gastric ulcer
c. is a condition where the patient is unable to perform a previously performed activity
d. is main symptoms of myocardial infarction
e. is the defence mechanism of the respiratory system
f. is one of the symptoms of menopause

33. Flatulence

a. is a non-specific symptom of maldigestion
b. means diarrhoea
c. occurs mainly in men
d. may be caused by bacteria in the gut
e. accompanies lactose intolerance
f. accompanies gastric ulcer disease

34. Foot ulcers

a. are usually a complication of type 2 diabetes mellitus
b. occur especially in athletes after wearing sport shoes all day long
c. are a complication of veinous insufficiency
d. are a complication of varicose veins
e. occur as complication of pressure ulcers
f. occur mainly in patient with covid-19

35. Preeclampsia is

a. nesting of a fertilized egg outside the uterus
b. placental disease in which the mother suffers from increased blood pressure and proteinuria
c. incompatibility of mother and child blood groups
d. autoimmune disease of the ureteral mucosa
e. bladder diverticulum
f. placental insufficiency at birth

36. Goitre

a. is an enlargement of the thyroid gland
b. is a thyroid hormone overproduction syndrome
c. is a thyroid hormone deficiency syndrome
d. is a syndrome of underproduction of TSH

e. is a reduction of the thyroid gland
f. means thyroid tumour

37. Gynecomastia

a. it means tumour growth, breast cancer
b. occurs exclusively in women
c. is caused by overproduction of prolactin in women
d. can be caused by drugs
e. is non-cancerous breast enlargement in men
f. there is an outflow of breast milk that is not related to breastfeeding / pregnancy

38. HPV vaccination protects against the following disease

a. chicken pox
b. shingles
c. measles
d. cervical cancer
e. rubella
f. mumps

39. Hyperkinesis

a. is one of the cognitive symptoms of neurological diseases
b. is one of the motor symptoms of neurological diseases
c. means involuntary rhythmic movements of the limbs
d. means slow motion
e. means uncontrollable muscle activity
f. means a decrease in cognitive functions

40. Hypersomnia means

a. insomnia
b. a prolonged episode of night sleep that also affects the phase of the day
c. excessive daytime sleepiness with short episodes of sleep during the day
d. vomiting
e. intense compulsion to move the lower limbs
f. brief respiratory arrest during sleep

41. In xerosis

a. the skin is dry and rough
b. the skin is hydrated with soaking spots
c. the skin may itch and burn
d. eczema can occur
e. pressure ulcers may occur

f. forearm ulcers may occur

42. Incubation period

a. is the time from the onset to the disappearance of the symptoms of the disease
b. is the time from the first sowing to the onset of fever
c. is the time from infection of an individual to the onset of symptoms
d. is the time during which the macula turns into pustules in childhood diseases
e. is the time it takes for enough pathogens to multiply in the body to cause clinical symptoms
f.
g. is the same for all RNA viruses

43. Incubation period

a. is the time between exposure to infection and the onset of symptoms
b. is one of the essential characteristics of infectious diseases
c. is highly variable
d. shortens with infectious dose
e. increases in inverse proportion to age
f. is longer for viral than for bacterial diseases

44. Indicate diseases for which there is no vaccine yet

a. eczema herpeticum
b. measles
c. varicella
d. mumps
e. rubeolla
f. gingivostomatitis herpetica

45. Insomnia

a. is the same as the sleep deprivation
b. it is not correctable just by non-pharmacological approaches
c. is often associated with other psychiatric states such as depression or anxiety
d. it is recommended to adjust the sleeping environment in order to eliminate it
e. means that patient is more prone to fall asleep during the day
f. is always associated with cataplexy

46. Insomnia means

a. patient cannot sleep
b. a prolonged episode of night sleep that also affects the phase of the day
c. excessive daytime sleepiness with short episodes of sleep during the day
d. vomiting

e. intense headache
f. brief respiratory arrest during sleep

47. Ionic imbalance

a. it may be induced by vomiting or intense diarrhoea
b. may lead to metabolic acidosis
c. accompanied by a celiac crisis
d. is a specific disease of the gastrointestinal tract
e. accompanies flatulence
f. increases the likelihood of triggering celiac disease-associated diseases

48. Ischemic limb syndrome is usually associated with

a. acute heart failure
b. vasospastic disorder
c. diabetic angiopathy
d. aortic aneurysm
e. Reynaud's disease
f. hyperemia

49. Lactalbumin

a. is a specific human serum albumin
b. is albumin in the cell membrane that transports lactose
c. is a membrane-bound protein that cleaves lactose
d. is a protein found in milk
e. is a protein in milk that breaks down lactose
f. no answer is correct

50. Lower limb paraesthesia

a. often occur in patients with claudication
b. often occur in patients after overcoming deep vein thrombosis
c. arise as a result of hypoxia
d. their risk factor is palpation of the pulse in the lower limb
e. they appear only in postural changes
f. are the key to diagnosing heart failure

51. Lymphadenopathy

a. is an enlargement of the lymph nodes
b. may accompany inflammatory diseases
c. is a specific symptom of viral diseases
d. is a specific symptom of bacterial diseases
e. is a specific symptom of cancer
f. may occur with sore throat - tonsilitis

52. Mark the correct statements

a. extraordinary vaccination is vaccination at risk of an epidemic
b. the caregiver or relative of the patient may also be a carrier of the nosocomial infection
c. anatoxin vaccines are used for infections where the clinical symptoms are caused by the toxin
d. nosocomial infections are always fatal
e. except for individuals allergic to the vaccine, anyone can be vaccinated
f. the use of a catheter is a preventive measure against nosocomial infection

53. Mark the correct statements

a. the incubation period of infectious disease is a contraindication to vaccination
b. live vaccines are not recommended for immunocompromised patients
c. special vaccination is vaccination of a selected - risk group of patients
d. rash on the skin in paediatric infectious diseases is a sign that the patient is not infectious
e. nosocomial infections are always fatal
f. only children can be vaccinated

54. Mark the trophic changes in the limbs

a. skin atrophy
b. muscle atrophy
c. necrosis
d. hyperpigmentation
e. aneurysm
f. claudication

55. Mark, what applies to vaccination

a. people who are e.g., after chemotherapy can be vaccinated
b. in Slovakia, we do not have diseases for which mandatory vaccination according to the vaccination calendar applies
c. vaccination in Slovakia is always free
d. only healthy people can be usually vaccinated
e. a patient who is in reconvalescence should not be vaccinated
f. people can also be vaccinated exceptionally e.g., at risk of an epidemic

56. Meteorism is

a. bloating
b. excessive hiccups
c. increased gastric fluids
d. persistent headache
e. a condition caused by uric acid crystals

f. excessive fat in the stool

57. Myocarditis

a. is dilation of left ventricle
b. is associated with inflammation
c. is described by elevated ST segment on ECG
d. may result in fatigue, loss of weight and anorexia
e. is often of infectious cause
f. may result in affecting of other tissues

58. Myocarditis means

a. myocardial inflammation
b. inflammation of the coronary arteries
c. inflammation of the myelin sheath
d. myocardial fibrosis
e. Schwann cell degeneration
f. myocardial arrhythmia

59. Myoclonus

a. is one of the cognitive symptoms of CNS disease
b. is one of the motor symptoms of CNS disease
c. it is a type of tremor
d. means automatic repetition of pointless movements
e. it is a type of hyperkinesia
f. is a sudden, involuntary movement of muscles caused by muscle contraction

60. Narcolepsy means

a. patient cannot sleep
b. a prolonged episode of night sleep that also affects the phase of the day
c. excessive daytime sleepiness with short episodes of sleep during the day
d. vomiting
e. intense compulsion to move the lower limbs
f. brief respiratory arrest during sleep

61. Neisseria gonorrhoeae

a. is a virus
b. is a bacterium
c. causes testicular cancer
d. causes gonorrhoea
e. is transmitted by droplet infection
f. is sexually transmitted

62. Non-specific symptoms of the disease include

a. pain
b. fatigue
c. fever
d. stiff neck
e. erythema migrans
f. nausea

63. Nosocomial infection means

a. that it is an infection acquired abroad
b. that it is an infection acquired in a hospital setting
c. that it always ends fatally
d. that it is an infection acquired during a medical procedure
e. that after overcoming it, it develops lifelong immunity
f. that the patient's stay with this infection in the hospital longer

64. Nosocomial infections

a. are easy to treat
b. they often arise in schools
c. there is no reason for the patient to remain in the hospital. It can be cured of them at home.
d. may arise e.g., during surgery when instruments are poorly sterilized
e. they often occur in elderly patients with chronic diseases
f. they are a frequent reason for prolonging the hospitalization of patients and increasing the costs associated with it

65. Nystagmus

a. is a myoclonus of mimic eye muscles
b. is a stereotype
c. is an uncontrolled movement by the will
d. is characteristic of multiple sclerosis
e. is characteristic of Alzheimer's disease
f. belongs to the tics

66. Pacemaker is

a. tissue that spontaneously slows the heart
b. tissue that blocks the transmission of impulses in the heart
c. tissue that spontaneously and rhythmically generates impulses
d. under physiological conditions, the atrioventricular node
e. under physiological conditions, the bundle of Hiss
f. under physiological conditions, the sinoatrial node

67. Pannus

a. is a growth on the skin
b. is an inflammatory granulomatous tissue formed around the synoviochondral junction
c. is a nodule that forms under the skin
d. occurs in rheumatoid arthritis
e. occurs in gonarthrosis
f. occurs in psoriasis

68. Parathyroid hormone

a. is produced by the thyroid gland
b. is produced by the parathyroid glands
c. when there is an excess, osteoporosis develops
d. when it is deficient, osteoporosis develops
e. when there is an excess, hypercalcemia develops
f. in its deficit, hypercalcemia develops

69. Paresthesia is

a. prickling sensation in the limbs
b. tingling in the limbs
c. impaired lower limb mobility
d. impaired upper limb mobility
e. impaired mobility of the mimic muscles
f. facial paralysis

70. Pathogenesis

a. explains the origination and development of a disease
b. describes the chain of events leading to the disease
c. identifies the origin of a illness
d. different types include infection and inflammation
e. describes factors causing a disease
f. describes symptoms of a disease

71. Pathogenicity

a. is the ability of an infecting microorganism to induce an infectious disease
b. depends on the quantity of the pathogen
c. depends on the virulence of the pathogen
d. is the number of fatal cases
e. is the number of severe cases
f. is important only for alimentary infections

72. Pathogenicity of infectious agent

a. depends on the invasiveness of the disease
b. is the ability of a micro-organism to induce an infectious disease
c. is the number of fatal cases
d. it is only defined for bacterial infections
e. depends on the amount of pathogen
f. is the severity of the disease after infection

73. Pelvic peritonitis means

a. inflammation of the female upper genitals
b. inflammation of the pelvic peritoneum
c. inflammation of the lumbar bone
d. inflammation of the thin membrane covering the internal organs and the abdominal cavity in the pelvic region
e. uterine inflammation
f. ovarian inflammation

74. Perinatal transmission of infectious disease

a. is the transmission of the disease shortly before birth and just about 10 days after
b. is dangerous if the mother has not overcome rubella, and was at the end of pregnancy with an infectious patient
c. is the transmission of the disease during sexual intercourse
d. is the indirect transmission of the disease
e. is contactless disease transmission
f. is the transmission of disease from animals to humans

75. Perineal pain is

a. breast pain
b. pelvic floor pain
c. stomach ache
d. kidney pain
e. testicular pain
f. pain during sexual intercourse

76. Phonophobia

a. is sensitivity to sounds
b. is accompanied by meningeal syndrome
c. accompanies migraine
d. is exacerbated by activity
e. it is always unilateral
f. induces vomiting

77. Phonophobia

a. is sensitivity to sounds
b. it also occurs with meningitis
c. it also occurs during migraines
d. it is accompanied by nausea and vomiting
e. means whistling in the ears
f. occurs during glaucoma

78. Photophobia

a. is light sensitivity
b. accompanied by meningeal syndrome
c. accompanies migraine
d. is exacerbated by exertion
e. is always unilateral
f. induces vomiting

79. Photophobia

a. is an increased sensitivity to sounds
b. is an increased sensitivity to light
c. is fear of the dark
d. is fear of sounds
e. means whistling in the ears
f. is sleepwalking

80. Pleuritis

a. is inflammation of the visceral membrane in the thoracic cavity
b. may complicate pneumonia
c. may complicate rheumatoid arthritis
d. it is manifested by the accumulation of pathological proteins in the connective tissue
e. is one of the progressive changes in tissues
f. manifests as inflammation of the blood vessels

81. Polydipsia

a. represents increased thirst
b. represents increased hunger
c. represents acute weight loss
d. occurs with DM1
e. occurs in diabetes insipidus
f. occurs in Crohn's disease

82. Postural tremor

a. there are limb routes in the room

b. is the way of the limb held against gravity
c. it arises, for example, in the cold and mental agitation
d. is the shaking of the limb during free movement
e. is typical for Parkinson's disease
f. is typical for Alzheimer's disease

83. Prevention

a. procedure to prevent a disease from occurring
b. primary prevention eliminates the risk factor (immunization)
c. secondary prevention eliminates the disease
d. tertiary prevention reduces the impact of a disease (diet, exercise)
e. example of a tertiary prevention is a rehabilitation of a patient
f. blood glucose test is used to diagnose high blood pressure

84. Prodromes

a. arise before a migraine attack
b. they are accompanied by irritability, depression, yawning
c. arise during insomnia
d. they are accompanied by phono and photophobia
e. arise before meningitis
f. the patient loses consciousness in them

85. Prodromes in migraine

a. are also known as "pre-attack" stage
b. are associated with increased irritability, yawning or food craving
c. helps patient to prevent the attack of migraine
d. lasts only from minutes to hours maximum
e. it’s the stage migraine after the attack
f. patient might experience problems with concentration or fatigue

86. Prostatitis is

a. is acute or chronic inflammation of the prostate
b. is manifested by an increased frequency of urination
c. may be caused by bacteria
d. is prostate cancer
e. is a viral disease of the prostate
f. is an unnatural change in the structure of the prostate epithelium

87. Pruritus

a. is compulsive touching of different parts of the body
b. is the compulsive scraping of the skin
c. is part of ARDS and IRDS

d. is a symptom of skin diseases e.g., eczema
e. leads to secondary skin diseases
f. is also a symptom of some psychiatric diseases

88. Raynaud's disease/syndrome

a. it often affects areas around the neck and temporal area of head
b. typical is numbness and skin colour changes in the fingers or toes
c. is caused by vasospasm, often associated with increased catecholamine secretion
d. is synonym for the atherosclerosis
e. is the common cause of varicose veins
f. is the main risk factor for the hypertension

89. Recurrent tachycardia

a. is a paroxysmal increase in heart rate
b. is a repeated increase in heart rate
c. belongs to dysrhythmias
d. can be diagnosed by ECG
e. is typical for dilated cardiomyopathy
f. is physiological

90. Relapse

a. is the disappearance of the symptoms of the disease
b. is the recurrence of the symptoms of the disease
c. is an acute worsening of the symptoms of the disease
d. is the return of the disease
e. is the occurrence of rashes on the face
f. it always ends in death

91. Relapse

a. is the bending of the GIT wall inwards of the hollow organ
b. is the bending of the GIT wall outwards of the hollow organ
c. is the drop of the peritoneum
d. is the worsening of a chronic disease
e. is the improvement of chronic disease
f. no answer is correct

92. Resting tremor

a. is a tremor of a limb held against gravity
b. is a tremor of a limb at rest
c. is typical for Parkinson's disease
d. is typical for alcoholism

e. is a tremor occurring during voluntary movement
f. may occur in multiple sclerosis

93. Restless Legs Syndrome

a. is a disorder of motor inhibition
b. occurs during REM sleep
c. may occur in patients with Parkinson's disease
d. it typically occurs in patients with cardiomyopathy
e. occurs during sleep apnoea
f. occurs in patients with cardiovascular disease

94. Rheumatic fever

a. is caused by primary pneumonia
b. is caused by a primary infection with beta haemolytic streptococci
c. at the heart, it causes the formation of bacterial vegetation on the valves
d. it could be caused by streptococcal pharyngitis, tonsillitis
e. it has a higher prevalence in children
f. it only affects the joints and the brain

95. Rheumatoid nodes

a. may also be located on the sclera
b. are also present in psoriasis
c. are subcutaneous nodules that appear mainly on the hands
d. symmetrically affect the same joints of the body
e. are nodules under the skin, over bony prominences or near joints
f. are sites with a large number of purulent foci

96. Scotomas

a. are sudden visual field outages
b. may be manifestations of aura in migraine / epilepsy
c. they result from periodic changes in internal factors
d. are induced by elevated serotonin levels
e. are induced by increased melatonin levels
f. are a manifestation of hyperkinetic symptoms of the nervous system diseases

97. Sleep apnoea is

a. a sleep disorder that manifests as repeating breathing arrest
b. a relaxation of the airway muscles during sleep
c. a sleepwalking
d. a sleep "drunkenness"
e. characterized by nightmares
f. a loss of muscle tone while awake

98. Spike S protein is

    a. a nucleocapsid protein
    b. produced by a combination of neuraminidase and hemagglutinin
    c. a hallmark of influenza
    d. a characteristic feature of coronavirus
    e. present only in the alpha and delta variants
    f. responsible for binding to ACE2 receptors

99. Sputum

    a. occurs mainly in productive cough
    b. occurs mainly in non-productive cough
    c. may contain blood
    d. occurs with proteinuria
    e. is typical in patients with celiac disease
    f. is typical in patients with jaundice

100. Stable angina pectoris

    a. is tonsillitis
    b. is an acute form of ischemic heart disease
    c. manifests by chest pain during activity
    d. is caused by atherosclerosis of the coronary arteries
    e. its risk factor is obesity
    f. it is more common in women

101. Stasis is term for

    a. accumulation of fats
    b. accumulation of urine
    c. accumulation of carbohydrates
    d. accumulation of bile
    e. accumulation of neurogenic amines
    f. accumulation of blood krvi

102. Status migrainosus

    a. is the headache which is similar to migraine but affects only children
    b. describes a migraineous attack that lasts more than 72 hours
    c. it often requires hospitalization
    d. it lasts less than 24 hours
    e. it is fatal condition associated with brain trauma
    f. it cannot fade away without treatment

103. Status migrainosus

    a. is every migraine headache

b. are short-term migraine attacks
c. is a severe and long-lasting form of migraine (>72 hours)
d. is a sharp headache that is exclusively unilateral
e. requires hospitalization
f. is a condition with recurring migraine attacks (every 3 hours)

104. Steatorrhea means

a. blood in stool
b. dark to black stools
c. excessive fat in the stool
d. light and greasy stools
e. excessive protein in the stool
f. grey to white stool

105. Stenocardia

a. is a pressure pain primarily behind the centre of the sternum
b. the change in breathing is felt as shortness of breath
c. is one of the main symptoms of angina pectoris
d. occurs in uraemia
e. is a symptom also e.g., in gastro-oesophageal reflux or gastric ulcer
f. is the main symptom of migraine

106. Subfebrility

a. is a slight increase in body temperature
b. may accompany rheumatoid arthritis
c. may be accompanied by immune disorders
d. is a slight increase in body temperature of large joints
e. is a specific symptom of psoriasis
f. is associated with elevated Ig E levels

107. Sudden bearing inflammation of the tooth, without fever and manifestations elsewhere, is

a. focal
b. local
c. systemic
d. chronic
e. latent
f. acute

108. Symptoms

a. tiredness is an objective symptom
b. cough is an objective symptom

c. are clinical signs of a disease
d. fever is a specific symptom
e. fatigue is a non-specific symptom
f. describe the origin of a disease

109. Syncope

a. is fainting
b. may be caused by dysrhythmia
c. may be due to postural hypotension
d. is characterized by increased blood flow to the brain
e. it is always fatal
f. is of neuromuscular origin

110. Tachycardia

a. is recognizable on the ECG curve
b. depending on the place of origin, it can be in the SA node or the AV node
c. it can be atrial or ventricular
d. means atrial contraction at a frequency of 250-350 beats / minute
e. the ECG shows a clear P wave absence
f. means acceleration of heart activity above 100 beats / minute

111. Teleangiectasia

a. are varicose veins
b. represent an extension of the superficial veins
c. are the symptoms of chronic venous insufficiency
d. is a form of aneurysm
e. they can suddenly rupture and cause the patient's death
f. arise in people with permanent employment, obese and during pregnancy

112. The cognitive symptoms of CNS diseases are

a. dysgnosis
b. tremor
c. apathy
d. dyspraxia
e. disorientation
f. blurred vision

113. The ECG is

a. an invasive medical examination method
b. a method for sleep disorders examination
c. based on detection of the electrical signals generated by the heart
d. a method used for the diagnosis of brain damage

e. electrocardiography
f. painless examination

114. The etiology is

a. a biological change in an organism that leads to the onset of disease manifestations
b. a clinical symptom of a disease
c. a pathological condition caused by an initially minor disease
d. a cause involved in the origin and development of disease
e. a method of preventing the onset of disease
f. a disease manifestation

115. The iatrogenic form of the disease arises due to

a. cancer
b. inflammation
c. drugs
d. infections
e. necrotic changes
f. neovascularization

116. The remission in disease

a. disappearance of the symptoms of the disease
b. recurrence of disease symptoms
c. acute worsening of the symptoms of the disease
d. synonym for death from some disease
e. occurrence of rashes in the mediastinal area
f. is always lifelong

117. The suprachiasmatic nucleus is

a. localized in the hypothalamus
b. localized in the medulla oblongata
c. the internal pacemaker of the human biological clock
d. responsible for the sleep-awake cycle
e. blood pressure regulators
f. pacemaker centre in the medulla oblongata

118. The term "acute exacerbation"

a. means improvement of the disease
b. means a sudden abdominal event
c. means sudden worsening, outbreak of the disease
d. may occur in inflammatory bowel disease
e. means diarrhoea

f. means ulceration of the mucosa

119. The term "bradykinesia" refers to

a. unvoluntary movements
b. muscle spasm
c. slowness of movements
d. shaking at rest
e. incapacity to start a movement
f. extremely rapid eye movements during sleep

120. The term "etiology" of the disease represents

a. the cause of the disease
b. factors increasing the risk of disease
c. clinical signs of the disease
d. physical, chemical and other noxa
e. the presence of non-specific symptoms
f. the presence of specific symptoms

121. The ulcer is

a. thickening of the granular layer
b. a scab on the face e.g., freckle
c. a deep skin defect
d. a cavity filled with pus
e. damage to the integrity of the skin
f. superficial skin defect

122. Thrombus is

a. dilation of veins of the lower limbs
b. abnormal artery dilation
c. LDL plaques on the intima under the endothelium
d. blood clot
e. complete obstruction of the vessel
f. is formed by foam cells

123. Thyrotoxic crisis

a. is a gradual worsening of hypothyroidism
b. is an exacerbation of myxedema
c. is a sudden worsening of hyperthyroidism
d. is accompanied by hyperpyrexia and tachycardia
e. is accompanied by dyspnoea and a cough attack
f. may endanger the patient's life

124. Toxic megacolon is

a. diarrhoea
b. acute colitis
c. intestinal distension
d. complication of ulcerative colitis
e. formation of polyps in the large intestine
f. the development of rectal cancer

125. Tremor

a. is one of the cognitive symptoms of neurological diseases
b. is one of the motor symptoms of neurological diseases
c. means involuntary rhythmic movements of the limbs
d. means slow motion
e. means uncontrollable bowel activity
f. means a decrease in cognitive functions

126. Tremor in Parkinson's disease (PD)

a. belongs to the etiology of PD
b. belongs to the pathogenesis of PD
c. belongs to the symptoms of PD
d. belongs to the complications of PD
e. belongs to the pathomechanisms of PD
f. belongs to the treatment of PD

127. Typical microorganisms causing nosocomial infections include

a. Streptococcus pyogenes
b. MRSA Staphylococcus aureus
c. HIV
d. Klebsiella pneumoniae
e. herpes varicella-zoster virus
f. pneumococci

128. Ulceration

a. is a deep wound in the GIT that permeates all the walls of the organ
b. is a damage to the circular and longitudinal muscle in the GIT wall
c. is a shallow damage to the mucosal layer of the GIT
d. occurs in the gastric mucosa in Helicobacter pylori infection
e. occurs in the oral cavity as an accompanying phenomenon of tooth decay
f. does not occur on internal organs

129. Ulcus cruris / A leg ulcer is

a. ulcer of the forearm of vascular origin

b. ulcer of the forearm of nervous origin
c. foot ulcer of hormonal origin
d. ulcer of the lower leg of vascular origin
e. ulcer of the lower leg of nervous origin
f. lower leg ulcer of hormonal origin

130. Ulcus cruris is

a. venous ulcer
b. complication of chronic venous insufficiency
c. the rupture of the aneurysm
d. damage to the artery
e. type of varicose veins in the oesophagus
f. observed only in smokers

131. Ulcus durum is

a. Latin name for a hard ulcer
b. Latin name for soft ulcer
c. typical for the condition caused by T. pallidum
d. typical for syphilis
e. typical for gonorrhoea
f. typical for the condition caused by N. gonorrhae

132. Urticaria

a. manifests as erythema and the formation of itchy papules
b. manifests as formation of papules, pustules and purulent crusts
c. histamine, leukotrienes, leukocytes and trypsin are involved in its development
d. autoimmune mechanisms are involved in its pathogenesis
e. may last up to 3 months
f. it only takes a few minutes and then disappears

133. Vaccination

a. increases the body's defenses against infectious diseases
b. is a preventive intervention
c. it can only be performed in healthy individuals
d. it can only be performed in childhood
e. must be completed by the third year of the child's life
f. only live attenuated vaccines are used for vaccination

134. Varicose veins

a. may also occur in the oesophagus and uterus
b. arise only in the oesophagus
c. may also cause death due to bleeding when they burst

d. they are just a cosmetic problem
e. can be pharmacologically healed
f. can be removed with a laser

135. Vasculitis is

a. an inflammation of the nerves
b. a dilation of the blood vessels
c. a thrombus formation in the veins
d. an inflammation of blood vessels
e. a non-inflammatory disease of the blood vessels
f. an obstructive vascular disorder

136. Venostasis

a. represents the accumulation of blood in the veins
b. represents the cessation of blood in the arteries
c. may occur in patients with heart failure
d. occurs during vein obstruction by a thrombus
e. is inflammation of the veins
f. is common in children

137. Viremia

a. is the amount of virus in the blood
b. affects the onset of symptoms
c. occurs only in RNA viruses
d. occurs only in DNA viruses
e. it is also determined in bacterial diseases
f. related to the multiplication of the virus in the body

138. Virulence

a. is the ability of the microorganism to infect
b. is one of the characteristics of the infectious agent
c. influences the transmission of infectious diseases
d. is a fundamental characteristic of viruses
e. is a basic characteristic of bacteria
f. is only relevant for perinatal infections

139. When we say that there has been an acute exacerbation of the disease,

a. thus, the symptoms of the disease disappeared
b. thus, there was an acute worsening of the symptoms of the disease
c. thus, the symptoms reappeared
d. thus, death occurred as a result of the disease
e. thus, the progression of the disease occurred

f. thus, a recurrence of the disease occurred

140. Which of the following diseases could you diagnose yourself at home?

a. celiac disease
b. lactose intolerance
c. histamine intolerance
d. osteoporosis
e. peptic ulcer disease (presence of H. pylori)
f. asthma

141. Which of the following diseases is of autoimmune origin?

a. allergic rhinitis
b. atopic dermatitis
c. diaper dermatitis
d. psoriasis
e. rheumatoid arthritis
f. nappy dermatitis

1.2 DEVELOPMENTAL DISORDERS, GROWTH AND DIFFERENTIATION DISORDERS

1. Achondroplasia

    a. is manifested by disproportionate changes in skeletal growth
    b. is manifested by symmetrical changes in the skeleton
    c. is an example of reduced growth
    d. is an example of enlarged growth
    e. is manifested by shortening of the stature
    f. is manifested by enlargement of the acral parts of the body

2. Aging

    a. improves membrane permeability
    b. may be caused by impaired protein synthesis
    c. is accompanied by a reduced ability to repair
    d. slowest apoptosis
    e. is accompanied by decreased blood flow of the brain
    f. increases the weight of the liver

3. Animal poisons

    a. are one of the chemical causes of diseases
    b. may cause a haemolytic reaction
    c. may cause an anaphylactic reaction
    d. they never affect blood clotting
    e. may be neurotoxins
    f. can never be detected in the host's body

4. Autosomal diseases

    a. they affect both sexes equally
    b. they affect one sex more often
    c. symptomatic individuals are always homozygous
    d. symptomatic individuals are always heterozygous
    e. belong to monogenic diseases
    f. mutated genes are always recessive

5. Excessive growth is induced by

    a. decreased production of estrogens and androgens
    b. increased production of sex hormones
    c. decreased function of thyroid gland
    d. increased production of somatotropic hormone
    e. tumour of the adrenal gland
    f. tumour of the pituitary gland

6. Exon

    a. is a non-coding portion of DNA
    b. is the coding portion of DNA
    c. it is transcribed into mRNA
    d. is an unstable part of DNA
    e. is a template for protein synthesis in the cytoplasm
    f. is a template for the synthesis of proteins in the nucleus

7. Folic acid deficiency

    a. may cause foetal harm in pregnant women
    b. it never occurs because the body can synthesize folic acid on its own
    c. it is always irreversible
    d. may lead to anaemia
    e. it often occurs in vegetarians
    f. is one of the nutritional factors for disease origin

8. For second degree burns

    a. there is a loss of skin in its entire thickness
    b. dermal damage occurs
    c. scalls may form
    d. tendons, muscles, blood vessels and nerves are damaged
    e. blisters may form
    f. the affected person is always in life-threatening condition

9. Iatrogenic diseases

    a. may be caused by drugs
    b. may be induced by incorrect medical procedure (diagnostic or therapeutic)
    c. are autoimmune diseases
    d. are genetic diseases
    e. are diseases induced by hypoxia
    f. are developmental errors

10. Identify diseases in which oxidative stress plays an important role in the pathogenesis

    a. Alzheimer disease
    b. atherosclerosis
    c. chronic obstructive pulmonary disease
    d. embolism
    e. femoral neck fracture
    f. tonsilitis

11. Identify primary oxygenation disorders

    a. anaemia

b. hypoxia
c. ischaemia
d. thrombocytopenia
e. petechiae
f. laryngitis

12. If a foetal disorder occurs between the 15th day and the 3rd month of intrauterine development

a. there will be no consequences
b. malformations occur rarely
c. it is a critical period for the formation of malformations
d. all foetuses die
e. a child is born with possible malformations
f. only boys are born with malformations

13. If the disease is inherited autosomal recessively and both parents are carriers

a. there is a 50% chance that they will have a healthy child - a healthy genotype and phenotype
b. is 25% likely to have a healthy child - a healthy genotype and phenotype
c. there is a 50% probability that the child will also be a carrier
d. there is a 50% chance that the child will be ill
e. there is a 25% chance that they will have a sick child
f. spontaneous termination of pregnancy occurs in 100%

14. If the disease is inherited X gonosomally and the father is healthy, the mother is a carrier

a. there is a 25% chance that they will have a healthy child - a healthy genotype and phenotype
b. there is a 50% chance that they will have a healthy son - a healthy genotype and phenotype
c. there is a 50% chance that they will have a healthy daughter - a healthy genotype and phenotype
d. there is a 100% chance that they will have a healthy son - a healthy genotype and phenotype
e. there is a 25% chance that they will have a healthy daughter-healthy genotype and phenotype
f. there is a 100% probability that the daughter will be a carrier

15. In burns

a. dopamine is released
b. hypovolemia occurs
c. edema occurs
d. severe ones are just the ones which affect the face

e. the patient is at risk of plasma protein loss
f. it is a superficial damage to the skin that heals spontaneously in most cases

16. Indicate possible symptoms of spina bifida

a. rickets
b. hydrocephalus
c. urogenital tract disorders
d. blood clotting disorders
e. congenital heart defects
f. haemophilia

17. Indicate the causes of burns

a. magnetic radiation
b. acid / base
c. radiation
d. ischaemia
e. electric current
f. superoxide dismutase

18. Indicate the causes of TORCH

a. toxoplasmosis
b. measles
c. rabies
d. toxins
e. cytomegalovirus
f. HIV virus

19. Indicate the physiological causes of cell damage

a. hypoxia
b. aging
c. cold
d. iatrogenic
e. idiopathic
f. genetic

20. Indicate tissue oxygenation disorders

a. ischemia
b. anaemia
c. hypoxia
d. burn
e. scald
f. autolysis

21. Ketones

a. are accumulated in the body in poorly compensated diabetes
b. can lead to damage of the body
c. are exogenous substances, that the body cannot synthesize
d. are nutritional factors, that are produced by damaged body
e. arise from impaired glucose metabolism
f. are a common cause of anaphylaxis

22. Limb aplasia

a. is insufficient development of a limb
b. takes place mainly during morphogenesis
c. may be related to atrophy
d. is characteristic of the aging period
e. it takes place only postnatally
f. It is always of traumatic origin

23. Mark changes associated with older age

a. the weight of the heart decreases
b. decreased blood flow to the brain
c. adipose tissue increases
d. the permeability of the membranes increases
e. basal metabolism decreases
f. the kidneys enlarge

24. Mark diseases in which oxidative stress is involved in the etiopathogenesis

a. rheumatoid arthritis
b. cataract
c. Chronic obstructive pulmonary disease
d. rhinitis
e. petechiae
f. laryngitis

25. Mark diseases that belong to chromosomal aberrations

a. Fetal alcohol syndrome
b. Down syndrome
c. Edwards syndrome
d. cystic fibrosis
e. Pataua's syndrome
f. haemophilia

26. Mark numerical chromosomal abnormalities

a. deletions

b. Down syndrome
c. polyploidia
d. translocation
e. inversion
f. advertising

27. Mark the correct statements

a. the phenotype can have different genotypes
b. the genotype can have different phenotypes
c. genotype is a set of genes in an organism
d. Down syndrome is a monosomy 21
e. a mosaic is a combination of two different karyotypes
f. dominant type of heredity means that hereditary allele remains in the genotype, but does not manifest itself in the phenotype

28. Mark the correct statements

a. atherosclerosis is a polygenic disease
b. environmental factors also influence the development defects
c. congenital defects are always genetic
d. genetic diseases are always inherited
e. about half of congenital defects have no clear cause
f. the fetus is most sensitive to developmental defects in the last trimester of pregnancy

29. Mark the correct statements

a. skin burns are damage to the skin by acid or alkali
b. moist heat (by heated fluids) causes scalding
c. electric current will cause burns
d. moist heat (by heated fluids) causes burns
e. radioactive radiation leads to carbon monoxide poisoning
f. the cause of anaemia is insufficient tissue oxygenation

30. Mark the correct statements

a. most genetic diseases are of monogenic origin
b. most genetic diseases are of polygenic origin
c. FAS occurs in children of alcoholic women
d. prenatal screening is always an invasive examination of the fetus
e. exons are the coding parts of DNA
f. introns are the coding parts of DNA

31. Mark the correct statements

a. aging is a physiological process

b. in older age, superoxide dismutase activity is increased
c. achondroplasia is a sign of older age
d. the extent of human life is also genetically determined
e. newborn is a term for a baby during the first 6 weeks
f. older age begins in the age 60 resp 65

32. Mark the symptoms in fetal alcohol syndrome

a. growth retardation
b. neurological disorders
c. atrial disorders
d. malformations of the face
e. spina bifida
f. lens shift

33. Mark the symptoms typical of spina bifida

a. orthostatic hypotension
b. incontinence
c. hydrocephalus
d. petechiae
e. hepatomegaly
f. phocomelia

34. Mark typical signs - symptoms of Turner syndrome

a. trisomy
b. amenorrhea
c. low figure
d. osteoporosis
e. short neck
f. slight decrease in IQ

35. Mark typical signs - symptoms of Down syndrome

a. trisomy
b. amenorrhea
c. tall figure
d. heart defects
e. lung obstruction
f. thyroid disorders

36. Mark typical signs - symptoms of Klinefelter's syndrome

a. trisomy
b. amenorrhea
c. short figure

d. osteoporosis
e. monosomy
f. slight decrease in IQ

37. Mark vasoactive peptides of ischemia

a. histamine
b. thromboxane
c. neurine
d. plasmin
e. cytokines
f. fibrinogen

38. Mark, what applies to aging

a. it increases the permeability of the membranes
b. it increases the amount of adipose tissue
c. the heart enlarges
d. the elasticity of the bloodstream increases
e. basal metabolism decreases
f. the weight of the liver increases

39. Monogenic defects (errors)

a. represent Mendelian disorders
b. follow classical rules of inheritance
c. may represent autosomal or gonosomal mutations
d. arise due to diseases of the mother
e. arise due to chemical causes
f. they are not hereditary

40. Monogenic diseases

a. they are not hereditary
b. mutated genes are always recessive
c. belongs to phenylketonuria
d. they only affect gonosomes
e. include albinism
f. affected individuals are always infertile

41. Negative metabolic effect is

a. for example, cachexia
b. for example, anorexia
c. for example, bulimia
d. for example, obesity
e. one of the nutritional causes of disease

f. always an irreversible change

42. Numerical chromosomal abnormalities include

a. Turner syndrome
b. Klinefelter's syndrome
c. Down syndrome
d. Haemophilia
e. Albinism
f. Marfan syndrome

43. Prenatal diagnosing

a. detects maternal diseases during pregnancy
b. is indicated if there is an inherited genetic disease in the family
c. is indicated in case of abnormal pregnancy
d. it is performed from the blood of the fetus
e. it is performed from the mother's blood
f. it can only be done just before the baby is born, in the last month of pregnancy

44. Prenatal diagnosing

a. it is performed by a gynaecologist
b. allows the foetus to be examined before birth
c. is indicated if a genetic disease has occurred in the family
d. is a guarantee that a baby will be born healthy
e. it is performed by using USG
f. it is performed by using CT

45. Recessive type of inheritance

a. means that hereditary talent predominates in the genotype, but does not manifest itself in the phenotype
b. means that hereditary talent remains in the genotype, but does not manifest itself in the phenotype
c. means that the disease only affects homozygotes
d. can only be applied to diseases that do not occur according to Mendel's rules
e. is a template for protein synthesis in the cytoplasm
f. applies only to polygenic diseases

46. Scavengers

a. are the antioxidant systems of the cell
b. reduce the amount of free radicals in the cell
c. induce hypoxia
d. induce ischemia
e. trigger autocatalytic reactions

f. arise in the cell under pathological circumstances

47. Spina bifida

a. is of genetic origin
b. is a cleft spine
c. is affected by food intake during pregnancy
d. arises due to increased radiation during pregnancy
e. it is often accompanied by hydrocephalus
f. is an autoimmune disease

48. Teratogens

a. are always a chemical
b. endanger the foetus especially between 200 - 267 days of pregnancy
c. change the structure and function of foetal cells
d. affect only gonosomes
e. endanger the foetus especially between 18 and 55 days of pregnancy
f. is also alcohol

49. The ionizing - radioactive radiation

a. is carcinogenic
b. the effective dose is measured in Sievers
c. is used in diagnostic and treatment
d. endangers only mammals
e. the severity decreases with increasing dose
f. at a dose of 10 mSV it is hepatotoxic

50. The recommended dose of folic acid in the prevention of spina bifida is

a. 400 milligrams
b. 400 micrograms
c. 400 nanograms
d. 400 grams
e. 70 grams
f. 70% of the estimated weight of the child

51. When hypothermia develops

a. tachycardia occurs
b. the heart rate decreases
c. metabolism is reduced
d. the blood supply in the acral parts increases
e. the victim has frostbites
f. the patient is at risk of hypertension

1.3 PROGRESSIVE CHANGES

1. Compensatory hypertrophy

    a. is endometrial hyperplasia
    b. arises as a result of increased demands on the authority
    c. may occur after kidney resection
    d. is always pathological
    e. is a regressive change
    f. arises as a consequence of apoptosis

2. Dysplasia

    a. occurs only during intrauterine development
    b. is a progressive change
    c. is one of the regressive changes
    d. may be pre-neoplastic
    e. is always irreversible
    f. may be reversible at an early stage

3. Dysplasia is

    a. reduction or complete disappearance of tissue due to impaired morphogenesis
    b. reversible only in the early stages
    c. irreversible
    d. caused by mechanical, chemical or physical tissue damage
    e. visible e.g., at Barrett's oesophagus
    f. part of the physiological process of adolescence - e.g., breast enlargement in puberty

4. Factors that affect wound healing include

    a. impaired inflammatory response of the organism
    b. gender and race
    c. diabetes mellitus
    d. individual height
    e. sunlight
    f. blood flow and oxygen supply to the affected tissue

5. Foot ulcers

    a. they form mainly on the upper limbs
    b. diabetic neuropathy contributes to their development
    c. heals in a few days
    d. their origin is related to microangiopathy
    e. their development depends on diabetic myopathy

f. are subject to secondary infections

6. Fragmentation of the nucleus

    a. takes place during pathological cell death
    b. is called karyorrhexis
    c. induces cell lysis
    d. is characteristic of necrosis
    e. activates caspases
    f. inhibits caspases

7. Hyperplasia

    a. is one of the progressive adaptation changes
    b. cardiac muscle hyperplasia is a compensatory response to increased demands
    c. often occurs with hypertrophy
    d. an example of physiological hyperplasia is breast enlargement in puberty women
    e. there is an increased transition of cells into the G0 phase of the cell cycle
    f. is associated with an increase in the number of abnormal cells in the tissue

8. Hypertrophy could be

    a. vascular
    b. hormone
    c. senile
    d. compensation
    e. nervously conditioned
    f. malignant transformation

9. Hypertrophy is a process

    a. in which there is an enlargement of the organ due to the proliferation of cells
    b. in which there is an enlargement of the organ due to the enlargement of the cells
    c. which may result from compensation for damage to or loss of organ
    d. the process is activated as a result of increased erythropoietin production
    e. which can malignantly degenerate
    f. leads to a reduction in the function of the body

10. Identify adaptation changes that can lead to enlargement of the target organ

    a. atrophy
    b. hypertrophy
    c. hyperplasia
    d. hypoplasia
    e. neoplasia

f. dystrophy

11. Indicate adaptive changes that lead to enlargement of the target organ

a. atrophy
b. hypertrophy
c. hyperplasia
d. hypoplasia
e. hypertension
f. atrophy

12. Indicate pathological types of hypertrophy

a. left ventricular hypertrophy in chronic hypertension
b. endometrial hypertrophy during the menstrual cycle
c. biceps hypertrophy in an athlete
d. postpartum breast hypertrophy
e. exercice myocardial hypertrophy
f. hepatic hypertrophy after long-term use of drugs

13. Indicate physiological types of hypertrophy

a. left ventricular hypertrophy in chronic hypertension
b. endometrial hypertrophy during the menstrual cycle
c. biceps hypertrophy in an athlete
d. postpartum breast hypertrophy
e. exercise myocardial hypertrophy
f. hepatic hypertrophy after long-term use of drugs

14. Ischemic cerebral infarction manifests morphologically by

a. abscess formation
b. coagulation necrosis
c. liquefactive necrosis
d. gangrene
e. fibrinoid necrosis
f. apoptosis

15. Left ventricular hypertrophy due to compensation after myocardial infarction leads to

a. increase in discharge volume
b. reduction of the discharge volume
c. the formation of a heart failure
d. heart lipomatosis
e. reducing the thickness of the left ventricle
f. changes in the conductivity of the heart's transmission system

16. Mark the correct statements

a. poorly dividing / non-dividing cells tend to regenerate rather than adapt
b. unstable tissues adapt poorly but regenerate well
c. stable tissues include, for example, cardiomyocytes or glial cells
d. cell adaptations include, for example, necrosis or apoptosis
e. hypertrophy and hyperplasia are a type of irreversible cell damage
f. if the damage is reversible tissue recovery can occur

17. Mark the correct statements

a. neoplasia is the uncontrolled growth of tissue due to impaired proliferation
b. hypertrophy is the proliferation of cells
c. aplasia is a impairment of cell metabolism
d. dysplasia is reversible only in the early stages
e. hyperplasia is an enlargement of the cells
f. neoplasia may be accompanied by a reduced rate of apoptosis

18. Mark the correct statements

a. good regeneration is characteristic of unstable tissues
b. muscle enlargement during muscle work is physiological hypertrophy
c. dysplasia is a disorder of cell development
d. there is a direct relationship between myocardial hypertrophy and muscle work
e. amyloidosis is a congenital dysplasia
f. metastases spread only directly

19. Mark the correct statements

a. fibroblast proliferation during healing is a physiological process
b. the bone marrow is characterized by good regeneration
c. vitamin a deficiency can lead to metaplasia of the nasal mucosa and bronchi
d. dysplasia is mainly present in permanent tissues
e. metaplasia is always irreversible
f. tumour suppressor genes stimulate the development of neoplasms

20. Mark the correct statements

a. hypertrophy is an enlargement of cells in a tissue
b. reparation is the substitution of tissue by equivalent
c. hyperplasia is a regressive change
d. Barrett’s oesophagus represents a cylindrical metaplasia
e. permanent tissues have an excellent ability to regenerate
f. atrophy can result from inactivity

21. Mark the correct statements

a. poorly dividing / non-dividing cells have a higher tendency to regenerate than to adapt
b. labile tissues adapt poorly but regenerate well
c. stable tissues include, for example, cardiomyocytes or glial cells
d. adaptive changes include, for example, necrosis or apoptosis
e. hypertrophy and hyperplasia are types of irreversible cell damage
f. if the damage is reversible, tissue healing may occur

22. Mark the correct statements

a. the regenerative capacity of cells depends on the type of tissue
b. cyclic tissue regeneration is typical of the endometrium
c. human tissues are capable of complete recovery after a pathological stimulus
d. if recovery from a pathological stimulus is incomplete, we refer to this process as healing
e. repair is a full-fledged replacement of the original tissue with the same type
f. permanent tissue regeneration is typical of mucous membranes and lining surfaces such as the intestinal mucosa

23. Mark the correct statements

a. atrophy also occurs during morphogenesis
b. cardiac hypertrophy in hypertension is physiological hypertrophy
c. stable tissues include liver and kidney
d. labile tissues have a low ability to regenerate
e. dystrophies represent progressive changes
f. labile tissues include, for example, skin

24. Mark the correct statements

a. repair is a healing process in which mature cells differentiate
b. unstable tissues are less susceptible to adaptive changes and more to cell death or autophagy
c. myocardium is an unstable tissue
d. stable tissues are typically adaptable tissues
e. glial cells are associated with regeneration
f. during repair, in contrast to regeneration, granulomatous inflammation does not occur

25. Mark the correct statements

a. hypoxia helps tissue regeneration because less oxygen radicals are formed
b. diabetes mellitus is a disease typically associated with impaired wound healing due to vasculopathy and angiopathy

c. adaptation can also be pathological, such as when differentiating from one cell type to another
d. with progressive adaptation tumour growth can also occur
e. tumourigenesis is associated with loss of function of the original cell type
f. myocardial hypertrophy is an example of a physiological adaptation in which the myocardium adapts to increase demands

26. Mark the correct statements

a. in hypertrophy, the cells enlarge, their number does not change.
b. pathological hyperplasia is, for example, an enlargement of the uterus in pregnancy.
c. hyperplasia lasts as long as the stimulus for cell growth lasts
d. neoplasia persists even when the stimulus for cell growth ceases to act
e. myocardial hypertrophy is always beneficial for the body
f. tissue hyperplasia is always irreversible

27. Mark the correct statements

a. uterine hyperplasia in pregnancy is pathological
b. prostate hyperplasia is pathological
c. hypertrophy of the striated muscles in athletes is pathological
d. breast hypertrophy in women during puberty is physiological
e. pressure atrophy is pathological
f. senile atrophy is pathological

28. Mark the correct statements for metaplasia

a. it is the regressive disorder
b. it is the progressive disorder
c. it is reversible
d. epithelial metaplasia often occurs in the bronchi of smokers
e. it is always irreversible
f. it is a pre-neoplasia stage

29. Mark, what applies to dysplasia

a. is always reversible
b. it is never reversible
c. arises after a single strong pathological stimulus
d. arises from chronic damage
e. it is manifested by a reduced cell size
f. it is manifested by increased cell growth

30. Mark, which of these following belong to the progressive changes

a. pigmentation

b. crystals
c. hypoplasia
d. dysplasia
e. hyperplasia
f. metaplasia

31. Metaplasia

a. is an irreversible change of differentiated tissue to another type of the same species
b. is always a pathological process
c. an example of metaplasia is Barrett's oesophagus
d. may be associated with cell dedifferentiation and is therefore a regressive change
e. can be induced e.g., long-term inflammatory process
f. most often it concerns epithelial and mesenchymal tissue

32. Metaplasia

a. is an irreversible adaptation of cells
b. is a reversible adaptation of cells
c. is the change from one tissue type to another tissue type
d. is the change in cell differentiation within a tissue type
e. it occurs only as a result of the activation of oncogenes
f. takes place mainly in labile tissues with good regeneration

33. Neoplasia

a. is a progressive change
b. is always reversible
c. is irreversible
d. is characterized by reduced apoptosis
e. is characterized by increased apoptosis
f. is characterized by increased necrosis

34. Dysplasia

a. is a progressive change
b. is always reversible
c. can be pre-neoplastic
d. is characterized by decreased apoptosis
e. is regressive change
f. occur only in elderly patients

35. Progressive adaptations include

a. dystrophy

b. hyperplasia
c. atrophy
d. hypertrophy
e. dysplasia
f. neoplasia

36. Progressive changes are

a. atrophy
b. hypoplasia
c. dysplasia
d. hypertrophy
e. neoplasia
f. pigmentation

37. Progressive changes include

a. dysplasia
b. concrements
c. hypertrophy
d. metaplasia
e. dystrophy
f. crystals

38. Progressive changes include

a. inflammation
b. regeneration
c. necrosis
d. hypertrophy
e. dysplasia
f. neoplasia

39. Prostate hyperplasia

a. is caused by an enlargement of prostate cells
b. is the proliferation of prostate smooth muscle and epithelial cells
c. is caused by abnormal production of hormones in the prostate
d. may cause urinary tract obstruction
e. is prostate shrinkage
f. is a disorder of prostate development during morphogenesis

40. Regeneration

a. is a tissue replacement with another different type
b. is a replacement with functionally and morphologically equivalent tissue
c. may be part of the repair process

d. regeneration and repair are mutually exclusive
e. in mammals it only affects cells and tissues, not the limbs
f. is the healing of tissue by a scar

41. Reparation

a. is a replacement of a tissue with different tissue type
b. is a replacement of damaged tissues by functionally and morphologically equivalent tissue
c. can be part of the reparation process
d. is possible only until the 18th year of life
e. in mammals is only possible for limbs
f. is a healing process that is finished by scar formation

42. Restoration of the endometrial mucosa is among

a. solitary
b. cyclic
c. permanent
d. flexible
e. complete
f. incomplete

43. Solitary physiological regeneration is typical for

a. endometrium
b. teeth
c. salamanders and lizards
d. small intestine
e. skin
f. erythrocytes

44. Stable tissues include

a. smooth muscle cells
b. liver cells
c. endothelium vessels
d. skin cells
e. transverse striated muscle cells
f. bone marrow cells

45. The cells of the intestinal mucosa belong to

a. renewal
b. permanent
c. stable
d. labile

e. flexible
f. unstable

46. The conversion of one differentiated epithelial type to another differentiated epithelium is called

a. atrophy
b. dysplasia
c. hyperplasia
d. hypertrophy
e. metaplasia
f. hypoplasia

47. The conversion of stratified ciliated cylindrical bronchial epithelium to stratified squamous epithelium in smokers is

a. dysplasia
b. hyperplasia
c. malignant transformation
d. metaplasia
e. necrosis
f. apoptosis

48. Typical diseases associated with regressive changes are

a. formation of insoluble amyloids - Alzheimer's disease
b. deposition of urate crystals - bottom
c. cancer
d. oesophageal metaplasia
e. warts after viral infection
f. liver steatosis

49. What applies to hypertrophy?

a. it is characterized by an increase in the number of cells
b. it is characterized by an increase in cell volume
c. it is characterized by an increase in the volume of the extracellular matrix
d. it is characterized by the enlargement of intercellular spaces
e. it is a pathological condition
f. in some cases, it can be physiological

50. What applies to labile tissues?

a. they have a good adaptability
b. they have poor adaptability
c. they have a good regenerative ability
d. they have a weak regenerative capacity

e. they are not capable of mitosis
f. are capable of mitosis

51. What applies to metaplasia?

a. it is a reversible change
b. it arises during a stress stimulus
c. it changes the epithelium to another tissue
d. it changes the type of epithelium
e. it is considered a precancerous stage
f. an example of it is Barrett's oesophagus

52. What applies to wound healing?

a. the formation of a fibrous scar is an example of a repair process
b. secondary healing is usually faster than primary
c. myofibroblasts are responsible for wound contraction
d. macrophages begin to migrate into the wound as the first immune cells begin to migrate
e. intense angiogenesis takes place in the granulation tissue
f. ionizing radiation accelerates the formation of granulation tissue and thus healing

53. What is true about hyperplasia and hypertrophy?

a. they can be caused by various causes (hormones, compensation, nerve stimulation)
b. their origin is determined by the type of tissue
c. both processes cannot exist in the same tissue
d. hyperplasia affects only epithelial tissues
e. both terms are synonymous
f. they can be both physiological and pathological

54. Which factors affect wound healing?

a. impaired inflammatory response of the organism
b. gender and race
c. diabetes mellitus
d. height of an individual
e. sunlight
f. blood flow and oxygen supply to the affected tissue

55. Which of the following diseases are examples of metaplasia?

a. goblet cell proliferation in the bronchi of smokers
b. squamous epithelium in smokers' bronchi

c. cylindrical epithelium in the oesophagus in patients with gastroesophageal reflux
d. excessive keratinization of the skin in psoriasis
e. proliferation of endometrial cells during estrogen therapy in a young patient
f. in the mouth with an excess of vitamin D

56. Which of the following disorders are healing disorders caused by excessive cell proliferation?

a. rupture
b. ulceration
c. keloid
d. contracture
e. hypertrophic scar
f. exuberative granulation

57. Which of the following statements about hyperplasia and hypertrophy are true?

a. they can be caused by different stimuli (hormones, compensation, neural stimulation)
b. the development of one or the other is determined by the type of tissue
c. both processes cannot exist in the same tissue
d. hyperplasia affects only epithelial tissues
e. both terms are synonymous
f. they may be both physiological and pathological

58. Which wounds will heal in per second intention?

a. uninfected
b. cutting
c. firearms
d. stabbing
e. poorly treated
f. keloid

59. Which wounds will heal per primam?

a. uninfected
b. cuts
c. burns
d. stabbing
e. poorly treated
f. keloid

1.4 REGRESSIVE CHANGES

1. Amyloidosis

    a. belongs to dystrophies
    b. may accompany other chronic diseases e.g., diabetes mellitus II
    c. causes Alzheimer's disease
    d. is the storage of minerals in tissues
    e. is the deposition of pigments in tissues
    f. may cause arrhythmias

2. Amyloidosis is manifested by the deposition of defective protein in tissues, especially the kidneys, which leads to

    a. presence of glucose in the urine
    b. presence of protein in the urine
    c. presence of creatinine in urine
    d. presence of bilirubin in the urine
    e. presence of melanin in the urine
    f. does not affect urine composition

3. An example of lipomatosis is

    a. accumulation of cholesterol in macrophages
    b. accumulation of fats in hepatocytes in alcoholic liver damage
    c. digestion of peritoneal adipose tissue in acute pancreatic necrosis
    d. the presence of fat cells between the muscle fibres of the heart chamber
    e. hyperlipidemia in renal disorders
    f. accumulation of fat droplets in the liver

4. Apoptosis

    a. takes place without inflammation
    b. induces inflammation
    c. induces cell lysis
    d. caspases participate in its
    e. is characterized by decreased macrophage activity
    f. is reduced during cancer

5. Apoptosis

    a. is the programmed cell death
    b. is irreversible cell damage
    c. takes place only in unstable tissues
    d. it is associated with condensation of the nucleus and cytoplasm
    e. is characteristic of epithelial tissues

f. takes place only in the myocardium

6. Atrophy is most often associated with

    a. autolysis
    b. by enlarging the cell
    c. abnormal cell differentiation
    d. chronic reduction in blood supply
    e. increased cell proliferation
    f. necrosis

7. Atrophy is the less likely caused by

    a. loss of innervation
    b. reduced blood supply
    c. aging
    d. progressive hyperplasia
    e. pressures
    f. reduction of hormonal stimulation

8. Barrett's oesophagus

    a. is the name for an inborn malformation of the oesophagus
    b. is an oncological disease of the oesophagus
    c. belongs to metaplasia
    d. belongs to dysplasia
    e. has several stages
    f. is frequently caused by gastro-oesophageal reflux

9. Calcification

    a. is a process of excessive amyloid deposition in tissues
    b. is a progressive change that leads to cell enlargement
    c. it can be caused by a chronically increased concentration of calcium in the body
    d. is the deposition of bile stones in the bile duct
    e. is a process of hardening (cirrhosis) of the liver
    f. it can occur in tissues where irreversible cell damage has occurred

10. Caseous necrosis

    a. it always passes into gangrene
    b. heals by calcification (caseification)
    c. the deposit is whitish, grainy and resembles cheese
    d. it heals by creating a scar
    e. occurs in chronic inflammation, e.g., in tuberculosis
    f. is a type of apoptosis

11. Caspases

a. are the enzymes responsible for inflammation during necrosis
b. are proteases that are activated during apoptosis
c. are enzymes that are involved in the production and storage of glycogen in cells
d. they are activated during apoptosis, necrosis and necroptosis
e. they are activated by both external and internal pathways of apoptosis
f. are enzymes that break down fatty acids in hepatocytes

12. Cholestasis

a. It is a disorder of the formation and outflow of bile
b. in chronic cases it can lead to aortic calcification
c. it may cause yellowing of the eyes and skin on the outside
d. is a disorder that results from the increased breakdown of erythrocytes in the spleen
e. causes bilirubin accumulation in the liver
f. is a disease in which uric acid accumulates in the joints

13. Compensatory cardiac hypertrophy is

a. pathological hypertrophy
b. physiological hypertrophy
c. it is caused by sports training
d. it is caused by cardiovascular diseases
e. leads to heart dysfunction
f. regressive process

14. Concrements

a. are solid nodules that are formed by scarring (fibrotisation) of soft tissues
b. are solid formations popularly called stones
c. arise in the hollow organs of the cardiovascular system such as heart or large blood vessels
d. are physiologically present in the bile and urinary tracts
e. they often contain calcium salts
f. they often contain cholesterol salts in the bile ducts

15. Diseases associated with disorders of pigment metabolism are

a. jaundice
b. gallstones
c. vitiligo
d. calcification
e. hyperkalaemia
f. pulmonary anthracosis

16. Dystrophy

a. means enlargement of the organ
b. means a reduction of the organ
c. an example is steatosis
d. occurs on the limb after the plaster is removed
e. it arises only in old age
f. means a disorder of cell development in utero

17. Dystrophy

a. can be reversible
b. is always pre-neoplastic
c. as always irreversible
d. improves tissue activity
e. is caused by accumulation of abnormal metabolic products in tissues
f. is always a severe disease

18. Dystrophy manifests itself by

a. reducing the number of cells in the tissue
b. disorder of metabolism in cells
c. accumulation of substances of abnormal structure in cells
d. uncontrollable cell proliferation
e. transforming one type of epithelium into another
f. impaired metabolism of amino acids, proteins, lipids, etc.

19. Eye purpura

a. may accompany amyloidosis
b. is redness in the eye area
c. is one of the regressive processes
d. is edema in the eye area
e. is a progressive change
f. spreads by direct contact

20. Hypoplasia occurs in

a. cell loss due to damage in puberty
b. atrophy due to lack of hormones
c. inadequate intrauterine development
d. by not using biological structures
e. ischemia
f. necrosis

21. In amyloidosis

a. glucagon is stored in the tissues

b. amyloid is deposited under the endothelium
c. a substance of a proteinaceous nature is deposited in the tissues
d. amyloid stains Prussian blue
e. tissue / organ function is improved
f. it always affects only one system

22. Indicate disorders that are accompanied by an increased rate of apoptosis

a. cancer
b. neurodegenerative diseases (Alzheimer's and Parkinson's disease)
c. encephalomalacia
d. tuberculosis
e. acute bronchitis
f. rheumatoid arthritis

23. Indicate what applies to necrosis

a. it is a genetically determined type of cell death
b. specific enzymes - caspases - are needed for the course of necrosis
c. is accompanied by an inflammatory response
d. it is about cell autolysis
e. intracellular components are enclosed in membrane bodies and removed by phagocytosis
f. damage to the surrounding tissues occurs due to the release of proteo- and hydrolytic enzymes

24. Indicate what does apply to the necrotic type of cell death

a. all cells have the same lifespan
b. it is without inflammation
c. is connected to an inflammation
d. it occurs after cell damage
e. phagocytosis it activated in it
f. with cell death, other cells are damage too, because of enzyme released

25. Label endogenous pigments / pigmentations

a. hemosiderin
b. bilirubin
c. asbestosis
d. silicosis
e. dust
f. pneumoconiosis

26. Lipid storage in tissues

a. belongs to dystrophies

b. may be accompanied by intoxication
c. leads to pigmentation
d. leads to the formation of stones
e. may be accompanied by starvation
f. takes place only in parenchymatous organs

27. Lipofuscin

a. arises from red blood cells
b. it is a yellow-brown intracellular lipid pigment
c. has a red colour
d. it is also called a wear and tear pigment
e. it is stored mainly in the kidneys
f. it is stored e.g., into the heart and liver

28. Lipomatosis is

a. abnormal storage of lipids in the interstitium
b. abnormal storage of amino acids in the liver
c. abnormal storage of lipids in the cytoplasm of cells
d. abnormal storage of lipids in the intercellular space
e. abnormal deposition of uric acid crystals in the joints
f. abnormal calcium storage in blood vessels

29. Mark diseases accompanied by amyloidosis

a. Alzheimer disease
b. multiple myeloma
c. atherosclerosis
d. Parkinson's disease
e. stroke
f. cerebral embolism

30. Mark diseases with predominant apoptosis

a. myocardial infarction
b. Parkinson's disease
c. Alzheimer disease
d. tuberculosis
e. breast tumour
f. herpes infection

31. Mark diseases with predominant necrosis

a. myocardial infarction
b. Parkinson's disease
c. Alzheimer disease

d. tuberculosis
e. breast tumour
f. herpes infection

32. Mark the correct statements

a. senile atrophy is physiological
b. atrophy during cachexia is physiological
c. hormonal atrophy is physiological
d. uterine hypertrophy during pregnancy is physiological
e. myocardial hypertrophy in arterial hypertension is physiological
f. the hypertrophy of the remaining kidney after nephrectomy is physiological

33. Mark the correct statements

a. uterine hyperplasia in pregnancy is pathological
b. myocardial hypertrophy in hypertension is pathological
c. hypertrophy of the striated muscles in athletes is pathological
d. breast hypertrophy at puberty is pathological
e. pressure atrophy is pathological
f. senile atrophy is pathological

34. Mark the correct statements

a. a typical example of amyloidosis is hepatic steatosis
b. in lipomatosis lipids are stored intracellularly
c. hypoplasia is often of hereditary origin or develops during intrauterine development
d. in amyloidosis insoluble protein oligomers accumulate
e. a typical example of crystal dystrophy is gout, in which urate crystals accumulate in the extracellular space
f. secondary amyloidosis has a better prognosis than primary

35. Mark the correct statements

a. necrosis cannot be observed with the naked eye
b. apoptosis is important in the process of morphogenesis
c. apoptosis is always accompanied by inflammation
d. caspase enzymes are important for necrosis
e. necrosis causes swelling of the mitochondria and an increase in cell volume
f. necroptosis occurs as necrosis, without caspase activation

36. Mark the correct statements

a. senile atrophy is physiological
b. atrophy during cachexia is physiological
c. hormonal atrophy is physiological

d. uterine hypertrophy during pregnancy is physiological
e. myocardial hypertrophy in arterial hypertension is physiological
f. hypertrophy of the remaining kidney after nephrectomy is physiological

37. Mark the correct statements applying to liquefactive necrosis

a. it mainly affects bone tissue
b. it mainly affects soft tissues, e.g., brain
c. it is caused by tissue ischemia
d. it is caused by hydrolytic digestion of the tissue
e. the necrotic deposit is filled with pus
f. the necrotic deposit is filled with blood

38. Mark the correct statements for amyloidosis

a. it is one of the progressive changes
b. it is characterized by the deposition of crystals in tissues
c. it is characterized by the deposition of abnormal proteins in tissues
d. it is always manifested by brown spots on the skin
e. this includes a variety of diseases
f. they can also manifest as renal failure

39. Mark the correct statements for amyloidosis

a. it is one of the regressive disorders
b. a glycopeptide is deposited in the affected tissues
c. it is one of the progressive disorders
d. in primary amyloidosis, we do not know the exact cause
e. bilirubin is deposited in the affected tissues
f. it is always inborn

40. Mark the correct statements for apoptosis

a. it is caused by inflammation
b. it takes place exclusively in pathologically altered tissues
c. it also takes place under physiological conditions
d. excessive apoptosis is typical of oncological diseases
e. excessive apoptosis is typical of neurodegenerative diseases
f. excessive apoptosis is typical of viral diseases

41. Mark the correct statements for caseous necrosis

a. it is typical for autoimmune damage in blood vessels.
b. it is typical for a tuberculosis lung infection
c. it mainly affects the pancreas and breast
d. the affected areas are cheese-like, soft, grainy and yellowish
e. the affected areas are very stiff, yellow-white in colour

f. it also has features of coagulative and colliquative necrosis

42. Mark the correct statements for coagulative necrosis

a. it is caused, e.g., by a sudden interruption of blood flow (ischemia)
b. it mainly affects the heart, kidneys and spleen
c. the affected areas of tissues are yellow, soft and wrinkled
d. it is caused mainly by bacteria and fungi
e. it mainly affects the brain
f. the affected areas of tissue are soft with a fluid centre

43. Mark the correct statements

a. atrophy occurs in an organ that was previously normal
b. hypoplasia is a congenital reduction of an organ
c. atrophy occurs during intrauterine development
d. heart atrophy can occur during cardiac arrhythmias
e. albinism is a hypopigmentation
f. melanin is an exogenous pigment

44. Mark the correct statements. Gangrene

a. is a type of necrosis
b. represents a secondary infection of necrosis
c. is a type of organ atrophy
d. represents a complication of necrosis
e. it can be dry, wet or gaseous
f. it can be haemorrhagic, colic or caseous

45. Mark the regressive changes

a. necrosis
b. hypertrophy
c. atrophy
d. hyperplasia
e. neoplasia
f. hypoplasia

46. Mark the trophic changes in the limbs

a. skin atrophy
b. muscle atrophy
c. necrosis
d. hyperpigmentation
e. aneurysm
f. claudication

47. Mark types of cell death

a. apoptosis
b. necrosis
c. necroptosis
d. phagocytosis
e. cirrhosis
f. fibrosis

48. Mark, what applies to amyloidosis

a. it belongs to dystrophies
b. is characterized by the deposition of starch in tissues
c. may affect several organ systems at the same time
d. may be hereditary
e. increased production of amyloid precursors may be caused by chronic inflammation
f. diseases associated with increased amyloid production include Creutzfeldt-Jakob disease

49. Mark, what applies to anthracosis

a. it is a serious, life-threatening disease
b. does not seriously affect the patient
c. it can be caused by dust
d. it can be caused by smoking
e. occurs when inhaling copper particles
f. arises from increased absorption of iron

50. Mark what applies to apoptosis

a. it is the death of a cell caused by external stimuli
b. this is a programmed cell death
c. it is active exclusively in pathological processes
d. excessive apoptosis is characteristic of oncological diseases
e. excessive apoptosis is characteristic of Alzheimer's disease
f. physiological apoptosis is typical of tissue death during intrauterine development

51. Mark what applies to necrosis

a. is programmed
b. is uncontrolled
c. is controlled
d. may be pathological
e. it can be physiological
f. induces inflammation

52. Mark, what applies to necrosis

a. the final stage is cell rupture
b. is associated with inflammation
c. coagulation necrosis occurs in myocardial infarction
d. hydrolytic enzymes are released from dead cells
e. in covalent necrosis, the affected tissue liquefies
f. the secondary altered necrosis is called gangrene

53. Mark, what applies to steatosis

a. it is the excessive accumulation of lipids in the cytoplasm of cells
b. it is an excessive accumulation of lipids in the intercellular spaces
c. it is caused by excessive lipid intake
d. it is caused by disorders of lipid metabolism
e. an example is the so-called tiger heart
f. it is never reversible

54. Mark, what applies to coagulation necrosis

a. it occurs in soft tissues (e.g., brain)
b. it is caused by ischemia
c. we can see it in myocardial infarction
d. it is caused by the activation of lipases
e. most often occurs in the skin
f. an example is encephalomalacia

55. Necroptosis

a. takes place without caspase activation
b. is programmed necrosis
c. proceeds in the same way as apoptosis
d. has a similar course as necrosis, promotes inflammation
e. leads to the formation of apoptotic bodies, which are subsequently phagocytosed
f. leads to the activation of the immune system

56. Necrosis

a. is programmed
b. is unregulated
c. is regulated
d. can be pathological
e. can be physiological
f. induces inflammation

57. Possible causes of the development of non-alcoholic fatty liver disease (NASH) include

    a. alcoholism
    b. excessive intake of fats into the body
    c. starvation
    d. diabetes mellitus type 2
    e. postpartum jaundice
    f. increased concentrations of calcium in the blood

58. Regressive changes are

    a. metaplasia
    b. dystrophy
    c. dysplasia
    d. neoplasia
    e. atrophy
    f. hypoplasia

59. Regressive changes include

    a. hyperplasia
    b. metaplasia
    c. dystrophy
    d. pigmentation
    e. neoplasia
    f. hypoplasia

60. Steatosis

    a. is the storage of proteins in the cytoplasm of cells
    b. is the storage of carbohydrates in the cytoplasm of cells
    c. is the storage of lipids in the cytoplasm of cells
    d. is the storage of lipids in the interstitial spaces
    e. a typical example is a tiger heart
    f. a typical example is alcoholic fatty liver

61. Steatosis represents

    a. abnormal storage of lipids in the interstitium
    b. abnormal storage of amino acids in the liver
    c. abnormal storage of lipids in the cytoplasm of cells
    d. abnormal storage of lipids in the intercellular space
    e. abnormal deposition of uric acid crystals in the joints
    f. abnormal calcium storage in blood vessels

62. Storage of lipids in tissues

a. belongs to dystrophies
b. may accompany intoxication
c. leads to pigmentations
d. leads to the formation of metastasis
e. may accompany starvation
f. occurs only in parenchymatous organs

63. The morphological manifestations of apoptosis are

a. inflammation
b. Increase in cell volume
c. DNA fragmentation
d. Swelling of mitochondria
e. Organelle breakdown and cell lysis
f. Reduction of cell volume

64. Tiger heart occur

a. occur in the liver during steatosis
b. occur in the heart during lipomatosis
c. arise from the accumulation of interstitial fat
d. arise from fat accumulation intracellularly
e. represent an example of dystrophy
f. represent an example of metaplasia

65. Tissue calcification

a. belongs to dysplasia
b. is characteristic of chronic diseases
c. is characteristic of damaged tissues
d. belongs to dystrophies
e. is characteristic of labile tissues
f. accompanied by acute reactions

66. Tissues that may be subject to metaplasia include

a. bronchial epithelium
b. endothelium
c. oesophageal mucosa
d. pulmonary alveoli
e. vascular smooth muscle
f. cervix

67. Typical diseases associated with regressive changes include

a. formation of insoluble amyloids - Alzheimer's disease

b. storage of urate crystals - gout
c. cancer diseases
d. metaplasia of the oesophagus
e. development of warts after viral infection
f. liver steatosis

68. Vitiligo

a. is a disease that is caused by the deposition of dense particles in the lungs
b. it is manifested by mottled depigmentation of the skin
c. is a disease caused by a disorder in the synthesis of porphyrins
d. is an accompanying feature of jaundice
e. is caused by the loss of melanin in the skin
f. is the excessive deposition of oxalate crystals in cardiomyocytes

69. What accumulates in the blood plasma during intravascular blood breakdown?

a. hemosiderin
b. hematoidín
c. bilirubin
d. haemoglobin
e. hematin
f. biliverdin

70. What applies to apoptosis?

a. the execution phase is dependent on the activation and cleavage of substrates by caspases
b. initiation signals can be external triggers such as TNF or internal such as a change in the Bax / Bcl-2 protein ratio
c. when the nucleus is fragmented a process called rupture occurs
d. phagocytosis of apoptotic bodies is accompanied with an inflammatory response
e. chromatin condensation and DNA fragmentation are involved in apoptosis
f. physiological apoptosis is associated with diseases such as Alzheimer's disease or multiple sclerosis

71. What applies to dystrophy?

a. may be reversible (30% mitochondria)
b. it is always preneoplastic
c. is always irreversible (30% of mitochondria)
d. improves tissue function
e. abnormal metabolic products accumulate in the tissues
f. is very serious

72. What applies to necrosis?

a. the inflammatory response is attenuated during the removal of necrotic bodies
b. hydrolytic and proteolytic enzymes escape into the extracellular space after cellular rupture
c. the main mechanisms of necrotic cell death are caspase activation
d. a typical necrosis accompanying myocardial infarction is coagulation necrosis
e. necrosis is synonymous with gangrene
f. necrosis also accompanies physiological processes such as bone reabsorption

73. What causes a change in the colour of the lung parenchyma in the inhabitants of large cities?

a. melanin
b. bilirubin
c. pigment formed during anthracosis
d. hemosiderin
e. lipofuscin
f. biliverdin

74. What diseases are associated with glycopeptide stored in tissues?

a. type 1 diabetes mellitus
b. Alzheimer disease
c. thyroid tumours
d. tuberculosis (TBC)
e. liver steatosis
f. osteoporosis

75. Which of the following are typical for necrosis?

a. caspase activation
b. local inflammatory response
c. phagocytosis of cell fragments
d. chromatin condensation
e. swelling of mitochondria
f. cell lysis

76. Which of the following claims about necrosis are true?

a. Bcl2 induces it
b. it is typical with pyknosis and karyolysis
c. coagulative and liquefactive necrosis may be combined
d. liquefactive (colliquative) necrosis can in brain after stroke
e. caseous necrosis occurs during tumours or lung tuberculosis
f. apoptic bodies are formed in necrosis

77. Which of the following features is typical for necrosis?

a. the cell breaks down into apoptotic bodies, which are phagocytosed
b. the mitochondria are swollen and the cell increases in volume
c. it can cause damage in surrounding cells
d. necrosis is natural during morphogenesis
e. is the cause of the development of neurodegenerative diseases (Alzheimer's disease, Parkinson's disease)
f. there is inflammation present in necrotic deposits

78. Which of the following features is typical for necroptosis?

a. the cell breaks down into apoptotic bodies
b. it is programmed necrosis
c. it is connected to inflammation
d. it is part of morphogenesis
e. it is the cause of the of neurodegenerative diseases
f. it is for defence against pathogens

79. Which of the following manifestations are typical for apoptosis?

a. caspase activation
b. local inflammatory response
c. phagocytosis of cell fragments
d. chromatin condensation
e. cleavage of chromatin by endonucleases
f. cell lysis

80. Which of the following pigments is related to brown atrophy?

a. melanin
b. lipofuscin
c. bilirubin
d. hemosiderin
e. pigment formed during anthracosis
f. amyloid

81. Which of the following processes is responsible for ensuring that adults do not have a thymus gland?

a. apoptosis
b. necrosis
c. hypoplasia
d. neoplasia
e. karyolysis
f. cachexia

82. Which of the following statements about necrosis is true?

a. liquefactive necrosis occurs only in the liver
b. coagulation necrosis is usually of ischemic origin
c. coagulation and liquefactive necrosis can be combined
d. liquefactive necrosis can occur with inflammation
e. caseous necrosis can occur with fungal infections (pulmonary tuberculosis)
f. in both types, erythrocytes penetrate the tissue

83. Which of the following statements about steatosis is true?

a. any disorder of fat metabolism manifests as steatosis
b. steatosis is the accumulation of fat in any cell
c. the presence of lipids in a cell is always a pathological condition
d. it is the accumulation of lipids in the cell in the form of droplet aggregates
e. an example of steatosis is myocardial lipomatosis
f. steatosis leads to the formation of a tumour in the affected tissue

84. Which of the following terms characterize apoptosis?

a. DNA fragmentation
b. breakdown of mitochondria
c. increase in cell volume
d. inflammation
e. cell volume reduction
f. without inflammation

1.5 INFLAMMATION

1. Clinical manifestations of the inflammatory reaction include

    a. changes in blood counts
    b. increased prothrombin time
    c. increased sedimentation
    d. fever
    e. increased CRP value
    f. increased sensitivity of the pupil to light

2. During the inflammatory response, the following changes occur at the endothelial level

    a. secretion of nitric oxide
    b. secretion of endothelin
    c. increase in permeability
    d. reduction of permeability
    e. increase in adhesive properties
    f. reduction of adhesive properties

3. Increased capillary permeability during inflammation causes

    a. mast cell intravasation
    b. formation of exudate
    c. formation of edema
    d. feeling warm (calor)
    e. fibroblast proliferation
    f. histamine release

4. Mark cardinal signs of inflammation

    a. tumour
    b. rubor
    c. vasodilation
    d. functio leasa
    e. calor
    f. immune response

5. Mark the correct statements

    a. meningeal syndrome is the inability to lean forward with crossed arms without flexion in the knees
    b. bacterial meningitis is a disease with a rapid course and can be associated with a loss of consciousness
    c. arboviruses are carriers of tick-borne encephalitis

d. Lyme disease is a seasonal disease characterized by the development of migrating erythema
e. in postherpetic neuralgia, the pain subsides after the shingles have resolved
f. one of migraine pathomechanisms is ischemia induced by contraction and subsequent relaxation of intracranial vessels

6. Mark diseases characterised by an inflammatory component

a. dermatosis
b. appendicitis
c. angina pectoris
d. tonsillitis
e. ischemic heart disease
f. pyelonephritis

7. Mark properties typical for the vascular phase of the inflammatory response

a. reduced capillary permeability
b. increased capillary permeability
c. alteration of endothelial properties in favour of increased adhesion
d. increased expression of adhesive molecules on the surface of endothelial cells
e. reduced expression of adhesive molecules on the surface of endothelial cells
f. reduction of intercellular spaces between endothelial cells

8. Mark the correct statements for Reye's syndrome

a. it is a hereditary kidney disease
b. it mainly affects children and adolescents
c. it mainly affects the elderly
d. liver damage and encephalomalacia are present
e. it occurs 3-5 days after a viral illness and ibuprofen administration
f. symptoms include vomiting, disorientation, hepatomegaly

9. Mark the correct statements that apply to exudate formation

a. exudate is a by-product of the inflammatory response without further clinical significance
b. exudate is an important clinical diagnostic feature
c. exudate is formed due to the reduced permeability of capillaries
d. haemorrhagic exudate is found in the bloodstream
e. exudate formation occurs due to the vascular response during inflammation
f. the exudate contains the remains of dead cells, microorganisms and tissue debris

10. Mark the correct statements. Reye's syndrome

a. mainly affects elderly patients (> 65 years)

b. mainly affects children and adolescents (< 16 years)
c. arises as a complication of viral disease and administration of acetylsalicylic acid
d. represents liver damage and encephaloma
e. represents acute myocarditis
f. leads to acute renal failure

11. Mark, what applies to exudate

a. it forms in the tissues constantly
b. its formation is typical of inflammatory processes
c. its composition is characteristic of various inflammatory diseases
d. it always has a standard composition
e. its formation is due to initial vasoconstriction in inflammation
f. its production is a consequence of vasodilation in inflammation

12. Mark, what applies to fever

a. it corresponds to a body temperature above 37 °C
b. it corresponds to a body temperature above 38 °C
c. it can be caused by bacterial toxins
d. it can be caused by endogenous pyrogens
e. it can be caused by endorphins
f. it can be caused by prostaglandins

13. Mark, what applies to fever

a. fever is an increase in body temperature above 37.0 °C
b. fever is an increase in body temperature above 38.0 °C
c. fever is caused by so-called pyrogens
d. fever is caused by the resetting of the thermoregulatory centre, which is located in the cerebellum
e. fever is an adverse reaction of the body, so it must be suppressed in any case
f. fever over 40.0 °C can be life-threatening

14. Mark, what applies to granulomatous inflammation

a. there is no necrotic deposit in the middle of the granuloma
b. gangrene occurs in the middle of the granuloma
c. the formation of granulomas is typical of soft tissues
d. an example is tuberculosis
e. an example is a covid-19 pneumonia
f. an example is lung parenchymal carcinoma

15. Mark, what applies to histamine

a. it is released only during an allergic reaction and anaphylactic shock

b. it is released during the inflammatory reaction
c. it is formed and secreted by mast cells
d. it is formed and secreted by basophils
e. it is a metabolite of arachidonic acid
f. it is formed as a product of the lipoxygenase pathway

16. Mark, what applies to leukotrienes

a. they are metabolites of lipoic acid
b. they are metabolites of arachidonic acid
c. they are formed by the action of cyclooxygenase
d. they are formed by the action of lipoxygenase
e. they play an important role in the pathophysiology of asthma
f. they cause bronchodilation

17. Mark, what applies to macrophages

a. they are formed by the differentiation of monocytes
b. monocytes are forms by macrophage differentiation
c. they are located in the bloodstream
d. they are found in tissues
e. their role is to phagocytose solid particles
f. during the inflammatory response, they are the first cells to come to the site of inflammation

18. Mark, what applies to macrophages

a. they are found mainly in tissues
b. their highest concentration is in the circulating blood
c. they come to the place of inflammation first
d. they undergo dedifferentiation to monocytes
e. they are formed by maturation from monocytes
f. they have the capacity of phagocytosis

19. Mark, what applies to mast cells

a. they are cells of the immune system
b. their highest concentration is in the circulating blood
c. they produce and release histamine
d. they produce and release adrenaline
e. after transfer to tissues, they mature into macrophages
f. after transfer to tissues, they mature into neutrophils

20. Mark, what applies to monocytes

a. they are found mainly in tissues
b. their highest concentration is in the circulating blood

c. they come to the place of inflammation first
d. they undergo dedifferentiation to maternal hematopoietic cells
e. after transfer to tissues, they mature into macrophages
f. after transfer to tissues, they mature into mast cells

21. Mark, what applies to neutrophils

a. during the inflammatory response, they are the first cells to come to the site of inflammation
b. their role is to phagocytose solid particles
c. they belong to polymorphonuclear cells
d. they are formed in the bone marrow and circulate in the bloodstream
e. their granules do not stain, that is why they are also called neutral phagocytes
f. they are extremely active during allergic reaction

22. Mark, what applies to neutrophils

a. they are found mainly in tissues
b. they are formed by maturation from monocytes
c. they come to the place of inflammation first
d. they have the ability to produce antibodies
e. they belong to polymorphonuclear cells
f. they have the capacity of phagocytosis

23. Mark, what applies to pain

a. chronic pain lasts longer than 2 weeks and has mainly a signalling function
b. algothymic component of pain is emotional component associated with fear and suffering
c. according to its duration, we divide it into acute and chronic
d. the conducted signal is attenuated, at the level of the spine-thalamic pathway
e. pain receptors are nociceptors and free nerve endings
f. the painful stimulus is intensified at the spinal cord level

24. Mark, what applies to prostaglandins

a. They are inflammatory mediators
b. They are exogenous pyrogens.
c. They have a protective effect on the gastric mucosa
d. They relax the smooth muscles of the uterus.
e. They are formed from arachidonic acid.
f. They are products of the lipoxygenase metabolic pathway.

25. Mark, what applies to prostaglandins

a. they are mediators of pain
b. they are mediators of inflammation

c. they are released exclusively during the inflammatory reaction
d. they are endogenous pyrogens
e. they are exogenous pyrogens
f. they lower body temperature

26. Mark, what applies to purulent exudate

a. it contains blood
b. it contains pus
c. it contains dead immune cells
d. it contains remnants of damaged tissue
e. it is typical of shingles
f. it is typical of bacterial angina

27. Mark, what applies to serous exudate

a. it contains blood
b. it contains pus
c. it contains clear liquid
d. it is typical of wound healing
e. it is typical of shingles
f. it is typical of bacterial angina

28. Mark, what applies to the endothelium during the inflammatory response

a. it participates in vasoconstriction by endothelial constriction factor (EDCF) production
b. it is involved in vasodilation by endothelial relaxation factor (EDRF) production
c. it releases nitric oxide and thus relaxes the smooth muscle of the vessel
d. it releases nitric oxide and thus contracts the smooth muscle of the vessel
e. it is involved in increasing vascular permeability due to vasodilation
f. endothelium does not participate in inflammatory reaction

29. Mark, what applies to thromboxane

a. they are metabolites of lipoic acid
b. they are metabolites of arachidonic acid
c. they are formed by the action of cyclooxygenase
d. they are formed by the action of lipoxygenase
e. they are mainly produced by platelets
f. they are mainly produced by erythrocytes

30. The cells responsible for phagocytosis during inflammation are

a. macrophages
b. T lymphocytes

c. mast cells
d. B lymphocytes
e. neutrophils
f. monocytes

31. The first cells to come to the site of inflammation are

a. macrophages
b. T lymphocytes
c. mast cells
d. B lymphocytes
e. neutrophils
f. monocytes

32. The inflammatory reaction includes

a. cellular response
b. immune response
c. vascular response
d. humoral response
e. neuronal response
f. endocrine response

33. The inflammatory response involves

a. cytokines
b. mast cells
c. histamine
d. prostaglandins
e. endothelial cells
f. neurons

34. The vascular reaction during inflammation involves

a. long vasoconstriction
b. significant vasodilation
c. initial vasoconstriction
d. initial vasodilation followed by reflex vasoconstriction
e. reduced capillary permeability
f. increased capillary permeability

35. Which of the following can cause inflammation

a. new coronavirus
b. radioactive radiation
c. sound waves
d. intense muscle activity

e. mechanical damage
f. acid burns

1.6 TUMOURS

1. Mark, what is true about prostate cancer

    a. the androgen-dependent form is characterized by reduced DHT levels
    b. the presence of the disease in close relatives is a significant risk factor for the disease
    c. Vitamin D deficiency or a mutation in the vitamin D receptor may also be a potential risk of developing the disease
    d. benign prostatic hyperplasia is a precursor to a malignant tumour
    e. a typical symptom is a decrease in urine flow and blood in the urine
    f. a prostate examination of the prostate through the rectum is required to confirm the diagnosis

2. Anti-oncogenes or suppressor genes are

    a. growth and division regulating / inhibiting genes
    b. are responsible for abnormal growth and acceleration of division under physiological conditions
    c. substances that increase the toxicity of oncogenes
    d. genes by whose mutation the process of growth and proliferation is accelerated/uninhibited
    e. inhibit mutation initiation in oncogenes
    f. genes and their products that are responsible for repair of genetic information in different cell cycles

3. BRCA gene

    a. is associated in women with breast and ovarian cancer
    b. is associated in women with cervical cancer
    c. is associated in men with prostate cancer
    d. is associated with men with penis cancer
    e. is hereditary
    f. is obtained by poor lifestyle

4. BRCA1 a BRCA2

    a. are tumour suppressing genes
    b. are tumour inducing genes
    c. their mutation increases the risk of breast cancer
    d. their mutation increases the risk of ovarian cancer
    e. their mutation reduces the risk of prostate cancer
    f. are present only in women

5. Breast cancer

    a. it is also caused by mutations in the BRCA1 and BRCA2 genes
    b. is caused mainly by changes in androgen levels
    c. it occurs mainly in older women after 70 years of age
    d. it is also manifested by the formation of lumps in the breast, mastalgia, change in the shape of the nipples and discharge from them
    e. the risk factor is mainly promiscuity
    f. the use of hormone replacement therapy is also a risk factor

6. Carcinoma "in situ" means

    a. epithelial carcinoma that does not cross the basement membrane
    b. a tumour that is invasive and erodes the tissue from which it arose has the ability to form metastases
    c. synonym for malignant tumour, especially from epithelial tissue
    d. it is always benign
    e. collective designation for malignant cancer
    f. it is a method of sieving cancer cells through nanofilters in histological examination

7. Cervical cancer

    a. is a common cancer in older women
    b. it occurs very often in young girls
    c. is caused by HSV 1
    d. it is manifested by an itchy whitish discharge and the formation of papules on the vaginal mucosa
    e. is caused by HPV
    f. manifests itself in atypical vaginal bleeding, vaginal discharge, pain in the lower back

8. Cervical cancer is

    a. epidermoid carcinoma caused by HPV
    b. cervical cancer
    c. malignant form of cancer
    d. deep pelvic inflammation
    e. ovarian cancer
    f. cancer for which there does not exist vaccine

9. Chemical carcinogens

    a. are the fastest cancer-causing carcinogens
    b. include alcohols
    c. also include aflatoxins and mycotoxins
    d. include the food dyes and preservatives normally used in food production

e. prolonged or repeated exposure is required for tumour growth
f. contain also several drugs or treatment procedures

10. Complications and symptoms of cervical cancer include

a. migraine
b. atypical vaginal discharge
c. blood in the urine
d. cardiac arrhythmias
e. formation of varicose veins
f. lymphedema

11. Connective tissue tumours are called

a. sarcoma
b. chondrosarcoma
c. leukaemia
d. blastoma
e. adenoma
f. carcinoma

12. Divide tumours according to dignity

a. semi plastic
b. malignant
c. benign
d. metastatic
e. semi-malignant
f. paraneoplastic

13. Dysplasia is

a. always irreversible transformation from one tissue type to another
b. growth associated with volume reduction and tissue death
c. type of cell death, especially of a necrotic nature
d. a form of pre-cancerous transformation characterized by increased growth and the presence of atypical morphology
e. new and abnormal proliferation, characterized by uncontrolled growth associated with genetic alteration
f. glandular tissue tumour with paraneoplastic syndrome

14. Epithelial tissue tumours are called

a. glioblastoma
b. leiomyosarcoma
c. fibroblastoma
d. rhabdomyosarcoma

e. osteoma
f. carcinoma

15. General clinical manifestations of tumours include

a. edema
b. pain
c. tumour cachexia
d. bleeding
e. increased bone fragility
f. bronchoconstriction by activating M3 receptors

16. HER2 receptor

a. is associated with breast cancer
b. is associated with cervical cancer
c. is expressed in some oncological diseases
d. is expressed in syphilis
e. is expressed in neutrophils in gonorrhoea
f. no statement is correct

17. How do we classify tumours according to dignity?

a. malignant
b. benign
c. border
d. neoplastic
e. aplastic
f. malformative

18. Identify known physical carcinogens

a. short radio waves (FM)
b. UV radiation
c. ionizing radiation
d. X-rays
e. wi-fi waves
f. infrared radiation

19. Important characteristics of malignant cells are

a. reduce the division of surrounding cells in the G2 cycle
b. ability to stimulate angiogenesis
c. resistance to cytostatics
d. production of MMPs and proteolytic enzymes as a result of which metastasis can occur
e. ability to nidate in other tissues

f. the ability to differentiate into a higher differentiated type is typical

20. In breast cancer screening is monitored

a. vaginal discharge
b. nipple retraction
c. discharge of brownish or bloody fluid from the nipple
d. lumps or nodules on the breast
e. formation of varicose veins
f. lymphedema

21. Indirect manifestations of tumours

a. can be both systemic and local
b. are a clinical indication of metastasis
c. are often referred to as paraneoplastic syndrome
d. are usually mediated by inflammatory cytokines, hormones or paracrine substances
e. are mediated by the tumour itself
f. are diagnostically usable such as e.g., ADH inappropriate secretion syndrome (SIADH)

22. Invasive carcinoma is

a. a tumour that is bounded within the tissue from which it arose
b. a form of pre-cancerous transformation characterized by increased growth and the presence of atypical morphology
c. a tumour that is invasive and erodes the tissue from which it arose has the ability to form metastases
d. irreversible transformation of one differentiated type to another of the same tissue type
e. glandular tissue tumour with paraneoplastic syndrome
f. synonym for malignant tumour

23. Known biological carcinogens include

a. parasites such as nematodes and tapeworms
b. cancer metastases
c. human papilloma virus 16 and 18
d. hepatitis C virus
e. Epstein-Barr virus
f. dust and sawdust

24. Malignant cells are characteristic with

a. increased growth, proliferation and autonomous growth
b. escape from immunological surveillance by modification of surface antigens

c. overgrowth into tissues and increased production of proteo- and hydrolytic enzymes
d. reduced growth and proliferation
e. decreased production of suppressor T cells
f. differentiation to higher developmental stages

25. Malignant cells are characteristic with

a. increased telomerase activity, which prolongs their viability during division
b. increased aerobic metabolism and increased susceptibility to ischemic injury
c. usually, lower stages of development
d. reduced cohesiveness and affinity for the extracellular mass and basement membrane
e. increased cell motility
f. increased telomerase activity, which prolongs their viability during division

26. Mark the tumours originating from connective tissue

a. leiomyosarcoma
b. osteosarcoma
c. hepatoblastoma
d. lymphoma
e. chondrosarcoma
f. retinoblastoma

27. Mark the complications of prostate cancer

a. bone metastasis
b. incontinence
c. erectile dysfunction
d. lymph node metastasis
e. formation of blood clots
f. haemorrhage

28. Mark the correct statement for breast cancer

a. family history is an important risk factor for the disease
b. circulating KEK3 factor levels are associated with the severity of neoplasia
c. mutations in the BRCA1 and 2 genes are often associated with disease development
d. the tumour most often arises from luminal epithelial cells of terminal ducts
e. high density of fibroglandular tissue in the breast is a possible risk factor
f. a typical cause is HIV infection

29. Mark the correct statements

a. the role of antioncogenes is to destroy oncogenes

b. mutators are genes that increase the risk of mutation and may thus contribute to oncogenesis
c. tumour suppressor genes are those that arrest division or cause the cell to transition to a non-active form
d. in the case of damage to antioncogenes, the replication phase of the cell is stopped
e. in the case of tumour genes, apoptosis is increased
f. when oncogenes are damaged, they can become tumour genes

30. Mark the correct statements

a. a typical ability of a tumour cell is autonomous, increased growth, and loss of contact inhibition
b. in the case of the action of growth factors on cancer cells, cell death occurs
c. malignant cells increasingly produce proteolytic enzymes that ensure their invasiveness
d. malignant cells are manifested by the ability to increase fixation to the extracellular matrix
e. an increase in suppressor T- and B-lymphocytes protects cancer cells from destruction
f. the secretion of monoclonal antibodies by macrophages is mainly responsible for the growth of malignant cells

31. Mark the correct statements

a. an important characteristic of malignant cells is an increase in telomerase activity
b. tumour cells are adaptable to altered metabolic conditions e.g., ischemia or alternation of energy substrate
c. metastasis is associated with increased motility and proteolytic activity of tumour cells
d. telomeres in cancer cells shorten, allowing further mutations in DNA
e. metastases reach other tissues through granulocyte phagocytosis and release
f. ischemia is one of the basic methods of anticancer therapy

32. Mark the correct statements

a. benign tumours are called malignancies
b. by invasion is meant the ability of the tumour to outgrow the original tissue
c. malignant tumour growth can be generally referred to as cancer
d. metastases refer to tumours originating from epithelial tissue
e. non-malignant tumours are referred to as benign
f. paraneoplastic syndrome is synonymous with malignant tumour growth

33. Mark the correct statements for carcinogens

a. they increase somatic cell apoptosis

b. they damage the genetic information of the cell
c. they may interfere with the physiological metabolism of the cell
d. chemical carcinogens are the fastest acting to damage cells
e. so-called co-carcinogens do not directly damage genetic information, but require interaction with another carcinogen
f. they attack only somatic cells and not germ cells

34. Mark the correct statements for carcinogens

a. they are substances that cause paraneoplastic syndromes of tumourigenesis
b. they always have the character of a chemical substance
c. as biological category they are mainly RNA viruses
d. these are substances that cause damage to the DNA of somatic or germ cells
e. multiple exposures are always required to initiate the oncogenesis process
f. substances that do not directly damage the genetic information are not considered to be carcinogens

35. Mark the correct statements for cervical cancer

a. it is most commonly caused by HPV subtypes 13 and 15
b. it is most commonly caused by HPV subtypes 16 and 18
c. the risk of occurrence is reduced by oral contraceptives
d. usually develops from differentiation of epithelial cells
e. usually develops from the differentiation of glandular cells
f. smoking is not a risk factor for its development

36. Mark the correct statements for prostate cancer

a. the androgen-dependent form develops as a result of decreased 5α-reductase activity
b. vitamin D deficiency is a risk factor for its development
c. it has a multifactorial etiology
d. it manifests as urinary problems
e. metastases often spread to bones
f. diagnosis is based on serological examination of PSA from the blood

37. Mark the correct statements for prostate cancer

a. one of the diagnostic procedures is the determination of PSA (prostate-specific antigen) and PHI index
b. never metastasizes
c. it often metastasizes to the bones
d. it is an adenocarcinoma of the prostate
e. prostate hyperplasia always develops into prostate cancer
f. in the androgen-dependent form, dihydrotestosterone promotes tumour growth

38. Mark the correct statements for the paraneoplastic action of tumours

a. it is the ability to produce hormones or tissue factors that may mimic another disease
b. frequent manifestations are fever due to the production of inflammatory cytokines
c. a typical manifestation is tumour cachexia, which is weight gain and distress
d. bleeding due to vascular erosion is a typical paraneoplastic manifestation
e. nerve tissue damage and dementia can occur due to tumour and tissue antigen reactions
f. Cushing's syndrome can be due to an adrenal tumour or pituitary gland

39. Mark the known viral oncogenic viruses

a. HPV viruses
b. Herpes simplex virus 1
c. Hepatitis C virus
d. HIV virus
e. SARS-CoV-2 virus
f. Epstein-Barr virus

40. Mark the risk factors for breast cancer

a. mutations in TRKA genes
b. hormone replacement therapy
c. older age
d. presence of lower limb edema
e. reduced levels of adipose tissue
f. formation of warts on the breast

41. Mark the risk factors typical for cervical cancer

a. alternation of sexual partners and unprotected intercourse
b. herpes labialis infection
c. smoking
d. poor hygiene
e. frequent vaginal lavages
f. human papillomavirus infection

42. Mark the symptoms of breast cancer

a. palpable lump(s) on the breasts
b. sunken nipple
c. a change in the size or shape of one or both breasts
d. migraine
e. high blood pressure
f. nausea and vomiting

43. Mark the symptoms of prostate cancer

a. urinary problems
b. traffic jam
c. BRCA mutations
d. mood swings
e. weak urine flow
f. erectile dysfunction

44. Mark the tumours of the hematopoietic and lymphatic system

a. sideropenic anaemia
b. aplastic hydronephrosis
c. Hodgkin's lymphoma
d. acute coagulopathy
e. diffuse goiter
f. acute lymphoblastic leukaemia

45. Mark the tumours originating from muscle tissue

a. leiomyosarcoma
b. rhabdomyosarcoma
c. fibroblastoma
d. angiosarcoma
e. liposarcoma
f. adenoma

46. Mark, what applies to cervical cancer

a. women after more than 7 births have a higher risk of disease
b. preventively, the disease can be prevented by frequent vaginal lavages
c. the most serious factor in the development of the disease is smoking
d. a typical manifestation of proliferation is first the formation of intraepithelial lesions
e. The HPV virus is responsible for about 10% of all cancers
f. it can be effectively prevented by vaccination

47. Mark, what applies to metastasis

a. the invasiveness of the original tumour is essential
b. synonymous is carcinoma in situ
c. is always associated with the process of neoplasia in general
d. de novo induction of angiogenesis is essential for the growth of metastases
e. are the cause of paraneoplastic manifestations of cancer
f. important mechanisms include escape from immunological control

48. Mark, what applies to metastasis

a. it is the formation of primary tumours
b. the tumour cell cluster always has metastatic activity
c. transport of metastases is ensured by lymph or blood
d. an important factor promoting angiogenesis is VEGF
e. metastasis is the ability to establish secondary tumours
f. metastases are unable to proliferate without the primary tumour

49. Mark, what applies to oncogenes

a. are mutated genes that allow the development of a neoplastic process
b. are genes that promote cell death by apoptosis and necrosis
c. in an intact form are called proto-oncogenes, which regulate the cell division process
d. (proto) oncogenes are genes encoding proteins with functions at the level of division, proliferation, cell growth and cell death
e. protein products of oncogenes are called oncoproteins, which can also be used as diagnostic tools
f. they are not inherited from one chromosome line to another

50. Mark, what applies to prostate cancer

a. the risk factor is a mutation in the BRCA1 and BRCA2 genes
b. the risk factor is HPV virus
c. occurs mainly in young men (about the age of 20)
d. elevated androgen levels are also involved
e. it is manifested by a whitish discharge and enlargement of the testicles
f. It is also manifested by frequent urination, weak urine flow, weight loss, blood in the urine

51. Mark, what applies to prostate cancer

a. BRCA1 and BRCA2 mutations play a role in its development
b. arises as a multistep process from intraepithelial prostate neoplasia
c. obesity and smoking also contribute to its development
d. it is manifested by a purulent discharge from the penis
e. manifested by dysuria and polakisuria
f. never metastasized

52. Metaplasia is

a. an increase in the number of cells physiologically associated with normal growth and proliferation
b. reversible transformation of one differentiated type to another of the same tissue type

c. a form of pre-cancerous transformation characterized by increased growth and the presence of atypical morphology
d. abnormal growth of new tissue due to abnormal proliferation
e. irreversible transformation of one differentiated type to another of the same tissue type
f. rapid, irreversible abnormal growth with pathological morphology and loss of function

53. Neoplasia is

a. an increase in cell volume, which can also be physiological
b. shrinkage of surrounding tissue due to pathological endocrine signalling
c. formation of a malignant tumour with the formation of metastases
d. irreversible transformation of one differentiated type to another of the same tissue type, which is regulated
e. new and abnormal proliferation, characterized by uncontrolled growth associated with genetic alteration
f. reversible transformation of one differentiated type to another of the same tissue type

54. Non-malignant tumours of the glandular epithelium are called

a. carcinoma
b. sarcoma
c. adenoma
d. osteoma
e. fibroblastoma
f. myeloma

55. Paraneoplastic syndrome

a. collectively refers to the indirect, systemic manifestations of the tumour
b. symptoms occur only upon detection of malignancy
c. it also involves an immune response to tumour cells
d. in the haematopoietic system, erythropoiesis often increases
e. often includes hypercoagulation
f. indicates hormone-independent effects of tumour growth

56. Pathological processes in oncology include

a. hypertrophy
b. proliferation
c. neoplasia
d. hyperplasia
e. dysplasia
f. metaplasia

57. Prostate adenoma is

a. prostate cancer
b. the second most common cancer in men
c. prostatic intraepithelial neoplasia
d. benign form of cancer
e. prostatitis
f. chronic prostatitis

58. Prostate cancer risk factors include

a. smoking
b. age less than 50 years
c. mutations in the BRCA1 and BRCA2 genes
d. recurrent urinary tract inflammation
e. promiscuous sex life
f. obesity

59. Risk factors for breast cancer include

a. finding a lump on the breast
b. abnormal discharge from the nipple
c. mutation in the BRCA1 and BRCA2 genes
d. use of hormone replacement therapy
e. age over 40 years
f. headache

60. Symptomatology of cervical cancer includes

a. mutations in the BRCA1 and BRCA2 genes
b. HPV infection
c. cervical bleeding
d. atypical vaginal discharge
e. breast pain
f. lower back pain

61. Symptoms of breast cancer include

a. nipple retraction
b. mastalgia
c. dyspnoe
d. nipple discharge
e. breast tension during the period
f. exanthema on the breast skin

62. Systemic effects of tumours include

a. vascular compression

b. invasiveness to surrounding tissues
c. susceptibility to infections
d. tumour expansion
e. pressure at the tumour site
f. paraneoplastic syndrome

63. Tumour cachexia

a. is common in patients with advanced cancer
b. is an uncommon manifestation of tumour growth in cancer patients
c. it is accompanied by a deterioration in food intake and a change in the taste of food
d. is synonymous with anorexia nervosa
e. is a weight loss of 5% in 12 months for no apparent reason
f. is a weight loss of 10% in 24 months for no apparent reason

64. Tumours of germ or progenitor tissue can be called

a. blastoma
b. adenoma
c. myeloblastoma
d. sarcoma
e. carcinoma
f. glioblastoma

65. We divide tumours accordingly

a. whether they are anaplastic or dysplastic
b. whether they have hormonal activity
c. whether they metastasize
d. whether they are bounded
e. from which tissues they come from
f. whether or not they are malignant

66. What is the principle of action of carcinogens?

a. they cause mutational changes in the DNA strand
b. when gonosomal DNA is damaged, we refer to them as cocarcinogens
c. substances that do not cause DNA damage are called RNA promoters
d. co carcinogens require the interaction of a carcinogenesis promoter
e. they do not interfere with chromosomes
f. chemical carcinogens require longer exposure, often on the order of years

67. What types of cervical cancer do we distinguish?

a. epidermoid
b. adenocarcinoma

c. intraductal
d. lobular
e. random
f. papillary

68. Which of the following risk factors are involved in the development of breast cancer?

a. mutations in the BRCA1 and BRCA2 genes
b. high levels of androgens
c. low estrogen levels
d. alcohol
e. high estrogen levels
f. smoking

69. Which of these factors are responsible for oncogenesis?

a. UV radiation
b. gram-positive bacteria
c. RNA viruses such as HPV
d. azo dye
e. beta radiation
f. microwave radiation

2. SELECTED QUESTIONS FROM PATHOLOGY OF THE SYSTEMS

2.1 CENTRAL NERVOUS SYSTEM

2.1.1 Central nervous system – Part 1

1. A characteristic feature in the pathogenesis of Alzheimer's disease is the presence

    a. alfa-amyloid plaques
    b. beta-amyloid plaques
    c. neurofibrillary tangles
    d. Lewy's bodies
    e. scrapie prion proteins
    f. hyperphosphorylated tau in the cerebrospinal fluid

2. Agnosia represents

    a. movement disorder
    b. cognitive disturbance
    c. speech disorder
    d. forgetting
    e. rigidity
    f. sensitivity to light

3. Alzheimer's dementia results from

    a. degeneration of the basal ganglia
    b. dopamine deficiency in the substantia nigra
    c. beta amyloid accumulation
    d. accumulation of tau protein
    e. increased electrical activity of the brain
    f. damage of blood vessels in the brain

4. Alzheimer's disease

    a. is an autoimmune disease
    b. is a type of prion disease
    c. is manifested by a motor deficit
    d. is manifested by dementia
    e. is manifester by a cognitive deficit
    f. leads to brain atrophy

5. Alzheimer's disease affects

    a. long-term memory
    b. ability to perform activities of daily living
    c. spatial orientation
    d. sleep rhythms
    e. libido
    f. motor skills

6. Alzheimer's disease is a progressive disease that primarily affects

    a. cholinergic neurons
    b. dopaminergic neurons
    c. motoneurons
    d. cholinergic receptors
    e. dopaminergic receptors
    f. neuro-muscular junction

7. Among the motor symptoms of CNS diseases can be included

    a. apathy
    b. myoclonus
    c. bradykinesia
    d. hyperorality
    e. rigidity
    f. aphasia

8. Amyloid plaque

    a. are present only in the nervous systems
    b. is title for closure of brain artery
    c. is typically associated with metabolic disorders such as diabetes mellitus
    d. is non-soluble glycoprotein complex, often result of protein misfolding
    e. are present in neurodegenerative disease such as Alzheimer's disease or Creutzfeldt-Jacob’s disease
    f. are bundles of starch formed due to non-complete digestion of oligosaccharides

9. Bradykinesia

    a. is one of the cognitive symptoms of neurological diseases
    b. is one of the motor symptoms of neurological diseases
    c. means involuntary rhythmic movements of the limbs
    d. means slow motion
    e. means uncontrollable muscle activity
    f. means a decrease in cognitive function due to developmental impairment

10. Bradykinesia is typical of

    a. Parkinson's disease
    b. diseases where several parts of the brain are affected by paralysis
    c. vascular dementia
    d. epilepsy
    e. migraine
    f. obsessive compulsive disorder

11. Cataplexy

    a. is the loss of muscle tone in the waking state
    b. can be caused by emotion (laughter)
    c. may occur during narcolepsy
    d. may occur with insomnia
    e. is a muscular tremor
    f. is a disorder of circadian rhythms

12. Choose the correct clinical manifestations of a patient with Alzheimer´s disease (in different stages of disease)

    a. vomiting and severe headaches
    b. impaired ability to remember new information
    c. patients suffer from episodes of myoclonic seizures
    d. athetosis
    e. patient fails to recall events from a distant past (e.g., family members)
    f. patients may be disoriented in a way that they forget their own age, current date, day of the week or a place where they currently are

13. Choose the correct tests that are used to assess patient´s cognitive functions

    a. DRE
    b. MMSE
    c. PSA
    d. MODY test
    e. MOCA
    f. clock drawing test

14. Choose what plays role in the etiopathogenesis of multiple sclerosis

    a. demyelination
    b. sclerotic plaques
    c. inflammation
    d. autoimmune attack
    e. genetic predisposition
    f. traumatic injury

15. Choose what plays role in the etiopathogenesis of Parkinson's disease

    a. alpha-amyloid
    b. alpha-synuclein
    c. dopamine
    d. presynaptic vesicles
    e. synaptic membrane
    f. oxidative stress

16. Cognitive functions are

a. attention
b. memory
c. gnosis
d. visuospatial skills
e. regulation of blood pressure
f. regulation of glucose control

17. Cognitive symptoms could indicate pathologies like

a. alcoholism
b. neurodegenerative diseases
c. mental disorders
d. asthma
e. atrial fibrillation
f. vertigo

18. Dementia

a. is decline in cognitive function due to underdevelopment
b. is pathological decline in cognitive function
c. can be of vascular origin
d. is always associated with myoclonus
e. may result from long-term CNS hypotension
f. is caused by damage of the substantia nigra

19. Dementia types are

a. Lewy bodies dementia
b. Alzheimer disease
c. Frontotemporal dementia
d. Vascular dementia
e. Parkinson's disease
f. Epilepsy

20. Dementia with Lewy's bodies

a. belongs to the infectious diseases of the CNS
b. belongs to the neurodegenerative diseases
c. is characterized by the deposition of alpha synuclein in neurons
d. manifests itself in the rigidity of the neck
e. it is also manifested by depression, hallucinations and parkinsonism
f. manifests itself only in memory loss

21. Dystonia is

a. characterized by sudden, rapidly recurring movements

b. characterized by slow, serpentine movements
c. characterized by involuntary contraction of the muscles
d. characterized by abnormal movements and postures
e. symptom of autism
f. symptom of OCD

22. Epilepsy is classified as

a. generalized seizures
b. focal convulsions
c. cerebral palsy
d. resting tremor
e. bradykinesia
f. dystonia

23. Epilepsy is defined as a condition in which a patient has

a. at least one tonic-clonic seizure, grand mal
b. one seizure and the likelihood of another seizure (based on EEG or imaging techniques) over a lifetime
c. two unprovoked seizures 24 hours apart
d. the presence of tonic, clonic or tonic-clonic seizures
e. epileptic syndrome
f. abnormal EEG recording

24. Essential tremor

a. has the same character as tremor in Parkinson's disease
b. is absent when the limb is in motion
c. is characterized as a slow, symmetrical shaking of the upper limbs
d. about 50% of patients report improvement in tremor after alcohol
e. is characterized as a rapid unilateral shing of the upper limb
f. arises from the free movement of the limbs

25. For Parkinson’s disease is true

a. most common onset of the disease is between 50-60 years of life
b. is the same as the Parkinson's syndrome
c. the basis of the disease is the progressive degradation of dopaminergic the neurons in substantia nigra
d. juvenile form of Parkinson disease has genetic basis
e. the disease beside the motoric symptoms may affect also memory and cause dementia
f. the histological marker of the disease is the presence of beta amyloid plaques in the hippocampus

26. For the Creutzfeldt-Jacob’s disease is correct

a. might be caused by the intoxication from the meat of bovine livestock
b. it is not serious condition when the is proper treatment
c. it is not transferable disease from human to human
d. the pathogenesis of the disease contains the formation of non-cleavable amyloid plaques from the prion protein
e. clinical symptoms do not involve motoric manifestations
f. patients often have problems such as incontinence, rigidity and are bound to bed in later stages

27. Hyperkinesis is typical of

a. Alzheimer's disease
b. Parkinson's disease
c. epilepsy
d. vascular dementia
e. cerebral palsy
f. meningitis

28. Inability to move in Parkinson's disease is referred to as

a. akinesia
b. rigidity
c. hypokinesia
d. bradykinesia
e. postural instability
f. dystonia

29. Lewy body dementia is characterized by presence of

a. states of euphoria
b. visual hallucinations
c. cognitive deficits similar to those in physiological ageing
d. extrapyramidal symptoms (falls, myoclonus)
e. parkinsonism
f. nausea and frequent vomiting

30. Loss of cognitive function is typical of

a. Alzheimer's disease
b. vascular dementia
c. early-stage Parkinson's disease
d. epilepsy
e. alcoholism
f. posttraumatic stress

31. Loss of motor function is typical for

a. Alzheimer's disease
b. vascular dementia
c. early-stage Parkinson's disease
d. epilepsy
e. alcoholism
f. posttraumatic stress

32. Mark motor symptoms of neurological diseases

a. nystagmus
b. chorea
c. myoclonus
d. rigidity
e. agnosia
f. atrophy

33. Mark the correct statements

a. Alzheimer's disease is a neurodegenerative disease
b. epilepsy matures between dementias
c. Parkinson's disease is one of the demyelinating diseases of the CNS
d. tremor is not just a symptom for Parkinson's disease
e. memory disorders are only associated with Alzheimer's disease
f. vascular dementia affects only people aged 75 years

34. Mark the correct statements

a. Alzheimer's disease is characterized by the formation of beta amyloids respectively neurofibrillary bundles
b. in multiple sclerosis, the disease develops the so-called Lewy bodies
c. cerebellar tremor is a typical symptom of Parkinson's disease
d. resting, unilateral tremor is an important symptom of Parkinson's disease
e. chorea is classified as a symptom associated with bradykinesia
f. vascular dementia is often caused by vascular pathologies such as stroke

35. Mark the correct statements

a. in generalized seizures are typically alternating tonic and clonic phases
b. Parkinson's disease and parkinsonism manifest similar motoric symptoms but pathomechanisms behind disease is different
c. polio is not associated with motoric disorders
d. patients affected by demyelinating diseases do not manifest coordination disorders
e. multiple sclerosis is often associated with involuntary tremors
f. Alzheimer's disease is typically associated with resting tremor

36. Mark the correct statements about the motor symptoms.

a. hyperkinesia is a decrease range of movement
b. tremor is slow movement of the arm
c. bradykinesia is slowness of movement
d. tremor is involuntary, rhymical movement
e. excessive movement is hyperkinesia
f. tremor is a typical sing of a cardio-vascular disease

37. Mark the correct statements for dementias

a. they are typical by rapid onset
b. they are typical by slow progression
c. they are always linked to cognitive deficits
d. they are always linked to motor deficits
e. they can be associated with depression
f. they can be associated with sleep disorders

38. Mark the correct statements for Lewy's bodies

a. they are present in Parkinson's disease
b. they are present in Alzheimer's disease
c. they are present in Lewy's bodies dementia
d. they are formed by aggregation of tau protein
e. they are formed by aggregation of synuclein
f. they are formed by aggregation of beta-amyloid

39. Mark the correct statements for vascular dementia

a. it is part of Alzheimer's disease symptoms
b. it is caused by disseminated microthrombosis
c. it is the preliminary stage of Lewy's bodies dementia
d. it is characterized by cortical and subcortical microinfarctions
e. usually starts suddenly
f. usually starts slowly

40. Mark the executive functions of the brain

a. activity planning
b. decision making
c. flexibility
d. old age
e. length of attention
f. episodic memory

41. Mark the mediators primarily responsible for the motor symptoms of the nervous system disease

    a. dopamine
    b. melatonin
    c. acetylcholine
    d. serotonin
    e. adrenaline
    f. histamine

42. Mark the pathogenesis of Alzheimer's disease

    a. neurofibrillary tangles
    b. beta amyloid
    c. brain atrophy
    d. dopamine deficiency
    e. excess acetylcholine
    f. corpus callosum damage

43. Mark the risk factors of Alzheimer's disease

    a. higher age
    b. female sex
    c. cardiovascular risk factors
    d. metabolic syndrome
    e. obesity
    f. apolipoprotein E2 isoform

44. Mark the symptoms of Parkinson's disease

    a. postural instability
    b. tremor
    c. rigidity
    d. athetosis
    e. nystagmus
    f. myoclonus

45. Mark which causes play a role in the pathogenesis of Parkinson's disease

    a. loss of dopaminergic neurons
    b. loss of cholinergic neurons
    c. loss of GABAergic neurons
    d. loss of all neurons in the CNS
    e. loss of histamine neurons
    f. loss of serotonin neurons

46. Mark which features DO NOT belong to cognitive functions

a. posture
b. memory
c. speech
d. balance
e. abstract thinking
f. depression

47. Mark which statements belong to the primary dementia

a. epilepsy
b. Parkinson's dementia
c. vascular dementia
d. dementia caused by injury
e. dementia caused by intoxication
f. Alzheimer's dementia

48. Mark which statements does not apply for vascular dementia

a. arises as a result of a stroke
b. it is a complication of diabetes mellitus
c. manifests itself in complete memory loss
d. it is also manifested by gait disorders
e. manifests itself in drowsiness, lethargy
f. it is more common in women

49. Mild cognitive impairment that precedes dementia in patients with Alzheimer's disease

a. is accompanied by anatomical-morphological changes of the brain
b. is represented by progressive neurodegeneration of cortical neurons
c. is a diagnostic criterium of Alzheimer's disease
d. is accompanied by the presence of beta-amyloid plaques
e. is accompanied by the presence of neurofibrillary tangles
f. is characterized by a loss of orientation in space and time

50. MOCA test

a. it is a test of motor functions
b. it is a test of cognitive function
c. includes a clock drawing test
d. used in diagnostics e.g., Parkinson's disease, vascular dementias
e. they are investigated e.g., memory, attention, orientation, delayed reactions
f. includes CT of the brain

51. Motoneuron

a. forms a neuromuscular junction on the muscle cell

b. innervates only one muscle fibre at a time
c. innervates multiple muscle fibres
d. has the ability to regenerate
e. belongs to the group of interneurons
f. creates a synapse with a sensory neuron

52. Multiple sclerosis

a. is a neurodegenerative autoimmune disease
b. is another name for traumatic brain damage
c. is a disease in which myelin is lost and axonal damage occurs
d. is externally manifested by visual disturbances, movement disorders and loss of sensitivity (paraesthesia)
e. the main symptom is the sudden weakness and stiffness of half of the face
f. affects the both brain and spinal cord

53. Neuro-muscular junction

a. contains an adrenergic synapse
b. contains a cholinergic synapse
c. transmits sensory sensation from the muscle
d. expresses dopamine
e. has the ability to regenerate
f. consists of one to five motoneurons

54. Neurodegenerative diseases include

a. epilepsy
b. meningitis
c. Parkinson's disease
d. Alzheimer disease
e. neuroinfections
f. head injuries

55. Neurodegenerative diseases are characterized by

a. genetic mutation
b. the presence of xenobiotics in the body
c. misfolding of proteins
d. family history
e. oxidative stress
f. the presence of intracellular and / or extracellular aggregates of proteins

56. Neuroplasticity

a. is the death of neurons
b. is production of new neurons

c. is the brain's ability to adapt to changing conditions and stimuli
d. is characterized by new synapse production
e. is characterized by synaptogenesis
f. is characterized by neurodegeneration

57. Nystagmus

a. is a myoclonus of mimic eye muscles
b. is a stereotype
c. is an uncontrolled movement by the will
d. is characteristic of multiple sclerosis
e. is characteristic of Alzheimer's disease
f. belongs to the tics

58. Olfactory bulb

a. consists of olfactory receptors
b. is localized in the root of the nose
c. is localized in the brain
d. is formed by the bodies of neurons
e. projects into a sensory cortex
f. projects into the thalamus

59. Parasympathetic stimulation leads to

a. salivation
b. lacrimation
c. perspiration
d. tachycardia
e. bronchoconstriction
f. reduction of peristalsis

60. Parkinson's disease affects a priory

a. cholinergic system
b. dopaminergic system
c. cholinergic receptors
d. dopaminergic receptors
e. dopaminergic interneurons
f. primary motor cortex

61. Parkinson's disease is a progressive disease that primarily affects

a. cholinergic neurons
b. dopaminergic neurons
c. motoneurons
d. cholinergic receptors

e. dopaminergic receptors
f. neuro-muscular junction

62. Parkinson's disease is characterized by

a. motor deficit
b. hyperkinesia
c. bradykinesia
d. autonomic dysfunction
e. affective disorders
f. tremor

63. Parkinsonism can arise as a result of

a. drug intoxication
b. lack of sleep
c. head injuries
d. ADHD
e. mental retardation
f. smoking

64. Parkinsonism is the symptom of

a. autism
b. epilepsy
c. Parkinson's disease
d. multisystem atrophy
e. cerebral palsy
f. Lewy body dementia

65. Pathological findings in Parkinson´s disease

a. β-amyloid plaques
b. tau protein
c. HTT gene mutation
d. Lewy bodies
e. Kaposi´s bodies
f. neurofibrillary tangles

66. Pathologies affecting cognitive function are

a. narcolepsy
b. neurodegenerative disorders
c. mental retardation
d. cataplexy
e. arrhythmias
f. dementia

67. Penumbra

a. is a necrotic locus after stroke
b. is a haemorrhagic stroke
c. is a hypoxic tissue around the necrotic central nucleus after stroke
d. is the central necrotic nucleus after stroke
e. is irreversibly changed tissue
f. is the part of the ischemic brain that can be "saved"

68. Primary dementias include

a. Alzheimer's dementia
b. Parkinson's dementia
c. vascular dementia
d. metabolic dementia
e. dementia after intoxication
f. dementia after injury

69. Rest tremor

a. is typical for Parkinson's disease
b. represents the slowing of the patient's movements
c. arises exclusively when the limb is lifted up
d. arises during free movement
e. manifests itself in peace
f. improves with alcohol consumption

70. Retina

a. is made up of three layers of neurons
b. contains light-sensitive cells: rods, cones, and ganglia
c. provides the sharpest vision via the neurons located at its edge
d. contains 4 types of cones for colour recognition (blue, red, green and yellow)
e. has a donut
f. like distribution of ganglion cells, which is essential for contrast vision
g. projects through the optic nerve into the prefrontal cortex

71. Rigidity is

a. increased muscle tone
b. muscle stiffness
c. characteristic for Parkinson's disease
d. characteristic for Alzheimer's disease
e. movement initiation disorder
f. reduced amplitude of movements

72. Risk factors for Alzheimer's disease include

a. hypotension
b. hypertension
c. apolipoprotein E2
d. apolipoprotein E4
e. family history
f. diabetes mellitus

73. Sclerosis multiplex

a. is a demyelization disorder
b. is an autoimmune disorder
c. leads often to invalidity in young age
d. is a disease of the neuromuscular junction
e. it is often accompanied by incontinence
f. is reversible

74. Sclerosis multiplex is a progressive disease that primarily affects

a. cholinergic neurons
b. dopaminergic neurons
c. motoneurons
d. cholinergic receptors
e. dopaminergic receptors
f. neuro-muscular junction

75. Symptoms of hyperkinesia include

a. bradykinesia
b. rigidity
c. tremor
d. tics
e. chorea
f. akinesia

76. Symptoms of hypokinesia include

a. bradykinesia
b. rigidity
c. tremor
d. tics
e. chorea
f. akinesia

77. The main etiopathogenic mechanisms of neuropathological diseases include

a. oxidative stress

b. excitotoxicity
c. redox potential
d. protein misfolding
e. glutathione
f. superoxide dismutase

78. The pathogenesis of Alzheimer's disease is associated with the occurrence

a. neurofibrillary tangles
b. Lewy's bodies
c. alpha-amyloid plaques
d. beta-amyloid plaques
e. prion plaques
f. hyperphosphorylated tau protein

79. Tremor in Parkinson's disease (PD)

a. belongs to the etiology of PD
b. belongs to the pathogenesis of PD
c. belongs to the symptoms of PD
d. belongs to the complications of PD
e. belongs to the pathomechanisms of PD
f. belongs to the treatment of PD

80. Tremor is typical of

a. Alzheimer's disease
b. Parkinson's disease
c. encephalitis
d. multiple sclerosis
e. dizziness
f. meningitis

81. Unvoluntary movements are typically present in

a. epilepsy
b. cerebral palsy
c. Alzheimer's disease
d. Parkinson’s disease
e. sclerosis multiplex
f. generalized dystonia

82. Vascular dementia

a. occurs as a result of a stroke
b. occurs due to vascular damage in diabetes or hypertension
c. manifests itself in complete memory loss

d. it is also manifested by gait disorders
e. is manifested by hallucinations and disillusions
f. it occurs most often in men around the age of 40

83. Vascular dementia arises due to

a. accumulation of alpha synuclein
b. accumulation of beta amyloid
c. accumulation of tau-protein
d. microinfarcts in the brain
e. loss of dopaminergic neurons
f. ischaemia of cerebral blood vessels

84. Visual hallucinations and parkinsonism are the primary symptoms of

a. dementia with Lewy bodies
b. Alzheimer´s disease
c. virus encephalitis
d. frontotemporal dementia
e. bacterial meningitis
f. vascular dementia

85. What belongs to the triad of motor symptoms that are a manifestation of Parkinson´s disease

a. muscle rigidity
b. involuntary tics
c. bradykinesia
d. chorea
e. athetosis
f. tremor

86. What is MOCA test used for?

a. to diagnose Parkinson's disease motor deficit
b. to diagnose epileptic changes in EEG
c. to diagnose cognitive deficit in Alzheimer's disease
d. to diagnose cognitive deficits in different types of dementia
e. to diagnose cognitive deficits in progressive phase of Parkinson's disease
f. to diagnose the onset of Huntington’s chorea

87. Which disease is characterized by resting tremor, postural instability and bradykinesia?

a. Alzheimer's disease
b. Parkinson's disease
c. Huntington's chorea

d. Tourette’s syndrome
e. epilepsy
f. vascular dementia

88. Which of following is involved in Parkinson's disease pathogenesis?

a. formation of amyloid plaques
b. formation of Lewy's bodies
c. loss of dopaminergic neurons
d. loss of cholinergic neurons
e. progressive neuronal death
f. neuronal apoptosis

89. Which of the following are NOT demyelinating diseases

a. Multiple sclerosis
b. Guillain-Barré syndrome
c. Neuromyelitis optica
d. Alzheimer's disease
e. Parkinson's disease
f. meningitis

90. Which of the following belong to the motor symptoms?

a. tremor
b. hyperkinesia
c. cognitive deficit
d. bradykinesia
e. postural instability
f. loss of memory

91. Which test would you use to test a patient suspected of suffering dementia?

a. Clock drawing test
b. MMSE test
c. MOCA test
d. PHQ9 test
e. Beck's scale
f. spirometric test

2.1.2 Central nervous system – Part 2

1. A migraine attack can trigger

    a. lack of sleep
    b. chocolate
    c. smoking
    d. weather change
    e. active rest
    f. dopamine deficiency in the brain

2. Aura

    a. foregoes (precedes) the migraine attack
    b. may be manifested by paraesthesia
    c. may result in scotoma
    d. occurs only in women
    e. is typical for strokes
    f. is one-sided

3. Circadian rhythm disorders

    a. are one of the types of insomnia
    b. are associated with melatonin hyposecretion
    c. can lead to depression
    d. lead to exaggerated evening agitation
    e. are associated with elevated serotonin levels
    f. they are complicated by night urination

4. Cluster headache

    a. dominates in the male population
    b. it is deep, stinging, burning
    c. occurs mainly in women
    d. it is also manifested by tearing, nasal congestion, rhinitis
    e. is triggered e.g., chocolate, insomnia, menstruation
    f. it also takes 3 days at a time

5. Cluster headache

    a. is characterized by a presence of prodromal phase
    b. the pain is unilateral
    c. the pain is concentrated around the eye
    d. the trigeminal nerve, trigeminal-vascular activation, is thought to be involved in the etiopathogenesis
    e. is preceded by aura
    f. the pain is diffuse and bilateral

6. Cluster headaches

    a. trigeminovascular activation dominates in their pathomechanism
    b. are typical of men
    c. accompanied by their tearing
    d. are characteristic of glaucoma
    e. are accompanied by photophobia and phonophobia
    f. are triggered by anxiety

7. For cluster headache applies

    a. it is less severe form of the migraine
    b. it affects more women than men
    c. its typically severe, explosive and acute pain
    d. it is associated with tearing, congestion or sweating
    e. typically appears in periorbital area and along the trigeminal nerve
    f. smoking decreases the intensity of attack

8. For headaches applies

    a. they are always localized unilaterally
    b. they also occur as a result of an organic lesion of the nervous system
    c. they are always more common in women than in men
    d. they can be preceded by the so-called prodromal stage
    e. due to vasospasm and subsequent vasodilation in the brain, activation of trigeminal nerve may occur and severe pain
    f. it is always tense

9. Headache

    a. often associated with nausea
    b. may involve part or the whole head
    c. represents one of the most frequent symptom in disorders
    d. common secondary headache is migraine
    e. primary headache are cranial neuralgias
    f. commonly originates from brain stem

10. In insomnia

    a. it is difficult to fall asleep
    b. is an early awakening
    c. there is increased sleepiness during the day
    d. the patient has an urge to move his legs
    e. sudden sleep attacks occur
    f. the patient wakes up repeatedly

11. Increased sleepiness is associated

    a. with narcolepsy
    b. epilepsy
    c. restless legs syndrome
    d. hypnosis
    e. coma
    f. with melatonin deficiency

12. Indicate possible causes of headache

    a. glaucoma
    b. otitis
    c. stroke
    d. cognitive deficit
    e. decline in executive functions
    f. Parkinson’s syndrome

13. Indicate possible symptoms of sleep disorders

    a. tension headache
    b. weight loss or weight gain
    c. shallow sleep
    d. epilepsy
    e. Parkinson’s syndrome
    f. chorea

14. Indicate what applies to restless legs syndrome

    a. it is a disorder of motor inhibition
    b. occurs during the REM phase of sleep
    c. they suffer from e.g., patients with Parkinson's disease
    d. patients with hypertension suffer from it
    e. occurs during migraine
    f. occurs during the nonREM phase of sleep

15. Insomnia

    a. is a sleep disorder
    b. patients experience a difficulty to fall asleep
    c. there is increased sleepiness during the day
    d. the patient has an urge to move his legs
    e. sudden sleep attacks
    f. the patient wakes up repeatedly

16. Insomnia is a risk factor of

    a. hypertension

b. cardiovascular disease
c. myocardial infarction
d. depression
e. chronic venous insufficiency
f. deep vein thrombosis

17. Insomnia symptoms are

a. difficulty falling asleep at night
b. waking up too early
c. daytime tiredness
d. impaired vision
e. hypertension
f. hyperglycaemia

18. Long-term exclusion of REM sleep causes

a. any changes in activities of daily living
b. increased irritability
c. that the person is more prone to psychological disorders
d. loss of concentration
e. that the person will have very vivid dreams
f. that person can no longer fall asleep

19. Mark mediators associated with migraine

a. calcitonin gene-like peptide
b. substance P
c. 5-hydroxytryptamine
d. melatonin
e. orexin
f. leptin

20. Mark signs of sleep deprivation

a. somnolence
b. polyphagia
c. anxiety depression
d. deepening semantic memory
e. postural instability
f. rigidity

21. Mark the correct statements

a. obstructive apnoea is a risk factor for pathologies such as hypertension, myocardial infarction or pulmonary hypertension
b. in narcolepsy, there is an easily inducible REM phase of sleep

c. in insomnia, there is problem with too deep sleep and awakening in the morning
d. restless leg syndrome is common in patients with neurodegenerative diseases such as Parkinson's disease
e. melatonin is produced in the retinal cells of eye and give it its distinctive red appearance
f. higher activity of orexin neurons results in results in deeper sleep

22. Mark the correct statements

a. migraine is very often linked to the menstrual cycle
b. both chocolate and alcohol cause cluster pain
c. tension headache is the most common type of headache
d. accompanying signs of headaches are also paraesthesia in the legs and sleep apnoea
e. melatonin is involved in the development of migraines
f. physical activity always relieves all types of headaches

23. Mark the correct statements

a. more melatonin is formed during sleep than during waking
b. circadian rhythms affect sleep, but also behaviour and mental state
c. narcolepsy is characterized by long-term insomnia
d. more melatonin is formed during wakefulness than during sleep
e. insomnia is a condition in which a person sleeps abnormally long or abnormally often
f. sleep disorders can also occur in neurological diseases

24. Mark the correct statements applying for aura

a. is typical for depression
b. it is a sensation preceding the onset of a migraine episode
c. it is a sensation preceding the onset of an anxiety episode
d. it is a sensation preceding the onset of an epilepsy episode
e. it is typically a visual sensation
f. it can be a typical smell sensation

25. Mark the correct statements applying for migraine

a. it is often preceded by an aura
b. there can be trigemino-vascular activation
c. is triggered by enhanced aldosterone production
d. is stress-related
e. has higher incidence in cardiac patients
f. is caused by transient vasoconstriction followed by sustained vasodilation

26. Mark the correct statements applying for prodromes

a. they are typical for depression
b. it is a sensation preceding the onset of a migraine episode
c. it is a sensation preceding the onset of an anxiety episode
d. it is a sensation preceding the onset of an epilepsy episode
e. it can typically be irritability
f. it usually starts hours - 2 days before the onset of a migraine episode

27. Mark the correct statements for cluster headache

a. it's an accumulation of migraine episodes
b. there can be trigemino-vascular activation
c. it is often preceded by an aura
d. is depression-related
e. is caused by transient vasoconstriction followed by sustained vasodilation
f. there is a genetic predisposition

28. Mark the correct statements for cluster headache

a. it is a dull, pressing headache
b. it is an explosive, agonising headache
c. an aura is often present
d. typically, photo/phonophoby is present
e. it is accompanied by lacrimation, rhinorrhoea, sweating, ptosis
f. prodromes are present

29. Mark the correct statements for insomnia

a. it always presents as isolated disease
b. it usually accompanies others diseases
c. it is often present in depression patients
d. it is often present in cardiac patients
e. it is often present as complication of covid-19
f. it is often present in patients with anxiety

30. Mark the correct statements for insomnia

a. it is a separate disease
b. it is often part of other diseases
c. it is often part of psychiatric illnesses
d. it often affects patients with hypertension
e. it often affects patients with flu
f. patients with anxiety often suffer from it

31. Mark the correct statements for REM sleep

a. refers to "robust exacerbation of migraine" syndrome

b. refers to "rapid eye movement" sleep phase
c. occurs only once during every night
d. is a nightmare type typical as migraine prodrome
e. occurs once during every sleep cycle
f. belongs to the signs of acute insomnia

32. Mark the correct statements for status migrainosus

a. it is a migrainous infarction
b. it is a migrainous aura without headache
c. the migraine attack lasts more than 72 hours
d. a migraine attack lasts 24 to 72 hours
e. it can be detected by computer tomography
f. it is a migraine with sudden onset of aura

33. Mark the correct statements for tension headache

a. it's a type of migraine
b. there can be trigemino-vascular activation
c. the pathogenesis is not clear
d. is depression-related
e. is preceded by an aura
f. is rather diffuse

34. Mark the correct statements for tension headache (tension)

a. it is a type of migraine
b. there is pain in the gland of the trigeminal nerve
c. its pathogenesis is unknown
d. the triggering factor is stress
e. preceded by her aura
f. patients feel as if they have their head in a vice

35. Mark the possible causes of insomnia

a. depression
b. jet lag
c. chronic stress
d. aerated sleeping room
e. cough
f. anxiety

36. Mark what can cause secondary headaches

a. migraine
b. otitis media
c. sinusitis

d. cluster headache
e. meningitis
f. tension headache

37. Mark, what applies to migraine

a. affects more women than men and is likely to have a genetic predisposition
b. it may take several days and the patient prefers a quiet and dark place for convalescence
c. most often it is unilateral pain around the eyes and temporal area
d. it is most often bilateral, diffuse pain
e. is associated with abnormal discharges in large pyramidal neurons
f. melatonin production is disrupted due to inhibition in suprachiasmatic nuclei

38. Mark, what applies to sleep regulation and disorders

a. inhibitory signals include adenosine or GABA
b. darkness (lack of light) has an inhibitory effect on epiphysis secretion of melatonin
c. obstructive apnoea occurs mainly in patients with neurodegenerative diseases
d. in narcolepsy there is an increased production of orexin which results in an increase in melatonin production
e. restless Legs Syndrome occurs in patients after stroke or in patients with Parkinson’s disease
f. sleep apnoea reduces the risk of hypertension and myocardial infarction

39. Mark, what applies to tension headache

a. is triggered e.g., chocolate, insomnia, menstruation
b. it is triggered by stress, depression
c. it is blunt, pressure, variable during the day
d. is unilateral
e. is bilateral
f. that its previous so-called aura

40. Migraine

a. it is more common in women
b. manifested by throbbing pain
c. it manifests itself bilaterally
d. manifests itself in pain "behind the eye"
e. it manifests itself unilaterally
f. it is more common in men

41. Migraine

a. usually on one side of the head

b. often accompanied with extreme sensitivity to the light
c. common is the severe pain
d. usually occurs at night
e. most common in elderly people
f. nausea and vomiting are not accompanied

42. Migraine

a. is an abnormal response of CNS vessels to normal stimuli
b. is the alternation of vasoconstriction and vasodilation in the CNS
c. unilateral throbbing headache accompanied by vegetative symptoms
d. is a sign for intense headache
e. is a seasonal disease
f. is a degenerative disease

43. Narcolepsy

a. is a difficulty in falling asleep or short duration of sleep
b. is characterized by a sudden attacks of sleep
c. is a very common disorder
d. the underlying cause is the loss of orexin neurons of the lateral hypothalamus
e. is an airway obstruction during sleep
f. is a rare disease

44. Narcolepsy is

a. an obstructive breathing disorder
b. a common disease in childhood
c. characterized by loss of orexin neurons of the lateral hypothalamus
d. accompanied by somnambulism
e. a rare disorder
f. manifested by sleep attacks

45. Obstructive sleep apnoea

a. is respiratory arrest during sleep
b. can be caused by polyps in the nose
c. in hypertensive patients increases the risk of an acute cardiovascular event
d. is the deepest phase of sleep
e. occurs only in men
f. does not affect sleep quality

46. Primary headaches are

a. migraine
b. cranial neuritis
c. tension headache

d. cluster headache
e. headache caused by sinusitis
f. headache caused by a brain tumour

47. Primary headaches include

a. cluster pain
b. tension pain
c. migraine
d. pain associated with metabolic disorders
e. sinusitis
f. glaucoma-related headaches

48. Restless leg syndrome

a. is known as Willis-Ekbom disease
b. itching and crawling are common
c. patients with powerful urge to move the legs
d. is generally worse during a day
e. loss of sensation is common
f. common in patients with arthritis

49. Restless legs syndrome manifests

a. mainly in men
b. mostly in older age
c. as an uncontrollable urge to move the limbs
d. especially in the evening or at night
e. most markedly during the day
f. especially during exercise

50. Sleep apnoea

a. occurs very often in obese people
b. prevent patients to get a deep sleep
c. causes death
d. is a common risk factor for myocardial infarction
e. it occurs only in younger people
f. symptoms include loud snoring

51. Sleep disorders also occur, e.g.,

a. in anaemia
b. in neurodegenerative diseases
c. in Parkinson's disease
d. in Alzheimer's disease
e. in hypertension

f. in hypotension

52. Sleep quality positive affect

a. length and number of REM phases
b. creating a sleep mode
c. depression
d. melatonin formation
e. sleep apnoea
f. length and number of nonREM phases

53. Tension headache

a. is often described as feeling of a tight band around the head
b. is generally a diffuse and mild to moderate pain
c. is divided to two main categories episodic and chronic
d. is very rare type of headache
e. episodic tension headache lasts up to 30 minutes
f. is commonly associated with visual disturbances

54. The condition in which muscles in your throat temporarily relax during sleep is called

a. somnolence
b. narcolepsy
c. syncope
d. cataplexy
e. obstructive (sleep) apnoea
f. dyspnoea

55. The consequences of sleep deprivation include

a. emotional disorders
b. memory disorders
c. excessive sleepiness
d. respiratory disorders
e. depression
f. Jet Lag

56. What conditions are commonly associated with patients diagnosed with the obstructive, sleeping apnoe?

a. decreased blood pressure
b. hypertension
c. increased risk of stroke
d. increased risk of myocardial infarction
e. dilated bronchi
f. obesity

57. What is true about sleep apnoea?

a. it represents short-term respiratory arrest during sleep
b. it represents long-term respiratory arrest during sleep
c. it can be obstructive or central
d. it can be reducing or peripheral
e. arises in Pickwick syndrome
f. occurs in restless legs syndrome

58. What is typical for migraines with aura

a. photophobia
b. altered visual perceptions (light, field outages)
c. speech disorders
d. nasal congestion
e. nausea, vomiting
f. mild pain

59. What type of headache can be preceded by aura

a. cluster headache
b. headache caused by drug abuse
c. migraine
d. muscle contraction headache
e. tension headache
f. aura does not precede any type of headache

60. Which of next are considered as a sleep disorders?

a. depression major
b. somnolence
c. cataplexy
d. restless leg syndrome
e. schizophrenia
f. narcolepsy

61. Which of the following can have negative impact on the quality of sleep?

a. the length of REM phases
b. the number of REM phases
c. an excessive secretion of cortisol
d. the presence of obstructive sleep apnoea
e. depression
f. increased melatonin secretion

62. Which of the following symptoms would you expect in a patient diagnosed with tension headache?

    a. blunt pain
    b. sudden onset of pain
    c. excruciating pain
    d. throbbing pain
    e. tearing
    f. tension in the head

63. Which triggers can cause migraines?

    a. chocolate
    b. alcohol
    c. hypoglycaemia
    d. citrus
    e. tea
    f. smoking

2.1.3 Central nervous system – Part 3

1. Acute form of schizophrenia

    a. if left untreated, it can develop into a chronic form
    b. does not require any (psychiatric or pharmacological) intervention
    c. is characterized by the presence of positive symptoms
    d. is characterized by the presence of negative symptoms
    e. is caused primarily by a disorder at the level of the adrenergic system
    f. is caused primarily by a disorder at the level of the dopaminergic system

2. Agoraphobia

    a. is an acute attack with symptoms of anxiety
    b. is generalized anxiety
    c. is obsessive-compulsive disease
    d. is linked to anticipation anxiety
    e. is fear of open spaces
    f. is fear of insects

3. Agraphia is

    a. an impairment of the arithmetic abilities
    b. graphic imagery disorder
    c. specific spelling disorder
    d. specific reading disorder
    e. specific disorder of work with graphic data processing
    f. inability to transform data into graphical form

4. Acalculia is

    a. a specific disorder characterized by inability to assess the social situation
    b. disease characterized by calculative behaviour
    c. specific disorder of arithmetic abilities
    d. specific spelling disorder
    e. squinting
    f. specific disorder of school skills development

5. Anorexia is

    a. oxygen deficiency state
    b. expresses rheological conditions in the vascular system
    c. food refusal
    d. insufficient fluid intake
    e. severe eating disorder
    f. always deadly

6. Anorexia nervosa

    a. is a psychiatric illness
    b. is an eating disorder
    c. is associated with hypercholesterolemia
    d. is a decrease in body weight below 10% of the predicted values
    e. is associated with puberty praecox
    f. it occurs as often in men as in women

7. Anorexia nervosa

    a. is characterized by low cholesterol
    b. it is accompanied by cachexia and amenorrhea
    c. is a psychiatric illness
    d. it is manifested by alternating periods of hunger with periods of excessive food intake
    e. may present with dysrhythmias
    f. is a lack of protein in the diet

8. Anorexia nervosa is manifested by

    a. chronic diarrhoea
    b. edema
    c. ascites
    d. amenorrhea
    e. cachexia
    f. bradycardia

9. Anxieties are characterized by

    a. uncontrollable fear
    b. hypokinesia or even so-called "freezing" in humans
    c. hyperkinesia
    d. palpitations
    e. impaired perception
    f. improved attention

10. Anxiety

    a. may accompany depression
    b. may accompany schizophrenia
    c. accompanies obsessive-compulsive disorder
    d. accompanies post-traumatic stress disorder
    e. is common in patients with Parkinson’s disease
    f. is common in patients with Alzheimer's disease

11. Autism spectrum disorders are characterized by

a. an early manifestation of symptoms
b. repetitive behaviour
c. a tendency to move from one activity to another without completion
d. susceptibility to injuries
e. ruthlessness
f. delayed development (mainly motor skills and speech)

12. Bipolar disorder is characterized by

a. recurrent unipolar depression
b. dysthymia
c. cyclothymia (mood swings)
d. alternation of depressive and manic phases
e. impaired neurotransmitter levels
f. unipolar depressive episode

13. Bipolar disorder is characterized by

a. alternation of positive and negative symptoms of schizophrenia
b. alternation of depressive and manic phases
c. affective disorder
d. psychosis
e. permanent dysthymia
f. split personality

14. Bulimia is

a. the level of essential nutrients in the blood
b. pathologically increased appetite with subsequent vomiting
c. cell pyknosis
d. hypovitaminosis of B vitamins
e. severe eating disorder
f. always deadly

15. Depression can be accompanied by

a. insomnia
b. somnolence
c. food aversion
d. over-eating
e. suicidal thoughts
f. anxiety

16. Dyslexia is

a. specific disorder of school skills development

b. specific disorder of arithmetic abilities
c. specific spelling disorder
d. specific reading disorder
e. mental developmental disorder
f. specific writing disorder

17. Dysthymia

a. is a long-term pathologically worsened mood
b. is a long-term pathologically improved mood
c. is a short-term pathologically worsened mood
d. is a short-term pathologically improved mood
e. is a mood cycling (from depression to mania)
f. is a fictional word with no meaning in psychiatric practice

18. Eating disorders are risk factor for

a. metabolic syndrome
b. amenorrhea
c. acalculia
d. agraphia
e. dyslexia
f. electrolyte imbalance

19. Generalized anxiety disorder

a. is a chronic form of anxiety
b. is a response to an acute stress factor (trigger)
c. is a severe acute form, characterized by mental and physical symptoms
d. repeated acute anxiety attack
e. develops from anticipatory anxiety
f. is characterized by chronic physical symptoms of anxiety

20. Generalized anxiety disorder

a. is accompanied by panic attacks
b. is characterized by physical signs
c. is characterized by psychological signs
d. is characterized behavioural signs
e. precedes anticipation anxiety
f. requires hospitalization

21. Hyperkinetic disorder is characterized by

a. an early manifestation of symptoms
b. a repetitive behaviour
c. a tendency to move from one activity to another without completion

d. susceptibility to injuries
e. ruthlessness
f. delayed development (mainly motor skills and speech)

22. Mania

a. is a long-term pathologically worsened mood
b. is a long-term pathologically improved mood
c. is a short-term pathologically worsened mood
d. is a short-term pathologically improved mood
e. is a mood cycling (from depression to mania)
f. without significance in psychiatric practice

23. Mania is characterized by

a. hyperactivity
b. risk behaviour
c. self-blame
d. somnolence
e. extensive self-confidence
f. paranoid behaviour

24. Mark characteristic symptoms of schizophrenia

a. mania
b. hallucination
c. anhedonia
d. catatonic symptoms
e. depression
f. hyperactivity

25. Mark etiological factors of depression

a. genetic factors
b. learned helplessness
c. negativism
d. character of the person
e. big life events
f. death of close person

26. Mark negative symptoms of schizophrenia

a. echopraxia
b. hallucinations
c. lack of motivation
d. anhedonia
e. anxiety

f. stereotypes

27. Mark positive symptoms of schizophrenia

a. suicidal attempts
b. delusions
c. hallucinations
d. anhedonia
e. apathy
f. hearing voices

28. Mark symptoms of panic attack

a. tachycardia
b. pain behind sternum
c. increased urination frequency
d. hypokinesia
e. abnormal ECG
f. tremor

29. Mark, what belongs among anxiety disorders

a. panic attack
b. depression
c. schizophrenia
d. agoraphobia
e. obsessive-compulsive behaviour
f. post-traumatic stress disorder

30. Negative symptoms of schizophrenia

a. describe positive patient behaviour
b. do not affect the patient's inclusion in normal life
c. are present in the acute form of schizophrenia
d. are present in the chronic form of schizophrenia
e. include hallucinations and delusions
f. include apathy and anhedonia

31. Obsessive-compulsive disorder is characterized by

a. anxiety
b. ritual behaviour
c. aggressiveness
d. sexual deviation
e. uncontrollable fear of injury (infection, violence, etc.)
f. anxiety attack in case of avoidance of the ritual

32. Positive symptoms of schizophrenia

a. describe positive patient behaviour
b. if untreated, they can progress to a chronic form
c. are present in the acute form of schizophrenia
d. are insomnia and migraine
e. include hallucinations and delusions
f. include apathy and anhedonia

33. Post-traumatic stress disorder

a. has genetic background
b. is caused by excessive stress (psychological) during sensitive period of brain development (e.g., puberty)
c. can lead to sexual dysfunction
d. can lead to severe form of depression
e. is characterized by insomnia
f. is more often present in males than females

34. Post-traumatic stress disorder

a. may lead to psychosomatic disorders
b. is characterized by anxiety, depression, reliving trauma
c. is an acute response to a traumatic event
d. its clinical course is determined by the patient's personality
e. belongs to a group of hypochondriac depressions
f. is caused solely by head trauma

35. Psychosis is

a. psychiatric disease - abnormal perception of reality
b. is a symptom of schizophrenia
c. is a symptom of bipolar depression
d. is a symptom of unipolar depression
e. is symptom of autism
f. is a symptom of hyperkinetic disorder (ADHD)

36. Psychosis is

a. psychiatric illness
b. abnormal perception of reality
c. symptoms of schizophrenia
d. symptom of bipolar disorder
e. in some cases, a physiological condition
f. symptom of neurodegenerative disease

37. Schizophrenia is characterized by

a. cognitive changes
b. affective disorders
c. positive symptoms
d. negative symptoms
e. hallucinations
f. motoric deficit

38. Schizophrenia is characterized by

a. changes in several neurotransmitter systems
b. negative and positive symptoms
c. progressive nature of the disease
d. neutral symptoms
e. repetitive behaviour
f. affective disorders

39. The clinical picture of anorexia nervosa includes

a. BMI 18 - 22
b. cachexia
c. amenorrhea
d. paradoxical increase in waist circumference
e. arrhythmias
f. pubertal delay

40. The etiological factors of depression include

a. increased social interaction
b. genetic predisposition
c. exaggerated long-term optimism
d. long-term stress
e. inability to deal with critical situations
f. learned helplessness

41. What applies to anorexia nervosa

a. we talk about it if the BMI is below 25
b. we talk about it if the BMI is below 17.5
c. occurs predominantly in young men
d. cachexia is typical for her
e. there is an excessive production of sex hormones
f. bradycardia can occur

42. What has been described in the pathogenesis of schizophrenia

a. increased glutamatergic neurotransmission

b. decreased glutamatergic neurotransmission
c. increased GABAergic neurotransmission
d. decreased GABAergic neurotransmission
e. increased dopaminergic neurotransmission
f. decreased dopaminergic neurotransmission

43. Which neurotransmitter systems are impaired in depression

a. glycine system
b. adrenergic system
c. cholinergic system
d. serotonergic system
e. GABAergic system
f. glutamatergic system

44. Which neurotransmitter systems are impaired in schizophrenia

a. dopaminergic system
b. adrenergic system
c. cholinergic system
d. serotonergic system
e. GABAergic system
f. glutamatergic system

45. What was described in the etiopathogenesis of depression?

a. neurodegeneration
b. neuromodulation
c. hyperactivity of HPA axis
d. hyperactivity of amygdala
e. chronic stress
f. hyperactivity of serotonergic system

2.1.4 Central nervous system – Part 4

1. Complications of encephalitis include

    a. memory loss
    b. respiratory arrest
    c. death
    d. sepsis
    e. brain abscess
    f. status epilepticus

2. Complications of Lyme disease can be

    a. fever
    b. meningitis
    c. facial nerve paresis
    d. damage of the cardiovascular system
    e. sepsis
    f. respiratory arrest

3. Indicate what applies to tick-borne encephalitis

    a. the disease occurs in two stages
    b. the disease occurs in four stages
    c. typical symptoms are fever, photophobia and hunchbackedness
    d. it may present with motor restlessness or tremors of the limbs
    e. its occurrence is typical especially in winter
    f. the patient may also get it from ingesting raw goat's milk

4. Mark complications of late-stage Lyme disease

    a. heart failure
    b. arthritis
    c. paralysis of the facial nerve
    d. osteoporosis
    e. Crohn disease
    f. pneumonia

5. Mark the correct statements for Lyme disease

    a. the carrier of the disease is the bacteria Borrelia species
    b. the occurrence of the disease is usually seasonal in spring and summer
    c. the incubation period is always short, max. 2 weeks
    d. the carrier of the disease is a tick Ixodes Ricinus
    e. disease complications do not affect the CNS, but only joints
    f. acute symptoms are flu-like, with the appearance of migrating erythema

6. Mark the correct statements

    a. it is a generalized infectious inflammation of a brain lobe
    b. with acute meningitis, we are talking about an urgent condition with a serious course
    c. symptoms are photophobia, high temperatures, disturbances of consciousness, headaches
    d. the most common causes are Borrelia burgdorferi infection
    e. an important clinical symptom is the presence of meningeal syndrome
    f. typical infectious agents are meningococci, Hemophilus or pneumococci

7. Mark the correct statements

    a. the presence of meningeal syndrome is typical for Lyme disease
    b. the vector of both tick-borne encephalitis and Lyme disease is a Ixodes Ricinus tick
    c. tick-borne encephalitis cannot be prevented by vaccination
    d. in the chronic phase of borreliosis, chronic encephalitis or neuropathies occur
    e. Lyme disease is treated with antibiotics
    f. tick-borne encephalitis, unlike Lyme disease, does not have a seasonal occurrence

8. Mark, what applies to encephalitis

    a. represents purulent inflammation
    b. represents non-purulent inflammation
    c. diffuse nerve tissue damage is typical
    d. is always caused by viruses
    e. can also be caused by bacteria or parasites
    f. it is an infectious disease

9. Mark, what is true of brain inflammation

    a. they are serious infectious diseases
    b. they are non-serious purulent diseases
    c. the patient can treat them by self-medication
    d. they require inpatient care
    e. they can lead to permanent brain damage
    f. their course is always mild

10. Meningeal syndrome

    a. is characterized by photophobia and phonophobia
    b. causes headache and paravertebral muscle pain
    c. is the result of neurodegenerative changes
    d. involves vomiting independent of food intake
    e. it can be a result of inflammation

f. may be the result of bleeding into the brain

11. Meningitis

a. is an inflammation of the soft brain meninges
b. is inflammation of the midbrain
c. manifests itself in a stiff neck and inability to touch the sternum with the chin
d. is transmitted by droplet infection
e. is transmitted by food
f. it cannot end in the death of the patient

12. Meningitis

a. represents an acute inflammation of bacterial origin
b. represents an acute inflammation of viral origin
c. affects the meninges of the brain
d. affects the grey cortex of the brain
e. affects the brain stem
f. represents chronic inflammation in the substantia nigra

13. Meningitis is caused by

a. viruses
b. bacterial
c. fungi
d. spirochetes
e. protozoa
f. nerve gases

14. One of the best ways to diagnose meningitis or encephalitis is through

a. analysis of the bile
b. chest taps
c. an X-ray
d. an echocardiogram to look at the heart
e. a lumbar puncture
f. measuring an ECG

15. Specific symptoms of Lyme disease include

a. fever
b. fatigue
c. erythema migrans
d. neuroborreliosis
e. muscle pain
f. malaise

16. Tick-borne encephalitis

a. is a bacterial disease of the meninges
b. is an infectious viral disease of the brain
c. it is also transmitted by consuming unpasteurized milk and dairy products from an infected animal
d. is manifested by bradykinesia and myoclonus
e. it is also manifested by headaches, fever, photophobia
f. it always ends with the death of the patient

17. Tick-borne encephalitis

a. is caused by a bacterial infection
b. it has a short incubation period, a maximum of 48 hours
c. the carrier is a tick from Ixodes species
d. there is no form of prevention against it
e. in the early stages, it has flu-like symptoms
f. can cause inflammation of the meninges

2.2 CARDIOVASCULAR SYSTEM

2.2.1 Cardiovascular system – Part 1

1. According to the origin heterogenic dysrhythmias involve

    a. paroxysmal tachycardia
    b. flutter
    c. sinus bradycardia
    d. fibrillation
    e. junctional rhythm
    f. premature beats

2. Acquired heart defects

    a. include aortic stenosis
    b. include hypertension
    c. they can occur after rheumatic fever
    d. they are manifested by myocardial infarction
    e. they are manifested by fatigue and heart failure
    f. they can only be congenital

3. Acquired heart defects

    a. include mitral insufficiency
    b. include oedema
    c. they can occur after untreated flu
    d. they are manifested by myocardial infarction
    e. they are manifested by dyspnoea, edema and heart failure
    f. they can only be acquired

4. Atrial tachycardia is manifested on the ECG record as

    a. shortening of the RR interval
    b. Q-kmit
    c. ST segment elevation
    d. P wave change
    e. electrical chaos of impulses
    f. all waves and oscillations are normal

5. Based on the clinical picture, cardiomyopathies can be distinguished to

    a. primary, secondary
    b. primary, secondary, tertiary
    c. hypertrophic, hypotrophic
    d. ischemic, dysrhythmic
    e. dilated, hypertrophic, restrictive
    f. dilated, hypotrophic, ischemic

6. Cardiac etiology of dysrhythmias

    a. dystrophy
    b. inflammation
    c. intoxications
    d. ischemia
    e. heart insufficiency
    f. none of these options

7. Cardiac output during ventricular fibrillation

    a. is practically zero
    b. depends on the fibrillation rate
    c. is increased
    d. is reduced
    e. usually does not decrease
    f. depends on arterial blood pressure

8. Cardiomyopathies

    a. are endocardial diseases
    b. are myocardial diseases
    c. manifest as myocardial infarction
    d. they can also be caused by drugs, nutritional diseases or toxic substances
    e. they are just congenital heart diseases
    f. they are manifested by pain behind the sternum, shortness of breath, angina

9. Cardiomyopathies include

    a. dilated cardiomyopathy
    b. hypertrophic cardiomyopathy
    c. restrictive cardiomyopathy
    d. sinus cardiomyopathy
    e. supraventricular cardiomyopathy
    f. resting cardiomyopathy

10. Cardiomyopathy

    a. affects the primary pumping functions of the heart
    b. may be caused by drugs
    c. is characterized by an increase in ventricular blood pressure during and at the end of diastole
    d. they are always innate
    e. is progressive change of the heart
    f. affects the primary electrical properties of the heart

11. Cardiomyopathy associated with hemosiderosis or amyloidosis is called

a. ischaemic cardiomyopathy
b. hypertrophic cardiomyopathy
c. hypotrophic cardiomyopathy
d. dilated cardiomyopathy
e. restrictive cardiomyopathy
f. dysrhythmic cardiomyopathy

12. Changes in the shape of the ECG curve can be caused by

a. arrhythmia
b. drugs
c. heart attack
d. venous ulcer
e. Alzheimer disease
f. aneurysm

13. Choose the right atrial fibrillation statements

a. it arises as a result of disorganized numerous signals from several atrial sites
b. it arises as a result of the SA block
c. a significant risk is the formation of thrombi, which can cause a sudden stroke
d. it is undetectable on the ECG
e. it is manifested on the ECG by increased irregular P waves, irregular RR interval
f. it is a disease of the coronary arteries

14. Chronic ischemic cardiomyopathy

a. Parde's wave
b. prognosis is well
c. refers to history of angina or myocardial infarction
d. found usually in elderly individuals
e. heart failure does not appear
f. refers to absence of atrophic and dead cells throughout the myocardium

15. Dilated cardiomyopathy

a. can also occur as a result of chronic alcoholism
b. causes the heart can weigh 1kg
c. causes asymmetric hypertrophy mainly of the interventricular septum
d. leads to the formation of thrombi, which are the source of emboli
e. is caused by the deposition of amyloid in the pericardium
f. does not cause any problems for patients

16. Etiology of myocarditis can be based on

a. bacterial infection
b. chemotherapy
c. arrhythmia
d. viral infection
e. dilated cardiomyopathy
f. ischaemia

17. Extracardiac etiology of dysrhythmias

a. fever
b. psychic stress
c. stable ionic homeostasis
d. hypothyreosis
e. digitalis overdose
f. neurovegetative dystonia

18. Extrasystole is

a. permanent slowing of the heart rate
b. an extra heart contraction outside the regular rhythm of the heart
c. a fibrillation
d. a feeling that the heart was "skipping or extra contracting"
e. an acceleration of the heart rhythm
f. asystole

19. Extrasystole

a. is recognizable on the ECG curve
b. represents premature depolarization of the heart
c. it can be atrial or ventricular
d. means atrial contraction at a frequency of 250-350 beats / minute
e. the ECG shows a clear P wave absence
f. means acceleration of heart activity above 100 beats / minute

20. Factors supporting refilling of atria are

a. positive intrathoracic pressure
b. remaining kinetic energy
c. muscle pump of left arm
d. contraction of ventricles
e. valves
f. negative intrathoracic pressure

21. Flutter

a. is recognizable on the ECG curve

b. is caused by a lack of blood in the heart
c. may endanger the patient's life
d. means atrial contraction at a frequency of 200-300 beats / minute
e. we do not see changes on the ECG compared to a normal ECG
f. means acceleration of heart activity above 100 beats / minute

22. For congenital heart defects called left-right shunts is characteristic

a. they are manifested by cyanosis
b. cyanosis is not present
c. this includes e.g., ventricular and atrial septal defect
d. this includes e.g., Fallot tetralogy, transposition of great arteries
e. they are always deadly
f. they are manifested by limb edema

23. For congenital heart defects called right-left shunts is characteristic

a. they are manifested by cyanosis
b. cyanosis is not present
c. belongs here e.g., ventricular and atrial septal defect
d. this includes, for example, Fallot tetralogy, transposition of great arteries
e. they are always deadly
f. they are manifested by limb edema

24. Hypertrophic cardiomyopathy

a. it can also occur as a result of chronic alcoholism
b. causes the heart can weigh 1kg
c. causes asymmetric hypertrophy mainly in the interventricular septum
d. leads to the formation of thrombi, which are the source of emboli
e. it is also caused by genetic disorders in protein synthesis (myosin)
f. manifests itself e.g., shortness of breath, attacks of angina pectoris during exercise

25. In ventricular fibrillation

a. electrical impulses are generated in several places in the heart ventricles
b. the heart works very slowly
c. the heart practically does not contract and the blood circulation stops
d. the heart rate is about 55 beats / min
e. very often there is a sudden death of the patient
f. the atria contract asynchronously

26. In ventricular tachycardia

a. electrical impulses are generated not only in the conduction system but also in the myocardium

b. the heart works very slowly
c. only the atria contract very quickly
d. in some cases, it may undergo ventricular fibrillation
e. the heart works fast but inefficiently
f. the heart rate is about 60 beats / min

27. Mark the correct statements for restrictive cardiomyopathy

a. cardiac output is increased
b. filling pressures are increased
c. cardiac output is decreased
d. it is caused by dilation of ventricles
e. glycogen or amyloid accumulation may cause this pathology
f. ejection fraction is usually normal or decreased

28. Mark features typical for acute hypertrophic cardiomyopathy

a. hypertrophy of left ventricle
b. hypertrophy of right ventricle
c. hypertrophy of left atrium
d. hypertrophy of right atrium
e. preserved or increased ejection volume
f. decreased ejection volume

29. Mark features typical for dilated cardiomyopathy

a. dilation of left ventricle
b. dilation of right ventricle
c. dilation of left atrium
d. dilation of right atrium
e. preserved or increased ejection volume
f. decreased ejection volume

30. Mark notions linked to arrhythmias

a. prolonged QT interval
b. cardiac hypertrophy
c. flutter
d. atrial fibrillation
e. myocarditis
f. bradycardia

31. Mark the symptoms typical for long-term hypertrophic cardiomyopathy

a. increased ejection volume
b. decreased ejection volume
c. increased ejection fraction

d. decreased ejection fraction
e. pulmonary edema
f. dyspnoe

32. Mark the complications of hypertrophic cardiomyopathy

a. left heart failure
b. sudden heart failure
c. increase in ejection fraction
d. aura
e. widening of the chambers
f. incontinence

33. Mark the correct statements

a. atherosclerosis or sclerotic plaques in coronary arteries are typical causes of coronary heart disease
b. angina is an animal or burning pain in the chest, a common symptom of angina pectoris
c. cough is not usually a manifestation of cardiovascular disease, but respiratory or infectious
d. edema is typically associated with acute myocardial infarction
e. prolonged QT interval is often associated with the development of cardiac dysrhythmias
f. ventricular fibrillation is a less serious phenomenon than atrial fibrillation

34. Mark the correct statements for arrhythmias

a. they belong to diseases with impaired heart rhythm
b. they are caused by antibody cross reaction
c. they manifest with changes in ECG
d. they are always caused by myocarditis
e. they can be caused by impaired atrio-ventricular transmission
f. they are never caused by myocardial infarction

35. Mark the correct statements for atrial fibrillation

a. it refers to a physiological atrial systolic-diastolic function
b. is a form of arrhythmia
c. is manifested by palpitations
d. is a risk factor for pneumonia
e. is a risk factor for thrombosis
f. is a risk factor for myocardial infarction

36. Mark the correct statements for cardiomyopathy

a. dilated cardiomyopathy typically manifests as acute heart failure

b. in hypertrophic cardiomyopathy, the ejection fraction of the heart is always reduced
c. dilated cardiomyopathy is accompanied by an enlargement of the heart chambers and a decrease in the ejection fraction
d. in hypertrophic cardiomyopathy, the atria of the heart are typically enlarged
e. restrictive cardiomyopathy is often associated with pathologies such as amyloidosis or extensive glycogen accumulation
f. in hypertrophic and restrictive cardiomyopathy, the ejection fraction might remain preserved

37. Mark the correct statements for hypertrophic cardiomyopathy

a. abnormalities in protein synthesis can occur
b. ventricular dilatation is present
c. is characterised by an increase of the ventricular musculature
d. leads to an increase in cardiac output
e. disturbances can occur during diastole
f. is often associated with amyloidosis

38. Mark the correct statements for myocarditis

a. it affects mainly veinous valves
b. it affects mainly mitral valve and aortal valves
c. it occurs as consequence of Streptococcus pyogenes infection
d. it occurs as consequence of bacterial tonsillitis
e. it occurs as consequence of viral tonsillitis
f. it is caused by antibody cross reaction

39. Mark the correct statements. Dilated cardiomyopathy

a. is characterized by left ventricular and sternal hypertrophy
b. is characterized by dilation of all parts of the heart
c. is characterized by a decrease in the ejection fraction of the heart
d. it is often the cause of the sudden death of young people
e. manifests itself in dyspnoea, pulmonary edema and fatigue
f. it produces Aschoff's nodules on the valves

40. Mark the correct statement. Hypertrophic cardiomyopathy

a. is characterized by left ventricular and sternal hypertrophy
b. is characterized by dilation of all parts of the heart
c. is characterized by diastolic dysfunction
d. it is often the cause of the sudden death of young people
e. manifests itself with dyspnoea, sore throat and syncope
f. it produces Aschoff's nodules on the valves

41. Mark the symptoms of dilated cardiomyopathy

a. decrease in ejection fraction
b. enlargement of the ventricles
c. tachypnoe
d. left heart failure
e. infiltration of the heart with toxic substances
f. left side paresis

42. Mark, what applies to myocarditis

a. in can affect only single layer of heart
b. it is another term for mitral regurgitation
c. is often of infectious origin e.g., streptococci
d. it is not visible on ECG
e. it may affect also other tissues such as joints, skin or brain
f. the symptoms may include tachycardia, failing heart, losing weight and weakness

43. Mark, what applies to cardiac arrhythmias

a. in arm blockages, QRS complex prolongation often occurs
b. hyperkalaemia is typically associated with QT prolongation and transmission conduction acceleration
c. acute coronary syndrome is always associated with an increase in the ST segment on the ECG record
d. common causes of hyperkalaemia may be rhabdomyolysis, haemolysis or renal failure
e. a typical marker of STEMI infarct is the release of troponin T into the blood
f. an ectopic deposit or ectopic conduction of excitation is one that originates from an SA or AV node

44. Mark, what applies to cardiomyopathies

a. restrictive cardiomyopathy is not usually manifested by altered cardiac output
b. may result from toxicity or alcoholism
c. in hypertrophic cardiomyopathy, the ejection volume is normal or increased
d. dilated cardiomyopathy has symptoms of heart failure
e. in dilated hypertrophy, the heart is reduced
f. they do not cause any problems for patients

45. Mark, what applies to myocarditis with rheumatic fever

a. the higher incidence is in people out of a weak socio-economic environment
b. in children between 5-15 years
c. the occurrence of Aschoff's nodules is typical
d. higher incidence is in the elderly

e. it is caused by coronary artery ischemia
f. manifests as pancarditis

46. Mark, what applies to dilated cardiomyopathy

a. occurs on the basis of amyloidosis
b. myocardium is mainly hypertrophied (mainly interventricular septum)
c. it can occur as a result of Beri-beri disease, alcoholism or diabetes
d. leads to ischemic heart disease
e. leads to chronic heart failure
f. its common complication is the formation of wall thrombi

47. Myocarditis

a. affects only the left ventricle
b. can lead to heart failure
c. can lead to ischemic disease of the lower extremities
d. it can affect not only the endocardium, but also all layers of the heart
e. occurs most often after myocardial infarction
f. occurs in susceptible people due to a bacterial infection

48. Myocarditis

a. is inflammation of the heart muscle
b. may also affect the valves
c. may also manifest itself in changes on the ECG
d. always occurs after epicarditis
e. never affects the septum
f. is always treated irreversibly

49. Myocarditis

a. may lead to embolism
b. may lead to cardiac edema
c. its risk factors include a poor socio-economic environment
d. it is always fatal
e. it is always caused by a cross-reaction of the immune system
f. paradoxically, it improves the prognosis of heart failure

50. Myocarditis

a. may cause chest pain, shortness of breath
b. may lead to rapid or irregular heart rhythms (arrhythmias)
c. can be caused by viruses
d. it is never caused by a cross-reaction of the immune system
e. it is never fatal
f. every patient have symptoms

51. Myocarditis can be caused by

    a. rheumatic fever
    b. collagenoses
    c. viruses
    d. bacteria
    e. ischemia
    f. hypoxia

52. On the ECG recording, we can observe the following signs: heart rate 350 beats/min, QRS complexes are pointed, not the same and resemble "saw teeth". Neither P nor T wave can be identified.

    a. according to the ECG recording, it is probably the flutter of the ventricles
    b. an ECG recording indicates a life-threatening condition that requires urgent intervention
    c. according to ECG recording, the heart cannot work as a pump
    d. according to the ECG recording, this is not a life-threatening condition. The patient does not experience any significant difficulties
    e. ECG recording indicates bradycardia
    f. according to the ECG record, it is an ischemic heart disease

53. Paroxysmal tachycardia

    a. is a paroxysmal increase in heart rate
    b. is a chronic increase in heart rate
    c. manifests itself on the ECG by shortening the QT interval
    d. is an increase in heart rate above 100 beats per minute
    e. is an accidental increase in heart rate
    f. is an immeasurable increase in heart rate

54. Pathophysiologic consequences of dysrhythmias

    a. increased O2 consumption by myocardium
    b. decreased consumption by myocardium
    c. increased ejection volume
    d. decreased ejection volume
    e. decreased efficiency of pumping function
    f. increased economics of myocardial economics

55. Rheumatic fever

    a. it only affects the heart
    b. affects the heart, but also the joints, CNS, skin
    c. is a congenital heart disease
    d. arises after overcoming e.g., streptococcal infection
    e. affects only the valves

f. it is a non-purulent, systemic, inflammatory disease

56. Rheumatic fever

a. is manifested by the formation of Aschoff's nodules in both the myocardium and endocardium
b. it also affects the valves, which deform
c. it is also manifested by a non-itchy erythematous rash on the trunk
d. occurs after overcoming a myocardial infarction
e. arises during rheumatism
f. mainly affects the elderly with hypertension

57. Rheumatic fever

a. is manifested by the formation of Aschoff's nodules in both the myocardium and endocardium
b. it also affects the valves, which deform
c. it is also manifested by a non-itchy erythematous rash on the trunk
d. occurs after overcoming a myocardial infarction
e. arises during rheumatism
f. mainly affects the elderly with hypertension

58. Select which ECG changes you might notice in a myocardial infarction

a. T wave inversion
b. ST elevation
c. ST depression
d. disappearance of the QRS complex
e. hyperacute T wave
f. numerous multiplications of repeating P waves

59. Symptoms of myocarditis include

a. syncope
b. tachycardia
c. gallop
d. chest pain
e. pulmonary edema
f. claudication

60. Tachyarrhythmias can arise from

a. decreased automaticity
b. early afterdepolarization
c. late afterdepolarization
d. cardiac arrest
e. Parde’s wave

f. reentry

61. The following applies to hypertrophic cardiomyopathy

a. diastolic function is preserved
b. diastolic dysfunction is present
c. the ventricular wall, especially the septum, thickens
d. the myocardium is infiltrated with abnormal substances
e. causes endocardial fibrosis
f. cardiomegaly is typical for the condition

62. The phenomenon of reentry is a common cause of

a. sinus arrythmia
b. paroxysmal atrial tachycardia
c. atrial fibrillation
d. angina pectoris
e. rheumatic fever
f. dilated cardiomyopathy

63. The symptoms of ventricular fibrillation are

a. syncope with unconsciousness
b. hypertension
c. intangible pulse and immeasurable pressure
d. lower limb edema
e. heart rate 300-450 / minute
f. dizziness

64. Ventricle extrasystole

a. is always serious
b. is usually followed by an incomplete compensatory pause
c. is usually followed by a complete compensatory pause
d. has an abnormal ventricular complex shape on the ECG
e. is synonymous with flutter
f. may pass into the fibrillary ventricles

65. Ventricular tachycardia

a. is a severe dysrhythmia that requires intensive treatment and monitoring
b. is a common arrhythmia that occasionally occurs in healthy people
c. is synonymous with sinus tachycardia
d. may progress to ventricular fibrillation
e. we can clearly see all the waves and oscillations on the ECG record
f. it slows down the heart rate

66. What dysfunctions occur due to dilated cardiomyopathy

a. chamber dilatation
b. mural thrombi, due to increased blood stasis
c. increased myocardial rigidity due to its infiltration by abnormal substances
d. systolic dysfunction
e. decreased ejection fraction
f. increased ejection fraction

67. What is true for hypertrophic cardiomyopathy?

a. right ventricle is commonly more hypertrophied then left
b. ejection fraction is always decreased
c. stroke volume may remain normal or even be increased
d. the volume of left ventricular chamber is often decreased
e. it could cause the symptoms of heart failure
f. the wall of left ventricle is thinner

2.2.2 Cardiovascular system – Part 2

1. Angina pectoris is a symptom of which form of ischemia?

    a. myocardial
    b. intestinal
    c. cerebral
    d. shoulder
    e. lower limbs
    f. pulmonary

2. Angina pectoris

    a. is a symptom which describes the chest pain
    b. usually occurs due to decreased blood flow via coronary arteries
    c. is the synonym for the heart attack
    d. we recognise two main form - stable and unstable
    e. unstable angina means that chest pain improves (less pain in time)
    f. stable angina is synonym for acute coronary syndrome

3. Angina pectoris is described by

    a. symptomatic paroxysmal chest pain
    b. pressure sensation
    c. pain radiates to the left shoulder, jaw, arm
    d. lasting more than 20 min
    e. pain is reflecting the effect of vasodilators
    f. reversible changes

4. Arteriosclerosis is characterized by

    a. accumulation of lipid rich material
    b. accumulation is in the intima of arteries
    c. seen as a pathological response to endothelial injury
    d. erythrocyte lipid uptake of form foam cells
    e. common in pulmonary artery
    f. is associated with diabetes insipidus and hypocholesterolaemia

5. Compensatory mechanisms activated in shock are

    a. decentralization of circulation
    b. rapid mechanisms that increase decreasing blood pressure
    c. rapid mechanisms that counter against a decrease in volume
    d. increase of capillary filtration pressure
    e. arterial vasodilation
    f. bradycardia

6. Complication of atherosclerosis are

    a. sudden stroke
    b. rupture of aneurysm
    c. transient ischemia
    d. claudication
    e. gangrene
    f. claudicatio intermittens

7. Consequences of atherosclerosis are

    a. progressive occlusion
    b. acute occlusion
    c. fibrinolysis
    d. apoplexy
    e. aneurysm
    f. ulceration

8. Cyanosis

    a. its possible etiopathogenesis is a disorder of peripheral vasoconstriction
    b. occurs only in children
    c. it is an evidence of poor haemoglobin metabolism
    d. is characterized by a high concentration of oxyhaemoglobin
    e. may be accompanied by heart defects
    f. it is visible especially on the acral parts

9. During atheroma formation

    a. infiltration of intima of blood vessels occurs
    b. foam cells are formed
    c. adipocytes are formed in the blood vessel
    d. accumulation of cholesterol in the atheroma
    e. infiltration of the vessel media occurs
    f. fat cells are taken up by monocytes

10. Factors lead to ischemia and angina pectoris

    a. decreased perfusion pressure
    b. decreased arterial oxygen content
    c. increased heart rate
    d. increased preload
    e. decreased afterload
    f. decreased contractility

11. First symptoms of ischemic heart disease are seen

    a. with narrowing of the vascular lumen by more than 75%

b. with dilatation of the vascular lumen by more than 75%
c. with narrowing of the vascular lumen by more than 75%
d. with dilatation of the vascular lumen by more than 10%
e. with narrowing of the vascular lumen by more than 75%
f. with dilatation of the vascular lumen by more than 100%

12. In ethiology of ischemic heart disease are playing role

a. dilatation of coronary vessels
b. occlusion of coronary vessels
c. increased consumption of oxygen by myocardium
d. decreased consumption of oxygen by myocardium
e. decreased oxygen demand
f. decreased ability of myocardium to utilize oxygen

13. In the development of ischemic heart disease are applied unaffected risk factors as

a. lifestyle
b. diabetes mellitus
c. obesity
d. race
e. age
f. genetics

14. Mark, which of following has a role in the process of atherogenesis

a. decreased permeability of vascular endothelium
b. increased coagulation of erythrocytes
c. increased platelet and monocytes adhesion
d. monocytes and smooth muscle cells infiltrate intima
e. cholesterol crystals accumulate in the cells and tissue
f. collagen synthesis, calcium accumulation

15. Key components in initiation, progression and complications of atherosclerosis are

a. endothelial injury
b. intimal smooth muscle cell proliferation
c. capillary smooth muscle cell proliferation
d. inflammation
e. dyslipidemia
f. dysuricaemia

16. Mark the correct statements.

a. ischemic heart disease is a disease of the myocardium
b. lifestyle, smoking and stress are uncontrollable risk factors for coronary heart disease

c. in ischemic heart disease, the coronary arteries are affected
d. the higher the patient's blood pressure and cholesterol level is, the greater is cardiovascular risk
e. some drugs can also cause arrhythmias
f. sinus tachycardia is the most common cause of sudden death

17. Mark the correct statements

a. ischemic heart disease is a disease of the myocardium
b. lifestyle, smoking and stress are uncontrollable risk factors for coronary heart disease
c. in ischemic heart disease, the coronary arteries are affected
d. the higher the patient's blood pressure and cholesterol level is, the greater is cardiovascular risk
e. some drugs can also cause arrhythmias
f. sinus tachycardia is the most common cause of sudden death

18. Mark the correct statements. SCORE

a. describes the risk of cardiomyopathy in the patient in the next 5 years
b. assumes a 10-year risk of a fatal cardiovascular event
c. is used in populations at high risk for cardiovascular disease
d. depends on blood pressure and cholesterol levels
e. according to its value, life-style changes should be recommended to patients
f. depends on the size of the P wave on the ECG

19. Mark the parameters important for the SCORE calculation

a. heart rate
b. diastolic blood pressure
c. homocysteine in the blood
d. systolic blood pressure
e. cholesterol
f. age

20. Pathogenesis of ischemic heart disease involved

a. deficit of O2 and nutrients, accumulation of metabolites
b. intracellular acidosis
c. extracellular hyperkalaemia
d. extracellular hypokalaemia
e. increased sympathetic activation of heart
f. depletion of metabolic reserves

21. Rapidly acting and highly effective mechanisms of feedback blood pressure control belong

    a. baroreceptors
    b. shift of fluid
    c. ischemic mechanisms
    d. change in pumping capacity of the heart
    e. kidney function
    f. aldosterone

22. Risk factors of atherosclerosis involved

    a. low weight and cachexia
    b. smoking
    c. stress
    d. hypodynamic
    e. hypohomocysteinemia
    f. intoxications

23. Stable angina pectoris

    a. is tonsillitis
    b. is an acute form of ischemic heart disease
    c. manifests by chest pain during activity
    d. is caused by atherosclerosis of the coronary arteries
    e. its risk factor is obesity
    f. it is more common in women

24. Stasis is term for

    a. accumulation of fats
    b. accumulation of urine
    c. accumulation of carbohydrates
    d. accumulation of bile
    e. accumulation of neurogenic amines
    f. accumulation of blood

25. Sudden blood pressure fall could induce

    a. massive blood loss
    b. sepsis
    c. fever
    d. heart muscle disease
    e. dilatation of urinary bladder
    f. anaphylaxis

26. The elevated plasma levels of which substance we do not consider to be a risk factor for atherosclerosis?

    a. HDL cholesterol
    b. LDL cholesterol
    c. triacylglycerols
    d. lipoprotein A
    e. fibrinogen
    f. collagen III

27. The modifiable risk factors for atherosclerosis include

    a. hypertension
    b. smoking
    c. diabetes
    d. older age
    e. genetics
    f. male gender

28. The most commonly affected arteries in atherosclerosis are

    a. arteries in arms
    b. aorta
    c. coronary arteries
    d. abdominal middle artery
    e. cerebral arterial system
    f. popliteal inferior artery

29. To predict the risk of fatal CVD events, which of listed tests is used?

    a. SCORE
    b. MOCA test
    c. PHQ9 questionnaire
    d. Beck Scale
    e. MMSE test
    f. Zung questionnaire

30. Unstable angina

    a. has no clinical manifestations
    b. may present with plaque haemorrhage
    c. may present with plaque rupture
    d. may be manifested by the formation of a thrombus
    e. may manifest as embolism
    f. it manifests itself only by mild narrowing of the coronary arteries

31. Variant or Prinzmetal's angina

a. does occur during the exercise
b. not precipitated by exercise or emotional stress
c. not precipitated by emotional stress
d. more common in men
e. during resting
f. is not associated with other arterial vasospastic conditions

32. What is the difference between angina pectoris (AP) and myocardial infarction (MI)?

a. angina occurs due to a lung problem while myocardial infarction is due to a heart problem
b. angina usually causes lasting damage to the heart muscle, while myocardial infarction does not
c. angina usually does not cause lasting damage to the heart muscle, while myocardial infarction does
d. angina and myocardial infarction are the same things
e. AP cannot be diagnosed on ECG, MI can
f. we can influence pharmacologically the symptoms of AP, but not MI

33. Which of the following risk factors for atherosclerosis cannot be modified?

a. a diet low in fruits and vegetables
b. a family history of early atherosclerosis
c. smoking
d. high blood pressure
e. gender
f. obesity

2.2.3 Cardiovascular system – Part 3

1. Acute cerebral edema and increased intracranial pressure

    a. manifests itself in vomiting, visual impairment, headache
    b. can lead to death by cardiopulmonary centre failure
    c. cerebral edema can be cytoxic or vasogenic
    d. can lead to alkalosis
    e. can cause vision loss by damaging the pupil
    f. cerebral edema can be endocrine and neurogenic

2. Arterial hypertension

    a. is divided into primary, secondary and tertiary
    b. does not lead to organ complications
    c. reduces preload and afterload
    d. related to NaCl intake
    e. its development is accelerated by atherosclerosis
    f. can lead to systolic and diastolic myocardial dysfunction

3. Benign hypertension is characterized by

    a. fibrinoid necrosis of arterioles
    b. fibroelastic thickening of the intima
    c. hyaline deposition in arteriole walls
    d. hypertrophy of the muscular media of the arteries
    e. sudden and severe increase in blood pressure
    f. hypertrophy of the muscular media of the capillaries

4. Cardiogenic shock

    a. is caused by the loss of a large volume of blood
    b. is a type of distribution shock
    c. is caused by a brainstem injury
    d. it is accompanied by an increased filling pressure in the ventricle
    e. may be caused by a severe myocardial infarction
    f. may be caused by severe dysrhythmias

5. Causes of intracranial hypertension include

    a. tumours
    b. cerebrospinal fluid resorption disorders
    c. status epilepticus
    d. subdural hematoma
    e. schizophrenia
    f. drunkenness

6. Central venous pressure is reduced during

    a. obstructive shock
    b. haemorrhagic shock
    c. anaphylactic shock
    d. septic shock
    e. neurogenic shock
    f. cardiogenic shock

7. Circulatory shock

    a. is a condition in which there is insufficient tissue perfusion and insufficient oxygen supply
    b. it also causes a microcirculatory disorder
    c. may cause pre-renal acute renal failure
    d. is characterized by the development of hypertension
    e. it is also manifested by respiratory and metabolic alkalosis
    f. it only takes a few minutes

8. Collapse

    a. is due to sudden increase in intra bellied pressure
    b. is short term transient loss of consciousness
    c. is due to sudden decrease in intra bellied pressure
    d. is due to a decreased blood flow in the brain
    e. is due to sudden increase in intra chest pressure
    f. is due to sudden decrease in intra chest pressure

9. Collapse

    a. represents a sudden loss of consciousness
    b. is associated with loss of postural tone
    c. occurs due to reduced blood supply to the brain
    d. it is typical mainly for pregnant women
    e. never occurs in men
    f. occurs due to higher blood flow in the brain

10. Decompensated shock

    a. pulse difficult to detect
    b. altered state of conscious, disorientation
    c. hyperaemic, red skin
    d. cold and dry skin
    e. grey/ ashen skin
    f. rapid jump in blood pressure

11. Endocrine secondary hypertension includes

a. hypertension in Cushing's syndrome
b. hypertension in pheochromocytoma
c. hypertension with aldosterone overproduction
d. hypertension in renal artery stenosis
e. hypertension in polycystic kidney disease
f. hypertension in preeclampsia

12. Essential hypertension

a. is an increase in blood pressure due to narrowing of the renal artery
b. is a risk factor for the premature development of atherosclerosis
c. is synonymous with primary hypertension
d. is a risk factor for stroke
e. is not a multiorgan disease
f. is not affected by genetics

13. Hypotension may be caused by

a. great blood loss
b. anaphylactic shock
c. severe sepsis
d. cerebral infarction
e. pressure ulcers
f. otitis

14. In arterial hypertension

a. there is a higher risk of having a stroke
b. does not occur the retinal damage
c. glomerular damage occurs
d. there is a lower risk of having a stroke
e. there is no frequent headache and nosebleeds
f. heart failure can occur

15. In the development of essential (primary) hypertension play an important role

a. increase in RAAS activity
b. hyperfunction of the sympathetic system
c. endothelial dysfunction
d. changes in plasma composition
e. increase in peripheral vascular resistance
f. reduced nitric oxide production

16. List the types of shock

a. neurogenic

b. hypervolemic
c. cardiogenic
d. anaphylactic
e. traumatic
f. septic

17. Malignant hypertension

a. is the most severe stage in the development of both types of hypertensions
b. means a very poor prognosis for patients who suffer from it
c. requires immediate treatment (or hospitalization) because patients have critically elevated blood pressure
d. is secondary hypertension in malignant endocrine diseases
e. it does not require hospitalization; it is enough for it to be treated by a family physician
f. is a clinical stage of nephrosclerosis

18. Mark the correct statements for shock

a. hypovolemic shock arises from direct fluid loss
b. its stages are compensated, uncompensated and irreversible
c. it arises due to acute hypoxia and metabolic acidosis
d. in the compensated stage, the circulatory system fails
e. shock is never fatal
f. shock cannot be treated

19. Mark the pathophysiological mechanisms involved in the development of arterial hypertension.

a. increase in cardiac output
b. increase in peripheral resistance
c. system renin angiotensin aldosterone
d. mitral insufficiency
e. atrial septal hypertrophy
f. coronary artery dilatation

20. Mark which conditions can lead to cerebral edema

a. tumours in the brain
b. meningitis
c. severe hypoglycaemia (e.g., in patients with DM)
d. Cushing's syndrome
e. migraine
f. short epileptic seizure

21. Mark which factors are involved in the pathogenesis of primary arterial hypertension

a. obesity
b. smoking
c. stress
d. high cholesterol
e. adrenal tumour
f. female gender

22. Mark, what applies to the etiology of primary hypertension

a. heredity
b. accumulation of acquired factors (even without hereditary predisposition)
c. X-linked inheritance
d. older age and black race
e. autosomal recessive monogenic inheritance
f. endocrine diseases

23. Name stages of shock

a. refractory
b. repetitive
c. progressive
d. terminalis
e. compensatory
f. initial

24. Shock is immediate threat to life

a. caused by insufficient flow through tissue
b. characterized by a sudden fall in blood pressure
c. with increased cardiac output
d. with decreased heart rate
e. with increased heart rate
f. with decreased cardiac output

25. Symptoms and signs of shock are

a. anxiety
b. agitation
c. confusion and delirium
d. shallow, rapid filiform impalpated pulse
e. hypoventilation
f. hyperuria, overhydration

26. Symptoms of hypotension do not include

a. blurred vision
b. dizziness
c. dried and warm skin
d. body swiving
e. hyperglycaemia
f. fainting

27. The main symptoms of circulatory shock are

a. reduced perfusion that leads to cellular hypoxia up to terminal organ failure
b. metabolic acidosis
c. acute kidney failure
d. both respiratory and metabolic alkalosis
e. acute liver failure
f. heart attack

28. The main symptoms of septic shock are

a. decrease in systemic arterial resistance
b. hypotension due to vasodilatation
c. decrease in central venous pressure
d. increase in intrapulmonary pressure
e. lactate acidosis
f. hypertension due to vasoconstriction

29. Typical organ changes in arterial hypertension include

a. retinopathy
b. left ventricular hypertrophy
c. neuropathy
d. nephropathy
e. pulmonary heart
f. formation of pheochromocytoma

30. Venostasis

a. represents the accumulation of blood in the veins
b. represents the cessation of blood in the arteries
c. may occur in patients with heart failure
d. occurs during vein obstruction by a thrombus
e. is inflammation of the veins
f. is common in children

31. Why does reducing salt help prevent high blood pressure?

a. it reduces fluid build-up in the body
b. it allows vessels to relax
c. it raises levels of HDL ("good") cholesterol
d. it helps keep heartbeat steady
e. it decreases glomerular filtration
f. it increases liver function

2.2.4 Cardiovascular system – Part 4

1. Which of affected risk factors are applied in the development of ischemic heart disease?

    a. lifestyle
    b. diabetes mellitus
    c. obesity
    d. race
    e. age
    f. genetics

2. An increase in the end-diastolic volume of the left ventricle occurs in

    a. hypovolemic shock
    b. heart failure
    c. cor pulmonale
    d. mitral stenosis
    e. cirrhosis
    f. angina pectoris

3. Causes (no intrinsic) of secondary chronic congestive heart failure

    a. pulmonary embolism
    b. myocardial infarction
    c. anaemias
    d. drug toxicity
    e. metabolic diseases
    f. infections

4. Complications of myocardial infarct are

    a. sudden death
    b. arrhythmias
    c. cardiac failure
    d. improvement of valvular function
    e. cardiac rupture
    f. absence of thrombosis

5. Congestive heart failure

    a. is condition when heart doesn't pump enough blood to tissues for longer time
    b. in is the pre-stadium of myocardial infarction
    c. in occurs often after myocardial infarction
    d. it is the synonym for acute coronary syndrome
    e. is often associated with shortness of breath and periphery edema
    f. with correct therapy it is reversible condition

6. Heart failure

    a. is conditioned by low preload
    b. is often caused by a decrease in contractility
    c. is compensated by increased preload
    d. it has nothing to do with preload
    e. can by caused by heart attack
    f. can by caused by stroke

7. Heart failure is

    a. associated with valve disease
    b. complication of MI
    c. right-sided heart failure may develop as a result of left sided failure
    d. right-sided heart failure is more frequent then left
    e. is not associated with valve disease
    f. is associated with pulmonary hypertension

8. Left heart failure

    a. it is manifested by swelling of the lower limbs
    b. occurs in hypovolemia
    c. cannot be caused by an acute myocardial infarction
    d. may be caused by coronary heart disease and arterial hypertension
    e. may lead to pulmonary edema
    f. manifested by shortness of breath and cough

9. Long QT syndrome predisposes the patient to

    a. cardiac hypertrophy
    b. rupture of the left ventricle
    c. cardiac tamponade
    d. severe dysrhythmias
    e. risk of sudden death
    f. rupture of the lungs

10. Mark symptoms of heart failure

    a. sharp chest pain projecting into the left arm
    b. dyspnoea
    c. tonsillitis caused by Streptococcus pyogenes
    d. deep vein thrombosis
    e. ankle and leg edema
    f. problems to perform physical activity

11. Mark the correct statements for ejection fraction

    a. it is defined as percentage of blood pumped from the left ventricle during one systole
    b. it is defined as percentage of blood pumped from the right ventricle during one systole
    c. it describes the pump capacity of the heart
    d. it defines the volume of blood in the pulmonary circulation
    e. is decreased in heart failure
    f. is increased in heart failure

12. Mark the correct statements for myocardial hypertrophy

    a. typically leads to dilation of left ventricle
    b. refers to increase in the number of cardiomyocytes
    c. refers to increase in the size and protein content of cardiomyocytes
    d. compensates for increased afterload
    e. when left untreated leads to heart failure
    f. is always caused by myocardial infarction

13. Mark the correct statements for myocardial hypertrophy

    a. typically leads to dilation of left ventricle
    b. refers to increase in the number of cardiomyocytes
    c. refers to increase in the size and protein content of cardiomyocytes
    d. compensates for increased afterload
    e. when left untreated leads to heart failure
    f. is always caused by myocardial infarction

14. Mark the ECG changes for myocardial ischemia and infarction

    a. ST segment elevation
    b. deep or wide Q waves
    c. inverted T waves
    d. ST segment depression
    e. presence of N wave
    f. Parde’s wave

15. Mark the right statements for ischemic heart disease

    a. it occurs most often on the basis of atherosclerotic changes in the coronary arteries
    b. is not manifested by acute myocardial infarction
    c. may manifest as silent myocardial ischemia
    d. can be easily cured
    e. arises as a consequence of hypotension
    f. may be manifested by angina pectoris after effort

16. Mark the right statements for myocardial infarction

a. is a form of coronary heart disease
b. is the result of long-lasting myocardial ischemia
c. the most common cause of this is air bubble embolization
d. diabetes mellitus is one of the risk factors for its development
e. the most common cause of mortality in the early stages is rupture of the lung
f. manifested by dull pain in the hypogastrium

17. Mark the symptoms of left-sided heart failure

a. tachycardia
b. cyanosis
c. dyspnoea
d. leg swelling
e. ascites
f. cor pulmonale

18. Mark the symptoms of right-sided heart failure

a. confusion
b. cyanosis
c. weight gain
d. swelling of the legs
e. ascites
f. cor pulmonale

19. Myocardial hypertrophy

a. does not belong to the compensatory mechanisms of heart failure
b. always increases tension in the ventricular wall
c. causes apoptosis of cardiomyocytes
d. belongs to the compensatory mechanisms of heart failure
e. impairs diastolic function of the ventricle
f. causes impaired blood supply to the myocardium

20. Myocardial infarction is

a. resulted in necrosis of the myocardium
b. induced acute inflammatory changes
c. following ischemia
d. replaced by new cardiac muscle
e. occlusion of the right coronary a. results in inferior LA necrosis
f. occlusion of the left coronary artery results arrhythmias

21. Myocardial ischemia may affect the ECG

a. by prolonging the QT interval

b. wave diversity T
c. by deepening the Q oscillation
d. elevation of the ST segment
e. by shortening the RR interval
f. negative wave P

22. Myocardial oxygen consumption depends on

a. heart rate
b. systolic pressure
c. heart wall thickness
d. voltage in the ventricle wall
e. diastolic pressure
f. septum thickness

23. Possible complications of myocardial infarction include

a. cardiac tamponade
b. pulmonary embolism
c. ventricular septal defect with right-left short circuit
d. ventricular fibrillation
e. acute left-right short circuit
f. extended PQ interval

24. Right heart failure

a. is manifested by the accumulation of fluid in the lungs
b. causes blood to accumulate in the small circulation
c. may occur in coronary heart disease
d. can occur in severe lung disease
e. causes blood to accumulate in the systemic circulation
f. is manifested by swelling of the lower limbs, enlarged liver, cyanosis

25. Risk factors for atrial fibrillation include

a. hypothyroidism
b. atrioventricular block II. degree
c. hypotension
d. ischemic heart disease
e. hypokalaemia
f. hyperthyroidism

26. Stenocardia

a. is a pressure pain primarily behind the centre of the sternum
b. the change in breathing is felt as shortness of breath
c. is one of the main symptoms of angina pectoris

d. occurs in uraemia
e. is a symptom also e.g., in gastro-oesophageal reflux or gastric ulcer
f. is the main symptom of migraine

27. Symptoms of left heart failure include

a. shortness of breath
b. pulmonary edema
c. dizziness
d. severe swelling of the legs
e. hepatomegaly
f. jaundice

28. Symptoms of myocardial infarction include

a. cough
b. swelling in the legs
c. dyspnoea
d. chest pressure
e. nausea
f. back pain

29. Symptoms of right heart failure include

a. pulmonary edema
b. shortness of breath
c. dyspnoea
d. severe swelling of the legs
e. increased central venous pressure
f. ascites

30. The most common cause of acute myocardial infarction is

a. thrombosis arising on the atherosclerotic plaque
b. air embolism
c. vasospasm
d. coronary artery aneurysm
e. tricuspid valve insufficiency
f. pulmonary embolism

31. The most common causes of heart failure are

a. flap faults
b. myocardial ischemia
c. acute myocardial infarction
d. blood volume loss approx. 400 ml
e. pneumonia

f. thyrotoxicosis

32. The most serious complications of myocardial infarction are

a. sudden death
b. cardiogenic shock
c. rupture of the affected myocardial wall
d. dysrhythmia
e. ischemic heart disease
f. hypertension

33. The overall compensatory mechanisms for heart failure include

a. endothelin
b. nitric oxide
c. prostaglandins
d. renin-angiotensin-aldosteron system
e. vasopressin
f. circulating noradrenaline

34. The resulting size of the infarction depends on

a. the extent of the ischemic episode
b. the severity of the ischemic episode
c. the duration of the ischemic episode
d. the amount of collateral circulation
e. the metabolic needs of the myocardium
f. length of left extremity

35. What is the key complication in the first 24 hours of a myocardial infarction?

a. fibrinous pericarditis
b. arrhythmias
c. mitral insufficiency
d. coronary artery aneurysm
e. angina pectoris
f. cor pulmonale

36. When ST segment elevation is detected on the ECG, it suggests the following diagnosis

a. ventricular tachycardia
b. supraventricular tachycardia
c. atrial flutter
d. myocardial infarction
e. atrial tachycardia
f. ventricular fibrillation

37. Which substances are used for the biochemical diagnosis of acute myocardial infarction?

    a. lactate dehydrogenase
    b. myoglobin
    c. troponin T
    d. alkaline phosphatase
    e. red blood cell count
    f. acid protease

2.2.5 Cardiovascular system – Part 5

1. Deep vein thrombosis usually affects

    a. leg
    b. upper arm
    c. head
    d. liver
    e. heart
    f. lung

2. In ischemia-reperfusion injury

    a. blood flow is restored after occlusion of the vessel
    b. deterioration of the lesion may occur after restoration of blood flow
    c. free radical damage may occur
    d. the condition of the lesion improves immediately after restoration of blood flow
    e. there is no tissue damage
    f. a thrombus is formed due to rapid blood flow

3. Indicate the correct statements for the following diseases

    a. stroke may be due to thromboembolism as well as haemorrhage
    b. ischemia is an insufficient supply of oxygen and nutrients to the target tissue
    c. elevated blood pressure is a risk factor for vascular rupture and subsequent haemorrhage
    d. important clinical manifestation of defeat is loss of papillary reflex, paralysis of face or resp. limbs or speech loss
    e. CNS demyelinating diseases are associated with visual, hearing, and seizures or memory disorders
    f. inflammation causes a decrease in the permeability of capillary and venous vessels and reduces the size of the edema

4. Infarction

    a. affects only the heart
    b. affects various organs such as intestines, eye
    c. manifests as a purple colour of the affected tissue
    d. always ends with the death of the patient
    e. heals with a scar
    f. may be anaemic or haemorrhagic

5. Ischaemia means

    a. low blood supply
    b. high blood supply
    c. clotting of blood in blood vessels

d. transfer of particles through the blood
e. reduced blood flow
f. overoxygenation

6. Mark the correct statements for ischemia

a. it is an insufficient oxygenation
b. it is an insufficient blood flow
c. it is a synonymous of hypoxia
d. includes hypoxia
e. it has nothing to do with hypoxia
f. occurs exclusively in venous insufficiency

7. Mark the correct statements for thrombus

a. the thrombus never changes its shape
b. the thrombus composition varies but always contains fibrin and platelets
c. the white thrombus contains only leukocytes
d. by organizing the thrombus, the thrombus becomes part of the vascular wall
e. the thrombus is never released into circulation
f. the thrombus never occurs in the lower limbs

8. Mark the correct statements for thrombus

a. it is an insufficient nutrition
b. it is blood clot
c. it occurs outside cardiovascular system
d. it occurs inside vessels
e. it always ends fatally
f. it occurs only in venous insufficiency

9. Mark the correct statements for the following diseases

a. stroke may be due to thromboembolism as well as haemorrhage
b. ischemia is an insufficient supply of oxygen and nutrients to the target tissue
c. elevated blood pressure is a risk factor for vascular rupture and subsequent haemorrhage
d. important clinical manifestation of the stroke is loss of papillary reflex, paralysis of face or resp. limbs or speech loss
e. CNS demyelinating diseases are associated with visual, hearing, and seizures or memory disorders
f. inflammation causes a decrease in the permeability of capillary and venous vessels and reduces the size of the edema

10. Mark the most frequent cause of air embolism

a. weightlessness

b. carbon monoxide poisoning
c. carbon dioxide poisoning
d. sudden ascent to water level
e. sudden descent below to water level
f. rapid release of oxygen from the blood

11. Mark what problems does ischemia cause in these organs

a. heart - heart attack
b. heart - cardiomyopathy
c. brain - stroke
d. brain - encephalitis
e. legs - peripheral artery disease
f. legs - varicose veins

12. Petechiae

a. are bruises
b. are small multiple mucous membranes haemorrhages
c. are extensive blood extravasation
d. means nose bleeding
e. is excessive bleeding during menstruation
f. are punctate bleedings into the skin

13. Reperfusion

a. is the restoration of perfusion
b. it is associated with a reduced concentration of reactive oxygen species
c. prevents ischemia
d. its effect on the cell depends on the length of the ischemia
e. triggers anaerobic metabolism
f. it can lead to further tissue damage

14. Suffusion

a. may be a manifestation of haemophilia
b. are larger blood bruises
c. may be a manifestation of leukaemia, e.g., CML
d. are nosebleeds
e. are spotted bleeding
f. are high in white blood cells

15. Symptoms of stroke are

a. decreased sensation
b. articulation disturbances
c. dizziness

d. muscle pain
e. drooping of the corner of the mouth
f. hallucinations

16. Symptoms of vascular wall disorders include

a. petechia, purpura and ecchymosis on the skin and mucous membranes
b. diarrhoea
c. haematuria
d. fever
e. bleeding
f. shortness of breath

17. The consequences of ischemia are

a. there may be none
b. fever
c. sudden death
d. anaemia
e. onset of edema
f. tumour metastasis

18. The consequences of thrombosis can be

a. increase in blood density
b. violation of the lining of blood vessels
c. ischaemia
d. necrosis
e. embolism
f. death

19. The most serious complication of thrombosis is

a. anaemia
b. thrombocytosis
c. thromboembolism
d. leukopenia
e. eosinophilia
f. release of fibrin after thrombus breakdown

20. The thrombin

a. is plasminogen activator
b. is coagulation factor IIa
c. its deregulation can lead to haemostatics abnormalities
d. is factor responsible for the conversion of fibrinogen to fibrin in the process of fibrinolysis

e. its deregulation can lead to coagulopathies
f. it is an enzyme that catalyses the activation of factor I

21. The vital clot formation in the arteries or veins is called

a. congestion
b. embolism
c. haemorrhage
d. thrombosis
e. heart attack
f. anaemia

22. When a pulmonary embolism occurs, which of the following are the results?

a. the patient will become bradycardic
b. nothing, patients usually show no clinical symptoms
c. dyspnoea
d. chest pain
e. night sweats
f. ventilation-perfusion mismatch

2.2.6 Cardiovascular system – Part 6

1. An aneurysm occurs

    a. in aorta
    b. in the arteries
    c. in the veins
    d. in capillaries
    e. exclusively in cerebral arteries
    f. exclusively in coronary arteries

2. Aneurysm

    a. is a bulge (dilatation) of the artery
    b. may result from atrial fibrillation
    c. may result from atherosclerosis
    d. is a bulge (dilatation) of the vein
    e. its complication is the formation of thrombus to tissue ischemia
    f. its complication is the formation of varicose veins

3. Ascites

    a. is edema in the abdominal cavity
    b. is formed by the accumulation of fluid extravasally
    c. may accompany liver cirrhosis
    d. arises from potassium retention
    e. often occurs during pregnancy
    f. leads to an increase in circulating fluids

4. Causes of edema are

    a. changes in hydrostatic pressure
    b. changes in osmotic gradient
    c. Parkinson’s disease
    d. decreased cardiac output
    e. renal factors
    f. pregnancy

5. Decreased oncotic pressure of blood plasma

    a. means that there is a reduced amount of electrolytes in the blood
    b. means that there is a reduced amount of protein in the blood
    c. may cause edema
    d. occurs in liver disease
    e. occurs in kidney disease
    f. occurs in heart disease

6. Edema

    a. represents the output of proteins outside the vessels
    b. represents the output of erythrocytes outside the vessels
    c. represents the outlet of water outside the vessels
    d. arises due to changes in pressure conditions
    e. is caused by changes in the structure of muscles
    f. it manifests itself, for example, on the lower limbs and face

7. Edema

    a. is the accumulation of fluid outside the vascular space
    b. occurs exclusively in tissues
    c. occurs exclusively in body cavities
    d. may be due to decreased oncotic pressure of the blood plasma
    e. can occur in liver disease
    f. may occur in inflammation

8. Edema

    a. is common symptom of congestive heart failure
    b. can be associated with liver failure/cirrhosis
    c. is abnormal accumulation of fluids in the interstitial space
    d. is a primary factor for the organ damage
    e. may be caused by the atherosclerosis or thrombosis
    f. is present in varicose veins

9. Edema can occur

    a. with high blood pressure
    b. with low blood pressure
    c. in heart failure
    d. in case of liver failure
    e. when clogged lymphatic vessels by microorganisms
    f. with elevated glycaemia

10. Edema can occur

    a. in body cavities
    b. at high blood pressure
    c. exclusively at the arteriole end of the capillaries
    d. does not affect their liver condition
    e. in heart failure
    f. only in elderly patients

11. Hematemesis

    a. is the presence of fresh blood in the stool

b. is the presence of digested blood in the stool
c. is vomiting blood
d. is the presence of H. pylori in the faeces
e. is a disorder of nutrient absorption
f. is the presence of blood urine

12. Hematemesis is

a. vomiting of blood
b. presence of fresh blood in the faeces
c. typical of ulcerative ulcer
d. a symptom of bleeding from the lower part of the GIT
e. caused by long-term use of contraception
f. caused by poor digestion of fats

13. Haematuria means

a. blood in the ejaculate
b. increased amount of urea, uric acid in the blood
c. elevated protein levels in the urine
d. blood in the urine
e. increased frequency of urination
f. painful urination

14. Hemoptoe

a. is a massive expectoration of blood
b. is bleeding into the lungs
c. may accompany lung tumours
d. may be caused by mechanical damage to the airways
e. specific symptom of whooping cough
f. it is always deadly

15. Haemoptysis

a. means nosebleeds
b. it is the coughing up of blood from the lower respiratory tract or lungs
c. it is a symptom of serious respiratory diseases
d. it is typically a symptom of covid-19
e. it means a loud breath - a roar of the rooster
f. it is manifested by coughing up pink sputum

16. Haemoptysis

a. is respiratory arrest
b. is a high amount of non-oxygenated haemoglobin in the blood
c. is a bloating

d. is characterized by a pink foamed sputum
e. indicates severe lung disease
f. is coughing up blood from the upper respiratory tract

17. Localized edema occurs

a. in lymphatic obstruction
b. if the pharynx is damaged
c. in inflammation
d. in hypoalbuminaemia
e. in angiogenesis
f. in sickle cell anaemia

18. Mark the correct statements

a. water is found in the human body primarily in the intracellular space
b. metabolic processes are also a source of water for the human body
c. the lungs are also involved in the excretion of water from the body
d. newborns have the most intracellular fluid
e. the human body cannot make water
f. edema reduces the risk of dehydration

19. Mark the correct statements

a. edema is an abnormal accumulation of fluid in the extravascular space
b. edema is the accumulation of fluid in the body
c. ascites is the accumulation of fluid in the peritoneal cavity
d. ascites is an accumulation of fluid in the brain
e. decreased oncotic pressure of blood plasma and increased hydrostatic pressure of capillaries also contribute to the pathogenesis of edema
f. the pathogenesis of liver edema is mainly due to hypertension

20. Mark, what applies to edema

a. it is one of the events associated with the inflammatory response
b. it can also arise on the basis of starvation
c. the most common cause of edema is a reflex response in dehydration when the body tries to salvage water
d. it accompanies many serious diseases such as heart or liver failure
e. insufficient oncotic pressure can lead to edema
f. it always arises only from blood plasma

21. Melena

a. is presence of digested blood in the stool
b. it is often associated with Crohn's disease
c. it is vomiting of blood

d. means a black/dark colour of the stool
e. is often associated with peptic ulcer disease
f. is synonymous with occult bleeding

22. Melena

a. is the presence of fresh blood in the saliva
b. is black stool
c. is vomiting blood
d. is the presence of H. pylori in the faeces
e. is a disorder of nutrient absorption
f. is the presence of blood urine

23. Melena is

a. presence of fresh blood in the faeces
b. the presence of digested blood in the stool
c. symptom of bleeding from the upper part of the GIT
d. a symptom of bleeding from the lower part of the GIT
e. typical for haemorrhoids
f. typical of ulcerative ulcer

24. The causes of edema are

a. reduced hydrostatic pressure in the veins
b. increased osmotic blood pressure
c. reduced permeability
d. lymphatic obstruction
e. dehydration
f. increased osmotic pressure in the interstitium

25. The extensive (generalized) edema occurs

a. in lymphatic obstruction
b. in case of capillary damage
c. in inflammation
d. in hypoalbuminaemia
e. in angiogenesis
f. in sickle cell anaemia

26. Which of the following causes does not lead to edema

a. increased vascular permeability
b. increased plasma oncotic pressure
c. failing heart
d. lymphatic obstruction
e. venous obstruction

f. reduced hydrostatic pressure

27. Which of the following causes lead to edema

a. increased vascular permeability
b. increased plasma oncotic pressure
c. increased ADH production
d. lymphatic obstruction
e. increased hydrostatic pressure
f. reduced hydrostatic pressure

28. Which of the following statements is true for edema?

a. lymphedema or allergic edema belongs to the generalized type of edema
b. for localized edema is a typical occurrence in a particular organ
c. transudate is an edema fluid of inflammatory origin
d. infections are associated with exudate formation
e. ascites is most often associated with an allergic etiology
f. decreased plasma protein production has been associated with liver disease

2.2.7 Cardiovascular system – Part 7

1. According to size, we divide varices into

    a. dissecting
    b. reticular
    c. dilated
    d. pocket
    e. saphenous
    f. spider

2. According to the size of the varices, we divide them into

    a. whisk veins
    b. reticular veins
    c. stem veins
    d. muscle veins
    e. endothelial veins
    f. aortal veins

3. Among varicose veins we distinguish following types

    a. aneurysm
    b. telangiectasia
    c. spider veins
    d. vasospastic arteries
    e. permeable capillaries
    f. trunk varicose veins

4. Arterial aneurysm

    a. may also occur as a result of atherosclerosis
    b. arises only in the aorta
    c. may lead to varicose veins
    d. may cause thrombus and subsequent tissue ischemia
    e. may occur as a result of local weakening of the vessel wall
    f. manifests by hyperpigmentation of the skin

5. Arterial dilatation

    a. is an aneurysm
    b. may lead to thrombus formation
    c. may also be on the oesophagus
    d. is Raynaud's disease
    e. is the cause of venous insufficiency
    f. is caused by vascular wall weakening

6. Atherosclerosis

    a. affects the coronary arteries
    b. affects the veins of the lower extremities
    c. damages the vascular valves
    d. damages the endothelium
    e. damages the intima layer
    f. is a major cause of Raynaud's disease

7. Choose the correct causes of the lower limbs' varices

    a. obesity
    b. people, who spend the majority of their time on their feet (e.g., at work)
    c. pregnancy
    d. smoking
    e. coffee
    f. people, who spend the majority of their time sitting

8. Claudication

    a. means intermittent gait due to lower limb pain
    b. means low pressure in the lower limbs
    c. manifests as burning, cramping pain, or a feeling of weakness in the lower limbs
    d. manifests as burning, cramping pain, or a feeling of weakness in the upper limbs
    e. is caused by a lack of blood in the muscles during muscle work
    f. is caused by damage to the valves in the liver veins

9. Claudication is

    a. an elevation of a limb
    b. a paraesthesia
    c. a limp/walking with difficulty
    d. a vomiting
    e. a hearing impairment
    f. a speech disorder

10. Claudication means

    a. to limp
    b. calcium deposits in the atherosclerotic plaque
    c. palpitation
    d. stenocardia
    e. purple fingertips
    f. intermittent gait due to lower limb pain

11. Complications of the atherosclerotic plaque include

    a. stroke, e.g., as a result of arteria carotis interna atherosclerosis
    b. myocardial infarction or angina (atherosclerosis of coronary arteries)
    c. calcification
    d. thromboembolism
    e. thrombosis and artery occlusion
    f. artery wall weakening and aneurysmal dilation

12. Deep vein thrombosis

    a. occurs only in older women
    b. often occurs in diabetics
    c. often occurs in manual workers
    d. its common complication is myocardial infections
    e. its common complication is petechiae
    f. its common complication is heart failure

13. Describe the degrees of disturbance in ischemic syndrome of lower limbs

    a. V. Degree - decreased number of erythrocytes
    b. I. Degree - without symptoms
    c. VI. Degree - incontinency of urine, stool
    d. II. Degree - claudicatio intermittens
    e. III. Degree - resting pain
    f. IV. Degree - lesion (atrophy, gangrene)

14. Etiology of ischemic syndrome of lower limbs include

    a. vibrations
    b. embolism
    c. cold, frostbite
    d. inflammation
    e. myeline accumulation
    f. smoking

15. Functionally and organically conditioned disorders of blood circulation in the lower extremities

    a. angiitis
    b. aneurysm
    c. vasculitis
    d. aneurysm of cerebral arteries
    e. Gurger’s disease
    f. Raynaud's phenomenon

16. In lower limb arterial ischemia

    a. collateral formation is present as a compensation mechanism
    b. we evaluate the claudication interval in the patient
    c. trophic skin changes occur
    d. varicose veins are visible
    e. the patient has more frequent falls
    f. lifting the legs up brings pain relief

17. Indicate the mediators / ions responsible for increased vascular permeability in microcirculatory disorders

    a. histamine
    b. serotonin
    c. bradykinin
    d. adrenaline
    e. calcium
    f. potassium

18. Ischemic syndrome in lower limbs

    a. may be caused by inflammatory vascular disease
    b. includes Raynaud's disease is also
    c. may be accompanied by diabetes mellitus
    d. allergies are one of its risk factors
    e. is manifested by redness and a warm place
    f. leads to heart failure

19. Ischemic syndrome of extremities is

    a. obliterating disease of the arteries
    b. caused by insufficient oxygenated blood supply to the lower extremities
    c. disorder of the eye
    d. sequelae of insufficient heart function
    e. is characterized by insufficient elimination of waste products by blood
    f. caused by autoimmune vasculopathy

20. Manifestations of lower limb ischemic disease include

    a. pain
    b. claudication
    c. hypothermia of the affected area
    d. swelling
    e. weakening, almost disappearance of the pulse
    f. urinary retention

21. Mark the correct statements for varicose veins

    a. are often rendered as enlarged, swollen veins above the skin of blueish coloration
    b. symptoms include burning or throbbing pain, swollen feet or ankles, heavy, uncomfortable legs
    c. varicose vein can be present only on the legs
    d. they are not of hereditary origin
    e. it is most prevalent in the men after 50 years
    f. important cause is venous reflux of the blood

22. Mark other accompanying symptoms of oesophageal varices - oesophageal varicose veins

    a. ascites
    b. liver cirrhosis
    c. caput medusae
    d. stomach ulcers
    e. haemorrhoids
    f. intestinal infarction

23. Mark symptoms that occur due to arterial ischemia in the lower limbs

    a. pain while walking
    b. intermittent claudication
    c. ulceration or necrosis of the skin of the affected lower limb
    d. varicose veins
    e. feeling heavy legs
    f. edema

24. Mark the correct statements

    a. atherosclerosis is the most common cause of varicose veins
    b. the veins have a thicker wall than the arteries
    c. atherosclerosis is the most common cause of lower limb ischemia
    d. Raynaud's disease is a vasospastic disease
    e. in thrombophlebitis, inflammation occurs first in the vein wall and then thrombus occurs
    f. aneurysms affect only the capillaries

25. Mark the correct statements

    a. smoking is a risk factor for ischemic limb syndrome
    b. polyarthritis nodosa affects the arterial system
    c. trophic skin changes in chronic venous insufficiency are manifested by lipofuscin deposition and blue coloured skin
    d. no collaterals are formed in ischemic limb syndrome

e. claudication is the cause of ischemia
f. the primary symptom of phlebothrombosis is atrophy

26. Mark the correct statements for arteriosclerosis

a. it is caused by the embolus in the blood
b. it is process of accumulation of various lipid metabolites and reactive intermediates in the arterial wall
c. is the risk factor of myocardial infarction
d. may affect also arteries in the brain or in the other parts of the body
e. calcium may also accumulate in the plaque and cause calcification of artery
f. it affects the deep veins of legs and causes leg ulcers

27. Mark the correct statements for atherosclerotic process

a. it mainly affects the arteries
b. it mainly affects the veins
c. it affects only the aorta
d. it affects microcirculation
e. it affects the coronary arteries
f. it affects the cerebral arteries

28. Mark the correct statements for atherosclerotic process

a. it is the cause of varicose veins
b. it is involved in the pathogenesis of ischemic limb syndrome
c. it is the cause of Raynaud 's phenomenon
d. it is the cause of thrombophlebitis
e. it is involved in the development of vasculitis
f. it is the most common cause of sudden stroke

29. Mark the correct statements for claudication

a. there is pain or a feeling of bluntness in lower limbs
b. a common cause is atherosclerosis or thrombosis
c. may result in limb necrosis or impotence
d. it is a concomitant phenomenon of myocardial infarction
e. it occurs mainly during rupture of veins and haemorrhage in the lower extremities
f. is a symptom of erythema in inflammatory skin diseases

30. Mark the correct statements for etiology of venous valve insufficiency

a. external pressure on the vessel (e.g., tumour)
b. excessive expansion of the venous wall
c. hypertension
d. insufficient development of venous valves (congenital defect)

e. Raynaud's phenomenon
f. changes in valve function e.g., after overcoming thrombosis

31. Mark the correct statements for ischemic disease of the lower limbs

a. is a disease of the arteries of the affected limb
b. it is caused by e.g., atherosclerosis, vascular inflammation, autoimmune disease
c. may be manifested by warping when walking
d. is a disease of the veins of the affected limb
e. it is caused by excessive physical exertion
f. it may manifest by the feeling of heavy legs

32. Mark the correct statements for Raynaud's disease

a. it affects the arteries
b. it affects the veins
c. it is caused by ischemia
d. it is caused by vessel obturation
e. it is manifested by cyanosis
f. it is manifested as formation of varicose veins

33. Mark the correct statements for thrombophlebitis

a. it first develops inflammation and then develops a thrombus
b. it first develops a thrombus and then develops inflammation
c. is an ischemic venous disease
d. the affected area is pale to cyanotic
e. the affected area is red, painful and swollen
f. is an inflammatory disease of the veins

34. Mark the correct statements for venous flow disorders

a. they are usually associated with a reduction in venous pressure
b. in primary varicose veins, venous wall spasms occur
c. may result in chronic venous insufficiency
d. there is often a bulging of the venous wall above the skin surface
e. the typical manifestation of varicose veins is swelling, inflammation or erosion or ulceration of the foreleg
f. in the case of venous valve insufficiency, the return of blood through the venous system is increased

35. Mark the correct statements for venous insufficiency

a. the basis for its formation is an aneurysm
b. its symptom is tissue ischemia (the tissue is pale to ischemic)
c. the basis for its creation is e.g., weakening of the venous wall by inflammation

d. it results in myocardial infarction
e. its symptoms are edema, stasis and paraesthesia in the lower limbs
f. its consequence is the formation of varicose veins

36. Mark the correct statements

a. diabetes mellitus can also cause ischemic lower limb disease
b. prolonged ischemia of the lower limbs also causes loss of hair or gangrene
c. deep venous thrombosis can cause pulmonary embolism
d. the whip veins protrude to the surface of the skin and have a diameter of several tens of millimetres
e. oesophageal varices occur most often during gastroesophageal reflux
f. cyanosis means that blood accumulates and closes in the small bloodstream

37. Mark the correct statements for varicose veins

a. they mainly occur in the lower limbs
b. they mainly occur in the upper limbs
c. they also occur in the stomach
d. they occur in the oesophagus
e. they occur in the kidneys
f. they occur in the uterus

38. Mark the risk factors for varices - varicose veins

a. obesity
b. pregnancy
c. smoking
d. lack of fruits and vegetables
e. vegetarianism
f. sunlight

39. Mark the symptoms of the lower limbs' varices (lower limb varicose veins)

a. edema
b. pigmentation
c. hyperthermia
d. deep vein thrombosis
e. embolism
f. myocardial infarction

40. Polyarteritis nodosa is

a. vasospastic disorder
b. necrotising vasculitis
c. metastasis
d. vasculitis involving small, medium size arteries

e. inflammation of lymphatic nodes
f. localized node of fibrotic tissue

41. Raynaud's disease

a. abnormal vein dilation causes purple fingertips
b. is a disease presented with an abnormal dilatation of the veins
c. is a vasospastic disorder of the small arteries
d. is an autoimmune collagen vasculopathy
e. affects small arteries of the upper and lower limbs
f. may cause purple fingers/fingertips

42. Raynaud's disease

a. is a vasospastic disorder
b. is manifested by pain in the fingers and trophic changes
c. is manifested by attacks of vasoconstriction of the small arteries of the fingers
d. leads to a venous ulcer
e. causes chronic venous insufficiency
f. arises due to excessive secretion of catecholamines

43. Raynaud's disease

a. is one of the disorders of heart rhythm
b. belongs to vasospastic disorders
c. affects the heart
d. affects the arteries
e. manifests itself in the emergence of claudication
f. manifests itself by cyanosis of the limbs

44. Raynaud's disease is

a. a disorder of abnormal dilation of small arteries
b. a vasospastic disorder
c. characterised by cyanosis of the skin during vasodilatation
d. characterised by fading and subsequent cyanosis of the affected areas
e. triggered by heat
f. triggered by cold

45. Risk factors for deep vein thrombosis do not include

a. hypovolaemia
b. prolonged sitting
c. interrupted sleep
d. lack of exercise
e. lower limb surgery
f. pregnancy

46. Symptoms of chronic venous insufficiency include

a. feeling heavy legs
b. pain in the hands
c. cramps in the legs especially at night
d. skin changes
e. swelling of the ankles
f. bradykinesia

47. Symptoms of peripheral artery disease contain

a. shiny skin on your legs
b. painful cramping in one or both of your hips, thighs or calf muscles after certain activities, such as walking or climbing stairs
c. tachycardia
d. sores on your toes, feet or legs that won't heal
e. appearance of hematoma after light touch
f. erectile dysfunction in men

48. The cause of limb ischemic syndrome can be

a. thrombosis
b. vasoconstriction of small blood vessels in the legs
c. atherosclerosis
d. inflammation
e. claudication
f. cold intolerance

49. The etiology of chronic venous insufficiency represents

a. damage of the valves in the connecting vessels
b. backflow of blood from deep veins to superficial ones
c. vasospastic disorder
d. recurrent thrombosis of deep veins
e. edema
f. leg pain after exertion

50. The main causes of varicose veins are

a. type 1 diabetes mellitus
b. impaired function of the valves in the deep vein system and in the connecting veins
c. rheumatic fever
d. venostasis as a result of compression of the lumbar veins by the enlarged uterus during pregnancy
e. hypotension
f. flu

51. The most common causes of circulatory disorders in the arteries of the lower limbs are

a. pneumonia
b. atherosclerosis
c. anaemia
d. aneurysm
e. effect of nitric oxide
f. thrombophlebitis

52. The most serious circulatory disorder in the veins of the lower limbs is the onset of

a. deep vein thrombosis
b. aneurysms
c. myocardial infarction
d. stroke
e. frostbite
f. varicose veins

53. The venous system of the lower limbs consists of

a. deep veins
b. superficial veins
c. connecting veins
d. supply veins
e. arteries
f. valves

54. To assess venous insufficiency is used

a. MOCA test
b. CEAP
c. CDC test
d. MMSE test
e. PAO classification according to Fontaine
f. Beck scale

55. Varicose veins

a. they occur only in the lower limbs
b. they are just an aesthetic problem
c. they are also e.g., in the oesophagus
d. they only affect women
e. they also manifest as whip veins
f. they are manifested by a feeling of heavy legs and night cramps in the legs

56. Varicose veins of lower extremities

a. are more typical for male

b. are the most frequent in childhood
c. affected both female and male
d. are typical for high degree benign hyperplastic prostate
e. affect more frequently female
f. occur during pregnancy

57. Vasculitis is inflammatory process

a. affecting artery, arterioles, venules, capillaries
b. may occur following invasion of the vessel by microbial agents
c. may be induced by immunologic injury
d. may occur following invasion of the vessel by degenerative agents
e. may be induced by chemical, mechanical, radiation injury
f. affecting heart

58. Virchow's triad includes

a. acceleration of blood flow in the veins
b. slowing of blood flow in the veins
c. damage of the endothelium of the veins
d. stasis of blood
e. postural changes of the skin
f. activation of coagulation and fibrinolytic mechanisms of the blood

59. Weakened wall of veins wall could be induced by

a. intraluminal over pressure in deep veins
b. improved function of venous valves
c. returned direction of blood flow to superficial veins
d. corrected function of cuspid valves
e. blood is accumulated in superficial venous system
f. supporting function of semilunar valves

60. What are the symptoms of chronic vein insufficiency?

a. palpitations
b. feelings of heaviness in the lower leg and ankle
c. increased itchiness of leg
d. leg ulcers
e. enlarged varicose veins
f. skin changes - looks more like leather

61. What is typical etiology of venous ablation (obliteration)?

a. arteriosclerosis
b. thrombophlebitis
c. calcification

d. phlebothrombosis
e. vein hypertension
f. compression

62. Which of following diseases results in obstruction in arterial blood flow into extremities?

a. varicose veins
b. haemorrhage
c. atherosclerosis
d. vasospasm
e. diabetic angiopathy
f. stroke

63. Which processes can be a part in the pathogenesis of varicose vein formation?

a. increased blood stasis in the venous system
b. decreased blood stasis in the venous system
c. venous valve insufficiency
d. mitral valve insufficiency
e. venous obturation
f. atrial fibrillation

2.3 GASTROINTESTINAL SYSTEM

2.3.1 Gastrointestinal system – Part 1

1. Aggressive factors of the stomach include

    a. prostaglandins
    b. HCl
    c. mucin
    d. bicarbonate
    e. lack of PGE2
    f. the regenerative capacity of the gastric mucosa itself

2. Atrophy of the gastrointestinal mucosa

    a. occurs due to inflammation of the mucous membranes of the gastrointestinal tract
    b. in the small intestine leads to absorption disorders
    c. can occur with non-specific intestinal inflammation but also food allergies
    d. is a specific symptom of lactose intolerance
    e. it is worsened by a saving diet
    f. is a thickening of the mucosa of the gastrointestinal tract

3. Complications of peptic ulcer do not include

    a. sarcoidosis
    b. penetration
    c. peritonitis
    d. amyloidosis
    e. gastric cancer
    f. obstruction

4. Duodenal ulcer

    a. it is often accompanied by increased HCl concentration
    b. often malignantly transforms
    c. it is often accompanied by achlorhydria
    d. manifests by melena
    e. manifests itself in pain on an empty stomach
    f. is manifested by pain after eating

5. Dyspepsia

    a. is synonymous with "damaged stomach" or indigestion
    b. includes symptoms such as nausea, vomiting, abdominal pain or heartburn
    c. means impaired pepsin production
    d. is a designation for the settlement of H. pylori mucosa
    e. it is usually present in inflammation of the stomach

f. official designation for heartburn

6. Dyspepsia is

a. impaired absorption of nutrients
b. vomiting of blood
c. impaired digestion
d. feeling of fullness, heartburn, pain in the upper abdomen
e. constipation
f. presence of fresh blood in the stool

7. Erosion

a. passes through the smooth muscle of the stomach wall
b. it is a surface defect that extends only to the gastric mucosa
c. does not penetrate into the smooth muscle of the stomach wall
d. during erosion, the contents of the stomach leak outside
e. is an advanced stage of peptic ulcer disease
f. may be an early stage of peptic ulcer disease

8. Oesophageal varices

a. are caused by malfunction of the oesophagus
b. are caused by malfunction of the liver
c. are caused by malfunction of the stomach
d. may be manifested by vomiting of bright red blood
e. colic may occur
f. tarry stools may occur

9. Oesophageal varices

a. are varicose veins of the oesophagus
b. are varicose veins of the larynx
c. are caused by liver damage
d. are caused by pneumonia
e. they are manifested by melena
f. they are manifested by hematemesis

10. For the detection of Helicobacter pylori is used

a. CT
b. test for occult bleeding
c. Urea breath test
d. barium salts
e. CEAP score
f. MMSE test

11. Heartburn is

a. redness in the pubic area
b. occurs after burns
c. is associated with oesophageal reflux
d. is a typical manifestation of ulcerative colitis
e. is a sign for burning pain behind the sternum
f. return of acidic gastric refluxate into the oesophagus

12. Helicobacter pylori

a. belongs to the natural microflora of the large intestine
b. is a Gram-negative coccobacillus
c. is a spirochete
d. colonizes the mucous membranes of the urinary tract
e. causes Crohn's disease
f. causes gastritis and peptic ulcer disease

13. Helicobacter pylori

a. belongs to nosocomial infections
b. belongs to opportunistic infections
c. is sensitive to gastric pH, dies at pH 2 and less
d. is a gram-negative spirochete
e. produces urease
f. causes inflammation of the gastric mucosa

14. Helicobacter pylori

a. produces enzymes with cytotoxic activity
b. reduces the risk of developing stomach cancer
c. binds to the surface of gastric mucosal epithelial cells
d. may produce urease
e. it is mainly used in the pathogenesis of stress ulcers
f. it is transmitted by the faecal-oral route and the oral-oral route

15. Hyperacidity of stomach

a. is common in peptic ulcer of the duodenum
b. it is almost always present in gastric ulcer disease
c. it is always present in somatostatin overproduction
d. may be due to overproduction of gastrin
e. means insufficient HCl production
f. means insufficient production of gastrin

16. Important role in the development of ulcer disease play

a. excessive secretion of prostaglandins

b. the use of non-steroidal anti-inflammatory drugs
c. stress
d. Helicobacter pylori infection
e. increased bicarbonate secretion
f. hyperacidity

17. Mark incorrect statements for gastroesophageal reflux

a. it is a backflow of gastric contents from the stomach into the oesophagus
b. arises due to insufficiency of the lower oesophageal sphincter
c. it is caused by Helicobacter pylori
d. causes tooth decay
e. it is the flow of gastric contents from the oesophagus to the stomach
f. manifests by pyrosis

18. Mark the correct statements

a. peptic ulcer is mainly caused by autoimmune damage to jejunal cells
b. colonoscopy is also used to diagnose Crohn's disease
c. the occult bleeding test is an important step in the diagnosis/prevention of colorectal cancer
d. an urease test is used to confirm ulcerative colitis
e. duodenal ulcer affects people under stress more often
f. patients with ulcerative colitis often suffer from fistulas and abscesses

19. Mark the correct statements

a. nonspecific intestinal inflammation is an autoimmune disease
b. Crohn's disease can also cause infections in the urogenital tract
c. remission is the relief or decrease of the symptoms
d. relapsing-remitting diseases are exclusively oncological diseases
e. in ulcerative colitis, the intestinal lumen narrows
f. the presence of Helicobacter pylori in gastric ulcers improves the prognosis of the disease

20. Mark the correct statements applying to gastritis

a. it is an inflammatory disease of the lining of the stomach
b. manifested by diarrhoea
c. is a risk factor for the formation of gastric ulcers
d. is a risk factor for ulcerative colitis
e. is often associated with Escherichia coli infection
f. is often associated with Helicobacter pylori infection

21. Mark the correct statements applying to gastroesophageal reflux

a. it is the return flow of food from the small intestine to the stomach

b. it is the return flow of food from the stomach to the oesophagus
c. it causes Barrett's oesophagus
d. it causes cough
e. it causes heartburn
f. it causes colitis

22. Mark the correct statements for gastric ulcer

a. it appears most often between 25-45 years of age
b. damage of the mucus barrier plays an important role in the pathophysiology
c. it is most often caused by hyperacidity
d. Helicobacter pylori infection is present
e. occurs most often in the 5-6th decade of life
f. there is a normal acidity

23. Mark the correct statements for gastritis

a. it arises due to insufficiency of the lower oesophageal sphincter
b. weakened abdominal muscles play a role in its pathogenesis
c. it is an inflammatory disease of the gastric mucosa
d. it is manifested by pyrosis and pain in the epigastrium
e. it causes obstruction of food passage through the stomach
f. it can cause gastric ulcer disease

24. Mark the correct statements for gastrofibroscopy

a. it is one of the imaging methods in the diagnosis of GIT diseases
b. it is one of the endoscopic methods in the diagnosis of GIT diseases
c. it diagnoses e.g., stomach ulcer
d. the patient must use a contrast agent
e. it uses an occult bleeding test
f. it diagnoses colorectal cancer

25. Mark the correct statements for Helicobacter pylori bacteria

a. it has urease activity
b. it is a gram-positive bacterium
c. it occurs in about 50% of the population
d. WHO has classified it as a "safe" bacteria
e. WHO has classified it as a carcinogen
f. it can be spread by contaminated water

26. Mark the symptoms typical for duodenal ulcer

a. pain after eating
b. pain at night
c. fasting pain

d. vomiting
e. hematemesis
f. pain before eating

27. Nausea

a. is dizziness
b. may accompany central nervous system infections
c. is a symptom characteristic for digestive system diseases
d. is a typical symptom of cluster headaches
e. is a typical symptom of Alzheimer's disease
f. is a typical symptom of Parkinson's disease

28. Perforation in peptic ulcer disease

a. represents a complication
b. represents a symptom
c. indicates the occurrence of an acute abdominal event
d. occurs more often in duodenal ulcers
e. it never occurs with gastric ulcer
f. it never arises

29. Protective factors in the stomach are

a. prostaglandins
b. HCl
c. mucin
d. bicarbonate
e. pepsin
f. the regenerative capacity of the gastric mucosa itself

30. Pyrosis

a. represents heartburn
b. is manifested by pain behind the sternum
c. is typical in oesophageal reflux
d. means flatulence
e. is typical of asthma
f. is typical mainly in men

31. Pyrosis

a. is a burning pain behind the sternum
b. is a pain in the guts
c. it causes the acidic contents of the stomach to return to the oesophagus
d. it is caused by the use of contraception
e. is one of the symptoms of gastroesophageal reflux

f. is a dominant symptom of ulcerative colitis

32. Risk factors for colorectal cancer include

a. female gender
b. obesity
c. smoking
d. malnutrition
e. older age
f. vegan diet

33. Risk factors for the development of peptic ulcer disease are

a. stress
b. long-term use of non-steroidal anti-inflammatory drugs
c. excessive consumption of alcohol or coffee (especially on an empty stomach)
d. diet rich in fats
e. work in coal mines
f. housing in the subtropical zone

34. Risk factors of gastritis are

a. weakened abdominal muscles
b. Helicobacter pylori
c. stress
d. smoking
e. use of non-steroidal anti-inflammatory drugs
f. use of oral contraceptives

35. Risk factors of ulcer disease are

a. use of oral contraceptives
b. smoking
c. excessive alcohol intake
d. use of non-steroidal anti-inflammatory drugs
e. obesity
f. immune system dysfunction

36. Symptoms of gastroesophageal reflux are

a. pyrosis
b. dry cough
c. flatulence
d. diarrhoea
e. teeth carries
f. acidic taste in the mouth

37. The risk factors for peptic ulcer disease are

a. coffee
b. prostaglandins
c. Helicobacter pylori
d. non-steroid anti-inflammatory drugs
e. stress
f. smoking

38. Ulcer disease

a. only affects the stomach
b. is an imbalance between the protective factors of the gastric mucosa and the production of gastric juices
c. its risk factors include smoking
d. manifests itself in dyspepsia
e. manifested by haemorrhoids
f. it is complicated by oesophageal varices

39. Ulcer disease is most often caused by

a. Helicobacter pylori
b. migraine
c. pneumonia
d. an imbalance between protective and aggressive factors in the stomach
e. stress
f. myocarditis

40. Ulcers can be found in

a. ulcer disease of the stomach
b. ulcerative colitis
c. ulcer disease of the duodenum
d. Crohn's disease
e. irritable bowel syndrome
f. gastroesophageal reflux

41. What applies to a gastric ulcer?

a. it is caused by Helicobacter pylori
b. patients do not have to follow a strict diet
c. in pain, food causes relief
d. occurs when the protective gastric barrier is damaged
e. patients must adhere to a strict diet
f. food causes pain

42. Gingivitis

a. is extensive bruising of the tongue
b. is limb movement during sleep
c. is an inflammation of the gums
d. is excretion of food residues through the anus
e. is reflux of digested food into the oesophagus
f. is an inflammation of the salivary glands

43. Gingivitis

a. affects only elderly patients
b. is always accompanied with fever
c. is an inflammation of the parotid glands
d. is exclusively a bacterial disease
e. is a viral inflammation of the lining of the gums
f. is more common in immunocompromised, diabetic or cancer patients

44. With Urea breath test, you would be able to detecting patients

a. blood in stool
b. H. pylori
c. celiac disease
d. lactose intolerance
e. histamine intolerance
f. colorectal cancer

2.3.2 Gastrointestinal system – Part 2

1. A hernia is

    a. acute abdomen
    b. a protrusion of the internal organ
    c. intestinal obstruction with impaired passage
    d. immobility of the intestine
    e. occult bleeding in the stool
    f. weakening of the abdominal muscles

2. A sudden abdominal event

    a. may occur as a result of an injury in the abdominal cavity
    b. may occur as a result of inflammation of the abdominal cavity
    c. may result from colorectal carcinoma
    d. it is treated pharmacologically
    e. it is treated by emergency surgery
    f. it may manifest as appendicitis

3. Acute abdomen

    a. is typical by a slow-onset but intense abdominal pain
    b. is intense, sudden and unexpected pain in the abdomen
    c. often requires surgical intervention
    d. a fever may be present
    e. is a functional disease of the colon
    f. often occurs as a result of excessive psychological stress, stress or burnout syndrome

4. Aggressive factors of the stomach include

    a. prostaglandins
    b. HCl
    c. mucin
    d. bicarbonate
    e. pepsin
    f. diet food

5. Autoimmune mechanisms are involved in the development of

    a. ulcerative colitis
    b. Crohn's disease
    c. gastric ulcer disease
    d. duodenal ulcer disease
    e. colorectal cancer
    f. pyelonephritis

6. Characteristic findings of Crohn's disease are

    a. wall roughening
    b. wall thinning
    c. deep creeping ulcers
    d. fistulas, fissures
    e. pseudopolyps
    f. narrowing of the intestinal lumen

7. Characteristic findings of ulcerative colitis are

    a. crypt/villi deformation
    b. wall thinning
    c. lumen stenosis
    d. pseudopolyps
    e. fistulas
    f. abscesses

8. Complications of peptic ulcer do not include

    a. sarcoidosis
    b. penetration
    c. peritonitis
    d. amyloidosis
    e. gastric cancer
    f. obstruction

9. Crohn's disease

    a. affects the entire wall of the intestine, goes deep
    b. has an immune origin
    c. affects both the small and large intestine
    d. acute inflammatory disease of the duodenum only
    e. affects the colon and rectum
    f. affects only the mucous membrane of the intestine, ulcers (abscesses) form on the surface

10. Crohn's disease

    a. belongs to non-specific intestinal inflammations
    b. it also has extraintestinal manifestations
    c. the pathogenesis of the disease is in granulomatous inflammation
    d. leads to thinning of the intestinal wall and dilation of the lumen
    e. affects only the small and large intestine
    f. is autosomal dominantly inherited

11. Crohn's disease manifests itself (dominantly) by

    a. an admixture of blood and mucus in the stool
    b. thin (sparse) stool
    c. migraine
    d. abdominal pain
    e. diarrhoea with blood
    f. nausea, vomiting

12. Duodenal ulcers

    a. hurt especially at night
    b. risk factors of their formation include alcohol and smoking
    c. are characterized by seasonal occurrence (spring, autumn)
    d. they hurt especially after eating
    e. the presence of H. pylori never leads to their formation
    f. risk factors of their formation include the increase in Escherichia coli in the duodenum

13. Duodenal ulcers

    a. belongs to nosocomial infections
    b. are transmitted disorder
    c. they never get complicated
    d. form in the lining of the duodenum
    e. are type of peptic ulcers
    f. H. pylori may be a cause of its formation

14. Indicate typical symptoms for chronic inflammatory diseases of the GIT

    a. bloody diarrhoea
    b. hematemesis
    c. oesophageal reflux
    d. obesity
    e. weight loss
    f. flatulence

15. Irritable bowel syndrome is

    a. an inflammatory disease of the colon mucosa
    b. a functional disease of the colon
    c. associated with an emptying problem
    d. a disease related to stress, psychological stress and burnout syndrome
    e. unexpected and sudden abdominal pain requiring surgical intervention
    f. sudden abdominal accident

16. Low ileus

a. is characterized by inflammation of the intestine in people with short stature
b. affects the ileum
c. affects the jejunum
d. affects the duodenum
e. affects the colon
f. no answer is correct

17. Mark life-threatening complications of non-specific intestinal inflammation

a. bowel abscess
b. toxic megacolon
c. stenosis, ileus
d. flatulence
e. dyspepsia
f. achalasia

18. Mark the correct statements

a. nonspecific intestinal inflammation is an autoimmune disease
b. Crohn's disease can also cause infections in the urogenital tract
c. remission is the relief or decrease of the symptoms
d. relapsing remitting diseases are exclusively oncological diseases
e. in ulcerative colitis, the intestinal lumen narrows
f. the presence of H. pylori in gastric ulcer improves the prognosis of the disease

19. Mark the correct statements

a. gastric ulcer disease is most often caused by oesophageal reflux
b. H. pylori is the most common etiology of peptic ulcer disease
c. the formation of a protective surfactant may be impaired due to the use of inflammatory drugs
d. melena is more common in gastric than peptic ulcers
e. a typical manifestation of duodenal ulcer pain is pain on an empty stomach and at night
f. increased acidity is a condition for the development of peptic ulcer disease

20. Mark the correct statements applying to colorectal cancer

a. it affects the small intestine
b. it affects the colon
c. it affects the rectum
d. it manifests as melena
e. it is manifested by the presence of fresh blood in the stool
f. the risk factor is the consumption of smoked meats

21. Mark the correct statements applying to colorectal cancer

a. it starts in colon or rectum
b. adenomatous polyps can be a pre-cancerous condition
c. Celiac disease is usually a trigger
d. pre-cancerous polyps can be detected and removed
e. blood in the stool always indicate colorectal cancer
f. regular screening should start after 65 years of age

22. Mark the correct statements applying to ileus

a. it is characterized by generalized inflammation of the abdominal cavity
b. it is characterized by sudden intestinal obstruction
c. it is characterized by a disorder of passage in the intestines
d. may be caused by impaired bowel motility
e. may be due to impaired absorption of lipids in the small intestine
f. may be caused by impaired absorption of water in the colon

23. Mark the correct statements applying to the hernia

a. it is the protrusion of the abdominal wall
b. is a minor cosmetic defect
c. it occurs in the chest area
d. it occurs in the umbilical region
e. represents a risk of bowel strangulation
f. represents a risk of ileus

24. Mark the correct statements applying to ulcerative colitis

a. mostly affects the elderly
b. it is caused by Helicobacter pylori
c. manifests itself in heartburn
d. it is manifested by diarrhoea with a mixture of blood
e. manifests itself in aphthous stomatitis
f. manifests itself in dermatitis

25. Mark the correct statements for colonoscopy

a. it is an endoscopic method for diagnostic the upper part of the GIT
b. it is an endoscopic method for diagnostic the lower part of the GIT
c. it is used, for example, in the diagnosis of colorectal cancer or inflammatory bowel diseases
d. it is used in the diagnosis of gastric and duodenal ulcers
e. it uses a probe
f. it uses an urease test

26. Mark the correct statements for Crohn's disease

a. it affects the rectum the most
b. it is also manifested by anaemia and aphthous stomatitis (extraintestinal symptoms)
c. it only affects children
d. it affects the rectum the most
e. very often has the character of granulomatous inflammation
f. it arises as a complication of the so-called "acute abdomen"

27. Mark the correct statements for irritable bowel syndrome

a. it is a functional disease of the small intestine
b. it is associated with problems with defecation
c. it is a functional disease of the colon
d. arises unexpectedly and suddenly
e. requires surgical intervention
f. it often occurs as a result of excessive psychological stress, stress or burnout syndrome

28. Mark the correct statements for ulcerative colitis

a. autoimmune mechanisms are involved in its development
b. it affects the rectum and colon the most
c. damages the surface of the intestinal mucosa diffusely
d. it most affects the small intestine
e. deeply damages the mucosa
f. abscesses and fistulas are formed

29. Mark the correct statements for ulcerative colitis

a. it is a chronic disease of the small and large intestine
b. usually begins in the rectum
c. the formation of superficial ulcers (erosions) is typical
d. the small intestine is most affected
e. deep ulcers are present
f. also, extraintestinal symptoms can be present

30. Mark the correct statements for ulcerative colitis

a. the disease is characterized by alternating periods of relapse and remission
b. extraintestinal symptoms are aphthae or anaemia
c. complications can result in colorectal cancer
d. the disease affects every area of the digestive tract
e. ulcers are deeper than in Crohn's disease
f. a typical histological manifestation is the appearance of the mucosa as cobblestones

31. Mark the correct statements for upper ileus

a. the rectum is affected
b. the duodenum, pylorus and jejunum are affected
c. the ileum is affected
d. it is manifested by vomiting with admixture of bile
e. it is manifested by vomiting
f. it is intestinal obstruction with impaired passage

32. Mark the correct statements. Fissure

a. may occur in ulcerative colitis
b. is a crack in the anal orifice area
c. it is associated with the presence of blood in the stool
d. induces vomiting
e. connects the intestine with other organs of the gastrointestinal system
f. is the loss of motor activity of the intestine, associated with its dilatation

33. Mark the correct statements. Fistula

a. may occur in Crohn's disease
b. is a crack in the anal orifice area
c. it is associated with the presence of blood in the stool
d. induces vomiting
e. connects the intestine with other organs of the gastrointestinal system
f. may be the cause of infertility

34. Mark the correct statements. Stricture

a. often occurs in Crohn's disease
b. can cause ileus
c. leads to intestinal stenosis
d. is a crack in the intestinal wall
e. it is associated with the presence of blood in the stool
f. induces inflammation

35. Mark the symptoms of ulcerative colitis

a. uveitis
b. spider naevi
c. ascites
d. aphthae
e. weight loss
f. blood in stool

36. Mark the symptoms typical for duodenal ulcer

a. pain after eating

b. pain at night
c. fasting pain
d. vomiting
e. hematemesis
f. pain before eating

37. Mark the symptoms typical for gastric ulcer

a. pain after eating
b. pain at night
c. fasting pain
d. vomiting
e. hematemesis
f. pain before eating

38. Mark, what applies to Crohn's disease

a. it affects only the small intestine
b. abscesses and fistulas in the affected area may occur
c. it results from a reduced immune response to the microflora in the gut
d. the ulcers are deep and affect all layers of the intestinal wall
e. more than 20 bloody diarrhoeas may be present per day during relapse
f. patients gain weight due to the easier passage of lipids into the blood

39. Mechanical ileus can be caused by

a. external obstruction
b. tumour
c. immobility of the intestine
d. hematoma
e. malfunction of peristalsis due to problems with neurotransmission in the plexus Meissnerii
f. polyps

40. Occult bleeding test

a. detects a small amount of blood in the stool
b. reveals only the presence of large amounts of blood in the stool
c. is used for screening for colorectal cancer
d. is used for screening for celiac disease
e. is used to detect bleeding in ulcerative colitis
f. is used to detect bleeding in Crohn's disease

41. Paralytic ileus can be caused by

a. an external obstruction
b. carcinoma

c. malfunction of the intestine
d. hematoma
e. inflammation
f. polyps

42. Paralytic ileus can be caused by

a. paralytic poisons
b. shock paralysis
c. paralysis of small bowel motility
d. neurotransmission disorder
e. disorders in the Auerbachian plexus
f. disorders in the emptying of the pancreatic duct

43. Peritonitis is

a. rupture of the spleen
b. inflammation of the peritoneum
c. inflammation of the pylorus
d. rupture of the pylorus
e. bleeding into the abdominal cavity
f. inflammatory disease of the pyloric mucosa

44. Risk factors for Crohn's disease include

a. female gender
b. smoking
c. use of oral contraceptives
d. alcohol consumption
e. consumption of animal fats
f. senior age

45. Risk factors for peptic ulcer disease include

a. female gender
b. smoking
c. use of oral contraceptives
d. alcohol consumption
e. consumption of animal fats
f. family history of peptic ulcer disease

46. Risk factors for the development of peptic ulcer disease are

a. stress
b. long-term use of non-steroidal anti-inflammatory drugs
c. excessive consumption of alcohol or coffee (especially on an empty stomach)
d. diet rich in fats

e. work in coal mines
f. housing in the subtropical zone

47. Risk factors of the hernia are

a. Obesity
b. Helicobacter pylori infection
c. weakened abdominal muscles
d. use of non-steroidal anti-inflammatory drugs
e. long-term cough
f. malabsorption

48. Symptoms and risk factors for peptic ulcer disease include

a. drinking alcohol
b. foods containing a lot of lipids
c. perforation potential and acute abdomen
d. long-term use of anti-inflammatory drugs
e. smoking
f. it is always a precancerous disease

49. Symptoms of an "acute" abdomen do not include

a. mild, slowly developing pain
b. intense pain
c. nausea, vomiting
d. gastroesophageal reflux
e. food passage problems
f. pyrosis

50. The etiology of peptic ulcer disease represents

a. H. pylori infection
b. gastric hyperacidity
c. an imbalance between protective and harmful factors in the stomach
d. formation of carcinoma
e. granulomatous inflammation
f. exudative inflammation

51. The formation of ulcers is associated with the following pathologies

a. ulcerative colitis
b. Crohn's disease
c. gastric ulcer disease
d. ulcer disease of the duodenum
e. pyelonephritis
f. intestinal influenza

52. The pathophysiology of peptic ulcer disease may include

a. damage to the blood supply to the gastric mucosa due to ischemia
b. increased secretion of bicarbonate into the antrum of the stomach
c. increased mucin production
d. colonization of the mucosa of H. pylori
e. formation of an alkaline environment in the gastric canals
f. weakening of prostaglandin production due to the use of anti-inflammatory drugs

53. Typical findings in colorectal cancer include

a. problems with urination
b. defecation problems
c. occult bleeding in the stool
d. haematemesis
e. melena
f. intense, sudden pain

54. Ulcer disease

a. may affect the gastric mucosa
b. may affect the mucous membrane of the duodenum
c. may affect the lining of the large intestine
d. develops due to the predominance of gastroprotective factors
e. develops due to the predominance of gastro destructive factors
f. occurs as a consequence of Helicobacter pylori infection

55. Ulcer disease

a. only affects the stomach
b. is an imbalance between the protective factors of the gastric mucosa and the production of gastric juices
c. its risk factors include smoking
d. manifests itself in dyspepsia
e. manifested by haemorrhoids
f. it is complicated by oesophageal varices

56. Ulcer disease is most often caused by

a. Helicobacter pylori
b. migraine
c. pneumonia
d. an imbalance between protective and aggressive factors in the stomach
e. stress
f. myocarditis

57. Ulcerative colitis

a. is acute inflammatory disease of the rectum only
b. affects only the mucous membrane of the intestine, ulcers (abscesses) form on the surface
c. occurs after excessive use of non-steroidal anti-inflammatory drugs
d. affects the entire wall of the intestine, goes deep
e. has an autoimmune origin
f. affects the colon and rectum

2.3.3 Gastrointestinal system – Part 3

1. Ascites

    a. the presence of fluid in the peritoneum
    b. accompanied by increased activity of the renin-angiotensin-aldosterone system
    c. in the splanchnic region, vasodilatation and a decrease in BP occur
    d. it is accompanied by decreased antidiuretic hormone activity
    e. arises as a result of increased glomerular filtration
    f. leads to an increase in renal blood flow

2. Autodigestion resp. obstruction of papilla Vateri

    a. is the pathogenesis of pancreatitis
    b. is a complication of pancreatitis
    c. leads to blood clotting disorders
    d. takes place in the liver
    e. takes place in the bile ducts
    f. takes place in the small intestine

3. Bilirubin

    a. occurs in excessive haemolysis
    b. accompanies ineffective haematopoiesis
    c. is a bile pigment
    d. its blood level drops sharply after birth, causing neonatal jaundice
    e. excreted by the kidneys as free
    f. unconjugated is soluble in water

4. Cholangitis

    a. is an inflammation of the bile ducts
    b. in its advanced stage it may be accompanied by respiratory insufficiency
    c. may manifest itself by icterus
    d. is inflammation of the gallbladder
    e. in the differential diagnosis it is characterised by a positive Murphy's sign
    f. its risk factors include type I diabetes mellitus

5. Cholangitis

    a. is an inflammation of the bile ducts
    b. manifests itself as leucocytosis
    c. is manifested by fever 39°C and higher
    d. is inflammation of the gallbladder
    e. is a partial obstruction of the bile ducts
    f. is a complete obstruction of the bile ducts

6. Cholecystitis

    a. is an inflammation of the gallbladder
    b. is partial or complete obstruction of the bile ducts
    c. may be secondary to bacterial contamination
    d. manifests itself as empyema
    e. manifests only locally
    f. manifests itself only systemically

7. Gilbert's syndrome

    a. is an elevated level of unconjugated bilirubin
    b. the activity of bilirubin UDP glucuronyltransferase is reduced
    c. is of genetic origin
    d. it is inherited recessively
    e. it manifests itself at birth
    f. it is alleviated by fasting

8. Gilbert's syndrome

    a. the pathogenesis is due to decreased bilirubin glucuronyltransferase activity
    b. is the accumulation of unconjugated haemoglobin
    c. may be the cause of altered drug metabolism
    d. is a complication of biliary tract disease
    e. symptoms are alleviated by starvation
    f. is a complication of haemolytic anaemias

9. Gilbert's syndrome manifests itself

    a. abdominal pain in the liver area
    b. weakness
    c. yellowish discolouration of the skin
    d. elevated levels of conjugated bilirubin
    e. bradycardia
    f. decreased ALT level

10. Hepatic encephalopathy

    a. occurs due to increased permeability of the blood-brain barrier to NH3
    b. its risk factors include obstipation
    c. manifested by impaired neurotransmission and the formation of spurious neurotransmitters
    d. occurs due to increased permeability of the blood-brain barrier to NH4+
    e. risk factors include metabolic acidosis
    f. is due to reduced permeability of the blood-brain barrier to ammonia

11. Hepatorenal syndrome

    a. is acute liver failure with a developing picture of renal failure
    b. arises due to sodium and water retention
    c. it is accompanied by increased activation of the renin-angiotensin-aldosterone system
    d. is characterised by proteinuria
    e. is characterised by hyperuricaemia
    f. occurs less frequently in people with ascites

12. Ikterus

    a. is a yellow discoloration of the skin and sclera
    b. accompanies some infectious hepatitis
    c. occurs with excessive haemolysis
    d. occurs in all liver diseases
    e. is bile retention
    f. there is insufficient passage of bile into the duodenum

13. In portal hypertension, there is

    a. hepatocyte oedema
    b. an increase in vasoconstrictor endothelin
    c. fibrotic changes in the liver
    d. an increase in nitric oxide production
    e. arterial vasoconstriction in the splanchnic region
    f. decrease in the permeability of the blood-brain barrier to nitrogenous substances

14. Indicate liver functions impaired in cirrhosis of the liver

    a. plasma protein production
    b. detoxification
    c. bile formation and secretion
    d. atresia
    e. asthenia
    f. agamaglobulinuria

15. Indicate situations when bilirubin levels are elevated

    a. increased erythrocyte breakdown
    b. impaired bile outflow
    c. impaired erythropoiesis
    d. disorder of bile synthesis
    e. insufficient erythrocyte breakdown
    f. insufficient Kupffer cell activity

16. Liver damage can manifest as

a. accumulation of iron, copper and bile
b. activation of Kupffer cells
c. fibrosis of the liver
d. a decrease in ALT levels
e. decrease in gammaglutamyltransferase
f. decrease in hepatic transaminases

17. Liver disease is manifested by increased bleeding because,

a. of reduced platelet count
b. there is a lack of proteins, including blood clotting proteins
c. they are accompanied by ascites
d. false neuromediators are formed
e. there is a lack of bile
f. is an increased level of aldosterone

18. Liver failure can manifest

a. bleeding into the gastrointestinal tract
b. accumulation of blood in the vena portae
c. ascites
d. muscle pain
e. vertigo
f. haematuria

19. Mark key mechanisms of liver damage

a. mitochondrial damage
b. increased production of active forms of oxygen
c. activation of pro-inflammatory and proapoptotic cytokines
d. LDH activation
e. reduction of liver resistance
f. increase in laminin levels

20. Mark possible etiopathogenesis of cholelithiasis

a. increased intake of cholesterol-rich foods
b. increased haemolysis
c. accumulation of bilirubin in the system
d. mechanical ileus
e. meteorism
f. anorexia

21. Mark the characteristics of conjugated haemoglobin

a. not soluble in water

b. it binds to albumin to a high degree
c. binds to brain tissue to a high extent
d. not fat soluble
e. covalently bound to albumin
f. minimally found in serum

22. Mark the consequences of portal hypertension

a. ascites
b. portosystemic shortcuts
c. malabsorption
d. hyperacidity
e. bradykinesia
f. achalasia

23. Mark the correct statements

a. hypoalbuminaemia can arise due to liver insufficiency
b. hepatorenal syndrome is accompanied by metabolic acidosis
c. liver diseases can lead to coagulopathies
d. anaemias in liver disease may arise due to bleeding disorders and increased risk of bleeding
e. hepatorenal syndrome is accompanied by metabolic alkalosis
f. the source of infection of bacterial peritonitis in liver failure is spoiled food

24. Mark the correct statements

a. in liver fibrosis, hepatic sinusoids become less permeable
b. increased haemolysis may lead to the formation of gallstones
c. liver failure is often associated with bleeding into the gastrointestinal tract
d. left-sided heart palpitations are a typical concomitant symptom of portal hypertension
e. in portal hypertension, the level of vasopressin and NO is reduced
f. liver failure is characterized by a decrease in hepatic blood flow

25. Mark the correct statements

a. portocaveolar shunts help to improve blood flow to the liver
b. ascites is the cause of portal hypertension
c. hepatorenal syndrome is accompanied by intense proteinuria
d. ascites can induce hernia in abdominal wall
e. hepatic encephalopathy occurs due to increased permeability of the blood-brain barrier
f. cholelithiasis can be complicated by pancreatitis

26. Mark the correct statements

a. hepatitis is also referred to as dirty hand disease
b. hepatitis B can only be infected if the patient has hepatitis D
c. cholestasis is a yellow discoloration of the skin due to increased bilirubin levels
d. cholecystitis is caused by partial or complete bile duct obstruction
e. cholelithiasis is the formation of gallstones
f. gallstones are more common in men as androgens have a protective effect

27. Mark the liver transaminases used to diagnose liver disease

a. GABA
b. ALT
c. AST
d. LDH
e. ADH
f. ATP

28. Mark what DOES NOT BELONG to complications of acute alcohol hepatitis

a. ascites
b. varicose vein ulcer
c. bleeding disorders
d. portal hypertension
e. hepatic encephalopathy
f. common infections

29. Mark the risk factors for the formation of gallstones

a. gallbladder motility disorders
b. obesity
c. starvation
d. autosomal recessive inheritance
e. stomach cancer
f. oesophageal reflux

30. Mark the risk factors of cholelithiasis

a. female gender
b. age 40+
c. obesity
d. anorexia
e. nausea
f. porcelain gallbladder

31. Mark the symptoms of cholecystitis, which together form the so-called Charcot triad

a. fever
b. abdominal pain
c. jaundice
d. elevated CRP
e. leucocytosis
f. empyema

32. Mark the symptoms of hepatitis

a. jaundice
b. diarrhoea
c. anorexia
d. heartburn
e. oesophageal reflux
f. gastric distension

33. Mark the symptoms of infectious hepatitis

a. dark urine and stools
b. nausea
c. pruritus
d. ileus
e. increased activity of the renin angiotensin aldosterone system
f. reduced ALT level

34. Mark the symptoms of liver disease

a. confusion, disorientation
b. coagulation disorders
c. petechiae
d. bully
e. bacterial tonsillitis
f. weight gain

35. Pancreatitis

a. is characterised by a sudden onset
b. in its pathogenesis dominates pancreatic autodigestion
c. increases the risk of pancreatic cancer
d. is characterised by an increase in ALT
e. it is accompanied by hyperbilirubinemia
f. is always afebrile

36. Pancreatitis

a. manifests itself also as tachycardia and mild jaundice

b. is diagnosed on the basis of increased levels of pancreatic enzymes
c. is an inflammation of the pancreas, which also causes reflux of bile into the pancreas
d. is caused by cirrhosis
e. mainly affects hepatocytes
f. manifests itself as heartburn

37. Pathogenesis of liver failure

a. is decrease in functional parenchyma
b. is portal hypertension with collateral circulation
c. is insufficient blood supply of the liver
d. complicates itself by steatosis
e. is alleviated by the protective effect of alcohol
f. is alleviated by a hypercholesterolemic diet

38. Portocaveolar shunts

a. bypass the liver
b. reduce blood supply to the liver
c. mean that blood from the colon enters the system directly
d. increase blood supply to the liver
e. reduce the risk of bleeding
f. are localized in liver

39. Steatosis

a. is irreversible liver damage
b. it always gets worse into cirrhosis
c. is a reaction of the liver to damage
d. may be accompanied by diabetes mellitus
e. can be induced by improper diet or starvation
f. it never occurs in cachectic individuals

2.3.4 Gastrointestinal system – Part 4

1. Abdominal obesity

    a. is also called android
    b. is also called gynoid
    c. is more typical for men
    d. is more typical for women
    e. contributes to the development of metabolic syndrome
    f. is typical for young people

2. At least three factors must be present to diagnose the metabolic syndrome. Mark which ones

    a. waist circumference over 88 cm in women
    b. SBP increase above 180 mmHg
    c. increase in HDL cholesterol above 3 mmol/l
    d. increase in blood glucose above 5.6 mmol/l
    e. blood glucose level below 7 mmol/l
    f. increase in triglycerides above 1.7 mmol/l

3. Complications of obesity are

    a. sleep apnoea syndrome
    b. menstrual cycle disorders
    c. type 1 diabetes mellitus
    d. osteoporosis
    e. insulin resistance
    f. colorectal cancer

4. Events associated with metabolic syndrome are

    a. increasing glucose tolerance
    b. decrease in glucose tolerance
    c. hypertension
    d. decreased insulin resistance
    e. accumulation of advanced glycation end products (AGEs)
    f. formation of liver steatosis

5. For prediction of the risk of a fatal cardiovascular event is used

    a. The Beck Scale
    b. CEAP test
    c. SCORE table
    d. MMSE test
    e. Fontaine classification

f. MOCA test

6. Indicate what is true of metabolic syndrome

   a. its typical symptom is central obesity
   b. metabolic syndrome represents the presence of multiple risk factors for cardiovascular disease
   c. metabolic syndrome represents the presence of several endocrine diseases at the same time
   d. its typical symptom is the presence of a bull's neck
   e. it is a hereditary disease
   f. it is associated with a high risk of death from cardiovascular causes

7. Mark the correct statement about obesity

   a. the prevalence of obesity worldwide increases
   b. physical inactivity is involved in the pathogenesis of obesity
   c. sedentary occupation is not a risk factor for obesity
   d. a positive energy balance leads to the development of obesity
   e. is a risk factor for insulin resistance
   f. obesity is usually not associated with other comorbidities

8. Mark the correct statements. SCORE

   a. describe the risk of cardiomyopathy in the patient in the next 5 years
   b. assumes a 10-year risk of a fatal cardiovascular event
   c. is used in populations at high risk for cardiovascular disease
   d. depends on blood pressure and cholesterol levels
   e. according to its value, life-style changes should be recommended to patients
   f. depends on the size of the P wave on the ECG

9. Mark the parameters important for the SCORE calculation

   a. heart rate
   b. diastolic blood pressure
   c. homocysteine in the blood
   d. systolic blood pressure
   e. cholesterol
   f. age

10. Mark, what applies to obesity

    a. it is slightly overweight
    b. we talk about it if the BMI is higher than 25
    c. we talk about it if the BMI is higher than 20
    d. waist circumference in obesity is more than 95 cm in men
    e. waist circumference in obesity is more than 88 cm in women

f. it is only an aesthetic problem

11. Mark, what applies to obesity

a. increases the risk of type 1 diabetes mellitus
b. increases cardiovascular risk
c. reduces the risk of cancer
d. increases the risk of mental health problems
e. it is only an aesthetic problem
f. is a serious health problem

12. Mark, what applies to obesity

a. is an important risk factor for developing coronary heart disease
b. it is an irreversible adaptation of lipid metabolism
c. reduces the risk of a sudden stroke
d. is a factor in the development of insulin resistance
e. reduces the production of inflammatory cytokines such as TNF-α
f. contributes to endothelial dysfunction

13. Mark, what can cause obesity

a. people gain weight when they eat more calories than they burn through activity
b. genetics
c. stress, emotional factors poor sleep
d. medications
e. when people don't overeat and more exercise
f. healthy lifestyle

14. Metabolic syndrome includes

a. insulin resistance
b. proteinuria
c. impaired glucose tolerance
d. reduction of HDL cholesterol
e. hypotension
f. reduction of LDL cholesterol

15. Metabolic syndrome is a set of pathologies

a. abdominal obesity, diabetes mellitus, hypotension, dyslipidemia
b. abdominal obesity, liver disorders, hypertension, dyslipidemia
c. abdominal obesity, diabetes mellitus, hypertension, dyslipidemia
d. abdominal obesity, diabetes mellitus, liver disorders, dyslipidemia
e. abdominal obesity, celiac disease, hypotension, dyslipidemia
f. abdominal obesity, diabetes mellitus, hypotension, celiac disease

16. Metabolic syndrome is clinically characterized by

    a. increased levels of triacylglycerols
    b. anxiety states
    c. increased blood pressure
    d. increased plasma glucose levels
    e. reduced HDL cholesterol
    f. diastolic dysfunction of the myocardium

17. Metabolic syndrome means the presence of which from below listed in patient?

    a. hypertension
    b. hypertriglyceridemia
    c. asthma
    d. liver damage
    e. obesity
    f. insulin resistance

18. Name the risk factors for cardiovascular diseases associated with the metabolic syndrome

    a. osteoporosis
    b. increased abdominal fat
    c. dyslipidaemia
    d. hypokalaemia
    e. diabetes mellitus
    f. gout

19. Obesity elevates the risk for

    a. hypertension
    b. stroke
    c. cancer
    d. diabetes mellitus
    e. pneumonia
    f. Crohn disease

20. Pathological events associated with obesity include

    a. increase in arterial stiffness
    b. reduction of VLDL cholesterol
    c. increase in the formation of advanced glycation end products (AGEs)
    d. increased levels of adipokines
    e. increased levels of glucocorticoid hormones
    f. decreased activation of macrophages

21. The consequences of overweight and obesity include

    a. fatigue
    b. back pain
    c. depression
    d. sleep apnoea
    e. increased calorie intake
    f. myocardial infarction

22. The etiology of obesity include

    a. genetic predisposition
    b. endocrine disorders
    c. excessive calorie intake
    d. psychological factors
    e. incorrect eating habits
    f. no answer is correct

23. The SCORE table, which predicts the occurrence of a fatal cardiovascular event reflects

    a. age, heart rate, total cholesterol, sex, smoking
    b. age, blood pressure, total cholesterol, sex, smoking
    c. age, blood pressure, LDL cholesterol, sex, smoking
    d. age, blood pressure, HDL cholesterol, sex, smoking
    e. age, blood pressure, total cholesterol, sex, alcohol intake
    f. age, heart rate, total cholesterol, sex, alcohol intake

24. Which of below listed are present in a patient with metabolic syndrome?

    a. hypertension
    b. hypertriacylglycerolaemia
    c. asthma
    d. liver damage
    e. obesity
    f. insulin resistance

2.3.5 Gastrointestinal system – Part 5

1. A deficiency in vitamin A can result in

    a. visual disturbances
    b. anaemia
    c. night blinds
    d. Beriberi diseases
    e. bone disorders
    f. scurvy

2. An imbalance in the production of adipose tissue hormones can lead to

    a. hypertension
    b. diabetes mellitus
    c. obesity
    d. cardiovascular disorders
    e. clotting disorders
    f. metabolic syndrome

3. Beri-beri

    a. is caused by a lack of vitamin B1
    b. is caused by a vitamin C deficiency
    c. is caused by a lack of proteins
    d. it can be dry and damp
    e. it can be mental or physical
    f. is manifested by anorexia, heart rhythm disorders and depressed moods

4. Beri-beri

    a. occurs due to hypovitaminosis B1 - thiamine
    b. occurs due to hypovitaminosis B2 - riboflavin
    c. is caused by hypovitaminosis B12 - cyanocobalamin
    d. is divided to dry and wet form
    e. may be manifested by swelling of the face and ascites
    f. the dry form is accompanied by polyneuritis, paraesthesia of the limbs or loss of tendon reflexes

5. Cachexia

    a. is a risk factor for tuberculosis
    b. may lead to hypokalaemia
    c. reduces muscle strength
    d. leads to an increase in depot of glycogen
    e. The source of energy is exclusively carbohydrates, proteins and lipids the body cannot utilize
    f. it never occurs in children

6. Celiac crisis

    a. represents an acute, life-threatening condition
    b. may cause metabolic disruption
    c. is manifested by watery diarrhoea
    d. occurs only in children
    e. occurs when there is an excess of lactose in the diet
    f. it is manifested by rash and pruritus

7. Celiac disease anaemia

    a. occurs due to atrophy of the mucosa of the small intestine
    b. is an extraintestinal symptom
    c. is responsible for the development of osteoporosis in celiac disease
    d. occurs only in pregnant women
    e. occurs in silent celiac disease
    f. occurs in symptomatic celiac disease

8. Celiac sprue

    a. is characterized by malabsorption of nutrients, vitamins, ions
    b. it is often complicated by the formation of adhesions between the various parts of the GIT
    c. it is only a temporary disease, the patient will grow out of it
    d. may be secondary to lactose intolerance
    e. is treated with a temporary gluten-free diet
    f. represents an increased risk of non-Hodgkin's lymphoma

9. Choose the foods that release a lot of histamine.

    a. potatoes, rice
    b. pasta
    c. apples, pears
    d. white flour, buckwheat
    e. red wine, sparkling wine
    f. strawberries, pineapple

10. Complications of celiac disease are e.g.

    a. obstipation
    b. colon cancer
    c. pneumonia
    d. stiff neck
    e. ionic imbalance
    f. metabolic acidosis

11. Diet used in patients with gout

a. is a low cholesterol-diet
b. is a residual protein-free diet
c. is a low histamine diet
d. contains as little red meat as possible
e. contains as little legume as possible
f. contains as few dairy products as possible

12. Diseases from basic food deficiency include

a. iodopenic goitre
b. kwashiorkor
c. metabolic syndrome
d. marasmus
e. hypovitaminosis B2
f. anorexia nervosa

13. Extraintestinal symptoms of celiac disease are

a. anaemia
b. exanthema
c. flatulence
d. steatorrhea
e. nausea
f. osteoporosis

14. Fat-restricted diet

a. covers full energy demand
b. contains a reduced amount of cholesterol
c. it is easy to digest without bloating
d. legumes such as lentils, peas and beans are suitable
e. chicken broth is suitable
f. it is suitable for people with kidney disease

15. For kwashiorkor applies

a. the weight falls below 60% of the age-appropriate weight
b. albumin levels are reduced only slightly
c. the patient is "only bone and skin"
d. the weight falls below 80% of the age-appropriate weight
e. albumin levels are greatly reduced
f. the patient has ascites and swollen ankles

16. Gluten

a. is a synonym for protein complex in wheat cereals

b. is synonymous for leptin
c. it is a complex of proteins found in cow's milk
d. is a protein complex found in cereals
e. causes an unwanted immune response in the villi
f. causes swelling of the lips

17. Histamine intolerance

a. is caused by an excessive supply of histamine through food
b. is caused by reduced degradation of histamine in the body
c. it is caused by excessive stimulation of nerve endings in the striatum corneum
d. is due to reduced diamine oxidase activity
e. is caused by increased diamine oxidase activity
f. arises due to an imbalance between the amount of histamine and its degradation

18. Histamine intolerance is

a. a disorder characterized by insufficient breakdown of histidine accumulated in the body
b. a disorder characterized by insufficient breakdown of histamine accumulated in the body
c. a disorder characterised by the formation of autoantibodies against enterocytes
d. a disorder characterised by deficient diaminooxidase activity
e. a disorder characterised by deficient diaminoreductase activity
f. a disorder characterised by the accumulation of histamine in the body

19. Hypovitaminosis

a. is caused by a partial deficiency of a particular vitamin
b. is caused by an excess of a particular vitamin
c. occurs in malnutrition
d. occurs in protein deficiency
e. occurs in carbohydrate deficiency
f. occurs in enterocolitis

20. Indicate diseases related to mineral deficiency

a. sideropenic anaemia
b. rickets
c. cretinism
d. diffuse goitre
e. macrocytic anaemia
f. Wernicke's encephalopathy

21. Kwashiorkor

a. represents the B12 deficit
b. represents a protein deficiency
c. is characterized by a decrease in albumin
d. manifests itself in swelling
e. manifests by encephalopathy
f. is characterized by increased intestinal calcium resorption

22. Kwashiorkor

a. occurs with ketodiet
b. is typical of oncotic edema
c. occurs with insufficient protein intake
d. does not affect the overall growth of the individual
e. is typical of a carbohydrate diet
f. occurs as a result of a disorder in the formation of transverse striated muscles

23. Kwashiorkor is

a. long -lasting negative nitrogen balance
b. protein-energy malnutrition
c. malnutrition of essential nutrients
d. combined avitaminosis of vitamins B1 and B2 only
e. impaired absorption of essential fatty acids in children
f. spinal curvature

24. Kwashiorkor is

a. malnutrition from excess nutrition
b. caused mainly by insufficient protein intake in children
c. accompanied by albuminemia and edema
d. more severe than marasmus
e. associated with metabolic acidosis
f. associated with Wernicke's encephalopathy

25. Lactose intolerance

a. may have a genetic basis
b. it can only occur for a certain period of time
c. its essence is the fermentation of uncleaved lactose in the intestine
d. is synonymous for milk allergy
e. it is a condition that always lasts all lifetime
f. its essence is an allergy to milk proteins

26. Lactose intolerance is caused by

a. disorder of hydrolysis of lactose in the intestine

b. lactose phosphorylation disorder in the intestinal wall
c. disorder of the mechanisms ensuring the transport of lactose through the intestinal wall
d. excessive activity of the enzyme diamine oxidase
e. excessive cleavage of lactose to glucose and galactose in the gut
f. hypersensitivity reaction of the body to milk protein casein

27. Lactose tolerance is increased by

a. higher age of the individual
b. lower age of the individual
c. foods with rapid evacuation from the stomach
d. optimal intestinal microflora composition
e. foods with slower gastric elimination
f. small single doses of lactose

28. Low-protein diet

a. restricts carbohydrates and protein
b. is suitable for people with acute pancreatitis
c. is suitable for people with acute kidney inflammation
d. is prepared without salt
e. is suitable for people with chronic kidney inflammation
f. it requires mechanical modification of the food

29. Malnutrition

a. is a lack of protein in the body
b. is a lack of essential nutrients in the body
c. does not apply to vitamins and trace elements
d. can complicate the course of chronic diseases
e. occurs mainly in Western Europe
f. does not affect the course of the disease

30. Malnutrition can cause the following disorders

a. scurvy
b. rickets
c. kwashiorkor
d. marasmus
e. anorexia
f. type 2 diabetes mellitus

31. Marasmus

a. is the weight loss below 60% of the weight corresponding to age and sex
b. is associated with ascites

c. manifests itself in tachycardia
d. is complicated by hypertension
e. it is characterized by hypertrophy of the limbs
f. accompanies achondroplasia

32. Marasmus is

a. mild malnutrition
b. lack of all nutrients
c. accompanied by muscle atrophy
d. lack of certain nutrients in the diet
e. psychiatric illness
f. weight loss below 60% of age-appropriate weight

33. Mark the correct statements for food intolerances

a. they are immunologically mediated
b. enterocolitis is food intolerance
c. they are not immunologically mediated
d. they are induced by proteins in food
e. they include lactose deficiency
f. we include lactase deficiency

34. Mark the correct statements

a. cretenism can occur due to iodine deficiency
b. sideropenic anaemia occurs most often due to vitamin B12 deficiency
c. hypovitaminosis B2 causes the so-called beriberi disease
d. vitamin D deficiency in adults can lead to osteoporosis
e. hypovitaminosis B12 can lead to macrocytic anaemia
f. iodopenic goitre is caused by an excess of iodine in the diet

35. Mark the correct statements

a. riboflavin deficiency can be manifested by flaking of the skin and hair loss
b. there is an increased absorption of thiamine in alcoholics
c. insufficient production and intake of vitamin D can lead to osteomalacia
d. the risk group for anaemia is pregnant women and the elderly
e. with reduced production of thyroid hormones there is a reduction in the production of thyrotropic hormone
f. insufficient income vitamin B12 in children may be manifested by a deterioration in psychomotor development

36. Mark the correct statements

a. the active form of vitamin D is calcitriol
b. parathyroid hormone stimulates bone resorption

c. riboflavin is vitamin B2
d. cachexia is insufficient absorption of vitamins
e. abuse is insufficient nutrient intake
f. apathy is a disorder of movement coordination

37. Mark the correct statements

a. iodine deficiency in the diet leads to sideropenic anaemia
b. vitamin D is activated in the liver and kidneys to the active metabolite
c. the basal metabolism of a man is higher than the basal metabolism of a woman
d. anorexia nervosa is associated with tachycardia
e. cancer patients are at risk of malnutrition
f. a carbohydrate diet mitigates the effects of Kwashiorkor

38. Mark the correct statements

a. one kilojoule corresponds to one kilocalorie
b. the most common type of anaemia due to malnutrition is sideropenic anaemia
c. the value of basal metabolism also depends on age
d. fish is a source of trans fatty acids
e. fruits and vegetables are a source of antioxidants
f. vitamin D deficiency causes achondroplasia

39. Mark the correct statements

a. sunlight is needed to convert vitamin D to its active metabolite
b. rickets is a disorder of the storage of calcium in newly formed bone
c. cretinism is a disorder of the intellect due to iodine deficiency
d. vitamin B1 deficiency can lead to anaemia
e. patients with inflammatory diseases of the GIT are at risk of malnutrition
f. basal metabolism changes throughout the day

40. Mark the correct statements

a. toxins can also cause adverse reactions to food
b. celiac disease can also cause neuropathy and paraesthesia
c. lactose intolerance is accompanied by flatulence
d. milk allergy is manifested mainly by respiratory symptoms
e. the enzyme diamine oxidase is important in the synthesis of histamine
f. milk allergy is caused by decreased lactase activity

41. Mark the correct statements

a. diets are used only in the treatment of gastrointestinal diseases
b. nutritional history is a summary of the income and expenditure of the person under investigation
c. the toddler's diet is more caloric than the diet of pre-schooler’s

d. a strictly restricted protein diet improves the prognosis of patients with renal failure
e. an unsalted diet is an integral part of the management of patients with heart failure
f. the liquid diet is part of the management of patients after acute surgical interventions

42. Mark the correct statements

a. lactose tolerance decreases with increasing age
b. tomatoes and nectarines are unsuitable for histamine intolerance
c. in celiac disease, starches are also used as flour substitutes, e.g., corn or wheat
d. fermented dairy products are unsuitable for patients with lactose intolerance
e. patients with histamine intolerance do not need to follow any diet
f. the gluten-free diet is only used during relapses

43. Mark the correct statements

a. diet is every food regime when there is a reduction in calories
b. in order to choose the right diet, it is necessary to know the severity and type of the disease and its manifestations
c. common indications for diet are the patient's dissatisfaction with the appetite
d. suitable foods for a mushy diet are mixed meat, sauces or dairy products
e. a nutritional diet is indicated in cancer patients or after long-term illness
f. low-protein diet is prepared with increased NaCl content to compensate for the decrease in oncotic pressure

44. Mark the correct statements

a. patients with celiac disease can eat foods containing wheat, oats or rye
b. the essential diagnostic examination for celiac disease includes a histological and serological examination
c. patients with kidney disease should follow a low-protein diet
d. patients with lactose intolerance may not drink herbal milk (egg soy milk)
e. a slurry diet should be followed by patients e.g., after oral surgery
f. patients with histamine intolerance can drink wine and sparkling wine

45. Mark the correct statements

a. food intolerances are non-immunologically mediated reactions
b. food intolerances are immunologically mediated reactions
c. food allergies are non-immunologically mediated reactions
d. food allergies are immunologically mediated reactions
e. lactose intolerance is a non-immunologically mediated response
f. lactose intolerance is an immunologically mediated response

46. Mark the correct statements about intermittent urticaria

a. symptoms last 1-2 weeks
b. acute periods are replaced by asymptomatic periods and vice versa
c. it always arises in the spring
d. the patient develops only mild symptoms
e. the patient develops only peripheral edema
f. the patient has it in childhood and after long period without symptoms it appears again later in adulthood

47. Mark the correct statements applying to lactose intolerance

a. it is rare
b. it is especially common in infants
c. it is especially common in adults
d. it causes inflammation and disappearance of villi
e. there is a lactose allergy
f. lactase activity is reduced

48. Mark the correct statements applying to milk allergy

a. it is synonymous with lactose intolerance
b. the allergen is lactose
c. the allergen is lactase
d. the allergen is cow's protein
e. the allergen may be casein
f. the allergen may be bovine albumin

49. Mark the correct statements for a gluten-free diet

a. it is recommended to patients with histamine intolerance
b. it is recommended to patients with celiac disease
c. it is used in patients with Crohn's disease
d. it does not contain gluten
e. it does not contain cereals
f. it is temporary

50. Mark the correct statements for a protein residue-free diet

a. it must not contain cabbage
b. it must contain cabbage
c. it must not contain red meat broth
d. it must contain red meat broth
e. it must not contain legumes
f. it must contain legumes

51. Mark the correct statements for celiac disease

a. the patient has clinical symptoms
b. the patient has no clinical symptoms
c. the histological findings are the same as in clinical coeliac disease
d. there are histologically confirmed mucosal changes
e. the patient has positive autoantibodies
f. the patient has negative autoantibodies

52. Mark the correct statements. Gluten

a. is a synonym for gluten
b. is synonymous for leptin
c. it is a complex of proteins found in cow's milk
d. is a protein complex found in cereals
e. causes an unwanted immune response in the villi
f. causes swelling of the lips

53. Mark the correct statements. Histamine intolerance

a. occurs when histamine is insufficiently formed in the body
b. manifests itself mainly in respiratory distress syndrome
c. is diagnosed by gastric fibroscopy
d. occurs when histamine is poorly broken down in the body
e. it is also manifested by diarrhoea, numbness in the mouth, urticaria and colds
f. is treated by following a diet

54. Mark the correct statements. Lactose intolerance

a. may have a genetic basis
b. it can only occur for a certain period of time
c. its essence is the fermentation of uncleaved lactose in the intestine
d. is synonymous for milk allergy
e. it is a condition that always lasts all lifetime
f. its essence is an allergy to milk proteins

55. Mark the diseases associated with iodine deficiency

a. cretinism
b. goitre
c. rickets
d. Beri-beri
e. Kwashiorkor
f. marasmus

56. Mark, what applies to celiac disease

a. another name for celiac disease is gluten enteropathy

b. another name for celiac disease Christmas's disease
c. it causes necrosis of the large intestine
d. it is an autoimmune disease of the small intestine
e. can be treated with anti-inflammatory drugs
f. can only be treated with a lifelong gluten-free diet

57. Mark, what applies to celiac disease

a. it is a non-immunologically mediated food intolerance
b. an important genetic factor in the development of the disease is the DQ2 / DQ8 haplotype
c. it is caused by intolerance of the gliadin fraction of gluten and induction of an immune response
d. can be cured using drugs that suppress the immune response
e. antiendomysial and antigliadin antibodies induce damage to the villi of the small intestine
f. disease progression is associated with weight gain and obesity

58. Mark, what applies to diet

a. adherence to the drinking regime is not important
b. when compiling a diet, it is not important whether the patient is taking any medications or vitamins.
c. drug abuse is not an obstacle to dieting.
d. it is an important part of the therapy of many diseases.
e. its composition depends on the type of disease.
f. it depends on the severity of the disease.

59. Mark, what applies to histamine intolerance

a. is associated with insufficient diamine oxidase enzyme activity
b. it can also be induced by elevated levels of histamine in the air
c. is an intolerance to pollen
d. symptoms include cardiac manifestations such as increased heart rate or hypotension
e. alcohol reduces this disease by disinfecting histamine particles in the gut
f. the disease can manifest itself similarly to allergic rhinitis, i.e., swelling of the mucous membranes or hypersecretion

60. Mark, what applies to lactose intolerance

a. it is a disease with enzyme deficiency of lactase resp. galactosidase
b. is synonymous with milk allergy
c. fermentation takes place in the intestine associated with the formation of gases and fatty acids
d. symptoms appear after ingestion of a large amount of lactose after about 30 minutes

e. it can also occur in GIT diseases other than Crohn's disease
f. is characterized by decreased intestinal motility and constipation

61. Mark, what applies to marasmus

a. the weight falls below 60% of the age-appropriate weight
b. albumin levels are reduced only slightly
c. the patient is "only bone and skin"
d. the weight falls below 80% of the age-appropriate weight
e. albumin levels are greatly reduced
f. the patient has ascites and swollen ankles

62. Non-tropic sprue is synonymous with

a. ulcerative colitis
b. celiac disease
c. toxic megacolon
d. primary malabsorption syndrome
e. scurvy
f. histamine intolerance

63. Pathogenesis of lactose intolerance

a. is in the defect of fermentation
b. is a disorder of anaerobic fermentation of lactose
c. is a disorder of the enzyme lactase
d. consists of a hypersensitivity reaction induced by casein
e. consists of a hypersensitivity reaction to casein
f. is a deficiency of the enzyme lactoglobulin

64. Patients with celiac disease should not eat

a. rice and soy flour
b. fruits, potatoes hard cheeses
c. alcohol produced e.g., from plums- plum brandy
d. food from wheat, barley and rye flour
e. soft cheeses that may contain gluten stabilizers
f. alcohol made from ryegrass

65. Rickets results in improper bone development in children that arises from the malabsorption of calcium and a deficiency in

a. vitamin D
b. vitamin C
c. vitamin B12
d. niacin
e. riboflavin

f. vitamin K

66. Soft diet

a. is one of the most used diets
b. is suitable for chronic functional dyspepsia but also after childbirth
c. does not recommend nuts and legumes
d. does not recommend dairy products
e. fried foods are allowed in limited quantities
f. the minimum amount of cholesterol is concentrated

67. Symptoms for celiac disease do not include

a. nephritic syndrome
b. diarrhoea
c. anorexia
d. migraine
e. eczema
f. anaemia, osteoporosis

68. The diseases from the lack of basic nutrients are

a. Beri-beri
b. rickets
c. marasmus
d. sideropenic anaemia
e. anorexia nervosa
f. kwashiorkor

69. The following symptoms: diarrhoea, rhinitis, numbness, burning in the mouth, red spots on the skin, urticaria, dyspnoea could be associated with

a. lactose intolerance
b. histamine intolerance
c. sprue
d. celiac disease
e. pancreatitis
f. gluten enteropathy

70. The low-protein diet is suitable for patients

a. with heart disease
b. with diabetes mellitus
c. who are extremely obese
d. with kidney disease
e. with peptic ulcer disease
f. with Crohn's disease

71. The patient's diet may represent

a. reduction in the use of any food ingredient
b. increase in the use of any food ingredient
c. change in the consistency of the diet
d. lifestyle change
e. method of treating the disease
f. maintaining original eating habits

72. These foods are suitable for patients with gout

a. sausages
b. fatty cheeses
c. cabbage
d. beef
e. cereals
f. potatoes

73. To malnutrition from overnutrition applies

a. are defined by a BMI in the range of 18.5-25
b. it is the accumulation of subcutaneous fat in the vessels and epicardium
c. the android type of obesity is safer than the gynoid type
d. are considered when BMI is higher than 25
e. common complications are insulin resistance and liver steatosis
f. is equivalent to hypervitaminoses

74. Vitamin B1 deficiency manifests itself by

a. Beri-beri disease
b. cardiomyopathy
c. constipation, sleep disorders
d. inflammation of the corners of the mouth
e. anaemia
f. goitre

75. Vitamin B2 deficiency manifests itself by

a. inflammation of the corners of the mouth
b. reddening of the tongue
c. flaking of the skin on the nose, forehead and earlobes
d. Beriberi disease
e. cardiomyopathy
f. rickets

76. Among basic diets we include the diet

a. with histamine restriction

b. low cholesterol
c. with fluid restriction
d. reducing
e. protein free
f. neonatal

77. Among special diets we include

a. liquid nutritious diet for gastrointestinal disorders
b. diabetic unsalted diet
c. a diet with severe protein restriction for kidney failure
d. diet with excess glucose in diabetic shock
e. a diet with increased protein in kidney disease
f. tea diet for caffeine intolerance

78. What occur in the pathogenesis of celiac disease?

a. antibody production
b. inflammation of the small intestinal mucosa
c. atrophy of the villi
d. hyperplasia of crypts
e. formation of fistulas
f. diarrhoea

79. What type of diet is given to patients with hypertension and atherosclerosis?

a. liquid
b. soft
c. full regular
d. large
e. low sodium
f. low cholesterol

80. What type of diet is given to patients with kidney disease?

a. liquid
b. soft
c. full regular
d. large
e. low protein
f. low cholesterol

81. What type of diet would be appropriate for a patient if he underwent gastrointestinal surgery?

a. liquid
b. soft

c. full regular
d. large
e. low protein
f. low cholesterol

82. Which diet is appropriate for a patient who has overcome an acute gallbladder attack

a. with strict protein restrictions
b. with strict sugar restrictions
c. tea
d. with strict fat restrictions
e. saving
f. liquid

2.4 RESPIRATORY SYSTEM

2.4.1 Respiratory system – Part 1

1. A cytokine storm is typical for

    a. sinusitis
    b. flu
    c. covid-19
    d. tonsilitis
    e. pertussis
    f. cold

2. A more severe form of covid-19 is manifested by

    a. melena
    b. anaemia
    c. hair loss
    d. high fever
    e. severe pneumonia to ARDS
    f. the emergence of AKI (acute kidney injury)

3. Causes of chronic cough include

    a. asthma
    b. congestive heart failure
    c. gastroesophageal reflux
    d. chronic bronchitis
    e. aspiration of foreign bodies
    f. acute bronchitis

4. Complications of pertussis in adults are

    a. rib fractures
    b. otitis
    c. weight loss
    d. incontinence
    e. inflammation of the frontal bone
    f. Reye's syndrome

5. Complications of sinusitis are

    a. orbital inflammation
    b. otitis
    c. bronchitis
    d. tachypnoea
    e. frontal osteomyelitis
    f. Reye's syndrome

6. Complications of tonsillitis are

    a. myocarditis
    b. glomerulonephritis
    c. joint damage
    d. ARDS
    e. ulcus cruris
    f. Crohn's disease

7. Complications of tonsillitis are

    a. glomerulonephritis
    b. myocarditis
    c. joint pain
    d. tachypnoea
    e. frontal osteomyelitis
    f. Reye's syndrome

8. Complications of whooping cough in infants may include

    a. death
    b. apnoea
    c. bronchopneumonia
    d. glomerulonephritis
    e. inflammation of the orbit
    f. CNS damage

9. Covid-19

    a. is a bacterial disease caused by streptococci
    b. it is transmitted exclusively orofecally
    c. incubation period is about 10-18 days
    d. is a viral disease caused by SARS-Cov2
    e. it is transmitted by droplet infection
    f. incubation period is about 2-15 days

10. Covid-19

    a. it is an RNA viral disease caused by the coronavirus SARS-CoV-2
    b. is synonymous with ARDS
    c. the antigen of the viral particle is the so-called Spike protein that binds to ACE2 enzymes on the surface of pneumocytes
    d. influenza and coronavirus infections can occur at the same time
    e. there is a potential for damage to pneumocytes and thus a reduction in the immune response
    f. complications can lead to pneumonia and so-called ARDS syndrome, which is often fatal

11. H5N1 strain refers to

a. an extremely virulent strain of SARS-Cov2 virus, mutated in the northern Italy
b. a bacterial subtype of Bordetella pertussis
c. an influenza virus strain
d. a SARS-Cov2 subtype which selectively affects human neurons (Human-5 Neuron-1)
e. a strain of Streptococcus pyogenes
f. a pneumococcus strain responsible for severe pneumonias

12. Identify acute inflammatory diseases of the upper respiratory tract

a. rhinitis
b. sinusitis
c. pneumonia
d. covid-19
e. Raynaud's syndrome
f. Rey's syndrome

13. Indicate the causes of cough

a. bronchi overgrown tumour
b. edema
c. gastroesophageal reflux
d. insomnia
e. hypertension
f. metabolic syndrome

14. Indicate the places where the ACE-2 receptors are located

a. endothelium
b. enterocytes
c. heart
d. liver
e. transverse striated muscles
f. lens

15. Influenza

a. is a severe inflammatory disease of the HDC that can result in pneumonia
b. synonymous with colds
c. prevention by vaccination is possible
d. the flu is often caused by H1N1 or H3N2 viruses
e. a complication may be Reye's syndrome associated with seizures and liver damage
f. if the patient is infected, infection with other viruses can no longer occur, e.g., coronavirus

16. Mark the complications of whooping cough

a. pneumothorax
b. syncope
c. incontinence
d. memory disorders
e. petechiae
f. mycosis

17. Mark bones where sinusitis may occur

a. os frontale
b. os ethmoidale
c. os sphenoidale
d. os temporale
e. os lacrimale
f. maxilla

18. Mark the correct statement for influenza

a. we should get the flu vaccine every 2 years
b. acute inflammation of the lower respiratory tract occurs during influenza
c. influenza vaccination is not recommended for pregnant women
d. the surface antigen is called a spike protein
e. influenza B virus is responsible for epidemics
f. a complication of the flu can be pneumonia

19. Mark the correct statements

a. influenza and covid-19 can be clearly distinguished on the basis of specific symptoms, without the need for laboratory examination.
b. sinusitis can be complicated by otitis media
c. characteristic symptoms of a cold are fever, sudden onset and pain in muscles and joints
d. influenza can also be complicated by myocarditis
e. Reye's syndrome is the most common indication for liver transplantation
f. risk factors for influenza are also diabetes mellitus, respiratory diseases, metabolic diseases

20. Mark the correct statements

a. tonsillitis is usually accompanied by enlargement of the lymph nodes
b. several toxins are involved in the etiopathogenesis of pertussis - pertussis toxin, tracheal toxin and others
c. sinusitis is transmitted by droplet infection
d. tonsillitis is manifested by a loud breath, which resembles the roaring of a rooster

e. pneumothorax is a common complication of sinusitis
f. sore throat is exclusive of bacterial origin

21. Mark the correct statements

a. a cold can cause a lung abscess
b. sinusitis and rhinitis can sometimes be combined
c. vaccination also plays an important role in the prevention of influenza
d. after overcoming whooping cough, lifelong immunity is acquired
e. you can get the flu and covid-19 at the same time
f. it is enough to be vaccinated against whooping cough once in a lifetime. No need for revaccination in adulthood

22. Mark the correct statements for ACE2 receptors

a. they play important roles in the pathogenesis of influenza
b. their expression increases with age
c. they play an important role in the pathogenesis of covid-19
d. their expression decreases with age
e. they can be found in the lungs
f. they can be found in the GIT

23. Mark the correct statements for covid-19

a. at a later stage, the capillaries are affected by microthrombosis
b. using the S protein, the virus binds to AT2 angiotensin receptors
c. ARDS syndrome is typical for the last stage
d. SARS-CoV-2 can be transmitted by the faecal-oral route
e. using the Spike protein, the virus binds to the ACE2 receptor
f. a complex of the polyanionic component of the vaccine and tissue factor is responsible for possible thrombosis from the vaccine

24. Mark the correct statements for influenza and covid-19

a. concomitant course of both diseases can significantly worsen health
b. it is not possible to get both viruses at the same time
c. influenza is distinguished from covid-19 by the presence of severe muscle pain in influenza
d. it is usually not easy to distinguish between these diseases on the basis of symptoms
e. covid-19 is distinguished from influenza by the fact that there is a loss of smell and taste in covid-19
f. they are detected by testing of the patient's biological specimen

25. Mark the correct statements for pertussis

a. is one of the compulsorily vaccinated diseases

b. as it is compulsorily vaccinated, it is one of the eradicated diseases
c. it is currently rare, especially in infants
d. it is currently rare, especially in adolescents
e. it is currently rare, often in the elderly
f. after overcoming, long-term complications such as shortness of breath and cough irritation may occur

26. Mark the correct statements for pertussis

a. the catarrhal stage is characterized by an irritating cough and loud hints
b. it is characterized by a serious course, but low infectivity
c. there is currently no vaccine for pertussis
d. a typical symptom is a weekly, paroxysmal cough lasting a week
e. apnoea can be a complication in children
f. fractures of the cough ribs can be a complication in adults

27. Mark the correct statements for rhinitis

a. nasal secretions are usually yellow or green in colour
b. inflammation of the frontal bone can be a complication
c. complications can be leaking into the faring and coughing
d. rhinitis is caused by primary viruses
e. purulent nasal secretions signal a bacterial infection
f. rhinitis is caused by primary bacteria

28. Mark the correct statements for sinusitis

a. bacterial meningitis can be a complication
b. symptoms include headache, pressure above the cavities, loss of smell
c. it is manifested by increased mucus secretion or poor drainage
d. sinusitis is usually caused by viruses
e. its complication may be endocarditis
f. nasal secretions are usually thin and watery

29. Mark the correct statements for the paroxysmal stage of pertussis

a. it lasts about 10 days
b. it lasts 10-14 days
c. it lasts 2-6 weeks
d. there is a presence of paroxysmal cough
e. it is a period of reconvalescence
f. there is a typical loud breathing, the so-called "crowing" of a rooster

30. Mark the correct statements for tonsillitis

a. tonsils may form pins, a white coating
b. endocarditis can be a serious complication of tonsillitis

c. common symptoms include an irritating seizure cough
d. meningitis, inflammation of the orbit, can be a serious complication
e. common symptoms include a sudden sore throat with difficulty swallowing
f. a typical pathogen causing tonsillitis is staphylococci

31. Mark the correct statements. Sinusitis

a. is a bacterial, viral disease
b. manifests itself in facial pain and pressure above the paranasal cavities
c. it can also cause inflammation of the orbit and bacterial meningitis
d. it is just a bacterial disease
e. it is manifested by sneezing, tickling and itching in the nose
f. causes mucus to flow into the pharynx

32. Mark the correct statements. Tiffeneau index reduced below 70%

a. indicates limited airflow to the lungs
b. evidence of limited blood flow through the lungs
c. indicates obvious respiratory disorders
d. indicates obvious disturbances in the exhalation
e. is evidence of lung obstruction
f. is typical of tonsillitis

33. Mark the correct statements. Tonsillitis

a. is inflammation of the larynx
b. arises as a result of untreated flu
c. is manifested by heavier breathing and irritating cough
d. is tonsillitis
e. is manifested by sudden sore throat and more severe swallowing
f. by enlarging the tonsils and abscesses on the tonsils

34. Mark the correct statements. Whooping cough

a. is a viral disease
b. is caused by Staphylococcus aureus
c. it is transmitted exclusively by touch
d. is a bacterial disease
e. is caused by Bordetella pertussis
f. it is transmitted by droplet infection

35. Mark the correct statements. Whooping cough

a. it is infectious to children only
b. manifests itself in mild cough and fever
c. it cannot be prevented
d. it is infectious for children but also for adults

e. is manifested by an irritating, paroxysmal cough
f. is a life-threatening condition especially in infants

36. Mark, what applies to tonsillitis

a. has a sudden start
b. manifests itself in severe sore throat
c. it is most often caused by streptococci
d. it is most often caused by fungi
e. it always has a gradual beginning
f. it is inflammation of sinuses

37. Mark, what is typical for rhinitis

a. sudden onset of symptoms
b. gradual onset of symptoms
c. sneezing and itching in the nose
d. increased secretion from the nose
e. headache around the eyes
f. dyspnoea

38. Mark, what is typical for rhinitis

a. muscle pain and high temperature above 39 °C
b. it is primarily caused by viruses
c. may go into purulent rhinitis
d. exhaustion and loss of appetite
e. in case of complication, it can go to ARDS
f. typical symptoms are watery discharge, sneezing and burning / itching of the nose

39. Mark, what is typical for sinusitis

a. muscle pain and high temperature above 39 °C
b. increased mucus production and clogging of the paranasal cavities
c. purulent rhinitis
d. exhaustion and loss of appetite
e. if complicated, it can progress to meningitis
f. is of bacterial origin only

40. Mark, what is typical for the flu

a. sudden onset of symptoms
b. gradual onset of symptoms
c. sneezing and itching in the nose
d. headache and muscle pain
e. headache around the eyes

f. dyspnoea

41. Pertussis

a. the cough is strong, regular, can last for many days and cause a broken rib
b. there is no prevention against it
c. the most endangered age group are people over the age of 40
d. it is a DNA viral disease caused by the virion Pertusella
e. after the disease subsides, an extreme reaction to respiratory infections and other episodes of pertussis may occur
f. it is transmitted mainly by blood and urine

42. Reye's syndrome

a. mainly affects elderly patients (> 65 years)
b. mainly affects children and adolescents (<16 years)
c. arises as a complication of viral disease and administration of acetylsalicylic acid
d. represents liver damage and encephaloma
e. represents acute myocarditis
f. leads to acute renal failure

43. Rhinitis

a. is a primary bacterial disease
b. is a primary viral disease
c. manifests itself mainly in headache
d. manifests itself in aqueous, thin nasal secretions
e. is manifested by pressure over the cavities
f. is manifested by sneezing, increased secretion and discharge

44. Sinusitis

a. is a bacterial, viral disease
b. manifests itself in facial pain and pressure above the cavities
c. it can also cause inflammation of the orbit and bacterial meningitis
d. it is just a bacterial disease
e. it is manifested by sneezing, tickling and itching in the nose
f. causes mucus to flow into the pharynx

45. Symptoms of tonsillitis include

a. fever
b. pain muscles
c. a sore throat
d. formation of purulent pins on climate almonds
e. white coating on the tongue

f. meningitis

46. Symptoms of whooping cough include

a. fever
b. Bordetella pertussis
c. paroxysmal cough
d. formation of purulent pins on climate almonds
e. bruising on the face
f. vomiting

47. The basic symptoms of respiratory diseases include

a. cough
b. dyspnoea
c. jaundice
d. ascites
e. cyanosis
f. hernia

48. The flu is important to cure because otherwise

a. can be complicated by conjunctivitis
b. may be complicated by pneumonia
c. may be complicated by pericarditis
d. may be complicated by the development of Reye's syndrome
e. may be complicated by the development of glomerulonephritis
f. may be complicated by the development of claudicatio intermittens

49. The following statements apply to common cold

a. that the symptoms start slowly
b. it is a contagious bacterial disease
c. that it cannot be vaccinated against him
d. it is often manifested by rhinitis, sneezing and mild fatigue
e. that it can be complicated by inflammation of the lungs or heart muscle
f. that it can be complicated by inflammation of the sinuses and middle ear

50. The following statements apply to cough

a. unproductive cough is irritating
b. chronic cough lasts for 2 weeks
c. coughing can also be caused by heart failure or gastroesophageal reflux
d. acute cough is typical of smokers
e. prolonged cough causes exhaustion, insomnia and incontinence
f. it is a disease, not a symptom

51. Which of the following statements apply to influenza?

a. it is a highly contagious viral disease
b. it is a contagious bacterial disease
c. that he cannot be vaccinated against her
d. manifested by high fever, dry irritant cough, joint pain
e. that it can be complicated by inflammation of the lungs or heart muscle
f. that it can be complicated by inflammation of the sinuses and middle ear

52. The mild form of covid-19 is manifested by

a. melena
b. anaemia
c. edema
d. headache, loss of smell, taste
e. cough, shortness of breath
f. muscle pain, chills, diarrhoea

53. The most typical symptoms of flu include

a. fever, chills
b. headache and muscle pain
c. swelling of the nasal mucosa without secretion and sneezing
d. sneezing and rhinitis
e. pain over the orbits
f. angina pectoris

54. The subtypes of influenza viruses arise from a combination of

a. types A and B
b. antigens
c. matrix proteins
d. hemagglutinin and neuraminidase
e. differences in the matrix protein
f. type A and C

55. Tonsillitis

a. is an inflammatory disease of the tonsils that can cause inflammation of the lymphoepithelial ring known as angina
b. symptoms include swelling of the nodes, the occurrence of bacterial pins on the tonsils or fever
c. surgical removal of tonsils is a common solution to the chronic form of the disease
d. complications can be myo- or endocarditis
e. only surgical pharmacological treatment is not possible
f. it often develops from the flu

56. Tonsillitis

a. is inflammation of the larynx
b. arises as a result of untreated flu
c. is manifested by heavier breathing and irritating cough
d. is tonsillitis
e. is manifested by sudden sore throat and more severe swallowing
f. by enlarging the tonsils and abscesses on the tonsils

57. Typical symptoms of rhinitis are

a. increased nasal secretion
b. muscle pain
c. itching, burning in the nose
d. sore throat
e. sneezing
f. pressure over the sinuses

58. What means the paroxysmal stage of whooping cough?

a. incubation period
b. latency phase
c. acute phase of cough attacks
d. chronic phase of cough attacks
e. phase with the presence of a cough with frequent subsequent vomiting
f. convalescence phase

59. Which of the following belong to the risk factors for the complicated course of covid-19

a. age over 45 years
b. obesity
c. smoking
d. hypertension
e. epilepsy
f. varicose veins

60. Which of the following diseases are typically caused by viruses?

a. sinusitis
b. flu
c. covid-19
d. tonsilitis
e. pertussis
f. cold

61. Which of the following statements apply to cold

a. that the symptoms start slowly
b. it is a contagious bacterial disease
c. that it cannot be vaccinated against it
d. it is often manifested by rhinitis, sneezing and mild fatigue
e. that it can be complicated by inflammation of the lungs or heart muscle
f. that it can be complicated by inflammation of the sinuses and middle ear

62. Which of the following statements apply to influenza

a. it is a highly contagious viral disease
b. it is a contagious bacterial disease
c. that he cannot be vaccinated against her
d. manifested by high fever, dry irritant cough, joint pain
e. that it can be complicated by inflammation of the lungs or heart muscle
f. that it can be complicated by inflammation of the sinuses and middle ear

63. Whooping cough

a. is a viral disease
b. is caused by Staphylococcus aureus
c. it is transmitted exclusively by touch
d. is a bacterial disease
e. is caused by Bordetella pertussis
f. it is transmitted by droplet infection

64. Whooping cough

a. is infectious to children only
b. manifests itself in mild cough and fever
c. it cannot be prevented
d. it is infectious for children but also for adults
e. is manifested by an irritating, paroxysmal cough
f. is a life-threatening condition especially in infants

2.4.2 Respiratory system – Part 2

1. Acute bronchitis

    a. is usually of viral origin
    b. may be of bacterial origin
    c. is always of viral origin
    d. is always of bacterial origin
    e. it can be caused by coronaviruses
    f. it can be caused by pneumococci

2. Acute bronchitis

    a. is inflammation of bronchi
    b. is inflammation of lungs
    c. is most often caused by viruses
    d. it is most often manifested by rhinitis, loss of voice and joint pain
    e. it often occurs as a complication of rhinitis or laryngitis
    f. it is treated only with antibiotics

3. Acute bronchitis

    a. is manifested by dry / wet cough, fever and chest pain
    b. it is most often manifested by rhinitis, loss of voice and joint pain
    c. it is treated mainly symptomatically (medicines to reduce the temperature, support coughing)
    d. on bronchi causes inflammation, edema, reduction of bronchial lumen and disrupts the activity of the ciliated epithelium
    e. it occurs only in children
    f. on the bronchi it causes covalent necrosis to the breakdown of lung tissue

4. Acute bronchitis

    a. is mainly of bacterial origin
    b. is a frequent complication of upper respiratory tract infection
    c. is usually caused by virus
    d. mucoid to purulent sputum is produced
    e. there is damage to the alveolar-capillary membrane
    f. occurs only in children

5. Acute immediate response in the pathogenesis of allergic asthma

    a. is mediated with IgE antibodies
    b. is initiated by mast cell degranulation
    c. releases histamine, which causes bronchoconstriction
    d. releases dopamine, which causes bronchoconstriction
    e. it is mediated by irritation of the vagus nerve
    f. it always leads to the death of the patient

6. Asthma manifests itself by

    a. prolonged bleeding
    b. melena
    c. resting shortness of breath, wheezing while breathing
    d. strenuous exhalation
    e. moist cough (the patient coughs up a thick, glassy sputum)
    f. haematuria

7. Bronchopneumonia

    a. affects one or more lung lobes
    b. affects individual lung lobes (terminal bronchioles)
    c. mainly affects infants and the elderly
    d. it is also caused by aspiration of the stomach contents or inflammation of the upper respiratory tract
    e. belongs to purulent pneumonia
    f. belongs to non-purulent pneumonia

8. Chronic bronchiolitis

    a. affects the bronchioles
    b. affects the trachea
    c. is an irreversible, progressive disease
    d. is a relatively well treatable disease
    e. manifested by dry cough, dyspnoea and "wheezing" when breathing
    f. it is manifested by a productive cough, high fever and pain behind the sternum

9. Chronic bronchiolitis is

    a. a reversible disease of the bronchioles
    b. progressive disease
    c. irreversible non-progressive disease
    d. irreversible bronchial disease
    e. irreversible bronchiolar disease
    f. reversible bronchial disease

10. Chronic bronchitis

    a. affects the mucosa and tissue of the bronchi
    b. affects only the trachea and bronchioles
    c. is manifested by a productive cough lasting at least 3 months in 2 consecutive years
    d. is manifested by an asthmatic cough
    e. mainly affects smokers and people living in a polluted environment or working in various industries (coal mine, plastics production)
    f. It mainly affects children who suffer from asthma

11. Chronic bronchitis

a. it can also be a part of other diseases e.g., chronic obstructive pulmonary disease
b. microscopically is manifested by inflammation, edema, hypertrophy / hyperplasia of the mucous glands and hypertrophy of the bronchial smooth muscle
c. manifests itself in a productive cough with coughing up mucus (morning), shortness of breath and cyanosis
d. is microscopically manifested by the formation of a hyaline membrane
e. is manifested by an asthmatic cough
f. it is caused by drugs such as antiarrhythmics, antibiotics, chemotherapeutics

12. Chronic bronchitis is associated with

a. diabetes
b. obesity
c. exposure to irritants
d. male gender
e. smoking
f. lack of physical activity

13. Chronic bronchitis is associated with

a. obstructive changes in the airways
b. restrictive changes in the lungs
c. typical morning cough
d. a typical night cough with wheezing
e. hypersecretion of mucus
f. by activating IgG

14. Differences between chronic bronchitis and bronchiolitis include

a. differences in the location of inflammation
b. type of cough
c. the presence of an inflammatory reaction
d. different cause of the disease
e. both diseases are irreversible and progressive
f. reactivity to bronchodilators

15. Exacerbation

a. means acute deterioration of health condition
b. may occur with asthma
c. means collapse of the lungs
d. it typically occurs in acute bronchitis
e. means obstruction

f. occurs in children born by caesarean section

16. For chronic bronchitis is typical

a. is defined as a persistent dry cough for 3 months
b. hyperplasia of mucin-producing goblet cell occurs
c. the most common cause is smoking
d. affects the bronchi and bronchioles
e. in spirometry it manifests itself as a restrictive type of disease
f. is characterized by the production of a productive cough

17. In adult patients, acute bronchitis most often occurs due to

a. bacteria
b. viruses
c. smoking
d. polluted environment
e. lung dust
f. aspiration of foreign bodies

18. In interstitial pneumonia

a. both lobes of the lungs are always affected
b. the alveolocapillary membrane thickens
c. exudate fills the alveoli
d. the X-ray finding is negative
e. there is a disorder of the exchange of respiratory gases between the alveoli and the blood
f. respiratory gas exchange between the blood and tissues is impaired

19. In interstitial pneumonia

a. the bacteria multiply directly in the alveoli
b. there is a decrease in alveolar volume
c. the thickness of the alveolar-capillary membrane increases
d. inflammation and edema occur in the interstitium
e. diffusion of respiratory gases is difficult
f. dyspnoea develops

20. In lobar pneumonia

a. both lobes of the lungs are always affected
b. exudate always accumulates in only one lobe of the lungs
c. exudate fills the alveoli
d. the X-ray finding is negative
e. respiratory gas exchange between the blood and tissues is impaired
f. respiratory gas diffusion is impaired due to impaired access to the alveolar wall

21. In lobar pneumonia, microorganisms accumulate in

a. interstitium
b. smooth muscle
c. alveoli
d. respiratory bronchioles
e. terminal bronchioles
f. all answers are correct

22. In pneumonia, they are mostly affected

a. alveoli
b. respiratory bronchioles
c. upper part of the trachea
d. bronchi
e. lower part of the trachea
f. tonsils

23. Label inflammatory mediators of pneumonia

a. tumour necrosis factor
b. FAS protein ligand
c. interleukin 6
d. adenylate cyclase
e. elastase
f. metalloproteinases

24. Lobar pneumonia

a. affects one or more lung lobes
b. it affects first the interstitium and then the alveoli
c. manifested by fever, cough, dyspnoea and chest pain
d. is also macroscopically manifested by red and grey hepatization
e. belongs to purulent pneumonia
f. belongs to non-purulent pneumonia

25. Macroscopic changes in the lung parenchyma in lobar pneumonia occur in this order

a. congestion - red hepatization - grey hepatization - resolution
b. red hepatization - grey hepatization - congestion - resolution
c. resolution - congestion - red hepatization - grey hepatization
d. grey hepatization - resolution - congestion - red hepatization
e. abscess- congestion - resolution - red hepatization - grey hepatization
f. grey hepatization - abscess - red hepatization - congestion

26. Mark the correct statements

a. acute bronchitis is most often caused by viruses

b. bacterial toxins damage the respiratory epithelium
c. the corona virus can manifest as acute bronchitis
d. an acute complication of bronchitis is rhinitis
e. acute bronchitis is a fibrotic disease
f. acute bronchitis leads to damage to the alveolocapillary membrane

27. Mark the correct statements

a. chronic bronchitis is associated with decreased mucociliary function
b. in chronic bronchitis, there is an increased production of mucus
c. hyperresponsiveness of bronchi in their chronic inflammation leads to bronchoconstriction
d. chronic bronchitis has reduced mucus production
e. hyperreactivity of the bronchi in their chronic inflammation leads to bronchodilation
f. bronchitis is an inflammation of the upper respiratory tract

28. Mark the correct statements

a. pneumonia is associated with damage to the lung parenchyma
b. pneumonia affects the alveoli and bronchioles
c. pneumonia can also manifest as chest pain due to pleurisy
d. pneumonia is of exclusively bacterial origin
e. in interstitial pneumonia, there is a significant reduction in both alveolar both
f. lobar pneumonia is characterized by a small amount of mucus

29. Mark the correct statements

a. stage of resolution during pneumonia, takes place clinically at the end of the disease
b. the stage of hyperaemia and congestion is characterized by pulmonary hyperaemia and exudate formation
c. the stage of red hepatization is characterized by the transfer of erythrocytes into the alveoli
d. the stage of red hepatization is characterized by the formation of a red alveolocapillary membrane
e. lung hepatization is a term typical for changes in the lungs in liver cirrhosis
f. pneumonia never leads to respiratory distress

30. Mark the correct statements

a. acute bronchitis is most often caused by bacteria
b. chronic bronchitis can lead to chronic obstructive pulmonary disease (COPD)
c. lobar pneumonias first affect the interstitium and then the alveoli
d. lobar pneumonia affects the alveoli
e. the most common cause of IRDS is surfactant deficiency in premature babies
f. asthma is a circulatory disease of the lungs

31. Mark the correct statements

a. pneumonia is an inflammation of the lungs' own functional tissue
b. lobar pneumonia affects one or more lung lobes
c. pneumonia can progress and affect pleura
d. pneumonia is an inflammation of the bronchi
e. interstitial pneumonia is a purulent bronchitis
f. the most common complication of pneumonia is asthma

32. Mark the correct statements about bronchial asthma

a. non-allergic etiology involves increased production of IgE antibodies
b. it is usually associated with hypoplasia of submucosal goblet cells
c. histamine is important for bronchorelaxation and diapedesis into the extracellular space
d. the production of inflammatory and chemotactic factors promotes the migration and proliferation of T-lymphocytes
e. bradykinin is a factor that promotes airway hyperactivity
f. leukotrienes are substances that promote the production of chemotactic factors and inflammation

33. Mark the correct statements about bronchitis

a. the most common cause of acute bronchitis is smoking
b. due to bacterial infection, leukocyte infiltration and edema occur
c. increased mucus production is usually associated with glandular cell hyperplasia
d. in chronic bronchitis there is no response to the administration of releasing substances
e. in acute bronchitis, antibiotic treatment is required and does not resolve spontaneously
f. chronic bronchitis is often associated with airway remodelling and target damage

34. Mark the correct statements about chronic bronchiolitis

a. is characterized by the presence of dry cough and dyspnoea
b. symptoms improve in the morning
c. typical causes are smoking and allergens
d. it mainly affects the epiglottis and bronchi
e. it is often associated with bone marrow transplantation and autoimmune diseases
f. on spirometry there is no pathological finding

35. Pneumonia

a. is an inflammation of the lung's own functional tissue

b. may occur secondary to chemotherapy, gastric aspiration, HIV deficiency
c. can pass into the pleura
d. may result from left ventricular failure
e. it is manifested by swelling of the legs
f. mainly affects smokers

36. Primary pneumonias arise due to

a. pneumococcus
b. Klebsiella
c. staphylococci
d. pulmonary embolism
e. chronic obstructive pulmonary disease
f. tumours

37. Risk factors for chronic bronchitis are

a. bacterial infection
b. viral infection
c. smoking
d. older age
e. irritant exposure
f. recurrent infections

38. Risk factors for the development of chronic bronchitis are

a. female gender
b. older age
c. smoking
d. vegetarian food
e. work in a dusty environment
f. mutation in the apoA2 gene

39. Secondary pneumonias arise as a result of

a. infection with viruses
b. aspiration of stomach content
c. infection with bacteria
d. pulmonary embolism
e. mycoplasma infection
f. chemotherapy

40. Symptoms such as dry cough, chest pain, slightly fever, tiredness that last about 5 days are typical for

a. acute bronchitis
b. chronic bronchitis

c. lobar pneumonia
d. acute rhinitis
e. ARDS
f. asthma

41. The following processes occur in the pathogenesis of chronic bronchitis

a. bronchodilation
b. bronchoconstriction
c. inflammatory infiltration of the bronchial mucosa
d. glandular cell hypersecretion
e. bronchial cartilage hypertrophy
f. extracellular matrix remodelling

42. The red hepatization phase in pneumonia is characterized by

a. the transfer of leukocytes into the alveoli
b. disintegration of leukocytes in the alveoli
c. erythrocyte infiltration into the alveoli
d. erythrocyte disintegration in the alveoli
e. the transfer of platelets into the alveoli
f. disintegration of platelets in alveoli

43. The symptoms of acute bronchitis are

a. paroxysmal dry cough at the onset of the disease
b. moist cough
c. raised temperature
d. finding on X-ray
e. tachycardia
f. fatigue

44. What applies to acute bronchitis?

a. is most often caused by viruses
b. it is most often caused by smoking and polluted air
c. it is accompanied by a productive cough at a later stage
d. is accompanied by prolonged dry cough
e. lasts about 5 days
f. lasts longer than 3 months

45. What applies to interstitial pneumonia?

a. they are typical pneumonia
b. they are atypical pneumonia
c. microorganisms accumulate inside the alveoli
d. microorganisms accumulate in the interstitium

e. there is an increase in the thickness of the alveolar-capillary membrane
f. alveolar volume is greatly reduced

46. What applies to primary pneumonia?

a. they are usually caused by a microbial cause
b. they mainly affect the bronchioles and alveoli
c. we divide them into lobar and interstitial
d. the most common causes are autoimmune diseases or embolism
e. they do not have chest pain
f. the alveolar volume never changes

47. What applies to primary pneumonia?

a. they arise as a result of a microbial infection and are divided according to the site of bacterial multiplication
b. dyspnoea and exudate occur during the multiplication of microorganisms in the alveoli
c. the consequence is usually thickening of the alveolocapillary membrane
d. it is usually associated with the formation of a hyaline membrane
e. red hepatization is caused by the breakdown of erythrocytes
f. it is usually associated with the occurrence of respiratory distress in newborns

48. What belong to the manifestations (symptoms) of chronic bronchitis?

a. all day coughs
b. morning cough
c. evening cough
d. bronchial obstruction visible on spirometric examination
e. wheezing in the airways
f. palpitations

49. What DOES NOT cause the infectious pneumonia?

a. SARS-Cov-2
b. Streptococcus pneumoniae
c. Streptococcus pyogenes
d. Herpes simplex virus
e. Klebsiella pneumoniae
f. Chlamydia pneumoniae

50. Which pathomechanisms are important for the onset of symptoms and complications of chronic bronchitis?

a. inflammation and edema
b. mast cell activation
c. goblet cell hyperplasia / hypertrophy

d. target damage and decreased mucociliary function
e. reduced surfactant production
f. accumulation of the extracellular matrix in the interstitial space

51. Why does a patient with pneumonia develop chest pain?

a. pleuritis develops over the affected segment of the lungs
b. nociceptors are activated
c. adrenaline is flushed out, which irritates muscles
d. there is no chest pain in pneumonia
e. due to tachycardia
f. due to airway obstruction

2.4.3 Respiratory system – Part 3

1. Anoxia means

    a. complete lack of oxygen in the body
    b. decrease in CO2 concentration
    c. increase in CO2 concentration
    d. lack of oxygen in the arterial blood
    e. lack of oxygen in the tissues
    f. attenuation of respiratory centres

2. Asthma symptoms are

    a. dyspnoea
    b. chest pressure
    c. coughing
    d. wheezing during exhalations
    e. vomiting at the end of the attack
    f. barrel-shaped position of the thorax

3. Bradypnoea means

    a. accelerated breathing
    b. slow breathing
    c. deepened breathing
    d. strenuous breathing
    e. development of hypoventilation
    f. inability to breathe

4. Complications of COPD include

    a. pulmonary heart
    b. cyanosis
    c. pneumonia
    d. rupture of ribs
    e. cough mainly at night
    f. cough especially in the morning

5. Dynamic parameters of respiration include

    a. functional residual capacity
    b. vital capacity of the lungs
    c. alveolar ventilation
    d. forced one second vital capacity
    e. inspiratory capacity
    f. peak expiratory flow

6. Expiratory reserve volume

    a. is the volume that can be exhaled after a normal breath
    b. is the volume that can be exhaled after normal exhalation
    c. is the amount of air ventilated in the alveoli
    d. is the sum of vital capacity and residual volume
    e. is the sum of expiratory volume and residual volume
    f. is the amount of air ventilated in the alveoli

7. Mark, what is typical for asthma

    a. bronchial hyperresponsiveness
    b. bronchoconstriction
    c. bronchodilation
    d. hypersecretion of mucus
    e. reducing the amount of smooth muscle
    f. tracheal obstruction

8. Hypercapnia means

    a. complete lack of oxygen in the body
    b. decrease in CO2 concentration
    c. increase in CO2 concentration
    d. lack of oxygen in the arterial blood
    e. lack of oxygen in the tissues
    f. attenuation of respiratory centres

9. Hypocapnia means

    a. complete lack of oxygen in the body
    b. decrease in CO2 concentration
    c. increase in CO2 concentration
    d. lack of oxygen in the arterial blood
    e. lack of oxygen in the tissues
    f. attenuation of respiratory centres

10. Hypoxemia means

    a. complete lack of oxygen in the body
    b. decrease in CO2 concentration
    c. increase in CO2 concentration
    d. lack of oxygen in the arterial blood
    e. lack of oxygen in the tissues
    f. respiratory centre depression

11. Hypoxia means

    a. complete (absolute) lack of oxygen

b. decrease in CO2 concentration
c. increase in CO2 concentration
d. lack of oxygen in the arterial blood
e. lack of oxygen in the tissues
f. excess oxygen in the arterial blood

12. Important role in the pathogenesis of allergic asthma play

a. IgA
b. IgM
c. IgE
d. IgG
e. all answers are correct
f. all answers are incorrect

13. In asthma

a. the patient responds well to bronchodilators
b. hypercrinia, dyscrinia and bronchoconstriction occur
c. bronchial smooth muscle hypertrophy occurs
d. the patient does not respond to bronchodilators
e. bronchodilatation occurs
f. metaplasia to dysplasia of the bronchial epithelium occurs

14. In the spirometric examination, what does the FEV1 / FVC ratio tell us?

a. we can determine according to its value whether it is an obstructive or restrictive disorder
b. we can determine from its value whether there is a disorder in ventilation or respiratory regulation
c. if this ratio is < 70% it is an obstructive disorder
d. if this ratio is < 70% it is a restriction disorder
e. if this ratio is > 70% it is an obstructive disorder
f. if this ratio is > 70% it is a restriction disorder

15. Indicate on which of the following lung ventilation depends

a. on airway patency
b. on the activity of the respiratory centre
c. on the motor innervation of the respiratory muscles
d. on lung volume
e. on the size of the hepatobiliary space
f. on the diffusion in the blood-brain barrier

16. Indicate the symptoms of characteristic respiratory diseases

a. cyanosis

b. hematoptoe
c. dyspnoea
d. hematuria
e. acanthosis
f. ptosis

17. Indicate the terms characteristic of the etiopathogenesis of asthma

a. airway smooth muscle hypertrophy
b. airway smooth muscle hyperplasia
c. airway gland cell hypercrinia
d. primary hypertension
e. pulmonary hyperkeratosis
f. hyperthyroidism

18. Indicate what applies to COPD

a. airway obstruction is typical
b. lung tissue restriction is typical
c. occurs in combination with emphysema
d. manifested by chronic cough
e. represents an acute condition
f. it typically occurs in young people

19. Indicate what is an obstructive disease

a. asthma
b. COPD
c. emphysema
d. cystic fibrosis
e. ARDS
f. pulmonary fibrosis

20. Indicate what is true about emphysema

a. it is an irreversible state
b. there is a loss of lung tissue
c. the destruction of alveolar septa produces bullae
d. the tissue is destroyed to form granuloma
e. is caused by pneumoconiosis
f. it is an acute condition and leads to ARDS

21. Late response in the pathogenesis of allergic asthma

a. is responsible for long-term manifestations of bronchial asthma
b. is caused by excessive mobilization of leukocytes, interleukins, bradykinin

c. leads to intensification of symptoms of immediate reaction, edema, bronchial remodelling and maintenance of pro-inflammatory environment
d. it is mediated by irritation of the vagus nerve
e. it releases histamine, which causes bronchoconstriction
f. it always leads to the death of the patient

22. Lung fibrosis

a. it is a reversible disease of the lung parenchyma
b. the presence of productive cough is typical
c. typical symptoms are the so-called clubbed fingers
d. on spirometry the parameter FEV1 may be normal or even elevated
e. it does not increase the extracellular mass in the interstitium
f. is associated with pneumoconiosis such as silicosis, anthracosis or asbestosis

23. Lung fibrosis

a. is manifested by dry cough, dyspnoea and clubbed fingers
b. it can be caused by prolonged inhalation of coal, soot and asbestos particles
c. cannot be treated with bronchodilators
d. causes the so-called barrel-shaped chest
e. it mainly affects children who suffer from asthma
f. it often occurs as a complication of rhinitis or laryngitis

24. Mark asthma mediators

a. acetylcholine
b. leukotrienes
c. endothelial relaxation factor
d. phosphodiesterase
e. carbonic anhydrase
f. metalloproteinase

25. Mark the correct statements. Hyperventilation

a. means sufficient ventilation of the alveoli for the metabolic requirements of the body
b. means reduced ventilation of the alveoli against the metabolic requirements of the body
c. means increased ventilation of the alveoli against the metabolic requirements of the body
d. occurs with hypoxemia
e. occurs with hypercapnia
f. occurs with hypocapnia

26. Mark the correct statements. Hypoventilation

a. means sufficient ventilation of the alveoli for the metabolic requirements of the body
b. means reduced ventilation of the alveoli against the metabolic requirements of the body
c. means increased ventilation of the alveoli against the metabolic requirements of the body
d. occurs with hypoxemia
e. occurs with hypercapnia
f. occurs with hypocapnia

27. Mark the correct statements. Normoventilation

a. means sufficient ventilation of the alveoli for the metabolic requirements of the body
b. means reduced ventilation of the alveoli against the metabolic requirements of the body
c. means increased ventilation of the alveoli against the metabolic requirements of the body
d. occurs with normocapnia
e. occurs with hypocapnia
f. occurs with hypercapnia

28. Mark the correct statements

a. Biot's respiration refers to the alternation of hyperpnea and apnoea
b. periodic breathing may occur with heart failure or poisoning
c. Kussmaul's respiration may occur in metabolic acidosis
d. Cheyne-Stoke's respiration is typical by shortness of breath when changing the body position
e. tachypnoea indicates rapid and deep breathing
f. asphyxia is a combination of ataxia and apnoea

29. Mark the correct statements

a. acute respiratory distress syndrome is characteristic for premature infants
b. the cause of respiratory distress syndrome in neonates is a lack of surfactant
c. asthma is an obstructive pulmonary disease
d. the cause of acute respiratory distress syndrome in newborns is hyalinization of the mucociliary membrane
e. vascular permeability in respiratory distress syndrome decreases
f. the mediator of non-allergic asthma is immunoglobulin E

30. Mark the correct statements

a. pneumothorax indicates the inflow of air into the pleural space

b. atelectasis is accompanied by an increase in alveolar volume
c. accumulation of pleural fluid due to edema worsens lung expansion
d. hydrothorax indicates the presence of blood in the transudate
e. haemothorax is caused by blood in the pleural space
f. pyothorax is a condition where lymph accumulates in the lungs

31. Mark the correct statements

a. acidosis can be caused by hyperventilation as in tachypnoea
b. alkalosis can be caused by hyperventilation as in tachypnoea
c. metabolic acidosis leads to tachypnoea
d. metabolic alkalosis leads to dyspnoea
e. the connecting link between them are the aortic bodies
f. metabolic acidosis leads to bradypnoea

32. Mark the correct statements for asthma

a. it can have both allergic and non-allergic etiology
b. on spirometry is manifested as a restrictive disease
c. increased acetylcholine signalling improves bronchodilation
d. there is a decrease in the smooth muscle layer with the progression of the disease
e. important mediators are histamine, leukotrienes or chemotactic factors
f. does not respond to bronchodilators

33. Mark the correct statements. During asthma

a. acetylcholine is important for reducing the secretory activity of glandular cells during asthma
b. activation of the vagus nerve stimulates bronchodilation during asthma
c. hypersecretion and airway narrowing may occur due to increased parasympathetic activity
d. the formation of histamine, leukotrienes and chemotactic factors is critical for the allergic form of asthma
e. a typical symptom is cyanosis and non-reactivity to drug-releasing drugs
f. dyspnoea is associated with early asthma reactions due to hyperreactivity

34. Mark the correct statements. Tiffeneau index reduced below 70%

a. indicates limited airflow to the lungs
b. evidence of limited blood flow through the lungs
c. indicates obvious respiratory disorders
d. indicates obvious disturbances in the exhalation
e. is evidence of lung obstruction
f. is typical of tonsillitis

35. Mark the incorrect statements for lung fibrosis

a. it causes lung stiffness and reduces lung function
b. patients with pulmonary fibrosis have a "barrel-shaped" chest
c. it is manifested by dry cough, dyspnoea and mallet fingers
d. it is a well-treatable disease
e. it is characterized by hypercrinia, dyskrinia and bronchoconstriction
f. it can affect people who live in a very polluted environment (city) because they work with e.g., with asbestos

36. Mark, what applies to bronchial asthma

a. reversible airway obstruction is present
b. cough attacks occur exclusively in confined spaces
c. cough attacks occur exclusively in the presence of the main allergen - pollen
d. cough attacks are present mainly in the morning
e. is manifested by a spirometric finding
f. does not respond to bronchodilators

37. Mark, what applies to physiological dead space

a. it is the sum of anatomical and alveolar dead space
b. it is diminished in asthma
c. is the volume of air that is inhaled but remains in the higher parts of the respiratory tree and is not exchanged in the alveoli
d. its volume (in ml) is approximately twice the body weight (in kg)
e. is increased while ARDS
f. it is the volume that can be exhaled after normal exhalation

38. Mark, what is typical for asthma

a. bronchial hyperresponsiveness
b. alveolar hyperreactivity
c. bronchoconstriction
d. bronchodilation
e. hypersecretion of mucus
f. airway edema

39. Mark, what applies to obstructive diseases of the respiratory system

a. there is a reduced air passage through the airways
b. lung capacity is not changed
c. the ventilated area of the lungs is reduced
d. lung capacity is reduced
e. they may be due to thickening of the mucous membranes of the airways
f. they may be due to increased mucus production

40. Peak flow meter

a. is a diagnostic tool in the diagnosis of asthma
b. measures the air flow rate during exhalation
c. evidence of airway restriction
d. measures the air flow rate during inspiration
e. informs us about lung ventilation
f. used to diagnose respiratory distress syndromes

41. Tachypnoea

a. is accelerated breathing
b. may be accompanied by pneumonia
c. is the change in respiratory rate
d. its opposite is hypoventilation
e. is breathing at a rate of more than 10 breaths per minute
f. it is always a pathological manifestation

42. Tachypnoea is

a. slower breathing
b. accelerated breathing
c. slower heartbeat
d. accelerated heartbeat
e. increased blood pressure
f. decreased blood pressure

43. Tachypnoea means

a. accelerated breathing
b. slow breathing
c. blood in lungs
d. strenuous breathing
e. development of hypoventilation
f. inability to breathe

44. The asthma

a. affects only the lungs
b. affects the lungs, bronchi, and bronchioles
c. it is an inflammatory disease
d. it is a fibrotic lung disease
e. it is caused only by allergens (pollen, mites, food)
f. in addition to allergens, it can also be caused by stress, cold air, excessive physical exertion

45. The cause of pulmonary embolism can be

a. thrombus
b. fat particles
c. tumours
d. air
e. surfactant deficiency
f. all answers are correct

46. The causes of allergic forms of asthma can be

a. pollen
b. dust
c. the animals
d. winter
e. emotions
f. stress

47. The symptoms of bronchial asthma are

a. bouts of coughing
b. blood pressure fluctuations
c. T-cell infiltration
d. wheezing
e. spirometric finding below normal
f. lung damage

48. What applies to restrictive diseases of the respiratory system?

a. there is a reduced air passage through the airways
b. lung capacity is not changed
c. the ventilated area of the lungs is reduced
d. lung capacity is reduced
e. they may be due to thickening of the mucous membranes of the airways
f. they may be due to lung fibrosis

49. What are the typical symptoms of hypercapnia?

a. daytime sleepiness
b. scary dreams
c. headache
d. cerebral edema
e. cyanosis
f. tachycardia

50. What can trigger a bronchial asthma attack?

a. chill

b. pollen
c. stress
d. alcohol
e. low blood pressure
f. some drugs

51. What causes anaemic hypoxia?

a. pneumothorax
b. emphysema
c. poisoning CO
d. embolism
e. anaemia
f. blood loss

52. What causes can lead to acute respiratory insufficiency?

a. pulmonary fibrosis
b. emphysema
c. left heart failure
d. asphyxia
e. narrowing of the upper respiratory tract
f. tracheal narrowing

53. What causes stagnant hypoxia?

a. pneumothorax
b. emphysema
c. shock
d. embolism
e. anaemia
f. ischemia

54. What complications can occur in a patient with cough?

a. insomnia
b. urinary incontinence
c. rupture of ribs
d. vein rupture
e. hair loss
f. fat redistribution

55. What DOES NOT take part in the etiopathogenesis of bronchial asthma?

a. histamine
b. arachidonic acid metabolites
c. IgE

d. alveolocapillary membrane
e. platelets
f. leukotrienes

56. Which brainstem centres regulate respiration?

a. apneustic
b. eupnoic
c. pneumotactic
d. strategic
e. dyspnoic
f. dysphrenic

57. Which of follow listed are involved in the pathogenesis of asthma?

a. histamine
b. leukotrienes
c. fibroblasts
d. bradykinin
e. erythrocytes
f. type 1 pneumocytes

58. Which of following play a role in the etiopathogenesis of bronchial asthma?

a. bronchial hyperresponsiveness
b. reflex bronchodilation
c. histamine
d. IgE
e. reduced secretion of bronchial mucus
f. bronchial wall hypertrophy

59. Which of the following applies to pulmonary ventilation?

a. it is the passage of air to / from the lungs
b. ventilation is facilitated by the diaphragm and intercostal muscles
c. it is transport between the lungs and the tissues
d. it is a diffusion between the alveoli and the blood
e. it is a circulation in the pulmonary circulation
f. it is the transfer of oxygen from the blood to the tissues

60. Which of the following disorders do we classify as "periodic breathing"?

a. polypnoea
b. tachypnoea
c. Cheyne-Stoke’s breathing
d. biota breathing
e. hyperpnoea

f. sleep apnoea

61. Which of the following factors can cause respiratory depression?

a. tumours
b. infection
c. drugs
d. ascites
e. asthma
f. emphysema

62. Which of the following factors can lead to hyperventilation?

a. liver failure
b. singing
c. asthma
d. metabolic alkalosis
e. hysteria
f. high altitude

63. Which of the following factors can lead to hypoventilation?

a. muscular dystrophy
b. drugs
c. asthma
d. metabolic alkalosis
e. hysteria
f. high altitude

2.4.4 Respiratory system – Part 4

1. Apnoea is

    a. slower breathing
    b. accelerated breathing
    c. short-term cessation of breathing
    d. shortness of breath
    e. accelerated and deepened breathing
    f. slow and deep breathing

2. Mark, what applies to ARDS

    a. it is a symptom associated with chronic dry cough
    b. the cause is always bacterial
    c. mainly damages the bronchi and capillaries
    d. it often occurs after viral pneumonia
    e. is typical of the formation of a hyaline membrane, which makes gas diffusion difficult
    f. typical viruses causing the disease are coronaviruses and influenza viruses

3. ARDS

    a. it causes massive inflammation and damage to the lung parenchyma
    b. is characterized by the formation of a hyaline membrane
    c. may occur as a serious complication of coronavirus pneumonia
    d. is manifested by an asthma attack lasting several hours
    e. occurs only in children
    f. causes the so-called barrel-shaped chest

4. ARDS in covid-19

    a. occurs due to infiltration of type II pneumocytes by the virus
    b. occurs due to inflammation and necrosis of pneumocytes
    c. occurs in the first stage of the disease
    d. develops two days after infection of the patient
    e. poses a serious threat to the patient's life
    f. is more common in at-risk patients

5. Atelectasis

    a. causes a decrease in lung ventilation
    b. causes a reduction in lung perfusion
    c. may be due to a lack of surfactant
    d. occurs mainly in pregnant women
    e. causes an increase in tidal volume
    f. it occurs only in people with a genetic predisposition

6. Complete correct statement: In adults, a decrease in the volume of exhaled air during forced inhalation as well as the exhaled volume in one second, without affecting the ratio of these two parameters

    a. is evidence of restrictive lung disorders
    b. may be associated with regressive lung changes such as pulmonary fibrosis or pneumoconiosis
    c. is always associated with airway obstruction
    d. is characteristic of bronchial asthma
    e. is characteristic of chronic obstructive pulmonary disease
    f. increases the risk of death due to IRDS

7. Hyaline membrane

    a. is a membrane that envelops hyaline cartilage
    b. is located in the joint heads
    c. is a mixture of exudate, surfactant, necrotic tissue and immune cells
    d. fills the alveoli in severe lung damage
    e. occurs in respiratory distress syndrome
    f. occurs in bronchial asthma

8. Hyaline membrane

    a. is a product of macrophages in typical pneumonia
    b. it is formed from a mixture of transudate, fibrin and neutrophils
    c. it is the cartilage surrounding the trachea
    d. causes immobility of the epiglottis
    e. worsens the diffusion of respiratory gases
    f. it is usually present in patients with respiratory distress syndrome

9. Hydropericardium is

    a. free fluid in the pleural cavity
    b. free fluid in the pericardial cavity
    c. free fluid in the peritoneal cavity
    d. free fluid in the abdominal cavity
    e. free fluid in the cranial cavity
    f. free fluid in the pelvic cavity

10. If there is a surfactant deficiency, the newborn is at risk of developing which of following?

    a. asthma
    b. pneumonia
    c. ARDS
    d. IRDS
    e. acute bronchitis

f. emphysema

11. IRDS

a. is an irreversible reactive respiratory syndrome
b. is a respiratory distress syndrome in children
c. is a respiratory distress syndrome in adults
d. mainly affects premature babies
e. is associated with surfactant deficiency
f. is associated with haemoglobin deficiency

12. IRDS

a. is characterized by the formation of a hyaline membrane
b. it occurs especially in premature babies who do not sufficiently produce a surfactant
c. the risk of it is higher in boys
d. occurs only in girls
e. belongs to the circulatory diseases of the lungs
f. it always leads to the death of a newborn

13. IRDS

a. mainly affects the elderly
b. is a restrictive lung disease
c. mainly affects adults
d. is caused by surfactant deficiency
e. may be the caused by fibrosis
f. occurs mainly in premature infants

14. Mark the correct statements

a. the alveoli have a lower concentration of CO2 than in the blood
b. inhalation increases alveolar pressure
c. pulmonary hypertension refers to a chronic increase in pressure in the pulmonary arteries
d. the cause of pulmonary embolism is usually clogging of the alveoli with exudate or surfactant
e. pulmonary fibrosis can be caused by pneumoconiosis such as anthracosis
f. pulmonary hypertension is associated with heart failure or COPD

15. Mark the correct statements

a. acute respiratory distress syndrome is usually associated with Kussmaul's breathing
b. meconium aspiration may cause IRDS
c. the most common cause of ARDS is a bacterial infection

d. the hyaline membrane is caused by necrosis, tissue breakdown and neutrophils
e. SARS-CoV-2 infection is a common cause of IRDS
f. the release of proteolytic enzymes during inflammation leads to damage to the parenchyma

16. Mark the correct statements

a. ARDS is a fibrotic lung disease
b. ARDS is an inflammatory disease of the lung disease
c. the main cause of ARDS is a lack of surfactant
d. ARDS can be caused by pneumonia, shock, inhalation of toxins
e. the main symptoms of ARDS are dyspnoea, tachypnoea, cyanosis
f. ARDS always leads to the death of the patient

17. Mark the correct statements applying to pneumoconiosis

a. it is a disease caused by the bacterium Streptococcus pneumoniae
b. it is synonymous with pneumonia
c. it is a disease caused by the deposition of dust particles in the lungs
d. it belongs to the so-called occupational diseases
e. it resolves rapidly after the acute phase
f. it has a chronic character

18. Mark the correct statements for cough

a. gastroesophageal reflux may be the cause of chronic cough
b. lung cancer can cause acute cough
c. acute cough can be caused by gastroesophageal reflux
d. the result of an unproductive cough is a bloody sputum
e. chronic cough can be caused by congestive heart failure
f. pertussis is characterized by a cough with a large amount of sparse sputum

19. Pneumoconiosis

a. indicate complicated pneumonia
b. are rod-type gram-positive batteries causing pneumonia
c. are diseases related to employment in a dusty environment
d. includes interstitial pneumoconiosis
e. includes anthracosis
f. includes silicosis

20. Pulmonary arterial hypertension

a. occurs when the pressure in the pulmonary arteries increases above 30 mmHg
b. occurs when the pressure in the pulmonary arteries increases above 130 mmHg
c. manifests itself in dyspnoea and tachycardia
d. it is manifested mainly by a morning cough with sputum production

e. it is caused by a heart disorder
f. arises due to vessel occlusions

21. Pulmonary arterial hypertension

a. affects the lungs
b. affects 4 pulmonary veins
c. affects the pulmonary arteries
d. related to heart failure
e. associated with acute pneumonia
f. associated with chronic bronchitis

22. Pulmonary arterial hypertension

a. is a chronic increase in pressure in the pulmonary arteries
b. is a chronic increase in aortic pressure
c. can occur as a complication of heart failure, chronic lung disease
d. in its mechanism of origin, increased activation of the endothelin system is expected
e. arises as a complication of rheumatoid arthritis
f. it manifests similarly to asthma

23. Pulmonary embolism

a. occurs when a thrombus forms in the lungs
b. occurs when a thrombus clogs an artery in the lungs
c. thrombus often occurs in the veins of the lower extremities
d. it is always deadly
e. due to the presence of collateral is not always fatal
f. the result is covalent necrosis of the affected lung tissue

24. Pulmonary embolism

a. leads to reduced perfusion to lung ischemia
b. manifests itself in chest pain during inhalation, hematoptoe and dyspnoea
c. it is most often caused by deep vein thrombosis
d. it is always deadly
e. it can be caused by prolonged inhalation of coal, soot and asbestos particles
f. is treated with bronchodilators

25. Symptoms of pulmonary arterial hypertension are

a. high systolic blood pressure
b. shortness of breath
c. dyspnoea
d. tachycardia
e. bradycardia

f. cyanosis

26. The basic defect in IRDS is

a. reduction of surfactant in the pulmonary alveoli
b. reduced lung perfusion
c. rise in pro-inflammatory cytokines
d. formation of hyaline membranes
e. lung fibrosis
f. ischemic damage

27. The basic symptoms of respiratory diseases include

a. cough
b. dyspnoea
c. jaundice
d. ascites
e. cyanosis
f. hernia

28. What can cause acute respiratory failure in adults (ARDS)?

a. pneumonia
b. aspiration of vomit
c. inhalation of toxins
d. acute pancreatitis
e. diabetes
f. asthma

2.5 ENDOCRINE SYSTEM

2.5.1 Endocrine system – Part 1

1. About postural hypotension we can say that

    a. it occurs when there is a sudden change of position from lying to standing
    b. is characterised by marked bradycardia
    c. is caused by a sudden drop in blood pressure
    d. is caused by a sudden rise in blood pressure
    e. its occurrence is more common in younger people
    f. may cause dizziness

2. Acromegaly

    a. is a manifestation of anterior pituitary lobe hyperfunction
    b. is a manifestation of hyperfunction of the posterior lobe of the pituitary gland
    c. means that the patient is very tall
    d. means that the patient has enlarged end parts of the body (eg chin, hands, forehead)
    e. it can be caused by type 1 diabetes mellitus
    f. it can be caused by an adenoma

3. Acromegaly arises

    a. due to overproduction of growth hormone
    b. due to pituitary adenoma
    c. before closing the epiphyseal crevices
    d. usually in young children
    e. after closing the epiphyseal crevices
    f. on the edges of the body

4. Addison's disease

    a. belongs to adrenal hyperfunction
    b. arises as part of Hashimoto's thyroiditis
    c. manifests itself e.g., hypertensive crisis, goitre, weight gain, kidney failure
    d. belongs to the adrenal hypofunction
    e. most often occurs in adrenal inflammation
    f. manifests itself e.g., increased skin pigmentation, weakness, hypotension, hair loss

5. Choose from the possible causes of clinical hypothyroidism

    a. Cushing's syndrome
    b. administration of thyrostatics
    c. Graves' disease
    d. thyroid tumour

e. thyroidectomy
f. Hashimoto's thyroiditis

6. Choose the correct statement about galactorrhoea

    a. is caused by increased production of vasopressin
    b. is related to impaired carbohydrate (lactose) metabolism
    c. can occur in men and children
    d. is caused by an imbalance between androgens and oestrogens
    e. is manifested by haemodilution
    f. is caused by stimulation of prolactin release

7. Cretinism

    a. occurs in adults
    b. it is an autoimmune disorder
    c. manifested mainly by myxoedema
    d. occurs in children
    e. it is caused by e.g., congenital disorders of thyroid hormone synthesis or its developmental disorders
    f. manifests itself e.g., failure to thrive, constipation, rough crying, round face, eyes far apart

8. Cretinism

    a. is iodine deficiency
    b. is associated with a decrease in IQ
    c. it can be prevented, for example, by iodination of the salt
    d. arises due to lack of iron, risk group are mainly children under 30 months of age
    e. is the most common form of malnutrition in the world
    f. is always associated with anaemia

9. Cushing's disease

    a. is caused by overproduction of glucocorticoids
    b. arises due to overproduction of mineralocorticoids
    c. is caused by overproduction of glucagon
    d. arises due to excessive excretion of ACTH
    e. is caused by the use of drugs - glucocorticoids
    f. arises due to the use of drugs - mineralocorticoids

10. Cushing's syndrome

    a. occurs in adrenal hyperfunction
    b. can occur with damage to the pituitary gland, but also damage to the adrenal glands

c. manifests itself e.g., moon face, buffalo neck, excessive hair
d. occurs during adrenal hypofunction
e. can occur with brain damage as well as kidney damage
f. it is manifested by headaches, palpitations, sweating, nervousness

11. Cushing's syndrome can arise as a result of

a. long-term use of glucocorticoids
b. adrenal medulla disorder
c. adenohypophyseal disorder
d. adrenal cortical disorder
e. neurohypopituitary disorder
f. long-term use of mineralocorticoids

12. Diabetes insipidus

a. is a consequence of hypofunction of the posterior lobe of the pituitary gland and hypothalamus
b. is due to anterior pituitary lobe hypofunction and hypothalamus
c. means that the patient is very tall
d. manifested by hyperglycaemia and fatigue
e. causes the patient to urinate a lot of urine
f. arises as a result of insufficient secretion and production of antidiuretic hormone

13. Diagnosis of hypercortisolism includes

a. ACTH test from blood
b. dexamethasone induction test
c. dexamethasone suppression test
d. determination of cortisol from saliva
e. CRH stimulation test
f. determination of the free form of PSA

14. Excessive pituitary function causes

a. Sheehan's syndrome
b. diabetes insipidus
c. premature puberty
d. pheochromocytoma
e. hypoprolactinemia
f. acromegaly

15. Excessive production of vasopressin

a. is a consequence of hyperfunction of the posterior lobe of the pituitary gland and hypothalamus

b. is due to anterior pituitary lobe hypofunction and hypothalamus
c. causes the patient to urinate a lot of urine
d. causes the patient to produce very concentrated urine
e. it is manifested by proportional growth retardation
f. occurs when the pituitary gland and hypothalamus are damaged by trauma and bleeding

16. Exophthalmos

a. occurs in thyroid disorders
b. in exophthalmos, the hands, feet, forehead, sledge or nose are enlarged
c. there is excessive growth of the individual
d. means non-cancerous breast enlargement in men
e. means bilateral eye appearance
f. growth is slowed with the shrinking of the acral parts of the body

17. Exophthalmos can be a symptom of

a. increased thyroid activity
b. hyperthyroidism
c. Cushing's syndrome
d. hypothyroidism
e. Hashimoto's thyroiditis
f. excessive secretion of thyroid hormones

18. For the diagnosis of pheochromocytoma can be used

a. determination of vanilmandlic acid in urine
b. determination of glycated haemoglobin HbA1c
c. positron emission tomography (PET)
d. serological determination of thyroxine levels
e. radiolabelled iodine imaging
f. computed tomography (CT)

19. Gigantism

a. is a manifestation of anterior pituitary lobe hyperfunction
b. is a manifestation of hyperfunction of the posterior lobe of the pituitary gland
c. means that the patient is very tall
d. means that the patient has enlarged end parts of the body (e.g., chin, hands, forehead)
e. it can be caused by IRDS
f. it can be caused by an adenoma

20. Gigantism arises

a. due to overproduction of growth hormone

b. due to pituitary adenoma
c. before closing the epiphyseal crevices
d. in adulthood
e. after closing the epiphyseal crevices
f. on the edges of the body

21. Goitre

a. is present in both hypothyroidism and hyperthyroidism
b. is present only in hyperthyroidism
c. is the enlargement of the parathyroid glands
d. it compensatory occurs when iodine deficiency in the diet is present
e. it occurs in Hashimoto's thyroiditis due to the action of IgG
f. it occurs in Graves' disease as a result of infiltration by T lymphocytes

22. Goitre

a. means that the thyroid gland is shrinking
b. means that the thyroid gland enlarges
c. is mostly eufunctional
d. arises as a result of a deficiency of thyroid hormones due to iodine deficiency
e. it is always hyperfunctional
f. arises as a result of the removal of parathyroid glands

23. Goitre can occur when

a. hyperthyroidism
b. hypothyroidism
c. Cushing's syndrome
d. Hashimoto's thyroiditis
e. Graves' disease
f. hypercortisolism

24. Graves-Basedow’s disease is

a. cancer
b. infectious disease
c. is an example of thyroid hypofunction
d. autoimmune disease
e. an example of thyroid hyperfunction
f. caused by a toxic thyroid adenoma

25. Hyperparathyroidism

a. is caused by carcinoma, adenoma or hyperplasia of the parathyroid glands
b. manifests itself e.g., increased parathyroid hormone levels, hypercalcaemia, nephrocalcinesis, hypertension,

c. it can also occur secondary to diseases in which the level of calcium is reduced, which in turn increases the level of parathyroid hormone
d. is caused by carcinoma, adenoma or thyroid hyperplasia
e. it is manifested by goitre, dyspnoea, heartburn and galactorrhoea
f. occurs when the parathyroid glands are removed

26. Hyperthyroidism

a. it is caused by a lack of iodine in the diet
b. it is caused by a genetic error
c. manifests itself with reduced intelligence, thickening of the voice, bradycardia
d. means excessive production of T3 and T4
e. it can be caused by toxic adenoma, goitre, Graves' disease
f. manifested by nervousness, weight loss, tachycardia, diarrhoea, exophthalmia

27. Hyperthyroidism can be caused by

a. Grave's disease
b. Addison's disease
c. toxic adenoma
d. toxic multinodular goitre
e. Hashimoto's thyroiditis
f. resistance of target tissues to the action of thyroid hormones

28. Hypoparathyroidism

a. is hypofunction of the parathyroid glands
b. is a disease that is common in the population
c. is caused by excessive secretion of ACTH
d. is caused by insufficient secretion of PTH
e. the administration of vitamin D does not affect nor change this condition
f. is manifested by tetanic spasms

29. Hypoparathyroidism

a. means reduced function of the parathyroid glands
b. may occur after removal of parathyroid glands, after damage to autoimmune bodies by inflammation, irradiation
c. it is manifested by tetany, arrhythmias, paraesthesia, mental disorders
d. means that the level of parathyroid hormone will increase
e. arises from kidney failure
f. leads to a thyrotoxic crisis

30. Hypothyroidism

a. it is caused by the excessive production of parathyroid hormones
b. may be caused by long-term exposure to X-rays

c. manifested by nervousness, weight loss, tachycardia, diarrhoea, exophthalmia
d. it also arises from the resistance of target tissues to the effect of thyroid hormones
e. it can be caused by congenital disorders of the thyroid gland and the synthesis of its hormones
f. its symptoms include: bradycardia, constipation, weight gain, dry, cold skin

31. Iatrogenic Cushing's syndrome

a. is caused by overproduction of mineralocorticoids in the body
b. is caused by overproduction of glucocorticoids in the body
c. is manifested by immunosuppression
d. is manifested by loss of body hairs
e. is induced by excessive drinking of alcohol
f. is ACTH dependent

32. Iatrogenic Cushing's syndrome

a. is a very rare form of Cushing's syndrome
b. is induced as a result of long-term / intensive glucocorticoid therapy
c. is reversible
d. is irreversible
e. is an ACTH-independent form of Cushing's syndrome
f. is an ACTH-dependent form of Cushing's syndrome

33. In hypothyroidism we observe

a. accelerating the ossification of growth slots
b. reduced plasma cholesterol levels
c. thyroid enlargement
d. reduction in body temperature
e. reduced tolerance to cold
f. low concentration of TSH in the blood

34. Increased parathyroid hormone secretion

a. stimulates hypocalcaemia
b. it increases osteoresorption and the development of osteoporosis
c. it also affects the kidneys (nephrolithiasis) and the heart (heart rhythm disorders)
d. it is caused by hyperthyroidism and is called hyperthyroidism
e. stimulates hypercalcemia
f. it is caused by parathyroid hyperfunction and is called hyperparathyroidism

35. Increased thyroid activity is manifested with

a. diarrhoea

b. constipation
c. tachycardia
d. bradycardia
e. exophthalmos
f. goitre

36. Indicate typical symptoms of hypoparathyroidism

a. hypophosphatemia
b. increased vitamin D levels
c. hyperthyroidism
d. hypocalcaemia
e. tetany
f. changes on the ECG

37. Mark the correct statements

a. acromegaly and gigantism are related to excess growth hormone
b. gigantism may develop after closure of the epiphyseal crevices of the bones
c. increased insulin synthesis is responsible for the development of gigantism
d. acromegaly is characterized by cardiomegaly or hepatomegaly
e. the cause of gigantism may be an adenoma of the hypothalamus or pituitary gland
f. Gigantism is characterised by enlargement of the nose, ears and limbs only

38. Mark the correct statements

a. excessive prolactin production only affects women during pregnancy
b. symptoms of hypothyroidism are weight gain, coldness and fatigue
c. pheochromocytoma is a mostly benign endocrine tumour of the adrenal medulla
d. a thyrotoxic crisis occurs in hyperthyroidism
e. the goitre is a shrinkage of the thyroid gland due to its hypofunction
f. parathyroid dysfunction occurs whenever the thyroid gland is removed

39. Mark the correct statements about Addison's disease

a. it may occur on an autoimmune or inflammatory basis
b. it occurs when adrenal function is impaired
c. it occurs when thyroid function is impaired
d. it manifests itself in a deficiency of adrenal cortex hormones
e. it manifests itself in a deficiency of adrenal medulla hormones
f. it manifests itself in a deficiency of thyroid hormones

40. Mark the correct statements about the goitre

a. occurs in hyperthyroidism

b. occurs in hypothyroidism
c. may be due to adenoma
d. occurs due to hyperplasia and hypertrophy of the thyroid follicle epithelium
e. it is often manifested by eyelid ptosis
f. always produces excessive amounts of T3 and T4

41. Mark the correct statements for hyperthyroidism

a. it can lead to thyrotoxicosis
b. it is a state of increased metabolism
c. it is a state of reduced metabolism
d. is caused by excessive secretion of thyroid hormones
e. is caused by decreased secretion of thyroid hormones
f. is more common in women

42. Mark the correct statements for hypothyroidism

a. one of its forms is myxoedema
b. it is a state of increased metabolism
c. it is a state of reduced metabolism
d. is caused by excessive secretion of thyroid hormones
e. is caused by decreased secretion of thyroid hormones
f. is more common in women

43. Mark the correct statements for myxoedema

a. it is an adult hypothyroidism
b. it is adult hyperthyroidism
c. leads to accumulation of mucopolysaccharides in the dermis
d. leads to accumulation of lipids in the dermis
e. it is manifested, among other things, by the development of edema
f. it is manifested, among other things, by exophthalmos

44. Mark the most common causes of Cushing´s syndrome

a. overproduction of ACTH in the pituitary gland
b. peripheral hypercortisolism
c. paraneoplastic overproduction of ACTH
d. adrenal adenoma
e. renal cell carcinoma
f. overproduction of glucocorticoids

45. Mark, what applies to Cushing's syndrome (CS)

a. it can be caused, for example, by a disorder of melanin production
b. it often occurs in children
c. complications of CS are ARDS and herpes zoster

d. it can be caused by e.g., also long-term use of glucocorticoids or alcohol
e. for the central form of CS, there is an increase in serum ACTH
f. complications of CS are e.g., DM 2. type, hypertension, osteoporosis, depression

46. Myxoedema

a. is a hypothyroidism that occurs immediately after birth
b. is a hypothyroidism arising in adulthood
c. arises as a result of excessive intake of goitrogens
d. arises as a consequence of e.g., thyroid tumours, autoimmune mechanism, disorders of the hypothalamic-pituitary region
e. manifests itself mainly in goitre
f. manifested by fatigue, weight gain, dry, cold skin

47. Myxoedema

a. is hypothyroidism arising in adulthood
b. is hypothyroidism arising during intrauterine development
c. is hyperthyroidism arising in adulthood
d. is hyperthyroidism arising in childhood
e. is hypothyroidism arising in childhood
f. is hyperthyroidism arising during intrauterine development

48. Pheochromocytoma

a. causes hypersecretion of catecholamines
b. is an epidermoid carcinoma of the adrenal cortex
c. is a neuroendocrine tumour of adrenal chromaffin cells
d. causes hyposecretion of catecholamines
e. it is a thyroid tumour
f. it causes the deposition of mucopolysaccharides in the layers of the skin

49. Pheochromocytoma

a. is a kidney tumour
b. causes excessive release of glucocorticoids
c. manifests itself in dyspnoea, galactorrhoea, amenorrhea
d. is an adrenal tumour
e. causes excessive release of catecholamines
f. is manifested by tachycardia, hypertension, paleness

50. Pheochromocytoma

a. represents mainly benign tumours
b. arises from chromaffin cells of the adrenal medulla
c. arises from delta cells of the endocrine pancreas

d. symptoms arise due to excessive secretion of catecholamines
e. symptoms occur due to decreased histamine secretion
f. the characteristic manifestation is hypertension

51. Pheochromocytoma

a. is prostate cancer
b. is adrenal medullary carcinoma
c. is rectal cancer
d. manifests itself in overproduction of androgens
e. manifests itself in overproduction of catecholamines
f. manifests itself in overproduction of mineralocorticoids

52. Pheochromocytoma is

a. endocrine tumour
b. adrenal chromaffin cell tumour
c. tumour with reduced secretion of vanilmandlic acid
d. tumour with reduced catecholamine secretion
e. tumour with increased secretion of catecholamines
f. tumour of the neurohypophysis

53. Pituitary disorders include

a. acromegaly
b. secondary hyperparathyroidism
c. secondary hyperaldosteronism
d. Addison's disease
e. pheochromocytoma
f. hyperprolactinemia

54. The causes of aldosterone production deficiency are

a. autoimmune inflammation of the adrenal gland
b. kidney ischemia
c. adrenal amyloidosis
d. damage to the Henle loop by inflammation
e. decreased erythropoietin release
f. kidney bleeding

55. The most common cause of Sheehan syndrome is

a. destruction of the pituitary gland by tumours
b. disruption of hypothalamic-pituitary communication
c. castration
d. diabetes insipidus
e. aldosterone overproduction

f. pituitary necrosis after delivery

56. Thyrotoxicosis

a. toxic reaction of the body to a decrease in thyroid hormone secretion
b. it may be caused by Hashimoto's thyroiditis
c. it may be caused by Graves' disease
d. it may be caused by toxic multi-nodal goitre
e. typical symptoms are constipation, fatigue and goitre
f. typical symptoms are diarrhoea, fatigue and goitre

57. Thyrotoxicosis

a. is a condition of increased metabolism
b. is associated with an increase in T3 and T4 levels
c. is more common in women
d. is an acute life-threatening condition
e. represents a deficiency of thyroid hormones
f. represents a rare tumour in adulthood

58. What applies to hyperparathyroidism?

a. it is an increased secretion of parathyroid hormone
b. it is a reduced secretion of parathyroid hormone
c. it is an increased secretion of calcitonin
d. it is a reduced secretion of calcitonin
e. it is an increased secretion of thyroid hormones
f. it is a reduced secretion of thyroid hormones

59. Which of following belong to diseases arising due to hyperfunction of the anterior pituitary lobe?

a. gigantism
b. hyperprolactinemia
c. Sheehan's syndrome
d. nanism
e. diabetes insipidus
f. central precocious puberty

60. Which of following can cause hyperprolactinemia?

a. pituitary adenoma
b. prolactinoma
c. drugs
d. pituitary necrosis
e. hyperthyroidism
f. ACTH overproduction

61. Which of following manifest in the patient with hypoparathyroidism

a. tetanic convulsions
b. paraesthesia
c. hypocalcaemia
d. traffic jam
e. sweating
f. osteoporosis

62. Which types of diseases are associated with the thyroid gland?

a. Infectious
b. inflammatory
c. autoimmune
d. cancer
e. viral
f. congenital

2.5.2 Endocrine system – Part 2

1. Acute complications of diabetes include

    a. diabetic neuropathy
    b. diabetic retinopathy
    c. hyperglycaemic coma
    d. diabetic nephropathy
    e. ketoacidosis
    f. hypoglycaemic coma

2. Acute complications of diabetes mellitus include

    a. diabetic neuropathy
    b. diabetic nephropathy
    c. diabetic cataract
    d. hyperglycaemic coma with ketoacidosis
    e. hypoglycaemic coma
    f. hyperosmolar coma without ketoacidosis

3. Acute complications of type 2 diabetes include

    a. angiopathy
    b. hyperglycaemic coma with ketoacidosis
    c. retinopathy
    d. hypoglycaemic coma
    e. diabetic cataract
    f. hyperglycaemic coma without ketoacidosis

4. Among the complications of diabetes DO NOT BELONG

    a. diabetic foot
    b. diabetic neuropathy
    c. microangiopathy
    d. diabetic myopathy
    e. diabetic scleropathy
    f. diabetic retinopathy

5. Chronic complications of diabetes include

    a. diabetic neuropathy
    b. diabetic retinopathy
    c. hyperglycaemic coma
    d. diabetic nephropathy
    e. ketoacidosis
    f. hypoglycaemic coma

6. Chronic complications of diabetes include

    a. diabetic foot
    b. hyperglycaemia
    c. ketoacidosis
    d. retinopathy
    e. cardiovascular disorders
    f. nephropathy

7. Chronic complications of diabetes include

    a. hyperglycaemic coma
    b. hypoglycaemic coma
    c. diabetic retinopathy
    d. diabetic osteopathy
    e. diabetic neuropathy
    f. diabetic macroangiopathy

8. Chronic complications of diabetes mellitus include

    a. diabetic neuropathy
    b. diabetic nephropathy
    c. diabetic cataract
    d. hyperglycaemic coma with ketoacidosis
    e. hypoglycaemic coma
    f. hyperosmolar coma without ketoacidosis

9. Chronic complications of type 2 diabetes mellitus include

    a. retinopathy
    b. hyperglycaemic coma
    c. polyuria
    d. polydipsia
    e. microangiopathy
    f. neuropathy

10. Complications of diabetes include

    a. hypoglycaemic coma
    b. hyperglycaemic coma
    c. diabetic hand
    d. diabetic nephropathy
    e. diabetic osteopathy
    f. diabetic retinopathy

11. Diabetes mellitus

    a. is an inflammatory disease of the beta-cells of the pancreas

b. a typical feature is hypoglycaemia
c. a typical feature is hyperglycaemia
d. is diagnosed exclusively by measuring fasting blood glucose
e. is characterized by excessive glucose entry from the gut into the blood
f. is characterized by insufficient transport of glucose from the blood to the cells

12. Diabetes mellitus

a. it is always caused by a lack of insulin
b. may be due to insulin resistance
c. it can be caused by the death of Langerhans islet beta cells
d. is characterized by fasting hyperglycaemia
e. is characterized by long-term postprandial hyperglycaemia
f. is characterized by hyperglycaemia only at night

13. Diabetes mellitus

a. is a disease characterized primarily by impaired glucose metabolism
b. is characterized by hyperglycaemia, glycosuria, polyuria
c. is a disease typical of the elderly
d. is a treatable but incurable disease
e. it is manifested mainly by obesity, high blood pressure and anaemia
f. occurs mainly in smokers

14. Diabetic foot syndrome

a. presents poorly healing ulcers on the lower limbs
b. arises due to neuropathy of sensory nerves
c. may lead to sepsis
d. represents a rare complication of diabetes
e. represents intermittent mycoses in diabetics
f. occurs due to hypoglycaemic attacks in diabetics

15. Diabetic macroangiopathy

a. is damage to large blood vessels
b. is damage to small blood vessels (retina, glomeruli)
c. is manifested by pain in the lower limbs
d. manifests itself in poor wound healing
e. manifests itself in the formation of cataracts
f. is manifested by the presence of protein in the urine

16. Diabetic macroangiopathy

a. is typical for type 1 diabetes
b. accelerates the formation of atherosclerotic plaques
c. is caused by a lack of insulin for the vascular endothelium

d. it is preceded by a hypoglycaemic coma
e. induces a condition known as claudicatio intermittens
f. leads to the emergence of diabetic leg ulcers

17. Diabetic macroangiopathy is

a. damage to large vessels
b. damage to peripheral nerves
c. etiopathogenesis is the formation of reactive oxygen species
d. manifestations are pain, tingling, tingling in the lower limbs
e. manifestations are damage to eyesight to blindness
f. the patient has no healing problems

18. Diabetic microangiopathy

a. is damage to large blood vessels
b. is damage to small blood vessels (retina, glomeruli)
c. is manifested by pain in the lower limbs
d. manifests itself in poor wound healing
e. manifests itself in the formation of cataracts
f. manifests itself by damage to nerve myelination and impaired conduction

19. Diabetic microangiopathy

a. induces a condition known as claudicatio intermittens
b. leads to the emergence of diabetic leg ulcers
c. accelerates the formation of atherosclerotic plaques
d. it is damage to small blood vessels due to diabetes and reflects the duration of the disease
e. the increased presence of carbaminohaemoglobin is typical
f. mainly damages the lower limbs

20. Diabetic nephropathy is

a. renal impairment due to sepsis
b. glomerular sclerosis and fibrosis
c. renal dysfunction due to chronic inflammation
d. consequence of microangiopathy
e. accompanied with proteins in the urine
f. accompanied with the incapacity to urinate

21. Diabetic retinopathy

a. is characterized by neovascularization
b. newly formed vessels are key to the regeneration of the damaged retina
c. newly formed vessels are characterized by increased bleeding
d. together with cataract they can cause blindness

e. occur only in patients with type 1 diabetes mellitus
f. associated with microangiopathy

22. Diabetic ulcers

a. are ulcers caused by ischemia after mechanical pressure on the tissue
b. are a common complication of type 1 diabetes
c. are a complication of advanced type 2 diabetes
d. it is the least common complication of diabetes
e. it is a poorly healing wound, which often results in amputation of part of the lower limb
f. ulcers occur on the forearms and forelegs

23. For chronic complications of diabetes applies

a. hyperglycaemic coma is due to retinopathy and increased ketone body production
b. glycation of plasma proteins can cause endothelial damage and thus increase platelet adhesion
c. glycated haemoglobin is an important clinical parameter of type 2 diabetes mellitus
d. diabetic cataract occurs due to accumulation of sorbitol in the lens as a product of glucose metabolism
e. in diabetic nephropathy, glomerular filtration increases
f. diabetic retinopathy is a consequence of macroangiopathy

24. Glycation of proteins is

a. a non-enzymatic binding of glucose to -NH2 groups of proteins
b. enzymatically catalysed binding of glycogen to -NH2 groups of proteins
c. the reason for the endothelial cell damage
d. the reason for the damage to Langerhans cells
e. the cause of the diabetic ketoacidosis
f. the cause of the diabetic neuropathy

25. HbA1c

a. represents glycated haemoglobin
b. represents oxidized haemoglobin
c. is a parameter that refers of long-term diabetes compensation
d. is a parameter that refers of current blood glucose levels
e. the normal levels are 4-6%
f. the normal levels are 8-10%

26. HbA1c

a. represents glycated haemoglobin

b. represents oxidized haemoglobin
c. is a parameter that speaks of long-term diabetes compensation
d. is a parameter that speaks of current blood glucose
e. represents the velocity of coagulation
f. represents the amount of insulin in blood

27. Hyperglycaemia

a. is an abnormally elevated blood glucose level
b. is an abnormally low blood glucose level
c. its value is e.g., more than 11 mmol / l after a meal
d. is an abnormally elevated plasma glycogen level
e. is one of the symptoms of diabetes mellitus
f. is one of the symptoms of diabetes insipidus

28. Hyperglycaemia

a. is an elevated blood glucose level
b. it always occurs preprandially
c. is the underlying symptom of diabetes mellitus
d. on a fasting condition has values of more than 7.0 mmol / l
e. it occurs temporarily after a meal even in a healthy person
f. it is never present in a healthy person

29. Hyperglycaemic ketoacidosis in diabetic patients

a. occurs when a dose of insulin is missed
b. manifested by hypotension, tachycardia, irregular breathing, acetone odour
c. occurs because a lack of insulin stimulates lipolysis and the released fatty acids are oxidized in the liver to ketone bodies
d. occurs when an overdose of insulin is administered
e. is treated with glucose
f. manifests itself in tremors, sweating, paleness and dizziness

30. Hypoglycaemic coma

a. occurs in each diabetic patient
b. is typical with hypotension and acetone odour
c. occurs mainly in children
d. occurs when an overdose of insulin is administered
e. is treated with glucose
f. manifests itself in tremors, sweating, paleness and dizziness

31. Identify acute complications of diabetes

a. ketoacidosis
b. coma

c. hypoglycaemia
d. nephropathy
e. neuropathy
f. atherosclerosis

32. In diabetes mellitus, fasting blood glucose level is

a. ≥ 7.0 mmol / l
b. ≥ 11.1 mmol / l
c. ≤ 6.0 mmol / l
d. <3.3 mmol / l
e. ≥ 6.7 mol / l
f. ≥ 2.5

33. In diabetes mellitus, postprandial blood glucose level is

a. ≥ 7.0 mmol / l
b. ≥ 11.1 mmol / l
c. ≤ 6.0 mmol / l
d. <3.3 mmol / l
e. ≥ 6.7 mol / l
f. ≥ 2.5 mol / l

34. In type 2 diabetes mellitus

a. insulin is completely missing
b. there is enough insulin, but the cells are unable to respond to insulin
c. occurs in children
d. occurs in elderly people suffering from obesity, hypertension and atherosclerosis
e. is treated with diet and insulin administration
f. is treated with lifestyle modifications and oral antidiabetics

35. Ketone bodies

a. are formed during lipid metabolism
b. their production is reduced in patients with untreated diabetes
c. their production is increased in patients with non-therapeutic diabetes
d. are formed from glucose in hyperglycaemia
e. are the cause of acetone bad breath in diabetics
f. are the cause of hyperglycaemic coma

36. Mark the characteristic symptoms of type 1 diabetes mellitus

a. long-term hyperglycaemia
b. complete lack of insulin
c. insulin resistance

d. most common in children and adolescents
e. damage to the islets of Langerhans
f. damage to insulin receptors

37. Mark the characteristic symptoms of type 2 diabetes mellitus

a. long-term hyperglycaemia
b. complete lack of insulin
c. insulin resistance
d. most common in elderly
e. damage to the islets of Langerhans
f. damage to insulin receptors

38. Mark the correct statements

a. metabolic syndrome is associated with increased glycemia, blood pressure and LDL cholesterol
b. obesity increases the risk of insulin resistance due to increased leptin excretion
c. increased ghrelin production is an important factor in the development of hyperglycaemia and diabetes
d. the risk of leg ulcers is the risk of sepsis and limb amputation
e. neuropathy is an acute complication of type 1 diabetes because the brain is glucose deficient
f. cataracts are also caused by increased sorbitol production during glucose metabolism

39. Mark the correct statements

a. in type 2 diabetes, haemoglobin is glycated, which is also determined diagnostically
b. elevated glycemia is a risk factor for LDL particle oxidation and atheroma formation
c. the deposition of glycated and oxidized LDL particles in blood vessels is the prevention of thrombosis
d. due to inflammation in type 2 DM, patients have increased antimicrobial immunity
e. a typical manifestation of type 1 DM is polyphagia and weight gain
f. in type 1 diabetes, insulin is supplemented because its production is insufficient

40. Mark the correct statements

a. in type 1 diabetes, autoimmune damage to pancreatic β cells occurs
b. type 2 DM is characterized by insufficient insulin production
c. insulin induces peripheral vascular resistance in diabetics
d. hypoglycaemic coma may occur due to insulin overdose

e. glycated haemoglobin reduces the ability of haemoglobin to bind oxygen molecules
f. the development of advanced glycation products (AGEs) is associated with acute complications of diabetes

41. Mark the correct statements

a. in diabetic foot syndrome, wounds heal poorly and there is a risk of limb amputation
b. nephropathy is a macroangiopathy
c. the cause of type 2 diabetes is the destruction of pancreatic cells and a complete lack of insulin
d. insulin resistance means that the pancreas is unable to produce insulin
e. diabetic cataracts can result in blindness
f. metabolic syndrome includes abdominal obesity, hypertension, diabetes mellitus, and dyslipidaemia

42. Mark the correct statements

a. metabolic syndrome is associated with increased glycemia, blood pressure and LDL cholesterol
b. obesity increases the risk of insulin resistance due to increased leptin excretion
c. increased ghrelin production is an important factor in the development of glycemia and diabetes
d. the risk of leg ulcers is the risk of sepsis and limb amputation
e. neuropathy is an acute complication of type 1 DM because the brain is deficient in glucose
f. cataracts are also caused by increased sorbitol production during glucose metabolism

43. Mark the correct statements

a. insulin non-dependent diabetes arises as a result of the destruction of pancreatic beta cells by an autoimmune process
b. insulin resistance develops in older, more obese people, who often suffer from hypertension
c. hyperglycaemic coma is an acute complication of diabetes
d. in diabetic microangiopathy, small vessels e.g., in the retina are damaged
e. hypoglycaemic coma is a chronic complication of diabetes and can occur e.g., by low concentration of insulin
f. patients with DM1 type are more prone to developing metabolic syndrome

44. Mark the correct statements

a. in type 2 diabetes, haemoglobin is glycated, which is also determined diagnostically

b. elevated glycemia is a risk factor for LDL particle oxidation and atheroma formation
c. the deposition of glycated and oxidized LDL particles in blood vessels is the prevention of thrombosis
d. due to inflammation in type 2 DM, patients have increased antimicrobial immunity
e. a typical manifestation of type 1 DM is polyphagia and weight gain
f. in type 1 diabetes, insulin is supplemented because its production is insufficient

45. Mark the correct statements about diabetes mellitus

a. diabetes is a metabolic disease characterized by disorders of glucose and lipid metabolism
b. metabolic syndrome is a combination of hypertension, diabetes and dyslipidaemia in obese patients
c. hyperglycaemic coma may occur in patients with untreated diabetes
d. in a hypoglycaemic coma, the first aid is to administer glucose to the patient
e. hypoglycaemic and hyperglycaemic coma are classified as chronic complications of diabetes
f. patients with diabetes are the first to damage the brain, kidney, retina, lens, nerves and capillaries

46. Mark the correct statements about diabetes type 1 (DM1)

a. it affects young people under 18
b. it can be juvenile (congenital) or autoimmune type
c. in the autoimmune type, pancreatic β-cells die
d. weight gain is typical in patients
e. insulin is synthesized but tissues are unable to respond to it
f. rather affects elderly patients

47. Mark, what applies to diabetic microangiopathy

a. hypoxia occurs during it
b. there is damage to small blood vessels
c. it damages large blood vessels
d. there is damage to the peripheral nerves
e. patients with diabetic microangiopathy have impaired vision, even blindness
f. glycated haemoglobin can be a marker for determining diabetic microangiopathy

48. Symptoms of diabetes include

a. polydipsia
b. oligodipsia
c. polyuria

d. oliguria
e. polyphagia
f. oligophagia

49. Symptoms of diabetes include

a. weight loss
b. insomnia
c. increased tribute to anxiety
d. increased feeling of thirst
e. increased urge to urinate
f. increased feeling of hunger

50. Symptoms of diabetes mellitus include

a. weight gain
b. fatigue
c. glycosuria
d. common infections
e. polyuria
f. hyperactivity

51. The following statements apply to diabetes

a. there are 2 types of DM, one of which is associated with neonates
b. autoimmune destruction of Langerhans islet B-cells is the basis of type 1 DM
c. insulin resistance is the basis for the development of type 2 DM
d. Type 1 DM mainly affects elderly and obese patients
e. insufficient response of peripheral tissues to insulin leads to increased glycemia and glucose uptake to surrounding structures
f. typical manifestations of DM are polyuria, polydipsia and polyphagia

52. The following statements apply to diabetes

a. there are 2 types of DM, one of which is associated with neonates
b. autoimmune destruction of Langerhans islet B-cells is the basis of type 1 DM
c. insulin resistance is the basis for the development of type 2 DM
d. type 1 DM mainly affects elderly and obese patients
e. insufficient response of peripheral tissues to insulin leads to increased glycemia and glucose uptake to surrounding structures
f. typical manifestations of DM are polyuria, polydipsia and polyphagia

53. The main manifestations of diabetes mellitus are

a. hyperglycaemia and glycosuria
b. hypoglycaemia without glycosuria
c. hypoglycaemia and glycosuria

d. hypertension and hypolipidemia
e. hypotension associated with thirst
f. none of answers is correct

54. The main symptoms of diabetes mellitus are

a. polyuria and polydipsia
b. weight loss
c. increased feeling of hunger
d. fever
e. swelling of the feet
f. tachycardia

55. The main symptoms of type 1 diabetes include

a. polyphagia
b. polydipsia
c. polyuria
d. neuropathy
e. nephropathy
f. retinopathy

56. The metabolic syndrome typically involves

a. abdominal obesity
b. presence of hypertension
c. the presence of a failing heart
d. presence of type 1 diabetes mellitus
e. elevated cholesterol levels
f. lower cholesterol

57. The typical symptoms of diabetes type 1 are

a. fatigue
b. polyuria
c. polydipsia
d. depression
e. common infections
f. weight gain

58. Type 1 diabetes mellitus

a. occurs in the elderly and smokers
b. often occurs in younger people (children, adolescents)
c. there is an absolute lack of insulin
d. is caused by autoimmune or viral destruction of pancreatic B cells

e. occurs in elderly people suffering from obesity, hypertension and atherosclerosis
f. is treated with lifestyle modifications and oral antidiabetics

59. Type 1 diabetes mellitus

a. represents an absolute lack of insulin
b. is typical of insulin resistance
c. is mostly of autoimmune origin
d. it is mostly associated with lifestyle and metabolic syndrome
e. is diagnosed if preprandial glycaemia is ≥ 7 mmol / l
f. insulin levels are normal or elevated

60. Type 2 diabetes mellitus

a. represents an absolute lack of insulin
b. is typical of insulin resistance
c. is mostly of autoimmune origin
d. it is mostly associated with lifestyle and metabolic syndrome
e. is typical in people over 40 years of age
f. insulin levels are normal, elevated or decreased

61. Types of diabetes are summarized

a. diabetes mellitus dependent on glucagon secretion
b. type 1 diabetes mellitus, i.e., independent of insulin
c. type 1 diabetes mellitus, i.e., insulin dependent
d. type 2 diabetes mellitus, i.e., independent of insulin
e. type 2 diabetes mellitus, i.e., insulin dependent
f. gestational diabetes mellitus

62. Typical diseases accompanying the metabolic syndrome are

a. acute inflammation
b. hypertension
c. type 1 diabetes mellitus
d. type 2 diabetes mellitus
e. thyroid hyperactivity
f. dyslipidaemia

63. What applies to chronic complications of diabetes

a. damage to the capillaries and venules can lead to ischemia and tissue death
b. glycated haemoglobin has a higher affinity for CO2 binding and therefore leads to ischemia
c. glycation of plasma proteins damages the vascular endothelium and leads to thrombosis

d. diabetic neuropathy leads to symptoms of tickling and tingling in the lower limbs
e. cataracts form due to diabetic retinopathy
f. the development of advanced glycation products - AGEs - is the basis for the development of diabetic ketoacidosis

2.6 Reproductive system

1. Amenorrhea

    a. it is often hereditary / genetically determined
    b. is synonymous with anovulation
    c. it can also be caused by anorexia
    d. is the secretion of milk from the non-lactating breast
    e. it is an omission of menstruation
    f. it is an inflammation of the mammary glands due to a bacterial infection

2. Amenorrhea indicates

    a. medical indication of promiscuity
    b. possible consequence of polycystic ovarian syndrome
    c. absence of menstruation until the age of 15
    d. disproportionately painful menstruation
    e. secondarily, it can also occur due to low levels of body fat
    f. purulent discharge

3. An ectopic pregnancy is

    a. synonym for abortion
    b. increase in blood pressure and proteinuria in pregnancy
    c. fertilization of an egg with two sperm
    d. pregnancy, when the fertilized egg is nested outside the uterus
    e. risk factor for bleeding conditions
    f. erythroblastosis

4. Balanitis is

    a. an inflammation of the glans penis
    b. an infection of the meninges
    c. inflammation of the gums
    d. inflammation of the testicles
    e. inflammation of the urethra
    f. inflammation of the fallopian tubes

5. Cervicitis and polyps

    a. they typically occur after menopause
    b. they are often the result of infectious inflammations
    c. polyps are associated with hyperplasia and are a risk factor for dysplasia and neoplasia
    d. mucopurulent discharge is a common clinical manifestation
    e. it is the tissue of the uterus that sticks out of the uterus

f. cervical polyps are most often caused by infection with HPV viruses

6. Common causes of prostate inflammation are

    a. E. coli or Klebsiella bacteria
    b. benign prostatic hyperplasia
    c. unprotected sexual intercourse
    d. HPV infection
    e. Treponema pallidum infection
    f. oesophageal reflux into the bladder

7. Cryptorchidism

    a. it is synonymous with testicular cancer
    b. it is the non-descent of the testicles from the abdominal cavity
    c. causes fluid to accumulate around the testicles
    d. is synonymous with twisted vas deferens
    e. it is typical in premature babies or newborns
    f. it is inflammation of the epididymis, most often of infectious origin

8. Deep pelvic inflammation

    a. affects only the uterus
    b. is caused by the herpes zoster virus
    c. it is manifested by maculopapular sowing all over the body
    d. affects the uterus, ovaries, fallopian tubes
    e. it is manifested by fever, malaise, abnormal discharge and bleeding
    f. occurs with promiscuity, unprotected contact, frequent vaginal lavages

9. Deep pelvic inflammation is

    a. non-bacterial chronic inflammatory disease
    b. infectious inflammation of the female upper genitals
    c. infectious prostatitis
    d. it is most often caused by a bacterial infection of Neisseria gonorrhoeae and Chlamydia trachomatis
    e. a consequence of sexually transmitted infections
    f. as a result, the prostate may become enlarged

10. Dysmenorrhea

    a. means pain and difficulty menstruating
    b. is sexually transmitted
    c. it also causes migraine headaches
    d. causes infertility
    e. she is accompanied by breast pain
    f. it produces a purulent discharge

11. Eclampsia is

    a. synonymous with seizures that represent a potentially fatal condition in pregnancy
    b. clinical indication for hypertension and proteinuria in pregnancy
    c. may results from preeclampsia
    d. synonym for epilepsy
    e. a designation for liver failure and thrombocytopenia in a pregnant woman
    f. seizures, which may be due to increased blood clotting and storage of fibrin in cerebral vessels

12. Ectopic pregnancy

    a. mucopurulent discharge is a common clinical manifestation
    b. it is caused by the tissue of the uterus, which sticks out of the uterus
    c. it typically occurs after menopause
    d. is often associated with polycystic ovary syndrome
    e. it is the nesting of an egg outside the uterus
    f. may cause ovarian rupture or miscarriage

13. Endometriosis

    a. is an ovaries disease
    b. is an uterus disease
    c. it manifests by discharge, fever and abdominal pain
    d. it is presented by cysts in the endometrium which are filled with a dark brown fluid
    e. it is transmitted from the mother to the foetus
    f. is a common cause of infertility

14. Endometriosis is

    a. cervical cancer
    b. proliferation of fibroglandular tissue in the breast
    c. mucopurulent sowing in syphilis
    d. the presence of fissures in the uterus
    e. pathological localization of the endometrium with the presence of cysts filled with dark brownish fluid
    f. intraepithelial neoplasia in benign prostatic hyperplasia

15. Epididymitis

    a. testicular inflammation of infectious origin
    b. inflammation of the epididymis of infectious origin
    c. autoimmune inflammation of the epididymis
    d. synonym for testicular torsion
    e. non-descent of the testicles from the abdominal cavity

f. a designation for reduced sperm motility

16. Epididymitis

a. is synonymous with twisted vas deferens
b. is associated with increased prostate epithelial tissue proliferation
c. it is inflammation of the epididymis, most often of infectious origin
d. it is the non-descent of the testicles from the abdominal cavity
e. it is typical in premature babies or newborns
f. may result in testicular edema and erythema

17. Epididymitis is

a. inflammation of the prostate
b. inflammation of the ovaries
c. penile inflammation
d. inflammation of the vagina
e. none of these answers is correct
f. uterine inflammation

18. External genitalial inflammatory disease include

a. prostatitis
b. balanitis
c. ovaritis
d. vulvitis
e. vaginitis
f. adnexitis

19. Galactorrhoea

a. is breast enlargement in women
b. is a spontaneous discharge of milk from the breast that is not related to pregnancy
c. is a spontaneous outflow of lymph from the breast that is not related to pregnancy
d. it can occur in women, men, and children
e. it occurs only in women
f. it can also be caused by a pituitary tumour

20. Galactorrhoea

a. it is an omission of menstruation
b. is the secretion of milk from the non-lactating breast
c. it can be caused by hormonal fluctuations or hormone replacement therapy
d. it is an omission of menstruation

e. it can be caused by inflammation of the mammary glands due to a bacterial infection
f. is synonymous with breast inflammation

21. Galactorrhoea is

a. delayed milk production after childbirth
b. milk production disorder
c. non-postpartum discharge of milk from the breast
d. galactose metabolism disorder
e. excretion of galactose in the renal tubules in the form of crystals
f. the presence of galactose in the urine

22. Galactorrhoea is

a. infectious inflammation of the breast
b. pre-stage of breast cancer
c. clinical manifestation of BRCA1 / 2 mutations
d. synonym for gynecomastia
e. absence of menstruation until the age of 15
f. secretion of milk from non-lactating breast

23. Gestosis is

a. nesting of a fertilized egg outside the uterus
b. placental disease in which the mother suffers from increased blood pressure and proteinuria
c. incompatibility of mother and child blood groups
d. autoimmune disease of the ureteral mucosa
e. bladder diverticulum
f. placental insufficiency at birth

24. Gonorrhoea

a. the causative agent of this disease is Treponema pallidum
b. it is transmitted through sexual intercourse and from mother to child during pregnancy or childbirth
c. manifested first by ulcus durum, later by maculopapular seeding and finally by damage to organs, blood vessels and CNS
d. it is caused by Neisseria gonorrhoeae
e. it is transmitted by droplet infection
f. it is manifested by fever and the formation of a purulent discharge

25. Gynecomastia

a. is breast enlargement in men
b. is breast enlargement in women

c. it can be caused by a tumour in the pituitary gland
d. it can only be caused by a malignant tumour in the breast
e. the essence of its emergence is an imbalance between androgens and oestrogens
f. it is manifested by the outflow of milk from the breast

26. High levels of oestrogen can contribute to the development of

a. breast cancer
b. osteoporosis
c. prostate cancer
d. endometrial cancer
e. colon cancer
f. prostatitis

27. HPV infection

a. is responsible for more than 90% of cervical cancer cases
b. HPV subtypes 16 and 18 are oncogenic
c. prevention against HPV is vaccination
d. persistent infection causes cell differentiation and pre-cancerous
e. is present only in women
f. is caused by the human papillomavirus

28. Hydrocele

a. cystic mass caused by varicocele can grow to large proportions
b. causes fluid to accumulate around the testicles
c. is synonymous with torsion of testicle
d. it is an inflammation of the testicles, most often of infectious origin
e. it is synonymous with testicular cancer
f. it is often caused by valve disorders and varicosities of the venous plexus of the testes

29. Identify the primary causes of inflammatory diseases of the reproductive system

a. HPV virus
b. Neisseria gonorrhoea
c. Treponema pallidum
d. psoriasis
e. erythema
f. atopic dermatitis

30. In the third stage of syphilis, which of following may occur in the patient

a. ulcus durum
b. syphilitic gummi

c. aortic aneurysm
d. maculopapular sowing
e. neurosyphilis
f. rash on mucous membranes

31. Indicate fetoplacental unit disease

a. gestosis
b. mola hydatidosa
c. polycystic ovary syndrome
d. convulopathic epilepsy
e. foetal erythroblastosis
f. chronic endothelial insufficiency

32. Indicate the terms that relate to gonorrhoea

a. Neisseria gonorrhoeae
b. Treponema pallidum
c. Chlamydia trachomatis
d. latent phase
e. diplococcal bacterium
f. multiplication of bacteria in neutrophils

33. Indicate the terms that relate to syphilis

a. Neisseria gonorrhoeae
b. Treponema pallidum
c. Chlamydia trachomatis
d. latent phase
e. diplococcal bacterium
f. multiplication of bacteria in neutrophils

34. Infertility

a. the most common cause is anorexia and eating disorders
b. ectopic pregnancy arises as a result
c. may be due to endometriosis and deep pelvic inflammation
d. is often associated with polycystic ovary syndrome
e. may be due to cryptorchidism
f. it results in the most common dysmenorrhea

35. Mark the correct statements for fetoplacental unit disease

a. gestosis may lead to preeclampsia and eclampsia
b. fertilization of one egg or an egg without genetic material with 2 sperms is called mola hydatidosa
c. polycystic ovary syndrome is a risk factor for preeclampsia

d. convulopathic epilepsy is a syndrome of gestosis
e. in foetal erythroblastosis, haemolysis, anaemia or splenomegaly occur
f. in acute placental insufficiency, foetal asphyxia may occur

36. Mark the bacteria that most commonly cause sexually transmitted diseases (STDs)

a. Treponema Pallidum
b. Cytomegalovirus
c. Neisseria gonorrhoeae
d. Streptococcus pyogenes
e. Mycoplasma
f. Chlamydia

37. Mark the correct statements

a. circulating PSA levels are an important marker of prostate status
b. BRCA1 and 2 mutations are exclusively present in breast cancer
c. prostatic intraepithelial dysplasia is a precursor to adenocarcinoma
d. incontinence may also occur in prostate cancer
e. smoking and obesity are common risk factors for cancer
f. the main indicator of prostate cancer is the formation of polyps on the ureter

38. Mark the correct statements

a. HPV causes prostatitis
b. erectile dysfunction is a complication of prostate cancer
c. vaccination of young girls can also reduce the risk of cervical cancer
d. the symptom of gonorrhoea is also the emergence of the so-called dorsal tabs
e. the prevention of breast cancer is also a regular mammographic examination and the breast examination itself
f. syphilis causes urinary disorders in men

39. Mark the correct statements

a. endometriosis is an occurrence of endometrial tissue outside the uterus which can cause infertility
b. after menopause, there is a decrease in osteoclast activity and increased calcium storage in the bones
c. the most common cause of oncological diseases of the breast and uterus are oncogenic herpes viruses
d. in ectopic pregnancy there is a risk of ovarian rupture, bleeding and amenorrhea
e. polyps are the result of hypoplasia of the cervical mucosa
f. staphylococcal bacteria are a common cause of breast infections

40. Mark the correct statements

a. the most common testicular dysfunction is testicular torsion
b. the rarest disease of the male reproductive system is erectile dysfunction
c. scrotal cancer can also be caused by HPV infection
d. cryptorchidism is a risk factor for testicular cancer
e. cryptorchidism is a term for infectious testicular inflammation
f. as a result of mumps or scarlet fever, testicular inflammation and disorders of spermatogenesis may also occur

41. Mark the correct statements about the HER2 receptor

a. it is a human epidermal growth factor receptor
b. its overexpression is associated with better disease prognosis
c. is expressed primarily in breast tissue
d. is expressed primarily in the ovaries
e. its overexpression is associated with reduced survival
f. is associated with suppression of tissue growth

42. Mark the correct statements applying to deep pelvic inflammation

a. is most often caused by a bacterial infection
b. is caused solely by a viral infection
c. is most often caused by ionized radiation
d. a risk factor is promiscuous sex life
e. may cause peritonitis
f. may cause pneumothorax

43. Mark the correct statements for acute prostatitis

a. it is most often caused by the HPV virus
b. in women it occurs as a result of frequent cystitis
c. manifests as abnormal vaginal discharge
d. it is caused often by bacteria
e. it arises mainly from frequent urinary tract infections
f. manifested by fever, dysuria, cloudy urine

44. Mark the correct statements for benign prostatic hyperplasia (BPH)

a. perineal pain is a typical manifestation
b. if untreated it goes always into malignant cancer
c. for diagnosis it is possible to biochemically determine the prostate specific antigen
d. a dynamic component of BPH is the activation of alpha-1 adrenergic receptors on vascular smooth muscle
e. it is a benign enlargement of the prostate
f. BPH worsens detrusor instability and bladder contractility

45. Mark the correct statements for benign prostatic hyperplasia (BPH)

a. the static component of BPH is an increase in the mass of the glandular and connective tissue of the prostate
b. dihydrotestosterone (DHT), which stimulates proliferation, is a critical component for prostate tissue growth
c. inhibition of DHT production helps to reduce prostate tissue proliferation
d. BPH has no effect on bladder function
e. it is a malignant enlargement of the prostate
f. the dynamic component of BPH is activation β1 adrenergic receptor on vascular smooth muscle

46. Mark the correct statements for erectile dysfunction

a. may result from arteriosclerosis or damage to the vascular endothelium
b. it is a purely psychogenic disease
c. may signal metabolic or cardiovascular diseases such as DM2 or hypertension
d. increased phosphodiesterase 5 activity is a mechanism providing increased cGMP activity and vasodilation
e. an important factor in erectile function is the mediation of dilatation of vascular smooth muscle through nitric oxide
f. ischemic heart disease always precedes erectile dysfunction

47. Mark the correct statements for erectile dysfunction

a. both psychological and pharmacological therapy can be used to treat erectile dysfunction
b. erectile dysfunction is in most cases of psychogenic origin
c. it is a common disorder in men over the age of 40 to varying degrees
d. is a good marker of cardiovascular and metabolic diseases such as hypertension or diabetes mellitus
e. specific therapy involves vaso- and arterio-dilatation through inhibition of phosphodiesterase 5
f. endothelial damage is typical in the psychogenic form of the disease

48. Mark the correct statements for erectile dysfunction and autonomic functions in erection and ejaculation

a. relaxation of vascular smooth muscle in erectile tissue is mediated by a cascade of nitric oxide and ↑ cGMP
b. smooth muscle relaxation disorder is independent of endothelial function
c. anxiety or manic-depressive syndrome is the basis for the organic form of the disease
d. parasympathetic activation is important for stimulating secretion in the urethral glands

e. metabolic syndrome improves by vasodilation through stimulation β3 receptors and lipolysis
f. stimulation of the sympathetic nervous system is required for contraction of the vas deferens and prostate

49. Mark the correct statements for gonorrhoea

a. is caused by a bacterial infection of Neisseria gonorrhoeae
b. the infection cannot be transmitted to the newborn at birth
c. bacteria multiply extracellularly, especially in blood plasma and lymph
d. the discharge is infectious and also contains disease-causing bacteria
e. N. gonorrhoeae bacteria can effectively defend themselves against products and antibodies formed by immune cells
f. tissue damage is mainly due to direct destruction of the urethra by the bacterium itself

50. Mark the correct statements for pelvic inflammatory disease

a. it is a non-infectious inflammation caused by calcification of the walls of the uterus
b. an ectopic pregnancy can be a serious complication
c. the etiology of the disease is exclusively a bacterial infection
d. frequent partner changes or vaginal lavages are a risk factor for the disease
e. a typical microorganism for the development of the disease is Chlamydia trachomatis
f. hormonal changes during ovulation and menstruation reduce the risk of infection

51. Mark the correct statements for polycystic ovary syndrome (PCOS)

a. it is usually associated with a reduction in luteinizing hormone levels and thus a reduced production of androgens
b. it is usually associated with increased levels of luteinizing hormone and thus increased production of androgens
c. is a typical cause of anovulation in women of childbearing age
d. it is usually associated with decreased levels of follicle-stimulating hormone
e. correction of the condition is possible by stimulation of the hypothalamic-pituitary axis
f. it is usually associated with increased levels of follicle-stimulating hormone

52. Mark the correct statements for polycystic ovary syndrome (PCOS)

a. typical manifestations are acne, hyperandrogenism, hirsutism, weight gain or increased hair growth
b. may result in infertility and an increased risk of cancer
c. hyperinsulinemia and insulin resistance can cause the disease
d. typical manifestations are increased blood pressure and proteinuria

e. it is also known as pregnancy-induced hypertension
f. hormone replacement therapy can be used to treat hormonal disbalance

53. Mark the correct statements for preeclampsia and eclampsia

a. is defined as an increase in pressure above 125 mmHg systolic and 85 mmHg diastolic
b. the main risk factor is HPV virus infection
c. it is a disease in which hypertension and proteinuria occur during pregnancy
d. HELLP syndrome includes haemolysis, liver failure, and thrombocytopenia
e. an important pathomechanisms is hypoperfusion and endothelial dysfunction of the fetoplacental unit
f. the occurrence of seizures is due to hereditary epilepsy of the foetus

54. Mark the symptoms of prostatitis

a. urge to urinate
b. pain when urinating
c. frequent urination
d. erectile dysfunction
e. insomnia
f. swelling of the testicles

55. Mark which risk factors DO NOT cause the cervical cancer

a. BRCA genes
b. promiscuity
c. HPV infection
d. herpes simplex labialis virus infection
e. oral contraceptives
f. very high oestrogen levels

56. Mark, what applies to cryptorchidism

a. possible cause of hypogonadism
b. excess of luteinizing hormone in pituitary tumours
c. non-descent of the testicle from the abdominal cavity resp. peritoneum
d. the onset of edema in the tunica vaginalis
e. this is the designation of karyotype 47XXY
f. it is a forensic analysis of the post-mortem reproductive system

57. Mark, what applies to fetoplacental unit disorders

a. these are diseases of the same etiology, differing only in pathomechanisms
b. foetal asphyxia may occur in acute placental insufficiency
c. gestosis is a serious condition in which coagulopathies or oedemas occur to the mother due to placental damage

d. blood group Rh factor incompatibility is always fatal to the foetus
e. when fertilizing an empty egg with 2 sperms, the foetus can develop normally using immunosuppressants
f. it is the presence of preeclampsia and eclampsia

58. Mark, what applies to preeclampsia and eclampsia

a. development is based on endothelial dysfunction, inflammatory response and platelet activation
b. clinical criterion is a reduction in blood pressure below 140/90 mmHg and proteinuria below 300 g / 24h
c. it is often associated with an increase in creatinine, platelets or liver transferases
d. arises independently of fetoplacental barrier disorders
e. a typical manifestation is a decrease in glomerular filtration, renal flow and the development of edema
f. it is not usually associated with clinical manifestations outside the abdomen

59. Mark, what applies to preeclampsia and eclampsia

a. ischemic-reperfusion injury or flow damage of placental cotyledons (villi) is a factor
b. progression into eclampsia is a risk factor for the mother's death, it is similar to an epileptic seizure
c. the cause of eclampsia may be reduced blood clotting and the breakdown of fibrin in the cerebral vessels
d. occurs mainly in first-time mothers, in multiple pregnancies, in women with vascular or renal diseases
e. some symptoms such as headache, nausea, vomiting or visual disturbances are similar to migraines
f. the set of symptoms is the so-called HELLP syndrome where we include haemolysis, increase in liver transferases and thrombocytopenia

60. Mastitis is

a. breast inflammation, often due to infection
b. breast inflammation, which can cause bacteria passed from the baby's mouth
c. secretion of milk from non-lactating breast
d. synonym for gynecomastia
e. disproportionately painful menstruation
f. fallopian tube rupture

61. Orchitis is

a. a name to reduce sperm counts
b. inflammation of the epididymis of infectious origin
c. genital herpes

d. autoimmune testicular inflammation
e. testicular inflammation of infectious origin
f. designation for scrotal cancer, often due to HPV infection

62. Primary syphilis is characterized by a characteristic lesion at the site of infection, as this lesion is called

a. maculopapular sowing
b. Kaposi's sarcoma
c. ulcus durum
d. gummi
e. leucoplakia
f. myxoedema

63. Prostatitis

a. arises as a result of a vitamin D receptor mutation and vitamin D deficiency
b. androgens and oestrogens are involved
c. the main symptom is ulcus durum
d. it arises mainly from inflammation of the urinary tract
e. it can also cause infertility
f. manifested by fever, dysuria, nocturia, polakisuria

64. Provide the correct statements for polycystic ovary syndrome

a. does not cause significant difficulties or the risk of infertility
b. is a common cause of anovulation
c. decreased FSH levels affect the maturation of the follicles and they remain in the ovary
d. increased LH result in increased androgen synthesis
e. Increased testosterone levels can lead to increased acne and hair growth
f. increased LH production reduces the risk of breast or ovarian cancer

65. Stages of syphilis include

a. primary syphilis
b. ulcus mollum stage
c. stage of generalized maculopapular rash
d. stage of maculopapular genital rash
e. latent phase
f. stage of organ damage

66. Symptoms and complications of gonorrhoea include

a. spinal cord injury in the tertiary stage
b. hepatic impairment and renal failure
c. infectious discharge from the penis or vagina

d. miscarriage or premature birth in pregnant women
e. they occur mainly after the use of oral contraceptives
f. in men, they are mainly associated with bloody urethral discharge

67. Syphilis

a. it is caused by Neisseria gonorrhoeae
b. it is transmitted by droplet infection
c. it is manifested by fever and the formation of a purulent discharge
d. the causative agent of this disease is Treponema pallidum
e. it is transmitted through sexual intercourse and from mother to child during pregnancy or childbirth
f. it is manifested first by ulcus durum, later by maculopapular seeding and finally by damage to organs, blood vessels and CNS

68. The most common complications of deep pelvic inflammation are

a. nausea and vomiting
b. phimosis
c. abnormalities in the ejaculate
d. infertility
e. ectopic pregnancy
f. ovarian abscesses

69. The risk factor is direct relative with the disease, symptoms include difficulty urinating and blood in the ejaculate, weight loss without a change in diet and a high PHI index. Select a potential disease

a. benign prostatic hyperplasia
b. prostate cancer
c. acute prostatitis
d. endometriosis
e. erythroblastosis
f. ovaritis

70. The risk factor is direct relative with the disease, the symptoms are shoulder pain, weight loss without a change in diet and increased levels of circulating oestrogen. Select a potential disease

a. pelvic inflammatory disease
b. cervical cancer
c. gonorrhoea
d. cystitis
e. gestosis
f. breast cancer

71. Ulcus durum is typical of

a. prostate cancer
b. cervical cancer
c. syphilis
d. gonorrhoea
e. prostatitis
f. herpes

72. Varicocele

a. it is often caused by valve disorders and varicosities of the venous plexus of the testes
b. is synonymous with twisted vas deferens or torsion of testicle
c. causes fluid to accumulate around the testicles
d. may cause vascular wall hypertrophy
e. is a risk factor for reduced spermatogenesis
f. it is an inflammation of the testicles, most often of infectious origin

73. Varicocele is

a. testicular cancer
b. cystic mass around the testicles
c. dilation of the vessels supplying the testis
d. represents the twisting of the vas deferens
e. inflammation of the epididymis
f. may cause a decrease in sperm count and motility

74. Venereological infections

a. cause mutations e.g., BRCA gene, androgen receptor and vitamin D
b. are transmitted orofecally
c. they are life threatening and require immediate help
d. are caused by bacteria (e.g., chlamydia, N. gonorrhoeae, T. pallidum, mycoplasmas)
e. are transmitted sexually
f. they are also transmitted to the baby during pregnancy and childbirth

75. What applies to benign hyperplasia?

a. it is a pre-stage of prostate cancer
b. the pathogenesis involves the action of the metabolite DHT, which has a higher effect on tissue proliferation than testosterone
c. typical symptoms are nocturia, urge to urinate or weakened urine flow
d. there is no pharmacological therapy for this disease
e. the examination of the disease is carried out exclusively by serological determination of the levels of circulating PSA

f. dynamic component in pathogenesis is activation of alpha 1 adrenergic receptor in prostate smooth muscle

76. What applies to hypogonadism?

a. in the primary is the failure of the response to stimulation by pituitary hormones in the testes
b. is a common cause of infertility
c. elevated levels of luteinizing hormone in the blood indicate damage to Leydig cells
d. affects only men
e. cannot result from hypothalamic / pituitary tumours
f. plasma PSA (serum prostate antigen) levels is the main diagnostic criterion

77. What are the most commonly associated viruses with the development of cervical cancer?

a. Herpes simplex virus 1
b. Human herpesvirus 8
c. Human papillomavirus-16
d. Cytomegalovirus
e. Human papillomavirus-18
f. Epstein-Barr virus

78. What does the term amenorrhea mean?

a. severely painful menstruation
b. purulent vaginal discharge
c. absence of menstruation
d. placental damage
e. seizures during pregnancy
f. overgrowth of epithelial tissue into muscle

79. What is true for hypogonadism?

a. in primary hypogonadism, the cause is a lack of luteinising / follicle-stimulating hormone
b. in secondary hypogonadism, the cause is a lack of luteinising / follicle-stimulating hormone
c. the phenotype of secondary hypogonadism is a decrease in testosterone and LH / FSH
d. the phenotype of primary hypogonadism is a decrease in testosterone and LH / FSH
e. common causes are genetic abnormalities (e.g., Klinefelter’s syndrome) or cryptorchidism
f. elevated FSH levels are associated with Leydig cell damage

80. Which inflammatory - NOT sexually transmitted diseases of the reproductive system do you know?

    a. syphilis
    b. gonorrhoea
    c. prostatitis
    d. vaginitis
    e. carcinoma
    f. chlamydia

81. Which symptom is typical of the first stage of syphilis?

    a. maculopapular sowing
    b. ulcus durum
    c. syphilitic gummi
    d. occulosyphilis
    e. painless hard ulcer
    f. syphilitic sore throat

2.7 EXCRETORY SYSTEM

2.7.1 Excretory system – Part 1

1. Acute glomerulonephritis (GN)

    a. has worse prognosis as the chronic GN
    b. can't cause the kidney failure
    c. often affects the children, younger and men
    d. prognosis is generally good; complication may occur mainly in older patients or in acute GN with rapid progression
    e. often is caused by infectious agents, inflammation blood vessels or by immunological reaction
    f. typical syndromes encompass haematuria, proteinuria, fever, headaches or oedemas

2. Benign prostatic hyperplasia

    a. is the prostate shrinkage due to hyperplasia of prostate gland
    b. it affects mainly older men and women
    c. pathomechanisms includes increased enzymatic activity of aromatases (5-alpha reductase)
    d. is the synonym for the prostate cancer
    e. altered hormonal metabolism lead to accumulation of dihydrotestosterone and oestrogen
    f. symptoms include frequent need to urinate, nocturia, weak or difficult urination and inability to completely empty the bladder

3. Choose the correct statements about complications of proteinuria - loss of albumin

    a. RAAS increases water reabsorption and edema formation
    b. proteinuria increases fluid transport into the interstitial spaces
    c. proteinuria induces formation of edema
    d. RAAS is not involved in the regulation of intravascular fluid
    e. the oncotic pressure decreases
    f. the oncotic pressure increases

4. Choose the correct statements about glomerulonephritis

    a. it is a purulent inflammation of the renal pelvis caused by a bacterial infection
    b. immunological reactions play an important role in its development - antibodies, immunocomplexes
    c. is a non-inflammatory glomerular disease
    d. 1. type is the antibody glomerulonephritis
    e. abscess with haemorrhagic margin is present
    f. is an inflammatory glomerular disease

5. Cystitis

    a. is inflammation of the urine bladder
    b. is inflammation of the urethra
    c. arises after overcoming e.g., angina
    d. affects women rather than men
    e. manifests by dysuria, polakisuria
    f. is a complication of diabetic nephropathy

6. Cystitis is

    a. inflammation of the bladder, usually caused by a bladder infection
    b. it's a common type of urinary tract infection
    c. its typical symptoms include pain during urination, coloration or smelliness of urine, need to urinate, potentially fever and weakness
    d. is the synonym for the glomerulonephritis
    e. is never caused by irritating compounds or drugs
    f. is always only short and acute disease

7. Cystitis is

    a. inflammation of the urethra
    b. is more prevalent in women than in men
    c. is an upper urinary tract infection
    d. is a lower urinary tract infection
    e. causes burning sensation when urinating, increased frequency and urge to urinate
    f. inflammation of the bladder

8. Cystitis is an

    a. inflammation of the prostate gland
    b. inflammation of the renal pelvis
    c. inflammation of the glomeruli
    d. inflammation of the bladder
    e. inflammation of the urethra
    f. inflammation in diabetic nephropathy

9. Glomerulonephritis is

    a. inflammatory disease of the renal glomeruli often due to infection
    b. associated with decreased urinary excretion of blood or proteins
    c. in the case of corneal disease, associated with deterioration of renal function and renal failure
    d. equivalent with nephrotic syndrome
    e. congenital kidney disease
    f. associated with haematuria, proteinuria or water and salt retention

10. Glomerulonephritis

    a. is non-inflammatory kidney disease
    b. is non-purulent inflammatory disease of the kidneys
    c. are purulent inflammatory diseases of the kidneys
    d. can be caused by bacteria, toxins, drugs
    e. manifests mainly by dysuria, polakisuria, nocturia
    f. damages both the tubules and the blood vessels in the kidneys

11. Glomerulopathy includes

    a. diabetic nephropathy
    b. glomerulonephritis
    c. cystitis
    d. urethritis
    e. prostatitis
    f. hypertensive nephrosclerosis

12. Hypoproteinaemia is one of the symptoms of nephrotic syndrome, choose the correct statement

    a. it does not lead to increased edema formation
    b. as a result of hypoproteinaemia oncotic pressure increases
    c. it stimulates the edema formation
    d. as a result of hypoproteinaemia, compensatory increase in lipoprotein production occurs in the liver
    e. it stimulates hyperlipidaemia
    f. it stimulates proteosynthesis

13. In nephritic syndrome

    a. proliferation of glomerular cells
    b. massive loss of albumin
    c. formation of yellowish-white abscesses on the kidney cross section
    d. formation of antibody deposits, complement and immunocomplexes
    e. disappearance of podocytes
    f. edema in the area of internal organs

14. Manifestations of nephrotic syndrome are

    a. severe proteinuria
    b. severe, generalized edema
    c. haematuria
    d. hypercoagulability
    e. mild edema
    f. hypoalbuminuria

15. Manifestations of nephrotic syndrome are

a. severe proteinuria
b. severe, generalized edema
c. haematuria
d. hypercoagulability
e. mild edema
f. hypoalbuminuria

16. Mark the correct statements for the nephritic syndrome

a. always develops from nephrotic syndrome
b. severe, generalised oedema is present
c. marked proteinuria (> 3 g/24 h) is observed
d. haematuria is present
e. it is a chronic condition
f. can be caused by glomerulonephritis

17. Mark lower urinary tract infections

a. cystitis
b. prostatitis
c. pyelonephritis
d. urethritis
e. prostate inflammation
f. inflammation of the renal pelvis

18. Mark the correct statements for ankle edema

a. occurs in nephrotic syndrome
b. occurs exclusively in nephritic syndrome
c. occurs exclusively in heart failure
d. may occur in long-term hypertension
e. is not related to renal function
f. depends on capillary permeability

19. Mark the correct statement

a. cylinduria is the presence of cylindrical oxalate crystals in urine
b. pyuria is the presence of pus in the urine
c. pyuria is accompanied by acute inflammation of the urinary tract
d. the colour of urine turns red is always caused by blood
e. pyuria is accompanied by proteinuria
f. oliguria is intensive diuresis

20. Mark the correct statements

a. kidney nephritis is often accompanied by activation of RAAS system which cause fluid retention and edema
b. proteinuria in nephritis is risk factor of blood clot formation
c. glomerulonephritis is term for inflammation of space between renal tubules
d. in GN are kidney always swollen and enlarged
e. fluid retention during nephritis may worsen the hypertension and edema formation
f. chronic GN may result in kidney failure, is long term and progressive

21. Mark the correct statements

a. chronic pyelonephritis also occurs due to the reflux of urine from the bladder
b. cystitis affects more women than men
c. polakisuria is frequent urination with a constant urge to urinate
d. a change in the colour of the urine always signals an acute infectious kidney disease
e. acute glomerulonephritis mainly affects hypertonics
f. benign prostatic hyperplasia always leads to prostate cancer

22. Mark the correct statements

a. in nephrotic syndrome is higher loss of proteins than in the nephritic syndrome
b. nephrotic syndrome is often accompanied with the loss of blood lipids
c. nephrotic syndrome is not caused by glomerulosclerosis or membranous nephropathy
d. for the nephrotic syndrome is typical inflammation of glomeruli
e. most important test for the nephrotic syndrome is the total protein estimation in urine
f. typical symptoms of nephrotic syndrome are puffiness around the eyes, fluid in peritoneal or pleural cavity and hypoproteinaemia

23. Mark the correct statements

a. symptoms of benign prostatic hyperplasia include incomplete emptying of urine bladder and intermittent urination
b. oligouria is the excessive excretion of urine leading to the loss of body fluids
c. accumulated uremic toxins in anuria may cause kidney failure
d. during haematuria, the blood is present in urine causing its coloration from light red to reddish-brown
e. proteinuria reduces the protein content in the urine
f. pyelonephritis causes inflammation of the renal pelvis, with frequent low back pain, fever and dysuria

24. Mark the correct statements

a. heart failure is accompanied by an increase in hydrostatic pressure
b. nephrotic syndrome leads to a decrease in oncotic pressure
c. liver cirrhosis leads to ascites
d. rhabdomyolysis is accompanied by hypokalaemia
e. in metabolic acidosis, hypoventilation occurs
f. hyperaldosterism leads to a decrease in pH

25. Mark the correct statements

a. an increase in capillary hydrostatic pressure leads to increased plasma extravasation
b. venous insufficiency is associated with a decrease in oncotic pressure
c. endothelial damage leads to increased protein passage into the extracellular space
d. in heart failure, there is increased RAAS activation and Na + retention
e. renal failure leads to increased urine output
f. increased potassium excretion may result in cardiac arrhythmias

26. Mark the correct statements for benign prostatic hyperplasia

a. the cause is an enlargement of the prostate caused by hormonal changes
b. is a result of purulent tonsillitis
c. it is manifested by nocturia, polakisuria and insufficient emptying
d. occurs mainly in older men
e. occurs in young boys
f. is a cancer

27. Mark the correct statements for benign prostatic hyperplasia

a. is common condition as men get older
b. is a result of Celiac disease
c. it is prostate gland enlargement
d. it can cause uncomfortable urinary symptoms
e. occurs in young boys
f. lead always to a carcinoma

28. Mark the correct statements for chronic pyelonephritis

a. is a banal disease
b. may lead to renal insufficiency
c. may lead to renal failure
d. the surface of the kidney is scarred
e. the surface of the kidney is polished and the kidney is swollen
f. can cause nephrotic syndrome

29. Mark the correct statements for cystitis

a. infection is caused by bacteria
b. it is manifested mainly by oliguria, fever and proteinuria
c. urine is cloudy and foamy
d. we classify them as upper urinary tract infections
e. the infection usually enters the bladder by the descending path from the kidneys
f. the main symptoms include dysuria, polakisuria and haematuria

30. Mark the correct statements for glomerulonephritis (GN)

a. in focal GN, more than 80% of the glomeruli are affected
b. may be caused by bacterial toxins
c. they can occur after overcoming angina
d. are purulent, inflammatory diseases of the glomeruli
e. are characterized by polyuria
f. treatment of rapidly progressing GN lasts 4-6 months

31. Mark the correct statements for hypoalbuminemia

a. is typically present in nephrotic syndrome
b. is typically present in nephritic syndrome
c. causes oedema
d. causes scarring of the kidney surface
e. is caused by nocturia
f. is caused by proteinuria

32. Mark the correct statements for pyelonephritis (PN)

a. acute PN has a rapid onset with fever (above 39 °C), nephralgia and nausea
b. it is manifested mainly by haematuria, massive proteinuria and azotaemia
c. Acute PN is usually caused by viruses
d. pathogens enter the pelvis in a hematogenous or descending way
e. in acute PN, yellowish-white abscesses are present on the cross-section of the kidney
f. acute PN does not progress to a chronic form

33. Mark the correct statements for the nephrotic syndrome

a. proteinuria is usually mild (less than < 3 g/24h)
b. edema is usually generalized
c. there is often hyperlipidaemia
d. haematuria is present always
e. proteinuria is severe (> 3 g/24h)
f. lipiduria is not present

34. Mark the correct statements typical for cystitis

a. it mainly affects women
b. it mainly affects men
c. it mainly affects children
d. may be a complication and cause of a glomerulonephritis
e. may be a complication and cause of pyelonephritis
f. is mostly of bacterial origin

35. Mark the correct statements typical for glomerulonephritis

a. purulent deposits in the renal pelvis
b. formation of antibodies against immunocomplexes bound to glomerular structural proteins
c. urine reflux from the urine bladder
d. production of antibodies against tubular basement membrane proteins
e. the bacterial cause is mostly Escherichia coli
f. swelling of the kidney at an early stage

36. Mark the correct statements

a. edema in nephritic syndrome is caused by a decrease in oncotic pressure
b. proteinuria in nephrotic syndrome is massive
c. edema in nephritic syndrome is caused by sodium and water retention
d. proteinuria in nephrotic syndrome is mild
e. lipiduria is typical for nephrotic syndrome
f. lipiduria is typical for nephritic syndrome

37. Mark the correct statements

a. chronic pyelonephritis also occurs due to the reflux of urine from the bladder
b. cystitis affects more women than men
c. polakisuria is a frequent urination with a constant urge to urinate
d. a change in the colour of the urine always signals an acute infectious kidney disease
e. acute glomerulonephritis mainly affects hypertonics
f. benign prostatic hyperplasia always leads to prostate cancer

38. Mark the correct statements

a. hypoalbuminemia is rare in nephrotic syndrome
b. hyperlipidaemia is typical of nephrotic syndrome
c. edema in nephrotic syndrome is due to sodium and water retention
d. hypercoagulability is typical of nephritic syndrome
e. hypercoagulability is typical of nephrotic syndrome
f. edema in nephrotic syndrome results from reduced oncotic pressure

39. Nephritic syndrome

a. can be caused by glomerulonephritis
b. is characterized by mild edema on the cheeks and other thin tissues
c. is associated with serious proteinuria
d. is of autoimmune origin
e. is accompanied by haematuria
f. is accompanied by lipiduria

40. Nephritic syndrome

a. characterized by mild proteinuria
b. characterized by severe proteinuria
c. is manifested by mild edema
d. manifests as generalized edema
e. represents a symptom of glomerulopathy
f. it is more common in women than in men

41. Nephritic syndrome

a. is a clinical syndrome
b. characterized by high fever
c. is manifested by decreased urine output
d. occur only in elderly
e. is typical with variable degrees of proteinuria
f. it is more common in people with Cushing' s syndrome

42. Nephritic syndrome

a. it is commonly associated with haematuria
b. glomerular filtration tends to be increased
c. proteinuria tends to be less severe than in nephrotic syndrome (< 3.5 g/24 h)
d. the most typical cause is inflammatory glomerulonephritis
e. it always has only a bacterial cause
f. a typical manifestation is anasarca - generalized edema

43. Nephritic syndrome is characterized by

a. proteinuria (>3 g/24 h)
b. haematuria
c. oliguria
d. mild proteinuria (< 3 g/24 h)
e. nycturia
f. azotaemia

44. Nephritic syndrome manifests itself by

a. mild proteinuria

b. massive proteinuria
c. generalized edema
d. oliguria
e. hyperlipidaemia
f. mild edema

45. Nephritic syndrome manifests itself by

a. edema of the eyes and ankles
b. severe proteinuria
c. haematuria
d. hypercoagulability
e. lipiduria
f. marked hypoalbuminemia

46. Nephrotic syndrome

a. occurs in cystitis
b. may result from long-term diabetes mellitus
c. presents only with mild symptoms
d. is also characterized by lipiduria
e. causes hypogammaglobulinemia
f. causes increased glomerular permeability

47. Nephrotic syndrome

a. is associated with structural changes in the kidney - the disappearance of podocytes
b. is associated with a decreased oncotic pressure
c. is associated with RAAS activation
d. arises as a complication after benign prostatic hyperplasia
e. is associated with muscle atrophy
f. leads to hyperproteinemia

48. Nephrotic syndrome

a. is increase in glomerular permeability
b. is reduced water and salt retention
c. is a decrease in plasma oncotic pressure and an increase in interstitial oncotic pressure
d. is reduction of hydrostatic pressure
e. is swelling of the lips and the space under the eyes
f. is not accompanied by generalized edema

49. Nephrotic syndrome

a. characterized by mild proteinuria

b. characterized by severe proteinuria
c. is manifested by mild edema
d. manifests as generalized edema
e. represents a symptom of glomerulopathy
f. it is more common in women than in men

50. Nephrotic syndrome

a. is less severe than nephritic syndrome
b. may be due to autoimmune diseases such as lupus, etc.
c. RAAS activation tends to be reduced
d. generalized edema, tachycardia or dyslipidaemia are important manifestations
e. proteinuria is not commonly present
f. a typical mechanism is hypoalbuminemia associated with Na + and H2O retention

51. Nephrotic syndrome is characterized by

a. hypolipidemia
b. hypoalbuminemia
c. marked proteinuria (> 3 g/24 h)
d. lipiduria
e. hyperalbuminemia
f. haematuria

52. Nephrotic syndrome manifests itself by

a. mild proteinuria
b. massive proteinuria
c. generalized edema
d. mild hypertension
e. hyperlipidaemia
f. mild edema

53. Pyelonephritis

a. is inflammation of the renal pelvis
b. might occur as a complication of urine bladder inflammation
c. manifests by fever, fatigue, chills, dysuria
d. is inflammation of the urethra
e. is caused by a blockage of the ureter with a urinary stone
f. arises from the immunological reaction of antibodies against the basement membranes of glomeruli

54. Pyelonephritis

a. is inflammatory disease of kidney, often as result of bacterial infection

b. symptoms include abdominal pain radiating to back, pain on passing urine, fever or vomiting
c. in acute pyelonephritis the purulent exudation is localized in the renal pelvis
d. etiopathogenesis often includes bacteria such as E. Coli, Klebsiella, Enterobacter or Pseudomonas
e. there is often very high proteinuria and weak bacteriuria
f. symptoms are usually very mild and there is no significant pain, it can be diagnosed only by urine discoloration

55. Pyelonephritis is

a. inflammation of the bladder
b. inflammation of the renal pelvis
c. inflammation of the glomeruli
d. inflammation of the prostate gland
e. inflammation of the urethra
f. inflammation in diabetic nephropathy

56. Qualitative disorders of urine secretion include

a. polyuria
b. oliguria
c. proteinuria
d. haematuria
e. dysuria
f. pyuria

57. Quantitative disorders of urine secretion include

a. dysuria
b. anuria
c. proteinuria
d. haematuria
e. oliguria
f. polakisuria

58. Rapidly progressing glomerulonephritis

a. occurs after cure of acute glomerulonephritis
b. leads to kidney failure
c. has a bad prognosis
d. manifests itself in chest pain
e. is typical in pregnant women
f. is typical in children

59. Reduced glomerular filtration

a. leads to water retention
b. leads to salt retention
c. leads to edema
d. leads to hypotension
e. is manifested by polyuria
f. is manifested by nocturia

60. Select the corrects statements

a. cystitis is usually affecting more women than men and is inflammation of mucosal layer of bladder and urethra
b. prostatitis is usually associated with the pain around the testes, in the peritoneum and during urination
c. benign prostate hyperplasia is the medial term for the cancer of prostate
d. the infections of lower urinary tract are termed as pyelonephritis
e. risk factors of UI infections include sexual activity, diabetes, use of spermicide agents of structural problems
f. nephritic syndrome is considered as less severe condition as the nephrotic syndrome

61. The basic symptoms of glomerulopathy include

a. asymptomatic proteinuria
b. nephritic syndrome
c. nephrotic syndrome
d. asymptomatic haematuria
e. asymptomatic glycosuria
f. stomach ache

62. The cause of pyelonephritis may be

a. frequent infections
b. thrombosis
c. obstruction in urine excretion
d. return of urine from the bladder to the ureter
e. incontinence
f. reflux of urine from the bladder into the ureter

63. The prognosis of acute glomerulonephritis is

a. poor - even kidney transplantation will not help
b. good, cure within a few days
c. good, cure within a few years
d. good, cure within 4-6 months
e. poor - maximum survival of 5-8 years

f. worse in patients with hypertension than in people with normal blood pressure

64. The symptoms of nephrotic syndrome are

a. severe proteinuria
b. mild proteinuria
c. lipiduria
d. hyperlipidaemia
e. hypolipidemia
f. glycosuria

65. The symptoms of nephrotic syndrome include

a. increased risk of bleeding conditions
b. foamy urine
c. hyperproteinemia
d. massive proteinuria
e. severe swelling in the eyes
f. polyuria and pollakiuria

66. Typical symptoms of nephritic syndrome are

a. azotaemia
b. oliguria
c. proteinuria
d. decrease in blood pressure
e. increase in albumin blood levels
f. haematuria

67. Urine turbidity can be caused by

a. the presence of glucose
b. the presence of proteins
c. the presence of bacteria
d. the presence of more erythrocytes
e. the presence of salts
f. the presence of Escherichia coli

2.7.2 Excretory system – Part 2

1. Acid-base balance

    a. it is easily influenced towards the acidification of the organism
    b. is regulated by the lungs
    c. is regulated by the kidneys
    d. is regulated by buffer systems
    e. depends on the intensity of lung ventilation
    f. does not depend on the intensity of pulmonary ventilation

2. Acidosis

    a. is an increase in blood pH
    b. is a decrease in blood pH
    c. is an overacidity of the organism
    d. arises from excessive intake of dairy products
    e. is irreversible
    f. it is recommended to eat a large amount of alkaline food

3. Acute kidney damage can also occur

    a. in a broken leg
    b. in myocardial infarction (as a direct consequence)
    c. due to atrial fibrillation
    d. due to nosocomial infection
    e. due to urinary tract obstruction
    f. due to multiorgan failure

4. Acute kidney damage can cause

    a. drugs, toxins
    b. sepsis
    c. shock
    d. diabetes mellitus
    e. hypertension
    f. bronchial asthma

5. Acute renal failure mainly affects the patient with

    a. hyperkalaemia
    b. hypernatremia
    c. hypophosphatemia
    d. urea retention
    e. hyperuricaemia
    f. thrombocytopenia

6. Anuria

    a. means that the patient urinates less than 100ml / 24 hours
    b. means that the patient urinates less than 500ml / 24 hours
    c. is a condition where the patient can stop urinating completely
    d. means that the patient urinates for more than 2500ml / 24 hours
    e. is a sign of recovery in kidney disease
    f. also occurs when the ureters are blocked by stone

7. Ascites

    a. is ascending edema of the lower extremities
    b. is a disorder of the ascending part of Henle's loop
    c. is edema resulting from circulatory disorders in the ascending part of the capacitive veins
    d. is the accumulation of water in the abdominal cavity
    e. is the accumulation of water in the chest cavity
    f. arises in a heart failure

8. Ascites represents

    a. accumulation of fluid in the abdominal cavity
    b. accumulation of fluid in the thoracic cavity
    c. accumulation of fluid in the brain
    d. type of edema associated with heart failure
    e. type of edema associated with blockage of lymphatic vessels
    f. type of edema associated with malnutrition

9. Chronic renal failure

    a. occurs when glomerular filtration drops to 50-75% of physiological values
    b. occurs when abnormalities in kidney structure and function are present for less than 1 month
    c. is a reversible event
    d. is the final stage of corneal kidney disease
    e. occurs when glomerular filtration drops to 20-35% of physiological values
    f. is an irreversible event

10. Chronic renal insufficiency may manifest by

    a. anaemia
    b. edema
    c. hypertension
    d. proteinuria
    e. oesophageal varices
    f. so-called bull's neck

11. Common causes of chronic kidney failure are

a. arterial hypertension
b. diabetes mellitus
c. recurrent glomerulonephritis
d. ischemic disease of the limbs
e. oesophageal varices
f. Crohn's disease

12. Dysuria

a. represents blood in urine
b. represents excessive urination
c. represents reduced urination
d. represents painful urination
e. occurs in acute pyelonephritis
f. occurs in cystitis

13. Excessive H+ ions are removed from the body by

a. re-absorption of HCO3- in the kidneys
b. improved digestion
c. a phosphate buffer system
d. increased oncotic pressure
e. ammonium buffer system
f. reduced interstitial pressure

14. Glomerular filtration is reduced during

a. hyperhydration
b. dehydration
c. ischemia
d. urinary tract obstruction
e. increase in hydrostatic pressure in the glomerular capillary
f. asthma attack

15. How are the most often causes of chronic kidney failure?

a. diabetic nephropathy
b. malignant nephrosclerosis
c. chronic pyelonephritis
d. bladder tumours
e. polycystic kidney disease
f. cystitis

16. Hypercapnia

a. is an abnormally high level of CO2 in the blood
b. is an abnormally low level of CO2 in the blood
c. occurs in respiratory acidosis
d. occurs in metabolic acidosis
e. occurs during hypoventilation
f. is an abnormally high level of O2 in the blood

17. Identify the causes of metabolic acidosis

a. diabetic ketoacidosis
b. intense diarrheal disease
c. Addison's disease
d. hyperaldosterism
e. stay at high altitude
f. Chronic obstructive pulmonary disease

18. In the anuric phase of acute renal failure, the patient is most at risk

a. hyperkalaemia
b. hypokalaemia
c. brain and lung edema
d. metabolic alkalosis
e. nausea
f. anaemia

19. Kidney infarction

a. is most often developed by embolism
b. is most often caused by atrophy of the ducts
c. has a red colour and a round shape
d. it is white in colour and wedge-shaped
e. is coagulation necrosis
f. is colic necrosis

20. Laboratory indicators of glomerular disorders include

a. proteinuria
b. heamaturia
c. increased serum creatinine
d. hypophosphatemia
e. leukaemia
f. hyponatremia

21. Manifestations of chronic renal failure are, for example

a. fever
b. urolithiasis
c. anaemia
d. metabolic acidosis
e. hyperkalaemia
f. azotaemia

22. Mark the correct statements

a. an increase in capillary hydrostatic pressure leads to increased plasma extravasation
b. venous insufficiency is associated with a decrease in oncotic pressure
c. endothelial damage leads to increased plasma leakage into the extracellular space
d. in heart failure, there is increased RAAS activation and Na + retention
e. renal failure leads to increased urine production
f. increased potassium excretion may result in cardiac arrhythmias

23. Mark the correct statements

a. cylinduria is the presence of cylindrical oxalate crystals in the urine
b. pyuria is the presence of pus in the urine
c. pyuria is accompanied by acute inflammation of the urinary tract
d. the colour of urine turns red is always caused by blood
e. pyuria is accompanied by proteinuria
f. oliguria is intensive diuresis

24. Mark the correct statements

a. symptoms of benign prostatic hyperplasia include incomplete emptying of urine bladder and intermittent urination
b. oliguria is the excessive excretion of urine leading to the loss of body fluids
c. accumulated uremic toxins in anuria may cause kidney failure
d. during haematuria, the blood is present in urine causing its coloration from light red to reddish-brown
e. proteinuria reduces the protein content in the urine
f. pyelonephritis causes inflammation of the renal pelvis, with frequent low back pain, fever and dysuria

25. Mark the correct statements

a. the physiological pH of urine is in the range of 1-8
b. increased urea metabolism may lead to reddening of the urinary sediment
c. rotten apple odour can be a sign of diabetic ketoacidosis
d. urine turbidity is usually present in infectious diseases

e. the proximal tubules are those that carry the final urine to the collecting duct
f. in the descending part of the Henle loop, Na + and water reabsorption

26. Mark the correct statements

a. the osmolality decrease together with an increased fluid intake makes the cell swell
b. the regulation of renal homeostasis is fast and is under nervous regulation
c. the osmolality increases together with a decrease fluid intake makes the cell shrink
d. in the absence of water in the body, vasopressin is decreased and urination occurs
e. excess water in the body decreases vasopressin output and promotes urination
f. the atrial natriuretic peptide is released from the kidneys

27. Mark the correct statements

a. the physiological pH of the blood is 7.4 ± 0.04
b. alkalosis is an increase in H+ concentration
c. the haemoglobin buffer system is a chemical buffer system
d. the enzyme carbonate dehydratase catalyses the reversible conversion of H+ and HPO4- to H2PO4
e. the enzyme carbonate dehydratase catalyses the reversible conversion of carbon dioxide and water to carbonic acid
f. regulation of acid-base balance with chemical buffers and the respiratory system is slow and slowly depleted

28. Mark the correct statements

a. in dysuria, the patient does not urinate at all
b. there is a risk of uraemia during anuria
c. with oliguria, urine production is reduced
d. nocturia is manifested by rusty, burning pain when urinating
e. in dysuria, erythrocytes and proteins are present in the urine
f. polakisuria is a typical manifestation of benign prostatic hyperplasia

29. Mark the correct statements for proteinuria

a. severe proteinuria is associated with generalized oedema
b. it occurs only in glomerulonephritis
c. it can also occur after exercise
d. urine is cloudy and foamy
e. it represents an increased level of albumin in the blood
f. severe proteinuria is typical of nephritic syndrome

30. Mark what applies to polycystic kidney disease

a. it is a genetic kidney disease
b. often leads to chronic renal failure
c. does not affect women
d. does not cause any discomfort to the patient
e. it always affects only one kidney
f. often leads to pyelonephritis

31. Mark what may be involved in the development of anaemia in renal failure

a. reduced renin production in the kidneys
b. decreased erythropoietin production in the kidney
c. reduced absorption of vitamin B12
d. increased iron production in the liver
e. reduction in blood viscosity with concomitant oliguria / anuria
f. metabolic alkalosis, which reduces iron resorption

32. Mark which symptoms/diseases develop during acute renal failure

a. acidosis
b. hypouricemia
c. hyperkalaemia
d. hypernatremia
e. anaemia
f. hypercalcaemia

33. Mark, what applies to hydronephrosis

a. it is an extension of the renal pelvis
b. it is an extension of the bladder
c. secondary may cause cysts in the kidney
d. secondarily it can cause pyelonephritis
e. it can also be caused by a tumour or a stone
f. manifests as rusty pain when urinating

34. Narrowing of afferent arterioles, most often in essential hypertension, is called

a. arteriosclerotic nephrosclerosis
b. venous glomerulosclerosis
c. malignant nephrosclerosis
d. benign nephrosclerosis
e. renovascular hypotension
f. vascular nephrosclerosis

35. Nephroblastoma

a. is a malignant kidney tumour
b. is a benign kidney tumour
c. is a malignant tumour of the bladder
d. it occurs most often by the age of 7 years
e. occurs in older people over 40 years of age
f. its most common first symptom is an enlarged abdomen

36. Oliguria

a. represents blood in urine
b. represents excessive urination
c. represents reduced urination
d. represents intermittent urination
e. occurs in nephritic syndrome
f. occurs in benign prostatic hyperplasia

37. Oliguria is

a. increased urine output
b. diuresis above 2500 ml/24 h
c. urination during the night
d. reduced urine output
e. diuresis 300-500 ml/24 h
f. diuresis less than 100 ml/24 h

38. Plasma level of creatinine

a. is different in men and women
b. significantly depends on dietary protein intake
c. serves as an indicative assessment of renal function
d. depends on the size of the muscle mass
e. serves to assess liver function
f. decreases in renal insufficiency

39. Polyuria can result from

a. renal insufficiency
b. tubular ischemia
c. renal infarction
d. excessive fluid intake
e. treatment of heart failure
f. improving kidney function

40. Proteinuria

a. is the presence of protein in the urine
b. is the presence of erythrocytes in the blood
c. causes turbidity and foaming of urine
d. causes pink urine
e. it can also be physiological
f. occurs only in inflammatory diseases of the ureters

41. Pyelonephritis

a. is inflammatory disease of kidney, often as result of bacterial infection
b. symptoms include abdominal pain radiating to back, pain on passing urine, fever or vomiting
c. in acute pyelonephritis the purulent exudation is localized in the renal pelvis
d. etiopathogenesis often includes bacteria such as E. Coli, Klebsiella, Enterobacter or Pseudomonas
e. there is often very high proteinuria and weak bacteriuria
f. symptoms are usually very mild and there is no significant pain, it can be diagnosed only by urine discoloration

42. Pyuria

a. is the presence of protein in the urine
b. is the presence of pus in the urine
c. is the presence of erythrocyte cylinders in the urine
d. occurs in nephrotic syndrome
e. occurs only in tubular necrosis
f. occurs in inflammatory diseases of the urinary tract

43. Pyuria means

a. increased protein levels in the urine
b. the presence of renal casts in the urine
c. blood in the urine
d. pus in the urine
e. frequent urination accompanied by constant urge to urinate
f. urge to urinate

44. Qualitative disorders of urine secretion include

a. polyuria
b. oliguria
c. proteinuria
d. haematuria
e. dysuria
f. pyuria

45. Qualitative disorders of urine secretion include

a. anuria
b. haematuria
c. polakisuria
d. proteinuria
e. oliguria
f. glycosuria

46. Quantitative disorders of urinary secretion include

a. dysuria
b. anuria
c. proteinuria
d. haematuria
e. oliguria
f. polakisuria

47. Quantitative disorders of urinary secretion include

a. polyuria
b. oliguria
c. proteinuria
d. haematuria
e. dysuria
f. pyuria

48. Renal failure

a. occurs when more than 90% of the functional renal parenchyma is damaged
b. causes the kidneys to maintain homeostasis during harder physical work
c. it always leads to the death of the patient
d. causes the kidneys not to maintain homeostasis even under basal conditions
e. causes anuria
f. may cause death due to uraemia

49. Renal insufficiency occurs when is damaged

a. more than 75% of the functional renal parenchyma
b. more than 90% of functional renal parenchyma
c. more than 10% of functional renal parenchyma
d. more than 20% of functional renal parenchyma
e. more than 40% of functional renal parenchyma
f. more than 50% of the functional renal parenchyma

50. Respiratory acidosis

a. often accompanied by neuromuscular diseases

b. leads to the retention of bicarbonate cations
c. it is compensated by the increased excretion of hydrogen cations
d. the body compensates for it by hyperventilation
e. may occur with intense vomiting
f. may occur with overdose of diuretics

51. Respiratory alkalosis occurs

a. occurs at pH <7.36
b. occurs at pH > 7.44
c. with an excess of O2
d. in the absence of O2
e. while reducing the amount of CO2
f. when increasing the amount of CO2

52. Select the corrects statements

a. cystitis is usually affecting more women than men and is inflammation of mucosal layer of bladder and urethra
b. prostatitis is usually associated with the pain around the testes, in the peritoneum and during urination
c. benign prostate hyperplasia is the medial term for the cancer of prostate
d. the infections of lower urinary tract are termed as pyelonephritis
e. risk factors of UI infections include sexual activity, diabetes, use of spermicide agents of structural problems
f. nephritic syndrome is considered as less severe condition as the nephrotic syndrome

53. Severe proteinuria is

a. reduced proteins in the urine
b. elevated proteins in the urine
c. reduced proteins in the blood
d. elevated proteins in the blood
e. when 150-1500 mg of protein is excreted per day
f. urinary protein excretion > 3 g/24 h

54. Signs of antidiuretic hormone overproduction are

a. hyponatraemia
b. diarrhoea
c. hypokalaemia
d. increase in the volume of extra- and intracellular fluid
e. vomiting
f. migraine

55. Symptoms of acute renal failure include

a. dysuria
b. polakisuria
c. very high fever
d. oliguria to anuria
e. edema
f. hyperkalaemia

56. Symptoms of excessive aldosterone production are

a. hypertension
b. fever
c. hypokalaemia
d. diarrhoea
e. diabetes mellitus
f. anaemia

57. Symptoms of insufficient aldosterone production (Addison's disease) are

a. hyperpigmentation of the skin
b. anaemia
c. vitiligo
d. lung tumour
e. hyponatraemia
f. diarrhoea

58. The causes of aldosterone overproduction are

a. adrenal cancer
b. kidney infarction
c. kidney edema
d. adrenal hyperplasia
e. damage to the Henle loop by inflammation
f. decreased renin release

59. The causes of antidiuretic hormone overproduction are

a. hypothalamus damage during trauma
b. hypothalamus damage during meningitis
c. kidney damage
d. diarrhoea
e. ectopic production of the hormone in lung cancer
f. myocardial infarction

60. The causes of insufficient antidiuretic hormone production are

    a. destruction of the hypothalamus caused by inflammation
    b. destruction of the hypothalamus caused by trauma
    c. kidney damage
    d. diarrhoea
    e. vomiting
    f. myocardial infarction

61. The dilation of the pelvis and calyx caused by a disorder of urine outflow (stone, tumour) is called

    a. uremic-haemolytic syndrome
    b. necrosis
    c. uremic pancreatitis
    d. hydronephrosis
    e. ren migrans
    f. glomerulosclerosis

62. To assess the stage of chronic renal failure, it is important to find out

    a. arterial blood pressure
    b. the presence of cylindrical cylinders in the urine
    c. presence of fever
    d. the value of proteinuria (albuminuria)
    e. glomerular filtration rate (eGFR) value
    f. serum creatinine (KrS) concentration

63. To calculate the filtration fraction we need to know

    a. the mean pressure in glomerular capillaries
    b. the mean pressure in the Bowman housing
    c. the oncotic pressure of blood or plasma
    d. the inulin clearance
    e. the clearance of p-aminohippuric acid
    f. the mean pressure in the tubules

64. To evaluate acute renal damage according to RIFLE (Risk Injury Failure Loss End - stage renal disease), it is important to find out

    a. serum haemoglobin values
    b. values of people in the blood
    c. blood pressure values
    d. serum creatinine (KrS) values
    e. glomerular filtration rates
    f. diuresis values

65. Urate stones

a. occur with decreased urine pH
b. when the body has an increased level of calcium
c. arise in hypouricemia
d. occur with increased urine pH
e. do not depend on urine pH
f. are concrements from Uric acid

66. Uremic syndrome develops when are destroyed

a. 10% renal parenchyma
b. 25% of renal parenchyma
c. 50% renal parenchyma
d. 95% renal parenchyma
e. 70% of renal parenchyma
f. 60% of renal parenchyma

67. Urine retention

a. it can be caused by hyperplasia or a neoplastic process in the prostate
b. is always characterized by polyuria
c. is synonymous with anuria
d. is a condition where the patient is not able to completely empty the bladder
e. can lead to tumours in the kidney
f. a typical symptom is a weak, intermittent flow of urine

68. Urine turbidity can be caused by

a. the presence of glucose
b. the presence of proteins
c. the presence of bacteria
d. the presence of more erythrocytes
e. the presence of salts
f. the presence of Escherichia coli

69. What are the causes of urinary stones?

a. cystitis
b. urinary stasis
c. circulatory changes - oedema
d. kidney tumour
e. Urine pH
f. higher concentration of stone-forming substance in urine

70. What can accumulate in tissues when edema occurs?

a. exudate
b. transudate
c. blood
d. blood plasma
e. serum
f. electrolytes dissolved in water

71. What can cause metabolic acidosis?

a. diarrhoea
b. excessive loss of HCl
c. diabetic ketoacidosis
d. increased aldosterone levels
e. long-term use of diuretics
f. lung damage

72. What colour are oxalate urinary stones?

a. they are dark and are the most common
b. they are grey-white
c. they are purple
d. are rusty white
e. are waxy in colour
f. they are yellow

73. What does not belong among the consequences of urinary stones?

a. renal colic
b. pyelonephritis
c. hydronephrosis
d. glomerulonephritis
e. tubular sclerosis
f. kidney infarct

74. What does not belong among the developmental disorders of the kidneys?

a. ectopia
b. epispadias
c. agenesis
d. horseshoe kidney
e. cystic kidney
f. hydronephrosis

75. What is the macroscopic finding on the kidneys after their ischemization?

a. the kidneys are reduced, the surface is granulated, there is an increased adipose tissue around the pan
b. the kidneys are pale, smooth, enlarged with spotting on the surface
c. the kidneys are very swollen, swollen, dark red to black
d. the kidneys are swollen, soaked, the cortex is pale, the medulla is congested
e. the kidneys are the colour of the liver
f. the kidneys are pale pink and soft

76. What is the name of a condition in which the diuresis is less than 100 ml/24hod

a. anuria
b. dysuria
c. oliguria
d. nocturia
e. polydipsia
f. pyuria

77. What may be present in the urine in the diagnosis of diabetes mellitus?

a. antibodies against Langerhans islet beta cells
b. glucose
c. proteins
d. sodium cations
e. ketone bodies
f. lipids

78. When the pH of the blood rises above 7.44

a. alkalosis develops
b. acidosis develops
c. the H+ concentration decreases
d. the H+ concentration increases
e. chemical damping systems are activated
f. physiological regulatory mechanisms are activated

79. Which of the following disorders include acquired urinary tract disorders?

a. hydronephrosis
b. doubling of the renal pelvis
c. cleft bladder
d. hypospadias
e. epispadias
f. urolithiasis

80. Which of these kidney’s tumours are not benign?

a. adenocarcinoma
b. lipoma
c. nephroblastoma
d. adenoma
e. leiomyoma
f. fibroma

2.8 IMMUNE SYSTEM

1. AIDS

    a. is an autoimmune disease
    b. is an immunodeficient disease
    c. is caused by the HPV virus
    d. it only affects people in poorer countries like Africa, India
    e. it affects people in the poor and in the developed countries of the world
    f. is caused by the HIV virus

2. Allergy to cow's milk protein

    a. affects more adults
    b. affects more infants
    c. it is actually milk intolerance
    d. lasts for life
    e. it is an immunological hypersensitivity reaction
    f. may endanger the patient's life by causing anaphylactic shock

3. Allergy to cow's milk protein

    a. is also induced by lactalbumin and albumin
    b. is an allergic reaction mediated by Ig E
    c. it occurs mainly in infants
    d. is an allergic reaction mediated by Ig M
    e. it is not dose dependent
    f. manifests itself mainly as conjunctivitis

4. Allergy to cow's milk protein is

    a. an adverse reaction of the immune system
    b. a digestive disorder
    c. mediated by the production of specific antibodies
    d. caused by a deficiency of the enzyme lactase
    e. caused by an excess of the enzyme lactase
    f. caused by protein in cow's milk

5. Anaphylactic shock

    a. is a state of surprise manifested by an inability to react quickly
    b. is a failure of the bloodstream due to bleeding
    c. is a circulatory failure due to an allergic reaction
    d. is also called "peripheral bleeding"
    e. it occurs due to the sudden flushing out of a lot of adrenaline
    f. it occurs due to the sudden flushing out of large amounts of histamine

6. Anaphylactic shock

    a. is a hypersensitivity reaction
    b. belongs to the immunodeficient reactions
    c. is caused by IgM
    d. belongs to type I. hyperergic reaction
    e. is caused by IgE
    f. it is not a life-threatening condition

7. Atopic dermatitis

    a. is an infectious disease
    b. manifests as rattles on the elbows of honey colour
    c. affects only infants
    d. is an inflammatory disease of the skin
    e. has an allergic origin
    f. manifests e.g., dry, inflamed skin that itches

8. Atopic dermatitis

    a. mainly affects bedridden patients
    b. is complicated mainly by ulcus cruris
    c. frequent, long-lasting baths are important to alleviate its symptoms
    d. affects mainly infants, in puberty its symptoms may improve
    e. its origin is a broken skin barrier, which allows the passage of allergens
    f. epicutaneous tests are also used for its diagnosis

9. Atopy (anaphylaxis) means

    a. exaggerated response of the immune system to the allergen
    b. production of antigen-specific IgE antibodies upon first contact with a foreign protein
    c. systemic reaction, usually after a single parenteral administration of the foreign protein
    d. shock after repeated transdermal administration of the foreign substance
    e. T cell deficiency in the body
    f. formation of immunocomplexes

10. Autoimmune diseases can be triggered

    a. infection
    b. UV radiation
    c. drugs
    d. certain food ingredients
    e. stinging a bee
    f. cold stress

11. Bronchoconstriction in anaphylactic shock is caused by

a. leukotrienes
b. the effect of adrenaline
c. the effect of noradrenaline
d. activating the sympathetic nervous system
e. activating cholinergic receptors
f. releasing nitric oxide

12. Bruton-Gitlin syndrome

a. occurs in B-cell disorders
b. occurs in a T-cell disorder
c. causes B cells to be unable to produce gamma globulins
d. causes T cells to be unable to produce gamma globulins
e. it affects more boys and is manifested by recurrent respiratory diseases
f. it affects more girls and is manifested by recurrent diseases of the urogenital tract

13. Bruton-Gitlin syndrome can result in boys

a. reduction of plasma immunoglobulin levels
b. decreased production of gammaglobulins by B lymphocytes
c. development of viral and fungal infections
d. recurrence of skin and respiratory tract infections
e. significant reduction in T cells
f. excessive monocyte production

14. Contact allergy

a. belongs to type I. of allergic reactions
b. is caused by food and insects
c. manifests by anaphylactic shock
d. is caused by e.g., metal buttons, coins, hair dyes
e. manifest by swelling, erythema, itching
f. belongs to IV. type of allergic reactions

15. Cow's milk protein allergy

a. it is due to reduced lactase activity
b. is most common in infants
c. is most common in adults
d. involves only gastrointestinal symptoms
e. is diagnosed by immunological examination
f. is caused by hypersensitivity to cow's milk protein

16. Di George's syndrome

a. occurs in B-cell disorders
b. occurs in a T-cell disorder
c. causes B cells to be unable to produce gammaglobulins
d. is caused by hypoplasia / thymic aplasia
e. it mainly affects boys and manifests itself e.g., micrognathia, fish-shaped mouth, malformed by earlobes, heart malformations
f. it affects girls and manifests itself in recurrent diseases of the urogenital tract

17. Diaper dermatitis (in infants) is preventable by

a. using cotton diapers
b. using disposable diapers
c. changing the diapers only 3 times a day
d. changing the diapers as needed
e. daily bathing
f. bathing 1-3 times a week

18. Disorders of the immune response are encountered during

a. stress
b. type 1 diabetes mellitus
c. rheumatoid arthritis
d. tuberculosis
e. anaemia
f. osteoporosis

19. Epicutaneous tests

a. are used to diagnose delayed allergic reactions on the skin
b. are used to diagnose psoriasis
c. they are always done under the supervision of a doctor
d. they can also be done at home as self-tests
e. they test allergies, e.g., for food, cosmetics, perfumes
f. they test for allergies to oral antibiotics

20. For II. type of hypersensitivity reactions applies

a. they are cytotoxic reactions
b. are characterized by the formation of immune complexes
c. are characterized by cell lysis
d. IgM antibodies, IgG, complement, macrophages, NK cells are involved
e. they include e.g., DM 1. type, haemolytic anaemia, myasthenia gravis
f. they include e.g., rheumatoid arthritis, lupus erythematosus

21. For III. type of hypersensitivity reactions applies

a. they are anaphylactic reactions
b. are characterized by the formation of immune complexes
c. are characterized by cell lysis
d. they do not form antibodies
e. they include e.g., DM 1. type, haemolytic anaemia, myasthenia gravis
f. they include e.g., rheumatoid arthritis, lupus erythematosus

22. For IV. type of hypersensitivity reactions applies

a. these are delayed hypersensitivity reactions
b. they do not form antibodies
c. symptoms appear 24-48 hours after antigen exposure
d. they include, for example, transplant rejection, reactions against mycobacterial and leprosy infections
e. they include e.g., DM 1. type, haemolytic anaemia, myasthenia gravis
f. they include e.g., rheumatoid arthritis, lupus erythematosus

23. HIV

a. is transmitted by saliva
b. is transmitted through sexual intercourse
c. is transmitted by sweat
d. is transmitted by tears
e. is transmitted by blood
f. is transmitted transplacentally

24. In autoimmune diseases

a. the body responds to the allergen with a severe allergic reaction - anaphylactic shock
b. the affected organ is damage
c. patients are often ill
d. the organism loses the ability to distinguish between itself and another and responds by producing antibodies
e. antibodies can only damage individual organs or act systemically
f. genetics also plays a role in their pathogenesis

25. In immunodeficiency diseases

a. the immune system makes antibodies against the body's own cells
b. the organism reacts with an inadequate response to the antigen
c. an anaphylactic reaction occurs
d. the immune system fails to defend the body against infections
e. the patient often suffers from bacterial, viral or fungal infections
f. transplant rejection occurs

26. In immunodeficiency of B lymphocytes

a. bacterial infections often occur
b. viral infections often occur
c. the production and function of gamma globulins, especially IgA and IgM is impaired
d. mast cell degranulation occurs
e. a disease called Di George's syndrome develops
f. thymus function is impaired

27. In immunodeficiency of T lymphocytes

a. bacterial infections often occur
b. viral infections often occur
c. the production and function of gamma globulins, especially IgA and IgM, are impaired
d. mast cell degranulation occurs
e. a disease called Di George's syndrome develops
f. thymus function is impaired

28. In particular, HIV infection reduces the number in the blood

a. CD4+ T cells
b. monocytes
c. eosinophilic granulocytes
d. B lymphocytes
e. granulocytes
f. erythrocytes

29. Indicate the factors which are alleviating psoriasis

a. UV radiation
b. pregnancy
c. sea water and the Mediterranean climate
d. cold
e. gluten-free diet
f. herbal compresses

30. Mark the correct statements for the pathogenesis of rheumatoid arthritis

a. there is the inflammation in the synovial membrane tissue
b. chronic inflammation results in fibrosis of the synovial membrane
c. it results in joint immobility
d. inflammation does not affect the nutrition of the articular cartilage
e. it is not associated with HLA
f. rheumatoid arthritis affects only the joints

31. Mark the correct statements for nappy dermatitis

a. it affects only babies
b. manifests itself as the formation of pressure ulcers
c. most often arises on the buttocks
d. it can affect children as well as adults
e. it manifests by small cracks, wetting wounds, blisters that crack
f. it most often occurs in the folds, groin, buttocks

32. Mark the correct statements

a. milk formulas with partially hydrolysed protein are preferred instead of breastfeeding in children with an allergy to cow's milk proteins
b. soja milk instead of breastfeeding is preferred in children with an allergy to cow's milk proteins
c. allergy to cow's milk proteins is manifested exclusively in the gastrointestinal system
d. immunological examination of allergic diseases is based on the determination of specific antibodies in the blood
e. an allergic reaction is only the one that is mediated by specific Ig E type antibodies
f. untreated allergy increases the incidence of chronic sinusitis and bronchial asthma

33. Mark the correct statements

a. to prevent allergy to cow's milk protein, we can give soy or goat's milk
b. epicutaneous tests are used to diagnose allergy to cosmetics
c. in the case of an allergic reaction to bee sting, death can cause due to anaphylactic shock
d. psoriasis is a dermatitis
e. atopic eczema can weaken its intensity after puberty or disappear completely
f. rheumatoid arthritis occurs e.g., after overcoming a streptococcal throat infection

34. Mark the correct statements for insect bite allergy

a. it can cause a systemic as well as a local reaction
b. is mediated by IgE antibodies
c. manifests itself e.g., redness, swelling, angioedema, dyspnoea, hypotension
d. it manifests only locally
e. it is always fatal
f. it is mediated by interleukins

35. Mark the correct statements for acute psoriasis

a. the foci arise most often at the site of friction

b. it can be manifested after previous upper respiratory tract infections
c. exanthem tends to be disseminated throughout the body in the form of itchy rash
d. larger rash of red colour with fissures are usually present
e. the lesions are mostly non-itchy
f. exanthem is usually in the form of dot, drop or coin-shaped lesions

36. Mark the correct statements for allergic rhinitis

a. it is most often caused by a food allergy
b. it manifests only by sneezing, increased body temperature, general fatigue
c. adrenaline, renin, angiotensin are involved in the development of allergic rhinitis
d. it is most often caused by pollen, dust, mites, animals
e. it manifests as a stuffy nose, runny nose, sneezing, itchy eyes and climate
f. histamine, serotonin, interleukins, prostaglandins are involved in the pathogenesis of allergic rhinitis

37. Mark the correct statements for allergic rhinitis

a. it has three phases
b. it is mediated by histamine secretion
c. it is mediated by adrenaline secretion
d. mast cell activation is mediated by IgE antibodies
e. mast cell activation is directly mediated by histamine
f. inflammatory cells and mediators are involved

38. Mark the correct statements for allergic rhinitis

a. most often develops in adulthood
b. most often develops in childhood
c. is a minor health problem that resolves without treatment
d. if left untreated, it can lead to asthma
e. if left untreated, it often leads to chronic pneumonia
f. it is mediated by IgG antibodies

39. Mark the correct statements for anaphylactic shock

a. it's a life-threatening situation
b. it's not a life-threatening condition, it'll go away in a few minutes
c. it manifests by rhinitis and fever
d. it manifests e.g., rapid drop in blood pressure, loss of consciousness, chest tightness
e. it can be caused by e.g., consumption of poultry meat or bananas
f. it can cause it (in hypersensitive individuals) e.g., bee bites, peanut consumption, cow's milk consumption

40. Mark the correct statements for autoimmune diseases

a. they arise when the immune system begins to damage its own healthy cells in the body
b. a person can also have 2 autoimmune diseases at the same time
c. women are more affected
d. they affect both men and women equally
e. they arise when the immune system is insufficiently active
f. they are highly contagious

41. Mark the correct statements for chronic psoriasis

a. occurs most often after upper respiratory tract infection
b. bearings arise mainly at friction points
c. sowing is in the form of dot or drop bearings
d. the bearings have a map shape
e. occurs in the area of hair and elbows
f. it is very easy to treat

42. Mark the correct statements for cow's milk protein allergy

a. individuals must avoid products containing milk protein
b. newborn babies can receive lactose-reduced milks
c. individuals may eat lactose-free products
d. the intensity of symptoms is not dependent on the amount of protein consumed
e. the intensity of symptoms is dependent on the amount of protein consumed
f. occasional eating of milk products does not cause problems

43. Mark the correct statements for food allergies

a. food allergies have the highest incidence in the elderly
b. food allergies have the highest incidence in adults
c. food allergies have the highest incidence in children
d. food allergens are most often of protein origin
e. food allergens are most often of carbohydrate origin
f. food allergens are most often lipid substances

44. Mark the correct statements for insect allergy

a. the source of allergens can also be the secretions and bodies of insects
b. an allergy can be caused by a bite of insect
c. the allergic reaction is mediated by IgE antibodies
d. a large local reaction, which increases within 24-48 hours, is common also for non-sensitive people
e. EpiPen should not be used without medical supervision
f. all insects can cause allergy in sensitive individuals

45. Mark the correct statements for nappy dermatitis

a. food allergens play a role in its etiopathogenesis
b. W-shaped nappy dermatitis is caused by Candida albicans
c. is an infectious disease
d. nappy friction, humidity, presence of urine, stool, higher temperature in the area covered by the nappy plays a role in its etiopathogenesis
e. W-shaped nappy dermatitis does not occur in the folds of the skin
f. Y-shaped nappy dermatitis has an infectious origin and is manifested by a whitish coating in the folds

46. Mark the correct statements for nappy dermatitis

a. the most common type is dermatitis in the folds
b. the most common type is dermatitis on convexities
c. dermatitis in the folds has an infectious origin
d. dermatitis in the folds begins on the buttocks
e. it is manifested by small wounds and blisters that can crack
f. manifests itself as dry peeling skin

47. Mark the correct statements for psoriasis

a. on the skin it is manifested by wetting wounds, which often fester
b. on nails it manifests by increasing their brittleness
c. that it cannot be cured (or the symptoms persist)
d. on the skin it is manifested by spots of pink-red colour, on the surface covered with dry, silvery scales
e. on the nails it is manifested by peeling of the nail bed and a change in their pigmentation
f. that it manifests by changing remissions and relapses periods

48. Mark the correct statements for the infantile form of atopic dermatitis

a. it typically manifests in the bend of the elbows and knees
b. it is most often manifested in the face (on the cheeks), head and neck
c. it is typically manifested on the hands and fingers
d. the most common trigger is food allergens
e. it is likely to worsen into old age
f. it is manifested by itching, inflamed skin, edema, erythema

49. Mark the correct statements

a. to reduce mother-to-child transmission of HIV, the mother should give birth by caesarean section, should not breastfeed, and should take prescribed HIV treatment
b. the number of CD4+ T cells is also important for the clinical development of HIV infection

c. HIV infection is transmitted only among homosexual people
d. the most common causes of death in AIDS patients are pneumonia and TBC
e. there are only a few weeks between HIV infection and AIDS disease
f. the development of AIDS disease in HIV-positive people can take years

50. Mark the correct statements for psoriasis

a. it is an infectious disease
b. to alleviate her symptoms are not good e.g., oil baths or swimming in the sea
c. its complication is the development of atopic eczema
d. scales and irritated skin most often appear on the head, knees and elbows
e. it can be activated by cold weather
f. in addition to the skin, it can also affect the nails, joints and eyes

51. Mark the manifestations and complications of systemic lupus erythematosus

a. Aschoff's nodules, dysrhythmia
b. herpes zoster, smallpox
c. ARDS, IRDS
d. malaria erythema on the cheeks, photosensitivity, fever arthritis
e. pleuritis, pericarditis
f. renal failure, psychosis

52. Mark the mechanisms involved in the pathogenesis of allergic rhinitis

a. allergen sensitization
b. action of antigens on the mast cells
c. release of inflammatory mediators
d. vasodilation
e. formation of immunocomplexes
f. IgE destruction

53. Mark the processes involved in the pathogenesis of allergic rhinitis

a. allergen sensitization
b. action of antigens on mast cells activity
c. release of inflammatory mediators
d. vasodilation
e. formation of immunocomplexes
f. IgE destruction

54. Mark the typical symptoms for AIDS

a. development of Kaposi's sarcoma
b. development of IRDS
c. development of type 2 diabetes mellitus
d. development of fungal infections (candidiasis)

e. development of Lyme disease
f. development of herpes zoster and herpes simplex

55. Mark, what applies to anaphylaxis

a. it is cause by e.g., grocery
b. it is cause by e.g., drugs
c. it manifests by e.g., hives
d. it manifests by e.g., asthma
e. is mediated by cell lysis
f. is characterized by the formation of immune complexes

56. Mark, which diseases are involved in the type I hypersensitive reaction.

a. systemic lupus erythematosus
b. bronchial asthma
c. urticaria
d. AIDS
e. acute graft rejection after transplantation
f. hay fever

57. Mark, which diseases have an autoimmune origin

a. IRDS
b. measles
c. gonorrhoea
d. Lupus erythematosus
e. Sjogren's syndrome
f. Scleroderma

58. Mark, which substances play crucial role in the pathogenesis of allergic rhinitis.

a. mast cells
b. eosinophils
c. platelets
d. B-lymphocytes
e. basophils
f. IgE antibodies

59. One of the most common food allergens are

a. milk
b. alcohol
c. seafood
d. sourdough bread
e. nuts
f. avocado

60. Persistent allergic rhinitis

a. persists throughout the individual's life
b. does not respond to pharmacological treatment
c. lasts for at least 4 days a week and symptoms are present for 4 weeks
d. it is always moderate to severe
e. it can also be mild
f. it is always manifested by dry mucous membranes for at least 3 weeks a year

61. Primary amyloidosis

a. is a local disease
b. it only affects the heart
c. it has a good prognosis
d. is a systemic disease
e. is characterized by increased production of immunoglobulins
f. the presence of plasmacytoma is a risk factor

62. Primary immunodeficiency diseases can often cause

a. constipation
b. asthma attacks
c. paraesthesia
d. common skin infections
e. otitis media
f. pneumonia

63. Primary immunodeficiency diseases include

a. severe combined immunodeficiency diseases
b. Di Georg's syndrome
c. Bruton's Gitlin syndrome
d. AIDS
e. lupus erythematosus
f. neonatal haemolytic disease

64. Psoriasis

a. is an infectious disease that is transmitted through food
b. mainly affects people with weakened immunity, e.g., after chemotherapy
c. its symptoms appear e.g., after overcoming atopic eczema in childhood
d. is a non-infectious autoimmune disease of the skin, joints, nails
e. it can be triggered by stress, drugs, infections, e.g., upper respiratory tract, hormonal changes
f. mainly affects young people

65. Secondary amyloidosis

a. is a local disease
b. affects the brain (Alzheimer's disease)
c. it has a bad prognosis
d. is a systemic disease
e. occurs in diseases such as TB, Crohn's disease, cystic fibrosis
f. has a better prognosis than primary amyloidosis

66. Secondary immunodeficiency diseases can be caused by

a. malnutrition
b. T cell deficiency
c. chemotherapy
d. acute viral infection
e. B cell deficiency
f. Candida albicans

67. Systemic anaphylaxis is manifested e.g.

a. by hypertension
b. by dysfunctional bleeding
c. by xerosis
d. by bronchial contraction
e. by pulmonary edema
f. by shock

68. Systemic lupus erythematosus

a. is an allergic disease
b. affects only newborns
c. causes meningitis
d. is an autoimmune disease
e. affects women more often
f. in its pathogenesis also play a role II. and III. type of hypersensitivity reaction

69. Systemic lupus erythematosus is characterized

a. by the formation of antigen-antibody complexes
b. by the formation of a wide range of cytotoxic lymphocytes
c. by production of antibodies directed against blood elements
d. by significantly more common in men than in women
e. by anaphylactic shock
f. by onset of atopic eczema

70. The cells involved directly in the type I allergic reaction are

a. CD4+ Lymphocytes
b. CD8+ Lymphocytes
c. plasma cells
d. mast cells
e. platelets
f. neutrophils

71. The most common allergens are

a. grocery
b. plastics
c. leather
d. metal
e. pollen
f. dust

72. The most common food allergens are

a. nuts
b. pastry
c. pears
d. citrus
e. ginger
f. seafood

73. The most common manifestations of food allergy are e.g.

a. diarrhoea
b. ascites
c. heartburn
d. urticaria
e. angina pectoris
f. migraine

74. The most common type of psoriasis is

a. focal psoriasis
b. erythrodermic psoriasis
c. eruptive psoriasis
d. inverse psoriasis
e. pustular psoriasis
f. psoriasis triggered by the use of medication

75. The symptomatology of psoriasis includes

a. sharply demarcated red spots on the skin
b. macules and pustules on the feet
c. relapsing knee pain
d. arthritis
e. change in nail pigmentation
f. hair loss

76. The triggers of psoriasis are

a. UV radiation
b. warm climate
c. stay by the sea
d. infection
e. stress
f. cold weather

77. Type II. allergic reaction

a. is caused by excessive IgE production
b. is mainly caused by IgG antibodies
c. is also called delayed hypersensitivity
d. is directed against antigens bound to the body's own cells, e.g., blood cells
e. is also called an anaphylactic reaction
f. is caused by excessive adrenaline leaching

78. What factors can activate psoriasis?

a. infection
b. coldness
c. stress
d. bad lifestyle
e. pregnancy
f. stay at the sea

79. Which type of hypersensitivity reaction is characterized by the formation of an antigen-antibody complex?

a. I. Type
b. II. Type
c. IV. Type
d. III. Type
e. anaphylactic reaction
f. cytotoxic reaction

2.9 SENSORY SYSTEM

1. Angle closure glaucoma

    a. is the most common type of glaucoma
    b. is less common type of glaucoma
    c. a wide and open angle between the cornea and the iris is present
    d. develops relatively quickly
    e. reduced ventricular outflow is present
    f. occurs due to denaturation of proteins in the lens

2. As a result of increased intraocular pressure arises

    a. glaucoma
    b. cataract
    c. cataract
    d. green opacity
    e. sclerosis
    f. hypermetropia

3. Astigmatism

    a. affects the cornea
    b. it occurs when the rays of light do not fall into one focus
    c. can be corrected
    d. it occurs when rays of light fall behind the retina
    e. is a disorder of miosis
    f. is a disorder of eye convergence

4. Astigmatism

    a. is a visual defect caused by insufficient accommodation
    b. is caused by uneven lens curvature
    c. is caused by uneven contraction of the musculus ciliaris
    d. is caused by uneven curvature of the cornea
    e. is corrected by cylindrical lenses
    f. can be corrected surgically by lens replacement

5. Astigmatism is

    a. myopia
    b. hyperopia
    c. corrected by cylindrical lenses
    d. corrected by conjunctions
    e. uneven lens curvature
    f. corrected by scatterers

6. Cataract

    a. is caused by increased intraocular pressure
    b. is caused by denaturation of proteins in the lens
    c. manifests itself mainly in blurred vision
    d. is manifested mainly by visual field disturbances
    e. can lead to blindness
    f. it occurs only in the elderly

7. Cataract

    a. it is usually caused by the precipitation of proteins in the lens
    b. is synonymous with glaucoma
    c. cannot be solved operationally
    d. is the most common cause of blindness
    e. risk factors are radiation, smoking or corticosteroid use
    f. is caused by impaired outflow of aqueous humour

8. Cataract

    a. is the part of the retina just above the optic nerve exit
    b. is a disease affecting the cornea
    c. is a disease affecting the lens
    d. may cause blindness
    e. is treated by surgery
    f. occurs in elderly patients

9. Cataract

    a. is manifested by altered transparency of the lens
    b. is a treatable disease
    c. can be induced by increased passage of UV radiation into the eye
    d. is manifested by visual field defects
    e. leads to optic nerve damage
    f. occurs due to increased blood supply to the lens

10. Causes of cataracts may be

    a. hypertension
    b. diabetes mellitus
    c. exposure to ionizing radiation
    d. dehydration of the body
    e. bleeding in the brain
    f. anaemia

11. Causes of hydrops in Meniere's disease may be

    a. inadequate endolymph formation

b. excessive perilymph formation
c. excessive endolymph formation
d. insufficient resorption of endolymph
e. diabetes mellitus
f. hypertension

12. Disorders at the level of the inner ear and cochlear nerve can induce a condition in humans that we define as

a. shock
b. dizziness
c. coma
d. vertigo
e. sepsis
f. otosclerosis

13. During vertigo, the patient feels

a. that his surroundings are spinning around him
b. nausea, vomiting
c. double vision
d. feeling of a full ear
e. bitter taste in the mouth
f. dizziness in the legs

14. Endolymphatic hydrops of the membranous labyrinth of the inner ear occurs at

a. otosclerosis
b. myopia
c. vertigo
d. Meniere's syndrome
e. hypermetropia
f. glaucoma

15. Mark, what applies for glaucoma

a. the most common form is called open-angle glaucoma, which is usually not painful
b. closed-angle glaucoma can appear suddenly and is accompanied by pain, redness and blurred vision
c. open-angle glaucoma is caused by a disturbance in the flow of intraocular fluid - a narrowing of the flow in the trabecular system
d. closed-angle glaucoma is due to a disturbance in the flow of intraocular fluid - constriction of flow in the trabecular system
e. atrophy of the optic nerve target does not affect the quality of vision
f. risk factors include hypertension, genetic predisposition and elevated intraocular pressure

16. Glaucoma

a. is an increase in intraocular pressure
b. is the reduction of intraocular pressure
c. can be used in the field of view
d. can make a blurred vision
e. is caused by atrophy of the radial nerve
f. is typical for children

17. Glaucoma

a. with a closed angle has a small angle between the cornea and the iris
b. occurs more often in people who cannot see far
c. is a disease of the lens
d. is a disturbance at the level of signal conduction to the occipital lobe of the brain
e. damages the optic nerve and retina
f. is referred to as glaucoma

18. Hypermetropia correction is done

a. with concave lenses
b. with convex lenses
c. with cylindrical lenses
d. pharmacologically
e. with eye drops
f. with laser

19. Intraocular pressure

a. is the pressure of the vitreous against the walls of the eye
b. is the pressure of blood in the blood vessels on the surface of the retina
c. increase can lead to damage to the nervus opticus
d. increase can lead to bulging of the eyeball
e. increase can lead to glaucoma
f. increase can lead to blindness

20. Kinetosis

a. is a disorder of orientation in space
b. the most common cause is a conflict between the vestibular, visual and proprioceptive systems
c. the main symptoms are nausea, dizziness, sweating, increased salivation
d. is synonymous with Meniere's syndrome
e. nausea is due to irritation of the vomiting centre (area postrema)
f. usually resolves after the stimulus is over

21. Mark the correct statements

a. cataract is caused by an increase in intraocular pressure
b. retinal damage is also associated with metabolic diseases such as diabetes mellitus
c. open-angle glaucoma is operable
d. scotomas are outages in the visual field
e. the most common cause of blindness is the cataract
f. visual pathologies are generally referred to as refractory eye defects

22. Mark the correct statements

a. vertigo is one of the central vestibular syndromes
b. eye convergence disorder is also referred to as strabismus
c. the muscle responsible for accommodating the lens is the ciliary muscle
d. glaucoma (glaucoma) is caused by denaturation of lens proteins
e. the Schlemm's canal is the space between the iris and the cornea
f. Meniere's disease is damage of the hearing centre

23. Mark the correct statements

a. hypermetropia means good distance vision
b. astigmatism is an uneven curvature of the cornea
c. cataract is the most common cause of acquired blindness
d. Meniere's disease results from altered quality of the middle ear endolymph
e. vertigo is a sensation of sudden loss of visual field
f. myopia means good distance vision

24. Mark the correct statements

a. nystagmus is an oscillating, uncontrolled movement of the eyes
b. in vertigo, the quality (composition) of the endolymph may be altered
c. Meniere's disease is manifested by intermittent ringing and whistling in the ears and hearing loss
d. optic nerve oppression is the cause of blindness in cataracts
e. vertigo is most commonly caused by cranial nerve damage
f. Meniere's disease can be complicated by peripheral sensitivity disorders

25. Mark, what applies to Meniere's disease

a. is synonym with vertigo
b. the symptoms are usually bilateral
c. seizures usually last a few seconds never more than several minutes
d. it is usually caused by an endolymphatic hydrops
e. typical symptoms are dizziness, tinnitus or hearing loss
f. it is a central vestibular syndrome

26. Meniere's disease

a. is a visual disorder
b. is an olfactory disorder
c. belongs to vestibular syndromes
d. symptoms include vertigo, tinnitus, hearing loss
e. symptoms are blurred vision, hearing and vision loss
f. symptoms are sudden change in smell and taste

27. Meniere's disease

a. is caused by protein deposition in the lens
b. affects the olfactory nerve
c. is caused by a defect in the statoacoustic apparatus
d. is caused by insufficient blood supply to the organ of Corti
e. manifests as vertigo
f. manifests as monochromatic vision

28. Myopia

a. is caused by a retinal defect
b. can be corrected by concave lenses
c. is also called near-sightedness
d. is caused by irregular curvature of the cornea
e. is predominantly associated with aging
f. manifests as colour blindness

29. Myopia

a. is disorder known as far-sightedness
b. is disorder known as near-sightedness
c. is a refractive vision disorder
d. it mainly affects the lens
e. is correctable by divergent lenses
f. is correctable by convergent lenses

30. Myopia

a. is caused by exaggerated obtuse angle lens occlusion
b. is a disorder of accommodation
c. is a visual defect where the image is formed in front of the retina
d. is a visual defect in which the image is formed behind the retina
e. we use conjunctival lenses as a correction
f. we use scatter lenses as a correction

31. Myopia presents

a. as shortsightedness

b. as hyperopia
c. as astigmatism
d. a disorder in which the focus of light rays is in front of the retina
e. a disorder where the focus of light rays is behind the retina
f. uneven corneal curvature

32. Open-angle glaucoma

a. is the most common type of glaucoma
b. is less common
c. is developing slowly
d. is developing relatively fast
e. arises due to reduced outflow of aqueous humour
f. is caused by denaturation of proteins in the lens

33. Otitis externa is

a. inflammation of the external ear
b. inflammation of the inner ear
c. superficial infection caused by bacteria or fungi
d. inflammation of the middle ear
e. accompanied by ear pain, itching and discharge from the ear
f. accompanied by severe hearing loss to deafness

34. Strabismus

a. if uncorrected leads to complete blindness
b. if uncorrected leads to visual impairment (blindness) in one eye
c. it should not be corrected until the age of 4, as it can be corrected by blinding the eye, or exercise under professional supervision
d. should be corrected as soon as possible in order to maintain full visual perception
e. develops gradually during the first 4 years of a child's life
f. is a disorder of binocular vision

35. Symptoms of cataracts are

a. nausea and vomiting
b. state when it is easier to read without glasses
c. feeling of a thin coating on the eyes
d. gaps in the field of vision
e. double vision
f. feeling of full ear

36. The main symptoms of glaucoma are

a. blurred vision with defects in the visual field

b. photophobia
c. nausea
d. diarrhoea
e. lymphedema
f. retinopatia

37. Vertigo

a. is a dizziness
b. is an increase in intraocular pressure
c. is an inner ear disorder
d. is a middle ear disorder
e. manifests itself in nausea, vomiting, the patient feels that he or the surroundings around him are spinning
f. can make a blurred vision

38. Vertigo

a. is a dizziness
b. may result from atherosclerosis
c. is a hearing impairment
d. are among the imbalances
e. occurs after the drum is interrupted, for example in the case of ear inflammation
f. is a manifestation of ototoxicity

39. Vertigo

a. may be central or peripheral
b. can be subjective or objective
c. manifests with nausea, headache and double vision
d. is manifested by pain in the middle ear
e. is a disorder of the eye
f. is a disorder of the sense of smell

40. Vertigo

a. is accompanied by nausea and vomiting
b. is induced by changes in the vestibular apparatus of the ear
c. may manifest as nystagmus
d. is a feeling of vomiting due to irritation of the area postrema from the periphery of the stomach
e. occurs mainly in young people and improves with age
f. occurs due to pressure changes in the Eustachian tube

41. What causes glaucoma?

a. damage to the lens
b. degeneration of the optic nerve papilla
c. injuries to the eye
d. difficulty in draining the ventricular aqueous humour
e. damage to the cochlear nerve
f. damage to the pupil

42. What disease are children more susceptible to as a result of a short Eustachian tube?

a. Meniere's disease
b. otitis media
c. tinitus
d. vertigo
e. inflammation of the trigeminal nerve
f. inflammation of the auricle

43. Which refractory defect besides hypermetropia and myopia do you know?

a. astigmatism
b. accommodation
c. syncope
d. scotomas
e. tinitus
f. glaucoma

44. Which of the following statements about colour blindness are true?

a. they are examined by retinoscopy
b. they are mostly acquired
c. they only affect men
d. in Daltonism, the patient lacks a cone sensitive to green
e. achromatopsia results in black and white vision
f. they may be caused by mutations on the X-chromosome

45. Which of the following statements are true for Meniere's disease and vertigo?

a. one of the possible causes of Meniere's disease is endolymphatic hydrops
b. Meniere's disease is associated with tinnitus, dizziness and nausea
c. vertigo can be divided into peripheral and central, while central originates in semilunar ducts
d. dizziness is itself a disease and not a symptom
e. the cause of vertigo is never a disorder in the vestibular apparatus, but in the nervous system
kinetosis or travel dizziness are often associated with peripheral vertigo

2.10 Bones and muscles disorders

1. Arthritis

    a. is inflammation of the joints
    b. its presence on at least 3 joints is a diagnostic criterion for rheumatoid arthritis
    c. may be accompanied by decalcification of the cartilage
    d. it is always symmetrical
    e. it occurs only on the joints of the hands
    f. it must be accompanied by deformities

2. Bone demineralization

    a. is excessive bone formation
    b. is the disproportion of bone degradation vs. formation of new bone tissue
    c. affects more often middle-aged men
    d. affects women more often, especially after menopause
    e. it is manifested by softening of the bones
    f. is diagnosed by densitometry

3. Bone metabolism is regulated by

    a. estrogen
    b. vitamin D
    c. hyaluronic acid
    d. parathyroid hormone
    e. calcitonin
    f. adhesive glycoproteins

4. Identify non-specific symptoms of rheumatoid arthritis

    a. symmetrical joint involvement
    b. pain
    c. morning stiffness > 60 min
    d. fatigue
    e. weakness
    f. rheumatoid factor positive

5. Identify risk factors for osteoarthritis

    a. genetics
    b. younger > older
    c. higher age
    d. doing sports
    e. gender women > men
    f. muscle atrophy

6. Identify specific symptoms of osteoarthritis

    a. pain
    b. reduced joint mobility
    c. morning stiffness < 30 min
    d. symmetric arthritis
    e. morning stiffness > 60 min
    f. starting pain

7. Identify specific symptoms of rheumatoid arthritis

    a. pain
    b. reduced joint mobility
    c. morning stiffness < 30 min
    d. symmetric arthritis
    e. morning stiffness > 60 min
    f. starting pain

8. In the pathogenesis of rheumatoid arthritis are involved

    a. inflammation of the synovial membrane
    b. synovial membrane fibrosis
    c. degeneration of joint case
    d. impaired joint nutrition
    e. synovial fluid infection
    f. formation of osteophytes

9. Indicate the correct statements for rheumatoid arthritis

    a. it occurs when extra uric acid in the body forms crystals in the joints
    b. it is an autoimmune disease
    c. typical is morning stiffness < 15 min
    d. can cause joint pain, swelling and damage of joints
    e. weakness, pain and morning stiffness are common symptoms
    f. for diagnostic lab test for uric acid is used

10. Indicate the correct statements for osteoarthritis

    a. genetics is one of the risk factors
    b. same number of young and elderly are affected
    c. it is the most common form of arthritis
    d. it affects joints in hands, knees, hips and spine
    e. sportsmen never get it
    f. it belongs to rare diseases

11. Indicate the correct statements for osteoarthritis

a. secondary osteoarthritis affects mainly fingers, hip and knee joint
b. it manifests with increased joint mobility
c. changes on joints usually occur slowly
d. there is symmetric arthritis
e. patients suffer from morning stiffness > 60 min
f. typically, there is deterioration of tendons and ligaments and a breakdown of cartilage

12. Indicate the correct statements about the gout

a. diet cannot affect it
b. it improves joint mobility
c. main symptom is morning stiffness < 30 min
d. it is a form of inflammatory arthritis
e. it is due to persistently elevated levels of uric acid
f. it typically affects hip and knee joint

13. Mark the correct statements for rheumatoid arthritis

a. morning stiffness lasting 30 min
b. affects the joints especially on the right side of the body
c. mainly affects the hip, knee and ankle joints
d. morning stiffness lasting about 1 hour
e. symmetrical joint involvement
f. it mainly affects the joints of the arms, legs and shoulders

14. Mark the correct statements

a. osteoarthritis is a metabolic bone disease accompanied by inflammation
b. bone is the main reservoir of calcium and phosphorus
c. osteoporosis is an inflammatory joint disease
d. rheumatoid arthritis is accompanied by morning stiffness and inflammatory joint degeneration
e. vitamin D is an essential factor for calcium absorption
f. a typical compact bone arrangement is the Havers system - osteons

15. Mark the correct statements

a. myasthenia gravis is common disease in population
b. in gout, the pain typically comes on rapidly
c. osteomalacia is an inflammatory of the muscles
d. the big toe is usually affected in gout
e. in gout, uric acid crystallizes and the crystals deposit in joints
f. gout was historically known as "the disease of kings" or "rich man's disease”

16. Mark the correct statements about rheumatoid arthritis

a. it only affects the joints, always asymmetrically
b. affects both sexes equally
c. is an immunodeficient disease
d. is a systemic, autoimmune disease
e. affects the joints symmetrically
f. except joints, it also affects the mucous membranes, eyes, liver, blood vessels

17. Mark the correct statements about rheumatoid arthritis

a. the inflammatory process mainly affects the bone tissue and causes microfractures in it
b. the inflammatory process affects the synovial membrane of the joint and thus damages its nutrition
c. the final stage of rheumatoid arthritis is a bone fracture
d. the final stage of rheumatoid arthritis is joint immobility
e. it is also manifested by anaphylactic shock
f. it is also manifested by weight loss, sleep disorders, depression and constant slightly elevated temperature

18. Mark the terms connected with symptoms of rheumatoid arthritis

a. joint edema
b. hyperaemia
c. opalescent fluid
d. asymmetric disability
e. conjunctivitis
f. hypercholesterolemia

19. Mark, what applies to rhabdomyolysis

a. it is a symptom occurring in myalgia
b. it can be caused by overwork, injury or medication
c. smooth muscle cell lysis occurs
d. myoglobin released from muscle cells damages the kidneys
e. muscle cells die primarily by apoptosis
f. the cause of cell death is a lack of ATP and increased levels of intracellular calcium

20. Mark, what is typical for osteomalacia

a. bone and joint pain
b. vitamin D deficiency
c. muscle weakness
d. swelling of the joints
e. bone deformities

f. cracking sound of joints

21. Myalgia

a. is a disease characterised by lysis of muscle fibres
b. is a symptom of muscle fatigue but also multiple other diseases
c. can affect multiple muscle groups
d. is manifested in pain, stiffness and redness of muscles
e. is an inflammatory disease
f. is a relaxation of skeletal muscle

22. Myalgia

a. is muscle pain
b. is the breakdown of muscles
c. accompanies rhabdomyolysis
d. is skeletal muscle necrosis
e. is skeletal muscle apoptosis
f. always accompanies regeneration

23. Osteoarthritis

a. is an inflammatory disease of the joints
b. arises as a result of excessive stress on the joint
c. is characterized by the formation of rheumatoid nodules
d. it always affects the paired joints
e. it is manifested by mechanical wear of the cartilage
f. in the third stage there is the formation of bone thorns (osteophytes)

24. Osteoarthritis

a. is a primary inflammatory disease
b. is characterized by morning stiffness
c. leads to ankylosis
d. affects the joints symmetrically
e. it also has non-articular manifestations
f. may cause vasculitis

25. Osteoarthritis

a. is an inflammatory disease of the bone tissue
b. is a degenerative joint disease
c. is manifested by a shorter morning stiffness
d. manifests itself in the occurrence of frequent fractures
e. occurs only in the elderly
f. it affects the weight joints the most asymmetrically

26. Osteoarthrosis

a. is of inflammatory origin
b. is characterized by morning stiffness
c. leads to ankylosis
d. affects the joints symmetrically
e. also has extraarticular manifestations
f. may cause vasculitis

27. Osteomalacia

a. is a disorder of bone mineralization
b. occurs in malnourished children
c. occurs in adults
d. manifests itself in increased bone deformability
e. arises as a disorder of vitamin K metabolism
f. is manifested by increased bleeding

28. Osteoporosis

a. is a disease of the joints
b. is a disease of the bones
c. is characterized by bone loss
d. is an autoimmune disease
e. is characterized by the formation of microfractures
f. affects the joints asymmetrically

29. Rhabdomyolysis

a. is a symptom occurring in fever
b. symptoms may include muscle pains, weakness, vomiting, and confusion
c. is a damage of cardiomyocytes
d. tea-coloured urine may be present
e. drugs never induce it
f. is often the result of a crush injury, strenuous exercise, medications or electric injury

30. Rheumatoid arthritis

a. is an autoimmune inflammatory disease of the small joints
b. occurs only in the elderly
c. affects the joints symmetrically
d. is a degenerative bone disease
e. it is manifested by a longer morning stiffness
f. occurs only in the spring months

31. Rheumatoid arthritis

a. is a disease caused by autoimmune inflammation
b. it is caused by excessive stress or injury to the joint
c. it is located on only one joint in the body
d. the main cause is a chronic deficiency of Ca and vitamin D
e. in advanced cases, it can also manifest in other organs (eyes, heart)
f. non-specific symptoms are stiff and swollen joints, but without inflammation

32. Rheumatoid arthritis

a. is a symmetrical disease of the small joints
b. is a symmetrical disease of the large joints
c. is characterized by inflammatory damage to the synovial membrane
d. it occurs when the load on the joints is uneven
e. athletes are particularly affected
f. has an autoimmune base

33. Rheumatoid arthritis is

a. a systemic disease
b. an autoimmune disease
c. an inflammatory disease
d. a regressive disease
e. an infectious disease
f. a degenerative disease

34. Rickets disease (Rachitis)

a. is a disorder of bone mineralization
b. occurs in children
c. occurs in adults
d. manifests itself in increased bone deformability
e. arises as a disorder of vitamin B1 metabolism
f. is manifested by stomatitis

35. Symptomatology of rheumatoid arthritis includes

a. symmetrical involvement of the joints
b. asymmetric joint involvement
c. morning stiffness
d. red spots on the forearms with silvery scales
e. sclerotic nodules
f. aphthous stomatitis

36. The pathogenesis of which disease is described as Autoimmune inflammation causing synovitis with consequent damage to cartilage and joints?

    a. knee hypertrophy
    b. rheumatoid arthritis
    c. osteoarthritis
    d. osteoporosis
    e. hyperplasia of the knee joint
    f. osteomalacia

37. What applies to rhabdomyolysis?

    a. it is the breakdown of myocardial muscle fibres
    b. it is the breakdown of striated muscle fibres
    c. it is a type of apoptosis
    d. it is a type of necrosis
    e. rhabdomyolysis can cause kidney damage
    f. rhabdomyolysis can cause liver damage

38. Which extraarticular manifestations of rheumatoid arthritis do you know?

    a. swelling of the joints
    b. retinitis
    c. vasculitis
    d. dermal lesions
    e. muscle atrophy
    f. osteophytes

39. Which non-articular manifestations of rheumatoid arthritis do you know?

    a. swelling of the joints
    b. retinitis
    c. vasculitis
    d. knuckle ache
    e. muscle atrophy
    f. osteophytes

40. Which of the statements about myalgia are true?

    a. is muscle pain
    b. is muscle breakdown
    c. accompanies rhabdomyolysis
    d. is skeletal muscle necrosis
    e. is skeletal muscle apoptosis
       always accompanies regeneration

2.11 Blood Disorders

2.11.1 Blood disorders – Part 1

1. Acute lymphoblastic leukaemia

    a. mainly affects elderly patients
    b. it mainly affects children
    c. is characterized by the formation of large numbers of immature lymphocytes
    d. is characterized by the formation of low lymphocytes count
    e. mainly affects neutrophils
    f. mainly affects T and B cells

2. Acute lymphoblastic leukaemia

    a. affects mostly adults
    b. is also manifested by ulcers and necrosis in the oral cavity and in the GIT
    c. there is a very large number of circulating lymphoblasts in the blood
    d. affects mostly children and adolescents
    e. starts suddenly has a fast difficult course
    f. starts slowly, the symptoms are mild

3. Acute lymphoblastic leukaemia

    a. is one of the most common childhoods leukaemia's with the highest incidence in 2 - 5 years of age
    b. is a disorder of leukocyte differentiation, maturation and proliferation
    c. is a disease of the lymph nodes
    d. only leucocytosis occurs in the blood count
    e. is a disease with a good prognosis
    f. the lymph nodes are reduced

4. Acute lymphoblastic leukaemia

    a. affects mostly adults
    b. is also manifested by ulcers and necrosis in the oral cavity and in the GIT
    c. there is a very large number of circulating lymphoblasts in the blood
    d. affects mostly children and adolescents
    e. starts suddenly has a fast difficult course
    f. starts slowly, the symptoms are mild

5. Acute myeloblastic leukaemia

    a. affects mostly adults
    b. is also manifested by ulcers and necrosis in the oral cavity and in the GIT
    c. there is a very large number of circulating lymphoblasts in the blood
    d. affects mostly children and adolescents
    e. starts suddenly has a fast difficult course

f. starts slowly, the symptoms are mild

6. Anaemia caused by chronic diseases and kidney failure is caused by a lack of hormone

   a. adrenaline
   b. erythropoietin
   c. thyroid
   d. calcitonin
   e. cortisol
   f. aldosterone

7. Anaemias are characterized by

   a. a reduced erythrocyte counts
   b. a reduced leukocyte counts
   c. reduced iron levels
   d. a reduced haematocrit
   e. a reduced sedimentation
   f. reduced CRP value

8. Anaemias manifest by

   a. pale mucous membranes
   b. fatigue
   c. inability to concentrate
   d. sleepiness
   e. memory disorders
   f. reduced glomerular filtration

9. Aplastic anaemia

   a. are characterized by a disorder of erythrocyte differentiation
   b. they are often accompanied by leukopenia and thrombocytopenia
   c. is a typical stem cell disorder
   d. often accompanied by haemato-oncological diseases
   e. is just obtained
   f. associated with vitamin B12 deficiency

10. Beta thalassemia

    a. is normocyte anaemia
    b. is innate, hereditary
    c. is caused by a lack of vitamin B12
    d. is macrocyte anaemia
    e. is characterized by impaired globin synthesis
    f. it is characterized by insufficient erythropoiesis

11. Chronic lymphocytic leukaemia

a. affects mostly adults in the 3rd and 4th decades of life
b. is manifested by fever, night sweats and bruising
c. is characterized by the lymph nodes swelling
d. is manifested by fatigue, weight loss or anorexia
e. there are degenerate forms of lymphocytes which are very fragile
f. starts slowly, the symptoms are mild

12. Chronic myeloid leukaemia

a. it starts suddenly and has a very fast course, which is fatal in most cases
b. it may manifest as weakness, anaemia, the blood is pale to gray-yellow
c. the number of leukocytes is significantly reduced, but they have the ability to phagocytose
d. the number of leukocytes is significantly increased, but these are immature forms that have a low ability to phagocytose
e. is the most common form of leukaemia in children under 15 years.
f. a typical clinical manifestation is lymphoma

13. Chronic myeloid leukaemia

a. affects mostly adults in the 3rd and 4th decades of life
b. is manifested by fever, night sweats and bruising
c. is characterized by the lymph nodes swelling
d. is manifested by fatigue, weight loss or anorexia
e. there are degenerate forms of lymphocytes which are very fragile
f. starts slowly, the symptoms are mild

14. Chronic myeloid leukaemia (CML)

a. is associated with changes in chromosomes
b. secondary induces anaemia
c. it mainly affects children
d. common bacterial and viral infections are often fatal for patients with CML
e. her patients must not receive a transfusion due to the risk of massive haemolysis
f. patients are at risk of embolism

15. Corpuscular haemolytic anaemias are characterized by

a. iron deficiency in the blood
b. by changing the shape of erythrocytes (spherical, elliptical)
c. acute bleeding
d. excess iron in the blood
e. chronic renal failure
f. erythropoietin deficiency

16. Drug neutropenia

a. is a type of leukaemia
b. is a type of lymphopenia
c. is one of the primary disorders of leukocytes
d. is a secondary disorder of leukocytes
e. is clinically insignificant
f. is irreversible

17. Eosinophilia occurs during

a. viral diseases (flu, measles)
b. parasitic diseases
c. allergic diseases
d. gingivitis
e. serious bacterial diseases (TBC)
f. eczema

18. Erythrocyte maturation disorders occur

a. in iron deficiency
b. during diarrhoea
c. in the absence of folic acid
d. in vitamin D deficiency
e. in vitamin B12 deficiency
f. in vitamin B6 deficiency

19. haemoglobinopathies include

a. sickle cell anaemia
b. sideropenic anaemia
c. haemophilia
d. thalassemia
e. thrombasthenia
f. von Willebrand's disease

20. Haemolysis

a. is the breakdown of erythrocytes
b. can lead to anaemia
c. may occur with uncompensated acidosis
d. is a hematopoietic disorder
e. occurs after massive bleeding
f. is more common in men than in women

21. Haemolytic anaemia

a. is caused by decreased breakdown of erythrocytes
b. may be corpuscular conditioned
c. is caused by increased breakdown of erythrocytes
d. is characterized by a haematopoiesis disorder
e. often arises in pregnancy
f. is treated exclusively with iron preparations

22. Haemolytic anaemias include

a. sickle cell anaemia
b. iron deficiency anaemia
c. bleeding anaemia
d. thalassemia
e. pernicious anaemia
f. folic acid deficiency anaemia

23. Haemolytic disease of the newborn

a. it can also arise as the mother is Rh positive and the foetus is Rh negative
b. may occur if the mother is Rh negative and the foetus Rh positive
c. may be manifested by fever, vomiting and tachycardia
d. can be manifested by anaemia, jaundice and CNS damage
e. is caused by the penetration of anti-D antibodies from the mother's blood into the foetal bloodstream
f. it is caused by the penetration of foetal erythrocytes into the mother's bloodstream

24. Hodgkin's disease is

a. a physiological state
b. a malignant lymphoma
c. a benign lymphoma without affecting lymph nodes
d. a disease that usually does not affect lymph nodes
e. a disease that has a good prognosis
f. an accumulation of fluid in the abdominal cavity

25. Hodgkin's lymphoma

a. mainly affects children
b. mainly affects the elderly
c. mainly affects young men
d. is a cancer of the lymph nodes
e. belongs to leukaemias
f. is a secondary disorder of lymphocytes

26. Identify possible causes of sideropenic anaemia

a. insufficient iron intake
b. gastrectomy
c. pregnancy
d. folic acid deficiency
e. vitamin B12 deficiency
f. swelling of the lymph nodes

27. Indicate the correct answers

a. the pH of the blood is regulated by the so-called carbonic anhydrase, which is present on erythrocytes and endothelium
b. an increase in the partial concentration of HCO3- in the blood precedes the development of metabolic acidosis
c. erythrocytes are also able to buffer free H+
d. the binding of carbon monoxide to haemoglobin produces carbamino haemoglobin
e. 4 binding sites for O2 and 2 sites for CO2 are present on the haemoglobin molecule
f. vitamin B12 - cyanocobalamin is important for the synthesis of the heme part of haemoglobin

28. Intrinsic factor

a. is required for the absorption of B12
b. is needed for iron absorption
c. its deficiency causes sideropenic anaemia
d. is produced in the stomach
e. its excess results in non-Hodgkin's lymphoma
f. when there is an excess, aplastic anaemia develops

29. Iron deficiency in sideropenic anaemia can be caused by

a. excessive DNA synthesis
b. its insufficient intake in food
c. its excessive consumption during puberty
d. radiation
e. folic acid deficiency
f. its reduced absorption

30. Leucosis

a. are among the primary leukocyte disorders
b. are among the secondary disorders of leukocytes
c. they affect exclusively lymphocytes
d. affect different types of leukocytes

e. they affect mainly men
f. affect only children

31. Leukaemias

a. are divided into acute and chronic
b. are divided into anaemia and thrombophilia
c. are divided into lymphoid and myeloid
d. are manifested by fever
e. are manifested by fatigue
f. are manifested by reduced leukocyte production

32. Leukaemias

a. they are characterized by leucocytosis
b. a blood smear is needed for diagnosis
c. the diagnosis is confirmed by CT examination
d. hyperploidy is a negative prognostic factor
e. cytogenetics is used in diagnostics
f. the lymph nodes may be swollen

33. Leukopenia

a. is an increase in the number of white blood cells due to leukaemia
b. is a decrease in the number of white blood cells due to another disease
c. may be a side effect of viral infections, chemotherapy, AIDS, etc.
d. clinically it may be manifested by diarrhoea, sweating, ulcers and necrosis
e. in most cases it has no clinical manifestations, exceptionally it can cause infections, fever and chills
f. it is usually reversible

34. Mark the compensatory mechanisms of the body during anaemia

a. increase in cardiac output
b. increase in erythropoietin production
c. thrombocytopenia
d. leucocytosis
e. tachycardia
f. blood flow to the organs

35. Mark the correct statements

a. vitamin B12 is absorbed in the duodenum with the participation of an intrinsic factor
b. pernicious anaemia is a macrocyte anaemia
c. metrorrhagia can induce sideropenic anaemia
d. oesophageal varices can cause aplastic anaemia

e. jaundice is characteristic of haemolytic anaemias
f. anaemia from a disorder of DNA synthesis leads to dysplasia

36. Mark the correct statements

a. a bone marrow biopsy is the basic examination for the diagnosis of leukaemias
b. leukaemia patients often have petechiae or anaemia
c. non-Hodgkin's lymphoma is the most common lymph node disease
d. myeloid cells include monocytes and granulocytes
e. jaundice is a characteristic symptom of leukaemias
f. granulocytopenia results in bleeding into the skin, mucous membranes, GIT

37. Mark the correct statements

a. leukaemia can be divided into microcytic, macrocytic and megaloblastic
b. chronic leukaemias have a worse prognosis than acute ones
c. bleeding and anaemia are common symptoms managing acute leukaemia
d. a typical symptom of leukaemia is bone pain
e. lymph node enlargement is an important symptom
f. most often affects people with missing spleens

38. Mark the correct statements

a. a decrease in haematocrit may indicate anaemia
b. the manifestation of anaemia is a decrease in erythrocytes
c. anaemic patients experience fatigue
d. bradycardia is a manifestation of anaemia
e. as the altitude decreases, the number of erythrocytes increases
f. vitamin K deficiency is one of the causes of sideropenic anaemia

39. Mark the correct statements

a. anaemia can also be caused by autoimmune or hereditary diseases
b. sideroblasts are abnormal platelets that occur in sideroblastic anaemias
c. some anaemias can be prevented by increasing your vitamin C intake
d. aplastic anaemias are caused by bone marrow damage
e. megaloblastic anaemia can result from folic acid deficiency or cyanocobalamin deficiency
f. thalassemia is not the cause of anaemia but its consequence

40. Mark the correct statements

a. in sideropenic anaemia, there is a vitamin B12 deficiency
b. pernicious anaemia can lead to nerve damage
c. haemophilia is a deficiency of one of the clotting factors
d. hepatic coagulopathy is an inherited disease
e. Hodgkin's lymphoma mainly affects younger men

f. non-Hodgkin’s lymphoma (CLL) is caused by excessive proliferation of erythrocytes

41. Mark the correct statements

a. Rh positivity is due to the presence of antigen D on the erythrocyte membrane
b. deficiency of anticoagulant factor type VIII causes anaemia
c. activation of factor I in the blood clotting pathway is the conversion of fibrinogen to fibrin
d. Hodgkin's lymphoma can manifest itself by shrinking lymph nodes, which are painful
e. sideroblastic anaemias are caused by iron deficiency in the body
f. INR is a laboratory value informing about the ability of blood to clot

42. Mark the correct statements

a. factors that may interfere with blood clotting include e.g., use of warfarin, acetylsalicylic acid, vitamin K deficiency
b. aplastic anaemias are caused by damage to haematopoiesis
c. blood smear of megaloblastic anaemia is characterized by the presence of enlarged immature erythrocytes
d. haemoglobin deficiency is manifested by redness, sweating and fever
e. thrombocytopathies are disorders of platelet function that can be congenital or acquired
f. acute lymphoblastic leukaemia affects only people over 65 years of age and is manifested by sweating, fever, ulcers and necrosis

43. Mark the correct statements

a. anaemia is manifested by shortness of breath and fatigue
b. leukaemias only affect elderly patients
c. sickle cell anaemia is a genetically determined disease
d. in anaemias, the haematocrit increases
e. secondary leukocyte disorders include Hodgkin's lymphoma
f. in megaloblastic anaemias, sickle-shaped erythrocytes are present in the blood smear

44. Mark the correct statements

a. sideropenic anaemia is manifested as microcytic and hypochromic
b. vitamin C deficiency causes pernicious anaemia
c. sickle cell anaemia belongs to haemoglobinopathies
d. the cause of haemolytic anaemia is iron deficiency
e. posthaemorrhagic anaemia can occur during heavy childbirth
f. aplastic anaemia is always fatal

45. Mark the correct statements

a. a decreased number of leukocytes is called leukopenia
b. a decreased number of leukocytes is called leucocytosis
c. acute leukaemias usually have a sudden, quickly and difficult course, death occurs within a few weeks
d. non-Hodgkin’s is the best treatable lymphoma and has a very good prognosis
e. lymphoma is a malignant cancer of the lymphatic system
f. Hodgkin’s lymphoma is manifested also by osteoporosis and arthrosis

46. Mark the correct statements

a. in sideropenic anaemia, there is a vitamin B12 deficiency
b. pernicious anaemia can lead to nerve damage
c. haemophilia is a deficiency of one of the clotting factors
d. hepatic coagulopathy is an inherited disease
e. Hodgkin’s lymphoma mainly affects younger men
f. non-Hodgkin's lymphoma is caused by excessive proliferation of erythrocytes

47. Mark the correct statements

a. anaemia can also be caused by autoimmune or hereditary diseases
b. sideroblasts are abnormal platelets that occur in sideroblastic anaemias
c. some anaemias can be prevented by increasing vitamin C intake
d. aplastic anaemias are caused by bone marrow damage
e. megaloblastic anaemia can result from acid deficiency. foliar or cyanocobalamin
f. thalassemia is not the cause of anaemia but its consequence

48. Mark the correct statements

a. leukaemia can be divided into microcytic, macrocytic and megaloblastic
b. chronic leukaemias have a worse prognosis than acute ones
c. bleeding and anaemia are frequent symptoms accompanied by acute leukaemia
d. a typical symptom of leukaemia is bone pain
e. lymph node enlargement is an important symptom of leukaemia
f. most often affects people with missing spleen

49. Mark the correct statements

a. sideropenic anaemia is a hypochromic, microcytic anaemia
b. vitamin D deficiency causes thalassemia anaemia
c. sideropenic anaemia caused by insufficient iron level in the body
d. the cause of thalassemia anaemia is iron deficiency
e. posthaemorrhagic anaemia can occur after serious bleeding
f. sideropenic anaemia is always fatal

50. Mark the correct statements

a. a group of blood cancers that usually begin in the bone marrow are called leukaemias
b. a decreased number of leukocytes is called leukocytosis
c. leukaemias result in high numbers of abnormal blood cells
d. Non-Hodgkin's lymphoma has a very good prognosis
e. acute leukaemia means it progresses quickly and aggressively
f. Hodgkin's lymphoma is manifested also by rachitis

51. Mark the correct statements for Hodgkin's lymphoma

a. it is a type of lymph node inflammation
b. it is a type of leukaemia
c. it is a type of lymphoma
d. most commonly it affects children
e. most commonly it affects young adults
f. most commonly it affects the elderly

52. Mark the symptoms of acute myeloid leukaemia

a. anaemia, leucocytosis
b. hepatomegaly, splenomegaly
c. petechiae, suffocation
d. cough
e. diarrhoea
f. cystitis

53. Mark true claims

a. iron is transported in the blood always in bound form
b. freely dissolved oxygen is sufficient to fuse tissues for about 20 minutes
c. albumin is important for maintaining oncotic blood pressure
d. the hormone that stimulates erythropoiesis is called renin
e. haematocrit refers to the blood fraction formed by erythrocytes
f. the first phase of haemostasis is coagulation

54. Mark typical features for pernicious anaemia

a. it arises due to the lack of iron
b. it is caused by folic acid deficiency
c. it is caused by a lack of vitamin B12
d. it may be due to atrophy of the gastric mucosa
e. it is related to the so-called "intrinsic factor"
f. it is associated with excessive calcium degradation from bone

55. Mark, what applies to anaemia

a. it is an increase in the amount of haemoglobin above the reference value
b. sideroblastic anaemias are due to disruption of iron binding in the haem molecule
c. they are most often caused by a decrease in the number of erythrocytes
d. sideropenic anaemia results from iron deficiency in the diet
e. aplastic anaemias are caused by bleeding conditions
f. dyshaemopoietic anaemias are due to bone marrow damage

56. Mark, what applies to anaemias

a. bone marrow disorder is the cause of the so-called sideropenic anaemia
b. aplastic anaemia is a loss of all blood elements due to insufficient synthesis of erythropoietin
c. haemophilia A is a type of anaemia induced by a decrease in factor VIII due to insufficient DNA synthesis
d. among the haemorrhagic anaemias we include the so-called megaloblastic anaemia
e. manifestation of sideropenic and sideroblastic anaemias is the so-called Pika syndrome - compulsive eating of clay or starch
f. dyshaemopoietic anaemias are also associated with a lack of precursors in haemoglobin production

57. Mark, what applies to leukaemias

a. they are always manifested by a reduction in the number of white blood cells
b. we generally divide them into lymphoblastic, lymphocytic and myeloid
c. in lymphoblastic leukaemias, the tumour cell is a lymphoblast from which B- and T-lymphocytes are formed
d. they are never caused by viruses
e. common symptoms of myeloid leukaemias are neutropenia, anaemia and thrombocytopenia
f. there is never an increase in granulocytes, always only lymphocytes

58. Mark, what applies to leukaemias

a. typical is lower than normal number of red blood cells
b. their types are lymphoblastic, lymphocytic and myeloid type
c. the success of treatment depends on the age of the person
d. they are never fatal
e. the success of treatment depends on the type of leukaemia
f. usually there is reduction in the amount of haemoglobin

59. Mark, what applies to sickle cell anaemia

a. belongs to posthemorrhagic anaemias
b. it is caused by a mutation in the DNA beta chain of globin
c. it often causes microinfarcts in the brain and kidneys
d. it is manifested by a prolonged bleeding time
e. patients are resistant to Falciparum malariae
f. it is treated by administering iron-containing preparations

60. Mark, what applies to the Rh antigen system

a. is defined by agglutinins C and D
b. if the mother is Rh negative, then the Rh-positive foetus is a potential risk to the mother
c. the D antigen does not induce antibody production in Rh negatives
d. if the mother is Rh positive and the foetus is Rh negative, blood clotting in the foetus may occur
e. haemolytic disease of the newborn is prevented by administration of anti-D serum
f. there are fewer Rh positive blood groups in the population than Rh negative ones

61. Mark, which statement is not correct for aplastic anaemia

a. it is caused by viruses
b. is characterized by pancytopenia
c. the stem cells are unable to proliferate
d. can be hereditary
e. it is caused by bacteria
f. it is also treated by bone marrow transplantation

62. Mark, what applies to anaemia

a. bone marrow disorder is the cause of the so-called sideropenic anaemia
b. aplastic anaemia is a loss of all blood elements due to insufficient synthesis of erythropoietin
c. haemophilia A is a type of anaemia induced by a decrease in factor VIII due to insufficient DNA synthesis
d. among the haemorrhagic anaemias we include the so-called megaloblastic anaemia
e. manifestation of sideropenic and sideroblastic anaemias is the so-called Pica syndrome - compulsive eating of clay or starch
f. dyshemopoietic anaemias are also associated with a lack of precursors in haemoglobin production

63. Megaloblasts

a. are large diameter T cells
b. are immature and incomplete erythrocytes
c. are maternal precursor hematopoietic cells in the bone marrow
d. perform an immune function
e. they are dysfunctional in terms of oxygen transport
f. their fragments form blood platelets

64. Neutropenia occurs during

a. viral diseases (influenza, hepatitis)
b. parasitic diseases
c. allergic diseases
d. gingivitis
e. serious bacterial diseases (TB)
f. eczema

65. Neutrophilia

a. there is an increased number of leukocytes
b. is reduced number of lymphocytes
c. is an increased number of neutrophils
d. is a reduced number of erythrocytes
e. occurs in acute bacterial infections
f. occurs in leukaemias

66. Pernicious anaemia

a. arises due to iron deficiency
b. arises due to B12 deficiency
c. it is always congenital
d. manifests itself in glossitis
e. can cause nerve damage
f. is caused by folic acid deficiency

67. Pernicious anaemia is anaemia caused by

a. folic acid deficiency
b. iron deficiency
c. vitamin B12 deficiency
d. prothrombin deficiency
e. vitamin B1 deficiency
f. vitamin K deficiency

68. Posthaemorrhagic anaemia

a. occurs as a result of acute or chronic blood loss
b. may develop in women due to heavy menstruation
c. occurs as a result of a disorder of erythrocyte formation
d. may occur in patients with chronic GIT disease, manifested by frequent bleeding
e. it causes disorders in the incorporation of iron into the haem
f. clinically, it may include tachycardia, hypotension, dyspnoea, and cold limbs

69. Posthaemorrhagic anaemia

a. is caused by an increased breakdown of erythrocytes
b. occurs in the absence of folic acid
c. occurs after acute bleeding (injuries)
d. occurs during very heavy menstruation or after delivery
e. is caused by an increased breakdown of platelets
f. occurs because of platelets deficiency

70. Secondary leukocyte changes

a. includes leukaemia
b. arise as a result of the primary disease
c. arise from vitamin B12 deficiency
d. arise from disorders of haematopoiesis in the bone marrow
e. include Hodgkin's and non-Hodgkin's lymphomas
f. this includes lymphopenia

71. Sideropenic anaemias include

a. aplastic
b. haemolytic
c. posthaemorrhagic
d. dyshaemopoietic from iron deficiency
e. haemoglobinopathies
f. congenital

72. Sideropenic anaemia

a. arises from insufficient intake of iron from food
b. is manifested by macrocytosis
c. is manifested by a decrease and increased central pallor of erythrocytes
d. is characterized by the presence of abnormal erythrocyte precursors in the blood
e. it is more common in women and in neonatal and adolescent periods
f. is manifested by fatigue, weakness and increased paleness of the skin and mucous membranes

73. Sideropenic anaemia

a. is normocyte anaemia
b. is innate, hereditary
c. is caused by a lack of vitamin B12
d. is microcytic anaemia
e. is characterized by decreased haemoglobin levels
f. is one of the most common anaemias

74. The cause of thalassemia is

a. decrease in production or complete lack of globin chain
b. presence of met haemoglobin in erythrocytes
c. haematopoiesis disorder
d. impaired DNA synthesis in erythrocytes
e. attenuation of haematopoiesis
f. decreased immunity

75. The haemoagulation disorders are

a. platelet disorders
b. vascular wall disorders
c. disorders of coagulation factors
d. erythrocyte deficiency
e. an excess of platelets
f. neither answer is correct

76. The most serious complication of haemophilia is

a. joint and muscle bleeding
b. onset of edema
c. thrombus formation
d. ischaemia
e. stomach ulcer
f. haemoptysis

77. If the symptoms of disorder are fatigue, malaise, palpitations, burning sensation in tongue, slightly yellow eye whites and patient has undergone a resection of a part of the small intestine, which type of disorder would it be?

a. sideropenic anaemia
b. iron deficiency anaemia
c. microcytic, hypochromic anaemia
d. pernicious anaemia
e. anaemia due to vitamin B12 deficiency
f. macrocytic, hyperchromic anaemia

78. Weird tastes, palpitations, pale skin, breaking nails are typical symptoms of

a. sideropenic anaemia
b. iron deficiency anaemia
c. microcytic, hypochromic anaemia
d. pernicious anaemia
e. anaemia due to vitamin B12 deficiency
f. macrocytic, hyperchromic anaemia

79. Which of the following symptoms are typical for leukaemia?

a. weakness, sweating, anaemia
b. bleeding, raspberry tongue, tachycardia
c. glossitis, ascites, headache
d. haematuria, arthropathy, ascites
e. rash, hair loss, weight gain
f. weight loss, swelling of the lymph nodes, bleeding

80. The severity of anaemia depends on

a. its degree
b. the speed of its formation
c. the age of the patient
d. the patient's platelet count
e. blood group of the patient
f. INR of the patient

81. The symptoms of anaemia are

a. paleness
b. tachycardia
c. shortness of breath
d. ascites
e. hypertension
f. diarrhoea

82. The symptoms of anaemia are

a. palpitations
b. breaking nails
c. pale skin
d. fever
e. oedema
f. glycosuria

83. Typical manifestations of sideropenic anaemia include

a. pica
b. pallor
c. nail changes
d. swelling of the lymph nodes
e. increased bleeding
f. bleeding into the joints

84. Vitamin B12 deficiency can cause

a. pernicious anaemia
b. megaloblastic anaemia
c. sideroblastic anaemia
d. CNS dysfunction
e. hematopoietic disorders
f. disorders of folic acid synthesis

85. What is typical for anaemia?

a. reduced amount of iron
b. reduced amount of haemoglobin
c. reduced amount of myoglobin
d. reduced erythrocyte count
e. decreased platelet count
f. reduced haematocrit

86. Which of following anaemias will manifest as macrocyte?

a. chronic renal failure anaemia
b. iron deficiency anaemia
c. folic acid deficiency anaemia
d. erythropoietin deficiency anaemia
e. thalassemia
f. anaemia during acute bleeding

87. Which of following anaemias will manifest as microcytic?

a. chronic renal failure anaemia
b. folic acid deficiency anaemia
c. iron deficiency anaemia
d. erythropoietin deficiency anaemia
e. anaemia after blood loss
f. anaemia during acute bleeding

2.11.2 Blood disorders – Part 2

1. Among the disorders of blood clotting can be included

    a. haemophilia
    b. von Willebrand’s disease
    c. genetic disorders of clotting factors
    d. anaemia
    e. thrombosis
    f. atherosclerosis

2. Disorders of coagulation factors include, for example

    a. haemophilia
    b. thrombocytopenia
    c. thrombasthenia
    d. vitamin K deficiency
    e. Leiden's mutation (factor V disorder)
    f. anaemia

3. Haemophilia

    a. belongs to coagulopathies
    b. represents a platelet disorder
    c. is a disease of the lymph nodes
    d. is a congenital disease
    e. is acquired disease
    f. it is manifested by increased bleeding

4. If there is a reduced platelet count in a patient, we talk about

    a. thrombocytopenia
    b. thrombocytosis
    c. thrombocythemia
    d. thrombocytopathy
    e. leukaemia
    f. anaemia

5. INR

    a. depends on prothrombin time
    b. characterizes the ability of blood to clot - form thrombus
    c. its high value indicates a high probability of bleeding
    d. depends on iron intake
    e. characterizes fibrinolysis
    f. its high value indicates a high probability of thrombus formation

6. Mark the correct statements

    a. haemophilia is a congenital coagulopathy
    b. haemophilia may lead to progressive arthropathy
    c. the cause of haemophilia is a lack of clotting factors VIII and IX
    d. haemophilia is an incurable disease
    e. haemophilia is present mainly in women
    f. haemophilia is complicated by thromboembolic events

7. Mark the correct statements

    a. thrombocytopenia means a reduction in the number of platelets
    b. haemophilia can by cured
    c. disturbance of the haemostatic balance may be manifested by either a bleeding condition or a thrombophilic condition
    d. thrombocytopenia also occurs in chronic myeloid leukaemia
    e. thrombophilia represents reduced blood clotting
    f. a pulse oximeter is used to determine the rate of blood clotting

8. Mark the correct statements

    a. the INR value reflects the time required for clot formation
    b. the INR value is directly proportional to the patient's risk of developing anaemia
    c. primary blood plug formation involves platelet aggregation
    d. the external and internal pathways of haemocoagulation meet at the moment of factor X activation
    e. patients with Rh- are at high risk for bleeding
    f. chronic lymphocytic leukaemia is characteristic of elderly patients

9. Mark, what applies to haemophilia

    a. manifests itself in high temperature
    b. abnormal bleeding after injury
    c. it is not hereditary
    d. it manifests itself especially in men
    e. manifested by bloody diarrhoea
    f. it is often accompanied by vomiting

10. Mark, what applies to thrombasthenia (Glanzmann's disease)

    a. it is a disorder of platelet aggregation
    b. it is a quantitative platelet disorder
    c. it is a congenital platelet disorder
    d. it is an acquired leukocyte disorder
    e. bleeding into the skin and mucous membranes is a typical symptom
    f. is manifested by difficulties in the gastrointestinal area

11. One of the basic mechanisms involved in the development of thrombocytopenia is

a. increased platelet production
b. inefficient platelet production
c. accumulation of interstitial fluid
d. erythrocyte deficiency
e. lymphedema
f. increased peripheral platelet destruction

12. Scurvy is caused by

a. an absence of blood clotting factors
b. an excess of vitamin K
c. genetic mutations
d. a vitamin C deficiency
e. a long-term exposure to radiation
f. an aplastic anaemia

13. Scurvy is formed

a. in the absence of blood clotting factors
b. in excess of vitamin K
c. in genetic mutations
d. in vitamin C deficiency
e. long-term exposure to radiation
f. in aplastic anemia

14. Splenomegaly

a. is an enlargement of the spleen
b. it occurs, for example, in leukaemias
c. leads to thrombocytopenia
d. is due to thrombocytopathy
e. may cause thrombocytosis
f. it is inherited autosomal recessively

15. The most serious complication of haemophilia is

a. joint and muscle bleeding
b. onset of edema
c. thrombus formation
d. ischaemia
e. stomach ulcer
f. haemoptysis

16. Thrombocytopenia

a. there is an increased in platelet count
b. it is induced by massive blood loss
c. occurs as a result of thrombocytopoesis disorder
d. occurs due to increased platelet destruction
e. may be a manifestation of a post-transfusion reaction
f. is manifested by impaired formation of a secondary haemostatic plug

17. Thrombocytopenia

a. there is an increased in platelet level
b. occurs when bone marrow is damaged
c. can occur during pregnancy, after viral infections, in some autoimmune diseases
d. causes the formation of thrombi
e. platelet counts are reduced
f. manifests e.g., bleeding from the mucous membranes, frequent bleeding from the nose

18. Thrombocytopenia is

a. qualitative change of erythrocytes
b. decrease in platelets count
c. increase in platelets count
d. qualitative platelets change
e. death of red blood cells
f. complete lack of platelets

2.12 Skin Disorders

2.12.1 Skin disorders – Part 1

1. A purulent lesion on the skin is called

    a. macula
    b. papula
    c. pustula
    d. crust
    e. fissure
    f. aphthous ulcer

2. A pustule is

    a. a cavity filled with pus
    b. an erosion bordered by a red lining
    c. a wart
    d. a small area discoloration
    e. an elevation of the skin
    f. a cavity filled with clear contents

3. A vesicle is

    a. small area discoloration
    b. an elevation of the skin
    c. a cavity filled with clear contents
    d. a cavity filled with pus
    e. erosion bordered by a red lining
    f. a wart

4. Abscess

    a. it is a cavity filled with fluid
    b. it is a cavity filled with pus
    c. it is typical for TB or AIDS
    d. it occurs in the subcutaneous tissue, lungs, brain and kidneys
    e. may cause pneumonia
    f. after rupture, it can cause the infection to spread to the body and sepsis

5. Acne vulgaris

    a. is an inflammatory disease of the pilosebaceal unit
    b. is associated with an excessive sebum production
    c. is usually caused by a yeast of the genus Malassezia
    d. may be associated with excessive keratinization of the skin
    e. does not occur after puberty
    f. most commonly affects the face, shoulders, and upper back and chest

6. Allergic contact dermatitis

    a. is an exaggerated sensitivity of the skin to various substances with which it comes into contact
    b. it can be caused, for example, by metals in jewellery, ingredients in cosmetics
    c. is a sensitisation of the skin caused by contact with henna (dye)
    d. can only be caused by contact with henna (dye) containing paraphenylenediamine
    e. it is particularly manifested in infants on the cheeks
    f. often progresses to atopic dermatitis

7. Basal cell carcinoma

    a. is characterized by rapid growth
    b. occurs on skin with a high content of melanin
    c. is the most common malignant tumour of the skin
    d. usually occurs on the face
    e. is a tumour derived from dermal basophils
    f. is a tumour derived from basaloid cells

8. Corium

    a. is called the dermis
    b. it is predominantly composed of keratinocytes
    c. is made of keratinized stratified squamous epithelium
    d. contains mechano-, thermo- and nociceptors
    e. is important for wound healing
    f. contains immune cells

9. Epidermis

    a. is the upper layer of the skin
    b. it is composed of a papillary and reticular layer
    c. contains a dense network of capillaries
    d. contains Langerhans cells
    e. is constantly renewed by the formation of new keratinocytes in the stratum basale
    f. fulfills its protective function due to its high collagen content

10. Erosion in dermatology

    a. is an abrasion
    b. there is a spot on the face e.g., freckle
    c. is a secondary lesion on the skin
    d. is a cavity filled with pus
    e. the integrity of the skin is damaged
    f. it does not damage the integrity of the skin

11. Erythema

a. arises e.g., in the heart area after a heart attack
b. may result from drug allergy
c. its most serious consequence is the development of anaemia
d. belongs to the diseases of veins
e. is one of the changes in skin colour
f. may occur as a manifestation of thrombophlebitis

12. Exanthema

a. is a skin rash
b. is inflammation of the upper respiratory tract
c. manifests itself in some childhood infectious diseases
d. arises from whooping cough
e. occurs only in adults
f. manifests e.g., at smallpox

13. Extensive burns can cause

a. hypovolemic shock
b. neurogenic shock
c. increase in vascular permeability
d. systemic inflammatory response
e. interstitial edema
f. haemodilution

14. Hyperkeratosis

a. is thickening of the stratum corneum
b. means thinning of the epidermis
c. is the formation of scales
d. is intercellular edema between keratinocytes of the epidermis
e. is pigment loss
f. is excessive pigmentation

15. In a cold environment

a. vasodilation of arteriovenous anastomoses in the subcutaneous tissue occurs
b. blood flow to the skin is reduced
c. vasoconstriction of blood vessels in the skin occurs by activating the sympathetic nervous system
d. perspiration is activated
e. blood is redistributed to the skin
f. blood flow to the acral parts of the body increases

16. Indicate the factors that contribute to the formation of chronic non-healing wounds

a. venous insufficiency
b. diabetes mellitus
c. infection
d. high oxygenation of tissue
e. impaired microcirculation
f. longer exposure to direct pressure

17. Indicate the risk factors for onychomycosis

a. heavy metal poisoning
b. humid environment
c. immunodeficiency
d. circulatory disorders
e. traumatic injury to the nail bed
f. hypohidrosis

18. Keratinocytes

a. make up the majority of skin cells
b. are created in the stratum corneum
c. ensure skin elasticity by producing elastin and collagen
d. are responsible for skin colour
e. ensure the relative water resistance of the skin by producing alpha-keratin
f. are constantly restored by the mitotic activity of Langerhans cells

19. Lichenification

a. it is often caused by frequent rubbing of the skin or scratching
b. is a designation for a disease caused by Iceland Lichen
c. it is a manifestation of gangrene
d. indicates thickening of the skin with emphasis of skin lines
e. is synonymous with petechiae
f. occurs as a result of herpes zoster

20. Mark the correct statements

a. the crust always heals with a rattle
b. fissure occurs only on the mucous membranes
c. vitiligo is characterized by the presence of light macules on the skin
d. the pustule is filled with pus
e. suffusions are spotted bleedings of the skin
f. the bulla is larger than the papule

21. Mark the correct statements

a. onycholysis is an infectious disease of the nail plate caused by yeasts
b. cholecalciferol is converted to calcitriol in the skin
c. stratum basale is essential for the regenerative ability of the skin
d. onychocryptosis is the ingrowth of the nail into the eponychia
e. in a cold environment, arteriovenous anastomoses dilate in the skin
f. vasodilation of skin vessels increases heat expenditure

22. Mark the correct statements

a. the release of histamine in the skin causes itching
b. burn shock is caused by excessive vasoconstriction
c. the rule of nine is used to guide the severity of burns
d. melanin is formed in the skin in keratinocytes
e. oestrogens increase sebum production
f. minor bleeding into the skin is called petechiae

23. Mark the correct statements about burns

a. grade II. affects the entire dermis
b. grade III. is usually very painful
c. grade III. cannot be achieved in chemical burns
d. grade I. shows redness
e. grade III. also affects the subcutaneous tissues
f. grade IIb. affects the reticular dermis

24. Mark the correct statements about burns

a. IIb degree burns include damage to the reticular dermis
b. directly damaged tissue dies from liquefactive necrosis during burns
c. III. degree burns are usually very painful
d. the tissue in the ischemia zone is irreversibly damaged and dies by necrosis
e. blisters are most common in II. degree burns
f. there is no vasodilation in I. degree burns

25. Mark the correct statements about decubitus

a. it is caused by long-term pressure on the skin and subcutaneous tissues
b. ischemia and necrosis occur at the affected site
c. it most commonly occurs in elderly bedridden patients
d. it is caused by an infection
e. it is caused by chronic venous insufficiency
f. it is the most common cause of lower limb amputation

26. Mark the correct statements about skin efflorescence

a. rhagades is a thickening of the skin associated with hyperkeratosis
b. telangiectasias is bleeding into the skin from small capillaries
c. the papule is a defined part of the skin with colour change
d. pustula is a purulent blister
e. eschara is a necrotic tissue on the surface of the wound
f. the cyst has a cavity inside with lining, usually filled with fluid

27. Mark the terms associated with the presence of blood in skin lesions

a. cyst
b. pustula
c. vesicle
d. petechiae
e. purple
f. ecchymosis

28. Melanoma

a. is a malignant tumour derived from melanocytes
b. is the most common skin tumour
c. manifests as asymmetric lesions with irregular margins and different colour
d. has a low risk of metastasis
e. has an increased incidence after and overexposure to UV radiation
f. has a slow growth

29. Primary efflorescences include

a. vesicle
b. crust
c. excoriation
d. fissure
e. pustula
f. macula

30. Sebaceous glands

a. modified sebaceous glands include e.g., ceruminous glands
b. are exocrine glands
c. are holocrine glands
d. together with a sweat gland form a pilosebaceous unit
e. produce an oily substance called cerumen
f. are regulated by sex hormones

31. Seborrheic dermatitis

a. is a disease associated with hyperactivation of apocrine sweat glands
b. is a contagious skin disease
c. occurs predominantly in immunocompromised patients
d. manifests itself by greasy scales on the surface of the skin
e. manifests itself by limited red spots on the skin
f. manifests itself by the formation of petechias

32. Secondary efflorescences include

a. squama
b. lichenification
c. cyst
d. nodule
e. excoriation
f. pustule

33. Secondary skin efflorescences are

a. cyst
b. erosion
c. tumour
d. crust
e. suffusion
f. excoriation

34. The primary skin efflorescences are

a. macula
b. skvama
c. bulla
d. eschara
e. purple
f. fissure

35. The spot on the skin is called

a. macula
b. papula
c. pustula
d. crust
e. fissure
f. aphthous ulcer

36. Urticaria is

a. formation of itchy urticarial pimples
b. thickening of the stratum corneum of the skin
c. symptom of atopic dermatitis
d. a precursor of eczema
e. a pale red scar on the skin
f. always acute

37. Which of the following statements are true?

a. onychocryptosis is the name of a fungal infection of the nail bed
b. fungal nail infections are most often caused by yeasts
c. in onycholysis, the nail is separated from the nail bed
d. humid environments may be a risk factor for onychomycosis
e. onychomycosis can result in deformation of the nails and nail bed
f. onychomycoses are more common in patients with a weakened immune system

2.12.2 Skin disorders – Part 2

1. A lesion on the skin filled with clear fluid is called

    a. macula
    b. papula
    c. pustula
    d. crust
    e. fissure
    f. aphthous ulcer

2. A lesion typical of buccal mucosa is called

    a. macula
    b. papula
    c. pustula
    d. crust
    e. fissure
    f. aphthous ulcer

3. Bed bugs

    a. they suck at least 1 millilitres of blood a day
    b. survive on human skin
    c. they mainly affect immunocompromised patients
    d. survive in the furniture joints of the walls
    e. pinched spots are very itchy
    f. the pinches are haemorrhagic

4. Catarrhal (initial) stage of infectious disorders of the skin (varicella, measles...)

    a. is inflammation of the airways
    b. in childhood infectious diseases it precedes the rash
    c. in paediatric infectious stages, it is preceded by an incubation period
    d. occurs only in respiratory diseases
    e. it is always associated with nausea
    f. it is always associated with abdominal pain

5. Complications of mumps can be

    a. pancreatitis
    b. inflammation of the testes
    c. deafness
    d. meningitis
    e. blindness
    f. bronchitis

6. Erysipelas

    a. belongs to the area infections of the body
    b. it is also referred to as rose
    c. it belongs to pyoderma
    d. is an inflammation of the lymphatic system
    e. it is a deep infection
    f. is characterised by pruritus

7. Folliculitis

    a. is an infection of the hair follicle
    b. occurs anywhere on the hairy part of the body
    c. it belongs to pyoderma
    d. is an inflammation of the lymphatic system
    e. it is a deep infection
    f. is characterised by pruritus

8. Gingivostomatitis herpetica

    a. it is caused by HSV 1
    b. it is caused by HSV3
    c. it is accompanied by lymph node enlargement and fever
    d. it occurs especially in children
    e. it is of bacterial origin
    f. it is caused by the EBV virus

9. Greg's syndrome

    a. is one of the complications of rubella
    b. endangers the foetus
    c. occurs only in women
    d. is one of the complications of mumps
    e. is one of the complications of measles
    f. affects men more often than women

10. Herpes simplex labialis

    a. is caused by the varicella-zoster virus
    b. manifests itself in the emergence of a rash in the shape of a strip (eg in the ribs)
    c. after overcoming it, postherpetic neuralgia develops
    d. is caused by the HSV1 virus
    e. it manifests itself in the formation of blisters filled with clear liquid
    f. may reappear e.g., for fever, stress, menstruation

11. Herpes zoster

a. is caused by the action of herpes simplex virus 2
b. it arises mainly on the genitals
c. occurs in patients who have not yet had chickenpox
d. occurs in patients who have survived varicella
e. manifests itself in unilateral vesicular rash e.g., in the ribs and face
f. is a risk mainly for immunocompromised patients

12. HSV virus

a. can cause herpes on the lips
b. can cause genital herpes
c. it is transmitted by droplets, direct contact
d. causes cervical cancer
e. after overcoming the disease, it causes, it develops lifelong immunity
f. it is transmitted exclusively transplacentally

13. HSV viruses can cause the following diseases

a. rubella
b. chicken pox
c. gingivostomatitis herpetica
d. mumps
e. herpes labialis
f. shingles

14. Hyperkeratosis

a. is thickening of the stratum corneum
b. means thinning of the epidermis
c. is the formation of scales
d. is intercellular edema between keratinocytes of the epidermis
e. is pigment loss
f. is excessive pigmentation

15. Identify common pathogenetic mechanisms of infectious diseases

a. toxin production
b. reduction of the immune response
c. direct tissue attack
d. regressive change
e. progressive change
f. apoptosis disorder

16. Impetigo

a. may be caused by staphylococci
b. may be caused by streptococcus
c. may be complicated by glomerulonephritis
d. belongs to nosocomial infections
e. it is usually not haemorrhagic
f. it always heals with a scar

17. Indicate diseases that can be caused by Streptococcus pyogenes

a. Scarlet fever
b. erysipelas
c. erythema nodosum
d. Kawasaki disease
e. sporotrichosis
f. pediculosis

18. Infectious inflammation of the salivary glands

a. is called mumps
b. is called parotitis
c. is most often caused by the RNA virus
d. it must always be reciprocal
e. the first symptom is petechiae on the oral mucosa
f. so far he cannot be vaccinated

19. Koplik's spots are typical for

a. morbilli
b. varicella
c. rubella
d. measles
e. flu
f. shingles

20. Label bacterial infections of the skin

a. impetigo
b. folliculitis
c. furunculitis
d. erysipelas
e. measles
f. anthrax

21. Lichenification

a. is roughening of the skin
b. it is often caused by mechanical friction, scraping
c. is keratinocyte edema
d. is thinning of the skin
e. it mainly affects the flat cells of the skin
f. occurs in intoxications

22. Mark infectious diseases associated with exanthem on the skin

a. typhoid fever
b. scarlet fever
c. chickenpox
d. tonsillitis
e. lymphadenitis
f. rhinitis

23. Mark measles complications

a. encephalitis
b. otitis
c. interstitial bronchitis
d. ulcus cruris (venous ulcer)
e. urticaria
f. gingivitis

24. Mark parasitic diseases

a. pediculosis
b. cimicosis
c. pulicosis
d. trichophyton
e. sporotrichosis
f. erysipelas

25. Mark parasitic diseases characterised by pruritus

a. lice
b. fleas
c. scabies
d. mumps
e. chickenpox
f. scarlet fever

26. Mark pyoderma

a. impetigo
b. furunculitis
c. carbunculitis
d. erysipelas
e. anthrax
f. urticaria

27. Mark the complications of chickenpox

a. progressive varicella
b. Koplik's spots
c. blisters on the face, chest and limbs
d. fever
e. neonatal varicella
f. smallpox

28. Mark the correct statements

a. warts are not infectious
b. HPV causes warts
c. gingivostomatitis herpetica is also a complication of herpes simplex
d. measles vaccination is always voluntary (in Slovakia)
e. HSV1 can also cause cold sores on the nasal mucosa and in the eye
f. the older a person is, the easier the course of smallpox

29. Mark the correct statements

a. herpes labialis is caused by the varicella virus
b. postherpetic neuralgia is a complication of women only
c. herpes zoster reproduces primarily in the spleen
d. overcoming varicella virus does not rule out shingles in the future
e. risk factors for postherpetic neuralgia are older age, severe rash, intense pain
f. herpes labialis can also be caused by cytomegalovirus or EBV

30. Mark the correct statements

a. with age, the course of mumps becomes stronger
b. mumps can cause sterility in both men and women
c. mumps is caused mainly by RNA virus from the group of paramyxoviruses
d. mumps do not cause anorexia and eating disorders
e. a patient with swollen salivary glands is no longer infectious
f. mumps are accompanied by bloody sowing on the skin

31. Mark the correct statements

a. folliculitis is an inflammation of the hair follicle
b. furunculitis is more severe, more extensive than folliculitis
c. carbunculitis is a pyoderma
d. furunculitis is more severe, more extensive than carbunculitis
e. furunculitis is a widespread skin infection
f. erysipelas appears as a papulopustular sowing on the skin

32. Mark the correct statements

a. fungal skin infections are exclusively anaerobic
b. sporotrichoses are superficial infections
c. characteristic locations of candidiasis include nails
d. diabetes is one of the risk factors for candidiasis
e. mycoses are transmitted by indirect contact
f. candidiasis can also affect the lungs

33. Mark the correct statements

a. the bugs live in skin folds
b. the nits secrete itchy exotoxin
c. the human flea is active, especially at night
d. scabies affects the skin and subcutaneous tissue, especially in the area of the interdigital spaces, wrists, elbows, axillae
e. flea secretion has a hyperaemic and anticoagulant content
f. the secretion of bugs mainly causes itching

34. Mark the correct statements

a. scabies dies in drought
b. human fleas cause local hyperaemia at the injection site
c. the bed bug lives outside the host
d. pediculosis is a mycosis
e. candidiasis is deep mycosis
f. immunodeficiency is a complication of mycoses

35. Mark the correct statements

a. the incubation period of infectious disease is a contraindication to vaccination
b. live vaccines are not recommended for immunocompromised patients
c. special vaccination is vaccination of a selected - risk group of patients
d. rash on the skin in paediatric infectious diseases is a sign that the patient is not infectious
e. nosocomial infections are always fatal
f. only children can be vaccinated

36. Mark the correct statements

a. it is typical for herpes viruses to survive in the ganglia of neurons and may reactivate over time
b. herpes zoster is caused by a varicella virus like chickenpox
c. postherpetic neuralgia is a serious complication of herpes infections
d. shingles is characterized by bilateral sowing and swelling of the parotid glands
e. decreased immunity reduces the risk of reactivation of the disease
f. herpes labialis is synonymous with a condition called impetigo

37. Mark the correct statements

a. fulminant diseases have an even faster course than acute infections
b. opportunistic infections are infections that occur in immunocompromised people
c. latent infections are infections that do not manifest themselves externally
d. focal infections are infections that we cannot locate accurately
e. chronic infections never last for life
f. incubation time is the time of onset of symptoms

38. Mark the correct statements

a. sporotrichoses affect the lymphatic system
b. candidiasis is a deep mycosis that forms a coating on the skin and mucous membranes
c. mycoses are transmitted by direct contact
d. sporotrichoses work due to an enzyme that breaks down keratin and get deeper into the tissues
e. a change in the colour of the nail is always a symptom of mycosis
f. mycoses are always anaerobic skin infections

39. Mark the correct statements

a. itching in pediculosis is caused by a substance that is released during blood sucking
b. pediculosis may be accompanied by enlargement of the lymph nodes
c. lice survive in human hair and suck blood
d. nits are very sensitive to the external environment
e. lice cause honey scabs in the hair
f. lice are a bacterial infection

40. Mark the correct statements for chickenpox

a. the rash changes dynamically in the order macula - vesicle - crust
b. it is also accompanied by non-specific symptoms such as fatigue, anorexia, fever
c. after overcoming the virus remains in the dorsal ganglia

d. it occurs only in children
e. the virus multiplies in keratin-containing cells
f. is one of the foodborne infections

41. Mark the correct statements for chickenpox

a. are caused by the herpes simplex virus 1
b. most diseases occur by the 10th year of life
c. there is no vaccine for chickenpox
d. the disease is characterized by papulo-vesicular sowing, which then dries out and peels off
e. another designation for the disease-causing virus is Varicella-Zoster virus
f. after healing, a person acquires lifelong immunity to herpes diseases

42. Mark the correct statements for herpes labialis

a. the virus cannot reactivate
b. the patient acquires lifelong immunity
c. the virus can be reactivated by fever, stress, hormonal changes
d. after acute infection, the virus is still present in the posterior spinal ganglia
e. it manifests in the form of painless honey-yellow pustules
f. it manifests as generalised exanthema

43. Mark the correct statements for mumps

a. the disease is caused by RNA viruses, especially paramyxoviruses
b. the mumps vaccine causes autism in children under 3 years of age
c. a typical manifestation of the disease is swelling and inflammation of the parotid salivary glands
d. the disease is caused by DNA viruses, especially paramyxoviruses
e. the disease has a relatively long incubation stage up to more than 3 weeks
f. mumps does not cause any complications

44. Mark the correct statements for varicella fetopathy

a. the limbs, eye, CNS or PNS of the child can be affected
b. it can occur if a pregnant woman gets smallpox in the first half of pregnancy
c. it occurs in babies who become infected immediately after birth
d. it occurs in children when no transplacental transmission of antibodies is present
e. it is when woman is infected 5 days before labour
f. can occur if a pregnant woman gets smallpox before the 20th week of pregnancy

45. Mark the manifestations of infectious diseases

a. papulopustular seeding
b. scarlet fever
c. urticaria
d. metastasis
e. muscle atrophy
f. Merniere’s syndrome

46. Mark the protective barriers of infectious diseases

a. mucosa of the intestine
b. cough
c. cilia
d. rhinitis
e. pneumonia
f. lymph

47. Mark the symptoms of morbilli

a. Koplik's spots
b. vesicles on the chest
c. inflammation of the parotid salivary glands
d. fever
e. conjunctivitis
f. headache

48. Mark the symptoms of mumps

a. Koplik's spots
b. vesicles on the chest
c. inflammation of the parotid salivary glands
d. fever
e. conjunctivitis
f. headache

49. Mark the symptoms of erysipelas

a. tremor, shaking
b. weakness
c. nausea
d. pyrosis
e. pustules
f. honey-yellow scabs

50. Mark the symptoms of rubella

a. petechiae
b. fever
c. cough
d. nausea
e. stiff neck
f. vomiting

51. Mark the symptoms of varicella

a. fever
b. conjunctivitis
c. dumping first in the area of the face and chest
d. vesicles on mucous membranes
e. Koplik's spots
f. overall approval

52. Mark, what applies to erysipelas

a. the caused is Staphylococcus aureus
b. it affects the lymphatic system
c. it manifests by fever, weakness, tremors
d. is an inflammation of the periosteum
e. it can be complicated by ascites
f. it is manifested by papulopustular sowing

53. Mark, what applies to erysipelas

a. in addition to the skin and subcutaneous tissue, it also affects the lymphatic system
b. exotoxins are responsible for symptoms
c. it is also accompanied by fever
d. it is caused by Staphylococcus aureus
e. it can be complicated by inflammation of the kidneys
f. it is sterile inflammation

54. Mark, what applies to HSV

a. can be misdiagnosed with hand-foot infection of the mouth and mouth
b. gingivostomatitis herpetica may be a complication
c. may be accompanied by fever
d. can be complicated by shingles
e. is not transmitted by droplet infection
f. is an RNA virus

55. Mark, what applies to measles

a. it is a viral disease
b. it is a bacterial disease
c. it is manifested mainly by swelling of the parotid glands
d. manifests itself in the development of rash on the skin, fever, rhinitis, conjunctivitis
e. their serious complications are otitis, bronchitis, encephalitis
f. their serious complications are herpes zoster, eczema herpeticum

56. Mark, what applies to measles

a. it is a highly contagious infectious disease
b. it is a very low transmissible infectious disease
c. it is manifested mainly by lichenification of skin
d. initial symptoms may be fever (> 40 °C), cough, runny nose, and inflamed eyes
e. rare complications are diarrhoea and otitis
f. red rash usually starts on the face and then spreads to the rest of the body

57. Mark, what applies to measles

a. it is a bacterial streptococcal infection
b. if the mother has been vaccinated, the baby is also immune within a few months after birth
c. a typical manifestation of the disease is rash and Koplik's spots
d. with increasing age, the severity of the course of the disease decreases
e. in the early stage, whitish spots appear on a red background of mucous membranes
f. there is no effective prevention of the disease

58. Mark, what applies to mumps

a. vaccination against him is mandatory
b. vaccination against him is voluntary
c. affects the trigeminal nerve
d. affects the parotid glands, which tend to be swollen either unilaterally or bilaterally
e. it mainly affects young girls
f. after overcoming it, boys may develop sterility

59. Mark, what applies to pediculosis

a. it is also transmitted by direct contact
b. lice suck blood and damage the scalp
c. can be secondary to bacterial complications
d. lice only damage hair, which is brittle and gradually falls out

e. nits are active larvae
f. lice produce exotoxins that damage hair follicles

60. Mark, what applies to rubella

a. typical manifestations of the disease are inflammation of the parotid lymph nodes, lymphadenopathy and generalized rash
b. the disease cannot be transmitted to the foetus during pregnancy
c. a pregnant mother may suffer from so-called Gerg's syndrome
d. in infected, small bloody petechiae form on the palate of the mouth
e. rubella is most common in summer, so it is a seasonal disease
f. the disease can cause premature birth or miscarriage

61. Mark, what applies to scabies

a. is a parasitic disease
b. the entire life cycle takes place in man
c. the female survives in the epidermis
d. the parasite feeds on blood
e. does not shrivel
f. is transmitted exclusively by direct contact

62. Mark, what applies to smallpox

a. it is caused by varicella-zoster virus
b. the rash progresses from the chest to the face and limbs
c. red spots pass into the blisters and then into the scabs
d. is caused by herpes simplex virus
e. the rash progresses from the ears to the limbs and to chest
f. is manifested mainly by Koplik's spots

63. Measles

a. they can be fatal
b. belong to RNA viruses
c. are characterized by high infectivity
d. only children under 6 years of age
e. they are the most common cause of infectious disease mortality in the world as there is no vaccination against them
f. their specific symptoms include arthralgia and muscles

64. Measles is caused by

a. varicella virus
b. herpes simplex labialis
c. morbillivirus
d. varicella- zoster

e. herpes virus 3
f. cytomegalovirus

65. Measles is caused by a virus called

a. morbillivirus
b. varicella-zoster virus
c. smallpox
d. herpes simplex labialis
e. human papilloma virus
f. cytomegalovirus

66. Mycoses

a. are exclusively local skin infections
b. may occur in immunocompromised individuals
c. may occur in cancer patients
d. may occur in transplanted patients
e. they never affect the mucous membranes
f. they never itch

67. Nits

a. are lice eggs
b. are born by female lice
c. they remain on the hair even after the larva has hatched
d. cause itching
e. they are responsible for the transmission of the disease between individuals
f. they are released from the hair after the lice hatch

68. Parotitis

a. is a viral disease
b. is a bacterial disease
c. affects only boys
d. sterility may occur as a complication
e. affects only girls
f. may be asymptomatic

69. Rubella

a. is a viral disease
b. it is manifested by honey-yellow rattles around the mouth
c. it is transmitted by cat faeces
d. it is transmitted by droplet infection
e. it is also manifested by small pink non-itchy rashes
f. it is dangerous for pregnant and unvaccinated people

70. Rubella in pregnancy

a. does not cause problems as long as a woman gets it before the 20th week of pregnancy
b. is also transmitted to the foetus
c. can cause premature birth
d. can cause death of foetus
e. can cause damage of the foetus
f. cannot cause damage of the foetus

71. Shingles

a. is caused by the action of herpes simplex virus 2
b. it arises mainly on the genitals
c. occurs in patients who have not yet had smallpox
d. occurs in patients who have survived varicella
e. manifests itself in unilateral vesicular rash e.g., in the ribs and face
f. is a risk mainly for immunocompromised patients

72. Shingles

a. it is caused by the chickenpox virus
b. it is caused by the varicella virus
c. it is activated when the immunity decreases
d. it occurs especially in children
e. it is characteristic with rash that mainly affects the acral parts
f. it is caused by the activation of a latent virus

73. Shingles

a. is a bacterial disease
b. it only affects the face
c. can be confused with impetigo
d. is a viral disease
e. it manifests itself unilaterally
f. is very painful

74. Skin efflorescences are

a. skin staining with endogenous fluorescein
b. skin viral diseases
c. primary lesions on the skin such as spots or blisters
d. skin lesions such as abrasions or scratches
e. nosocomial skin infections
f. lesions in the skin ganglia

75. Some types of viral hepatitis

a. are characterized by a fulminant course
b. are opportunistic infections
c. are nosocomial infections
d. are chronic infections
e. are focal inflammations
f. are local inflammations

76. Sporotrichosis

a. is painless
b. interferes with the lymphatic system
c. belongs to granulomatous fungal infections of the skin and subcutaneous tissue
d. is itchy
e. are superficial skin infections
f. affects organs containing keratin

77. Toxic epidermal necrolysis

a. occurs, for example, after staphylococcal infections
b. it is a superficial separation of the skin layers
c. it is caused by exfoliative toxins
d. it is caused by erythrogenic toxins
e. occurs, for example, after borreliosis infections
f. it is complicated by glomerulonephritis

78. Varicella

a. is common in adults
b. are smallpox
c. is a disease for which there is no vaccine
d. is not an infectious disease
e. is an infectious disease
f. is a common childhood disease

79. Varicella

a. are characterized by sowing on the skin in two waves
b. seeding on the skin can be secondary to a bacterial infection
c. belong among the highly infectious diseases
d. patients with varicella are infectious only at the time of sowing
e. varicella causes streptococci and staphylococci
f. varicella virus survives in n. trigeminus

80. Varicella is

a. bacterial disease affecting the parotid salivary glands
b. a virus that only affects children under 10 years of age
c. synonym for herpes zoster
d. a disease for which there is no immunization
e. caused by human herpes virus 3
f. designation for chickenpox

81. Varicella is

a. the virus causing mumps
b. the virus causing measles
c. the virus causing rubella
d. herpes virus 1
e. herpes virus 3
f. virus causing chickenpox

3. SPECIAL PART - CASE STUDIES

3.1 CASE STUDIES – PART1

1. 15-years old Karl was hospitalized due to long-lasting mood changes and circadian rhythm disorder. The patient was diagnosed with ADHD and bipolar disorder, he couldn't easily fall asleep and had problems waking up to school. His symptoms worsened during school, but during weekends he felt better. EEG and MRI showed no abnormalities. Therapy and sleeping hygiene led to the removal of symptoms. What was the condition?

    a. narcolepsy
    b. epilepsy
    c. sleeping apnoe
    d. insomnia
    e. restless leg syndrome
    f. migraine

2. 19-years old Suzi started to feel dizzy and irritable, and couldn't concentrate on her studies. After 2-3 days there was a strange surge of visual disturbances along with tingling in different regions of the body which lasted about 30 min. Then she felt strong, throbbing pain around the temporals, forehead and eyes. She was nauseous and felt depressive. When she took an analgesic pill, the pain gradually faded away, but she felt weak and confused for some time. What condition she might be suffering from?

    a. tense headache
    b. cluster headache
    c. migraine with aura
    d. migraine without aura
    e. cerebral bleeding
    f. anxiety attack

3. 20-years old male patient Scott with no previous record of any disease started to feel moody, and agitated and declined in college performance. He is also starting to feel dizzy and sometimes observes strange, uncontrollable movements in different parts of his limbs or legs. EEG shows no abnormalities and also major depression was ruled out. Other biochemical markers are in the norm. What is the potential cause of Scott's condition?

    a. Parkinson's disease
    b. Alzheimer's disease
    c. epilepsy
    d. Huntington's disease
    e. vascular dementia
    f. polio

4. 38-years old Magdalena is feeling sporadically tickling sensations in the lower part of the legs. She started to notice the appearance of small, branched and reddish webs on her calves. They are big as her palm. She is working in the office, sitting long hours and travels home by car. What is the possible condition?

    a. leg ulcers
    b. spider veins
    c. trunk varicose veins
    d. atherosclerosis
    e. claudication
    f. chronic venous insufficiency

5. 5-year-old Jerry complains of a headache. He had a cold three days ago; his ear hurts and he has a fever. Mark the correct statements

    a. Jerry's headache was probably caused by rhinitis and otitis
    b. Jerry definitely has a migraine
    c. Jerry definitely has a cluster headache
    d. his condition can be complicated by meningitis
    e. his condition can be complicated by cataracts
    f. Jerry has affected trigeminal nerves

6. A 54-year-old man has problematic and painful defecation and regular constipation and he has recently noticed red blood in his stool and on toilet paper along with rectal discomfort. What is the most likely diagnosis?

    a. gastric ulcers
    b. varicose enlargement of the rectal veins
    c. ileus
    d. H. pylori
    e. haemorrhoids
    f. duodenal ulcers

7. A 55-year-old Adalbert is a gym instructor. After a few minutes of rope jumping, he started to feel dizzy and looked pale. He was also weak and fainted for a short moment. He doesn't feel any pain in the chest or elsewhere. He doesn’t smoke, drinks only occasionally and has a normal BMI. He suffers from no cardiovascular or metabolic disorder yet. His colleagues cannot palpate the pulse on his forehand, then measured his systolic BP with the machine and it was only 60 mmHg. What could cause Adalbert's condition?

    a. myocardial infarction
    b. congestive heart failure
    c. ischemic heart disease
    d. ventricular tachyarrhythmia
    e. acute coronary syndrome

f. stroke

8. 58-year-old Harold overcame a myocardial infarction last year. He was a smoker, drinker and overweighed. After a year he started to notice that he gets tired quickly when walking, he needs frequent short breaks and he feels shortness of breath. Also, he noticed swelling around his left ankle and palpitations. His BP is 150/95 and his HR is around 100 beats/min. What might be Harold experiencing?

    a. heart attack
    b. ischemic heart disease
    c. acute coronary syndrome
    d. tachycardia
    e. congestive heart failure
    f. AV blockade

9. 8-year-old Julia has been complaining of a sore throat since yesterday, she is tired and weak, and her mother says she has a fever of 38 C. The child refuses to eat and drink. The paediatrician states the presence of purulent pins on the tonsils. Mark the correct statements regarding Julia's disease

    a. it's probably the flu
    b. it is probably tonsillitis
    c. it is probably sinusitis
    d. the causative agent is probably Streptococcus pyogenes
    e. the causative agent is probably Influenza virus
    f. the causative agent is probably Rhinovirus

10. A 10-year-old boy is hospitalized due to a sudden deterioration in his health. Fever, fatigue, swelling of the ankles and constricted renal parameters. Mark the correct statements

    a. overcoming an infectious disease in the past 14 days may confirm the presence of nephritic syndrome
    b. overcoming an infectious disease in the past 14 days may confirm the presence of nephrotic syndrome
    c. impaired renal parameters manifested as increased glomerular filtration
    d. the boy developed dysrhythmia due to haemoglobinuria
    e. impaired renal parameters manifested as an increase in serum creatinine
    f. impaired renal parameters manifested as hyperproteinemia

11. A 10-year-old girl has for a few days these symptoms: dysuria, polakisuria, low back pain and tiredness. Examination of the urine revealed the presence of Escherichia coli, pyuria and haematuria. Probably she suffers from

    a. cystitis
    b. chronic glomerulonephritis
    c. chronic pyelonephritis

d. nephritic syndrome
e. nephrotic syndrome
f. prostatitis

12. A 13-year-old boy complains of fever, sudden sore throat, enlarged lymph nodes, loss of appetite and headache and ear pain. He probably suffers from

a. tonsillitis
b. acute leukaemia
c. whooping cough
d. chicken pox
e. flu
f. glomerulonephritis

13. A 13-year-old boy has a fever of 39 °C, he is weak, his eye area is swollen, and oliguria is present. After hospitalization, laboratory tests showed haematuria and mild proteinuria (less than 3g / 24h). He overcame tonsillitis 2 weeks ago. The patient is likely to suffer

a. nephrotic syndrome
b. chronic pyelonephritis
c. acute post-streptococcal glomerulonephritis
d. cystitis
e. urethritis
f. nephritic syndrome

14. A 13-year-old boy suffers from recurrent streptococcal tonsillitis. Two weeks after the last episode of tonsillitis, he developed fatigue, swelling of the eyes and oliguria. These can be symptoms of

a. cystitis
b. pyelonephritis
c. glomerulonephritis
d. urethritis
e. nephrotic syndrome
f. nephritic syndrome

15. A 15-year-old boy and his mother visited a doctor´s office. The boy is experiencing overwhelming daytime drowsiness and exhaustion, however, the main reason why they decided to make the doctor´s appointment, is the boy´s sudden sleep attacks, even during school time. The boy denies any all-nighters or staying up late and claims to have no control over the drowsiness and falling asleep at school, and shows no signs of depression. What is the possible explanation for these symptoms?

a. a rare disease that is characterized by a sudden attacks of sleep
b. the cause is ADHD
c. it is just drowsiness

d. a depressive episode of bipolar disorder
e. the boy could by suffering from narcolepsy
f. the thyroid gland is affected and causing the symptoms

16. A 15-year-old boy overcame tonsillitis 1 month ago. However, he still feels weak and also lost weight. Upon admission to the hospital, the doctor found tachycardia, a slightly enlarged heart, a decreased left ventricular ejection fraction, and an overall decreased heart output. Mark the correct statements

    a. this condition is probably caused by a myocardial infarction
    b. symptoms describe the development of ischemic heart disease
    c. the cause of this condition is probably rheumatic fever as a result of angina, which he has overcome
    d. symptoms describe the development of dilated cardiomyopathy
    e. a complication of the disease can be the formation of bacterial foci on the valves
    f. pneumonia can be a complication of the disease

17. A 15-year-old boy reports an intense headache, is sleepy, and he is vomiting. He cannot place his chin on his chest (stiff neck) and does not tolerate light. He probably has

    a. epilepsy
    b. bacterial meningitis
    c. Creutzfeldt-Jakob disease
    d. obsessive-compulsive disorder
    e. Parkinson's disease
    f. vascular dementia

18. A 15-year-old patient coughs in a seizure for 2 weeks, when he coughs, he turns blue and inhales loudly. He has recently lost 3 kg. The patient is probably suffering from

    a. COPD
    b. flu
    c. tonsillitis
    d. whooping cough
    e. sinusitis
    f. rhinitis

19. 15-years-old boy has fear of infections, he washes his hands all the time, takes a shower 6 times a day, refuses to touch any new objects and nor he opens the windows. The situation worsened with the covid-19 pandemic because he stopped to sleep. The possible problem might be

    a. a migraine episode
    b. a depression episode
    c. an obsessive-compulsive disorder
    d. an insomnia episode
    e. a somnolence episode

f. posttraumatic stress disorder

20. A 20-year-old male, a heavy smoker, came to the emergency with a sudden agonizing and unremitting headache. He stated that this had happened to him half a year ago when the pain disappeared without medical intervention in a few hours. The physician also observed lacrimation, sweating, rhinorrhoea and pallor. Using imaging techniques, he ruled out any structural abnormalities of the brain. The man has probably

    a. tension headache
    b. meningitis
    c. migraine
    d. brain tumour
    e. cluster headache
    f. cerebral infarction

21. A 20-year-old student has vasoconstrictions on her fingers, which appear mainly during the exam when she feels stressed. Her fingers fade first, then they are red, and finally, they are purple. She feels paraesthesia in her fingers, too. The symptoms disappear within half an hour. Mark the correct statements

    a. the patient appears to have Raynaud's disease
    b. stress and female gender contributed to the onset of symptoms
    c. the etiology of the disease is a disorder of vasospastic arteriole
    d. her condition can be complicated by varicose veins
    e. the patient may have claudicatio intermittens
    f. the aetiology of the disease is a disorder of the valves in the veins

22. A 21-year-old pharmacy student has cold hands all the time, her fingers are sometimes bluish. Doctors diagnosed her with Raynaud's disease. Mark the correct statements

    a. the etiology of the disease is a vasospastic disorder of arterioles
    b. the disease is associated with elevated levels of catecholamines
    c. it is an autoimmune disease
    d. the student is highly likely to have diabetes mellitus, which is one of the risk factors for Raynaud's disease
    e. the student often feels claudication as it is a characteristic symptom of Raynaud's disease
    f. student is at high risk of deep vein thrombosis - a symptom characteristic of Raynaud's disease

23. A 23-year-old professional football player died suddenly in the training. Hypertrophic cardiomyopathy has been identified as the cause of sudden death. Mark the correct statements

    a. the footballer probably developed tachycardia, which then turned into flutter
    b. the dyspnoe he felt was probably caused by the accumulation of blood in the right atrium

c. the athlete has probably recently overcome tonsillitis, which has led to infectious myocarditis
d. the athlete is most likely to have left heart failure
e. the athlete probably had congenital hypercholesterolemia
f. the athlete is likely to have an asymmetrical increase in ventricular mass

24. A 24-year-old woman began to feel tingling (paraesthesia) in her lower leg on the plane. The woman takes birth control and is a heavy smoker. She did not drink enough fluids on the plane. What could be going on?

a. vasculitis
b. aneurysm
c. chronic venous insufficiency
d. deep vein thrombosis
e. Raynaud's syndrome
f. withdrawal syndrome

25. A 25-year-old patient is experiencing severe sharp pain/headache in the area around the right eye. The pain first appeared in the morning, without any preceding difficulties, and after 35 minutes it disappeared. However, the pain reappeared 1 hour ago and still persists. What is the diagnosis?

a. migraine
b. status migrainosus
c. the patient is a male and therefore has a higher risk of migraine headaches
d. tension headaches
e. cluster headaches
f. the patient is a male and therefore has a higher risk of cluster headaches, which have a higher prevalence in men

26. A 25-year-old student is preparing for an exam. However, she became irritable, experiencing dizziness, paraesthesia, and subsequently a unilateral headache with vomiting set in. She probably suffers from

a. migraine with aura
b. cluster pain
c. tension pain
d. migraine without aura
e. obsessive -compulsive disorder
f. somnolence

27. A 28-years-old woman with a diagnosed anxiety disorder has problems falling asleep and wakes up several times every night. This problem is called

a. bipolar depression disorder
b. unipolar depression
c. depression-anxiety-somnolence disorder (DAS)

d. anxiety accompanied with insomnia
e. obstructive sleep apnoea
f. narcolepsy

28. A 30-year-old woman was on a skiing trip over the weekend and complains of dysuria, polyuria, and nycturia and her urine is dark. She does not report fever. This status has been present for 3 days. Identify the probable cause of her problems

a. cystitis
b. pyelonephritis
c. inflammation of the glomeruli
d. inflammation of the bladder
e. kidney failure
f. inflammation in diabetic nephropathy

29. A 32-year-old woman is pregnant. She complains of heavy legs, swollen legs and telangiectasia on her calves. Mark the correct statements

a. the woman has ischemic disease of the lower limbs
b. angina, which she overcame a month ago, may have contributed to her condition
c. the woman has an early stage of chronic venous insufficiency
d. pregnancy also contributed to her condition
e. as a complication of her condition, varicose veins and subsequent thrombi can occur
f. cardiomegaly can occur as a complication of her condition

30. A 35-year-old woman complains of frequent menstrual headaches. The pain is unilateral, pulsating, and intense while she does not tolerate intense light and noise. What type of headache does she suffer from?

a. cluster headache
b. tension headache
c. paroxysmal hemicrania
d. migraine
e. headache caused by glaucoma
f. headache caused by encephalitis

31. A 37-years-old woman regularly suffers from headaches. Before each episode, she describes light halo around objects and impaired sight in the left visual field, while headache usually affects the right temporal part of her head. These symptoms are typical of

a. a cluster headache
b. a tension headache
c. a migraine episode
d. an epilepsy with aura
e. a migraine episode with aura

f. an anxiety episode

32. A 40-year-old homeless alcoholic died of sudden bleeding. What is its most likely cause?

    a. aneurysm
    b. heart failure
    c. oesophageal varices - varicose veins on oesophagus
    d. pulmonary embolism
    e. myocardial infarction
    f. insufficiency of venous valves

33. A 40-year-old woman works as a waiter for 2 years. Lately, her legs hurt, she feels like they are very heavy. She is relieved when she lifts them up in the evening. She also has a little swelling around her ankles. Cracked veins appeared on the inside of her knees. She is probably suffering from

    a. varicose veins - the initial stage
    b. lower limb ischemia
    c. claudicatio intermittens
    d. atherosclerosis of the veins in the lower limbs
    e. embolism of superficial veins in the lower limbs
    f. methemoglobinemia

34. A 42-year-old after a complicated appendectomy with significant blood loss experienced marked swelling of the left lower limb on the day of discharge. Doctors diagnosed her with phlebothrombosis. Mark the correct statements

    a. the risk factors are postoperative condition and blood loss
    b. the condition can be complicated by thrombosis
    c. lower limb edema is caused by heart failure due to a small amount of circulating fluid
    d. phlebothrombosis leads to hypertrophy of the lower limb
    e. the affected limb is cold to the touch
    f. the affected limb is cyanotic in appearance

35. A 43-year-old woman complains of dysuria, more frequent urination and haematuria. Mark the correct statements

    a. the woman is likely to have cystitis
    b. the woman probably has benign prostatic hyperplasia
    c. The woman is likely to have bladder inflammation
    d. failure to treat this disease can lead to pyelonephritis
    e. the disease was caused by overcome angina
    f. we would also see swollen ankles in a woman with this disease

36. A 45-year-old patient with a history of cerebral artery aneurysm suddenly stops communicating, has facial expression problems and is unable to move with his right upper limb. Probably he is undergoing

    a. gastro-oesophageal reflux
    b. a myocardial infarction
    c. an attack of myocarditis
    d. a sudden haemorrhagic stroke
    e. a jarring of the brain (commotio cerebris)
    f. a thromboembolic event

37. A 50-year-old woman has pain in the hips, feels rusty pain when urinating, and has a fever. He is treated for hypertension for a year. She has repeatedly overcome bacterial infections of the urinary tract and urolithiasis. Sonography showed shrinkage of the kidneys and irregular wrinkling with U-shaped scars. The patient is likely to suffer from

    a. rapidly progressing glomerulonephritis
    b. nephritic syndrome
    c. chronic glomerulonephritis
    d. nephrotic syndrome
    e. chronic pyelonephritis
    f. hereditary nephropathy

38. A 53-year-old man who has had hypertension, obesity and diabetes for 15 years complains of chest pain, which he shoots into his left hand. He sweats, he is afraid, he coughs, he is restless, short of breath. The patient probably has

    a. myocardial infarction
    b. heart failure
    c. low blood pressure
    d. pneumonia
    e. cardiomyopathy
    f. atrial fibrillation

39. A 54-year-old man underwent lung surgery for lung cancer. During the operation, the doctor also removed two small nodes, permeated with black pigment. Mark the correct statements

    a. it might be anthracitic pigment
    b. the man is probably a tough smoker
    c. it might be oxidized silicon
    d. it might be dark blood clots
    e. these might be toxic metabolites from the large circulation
    f. it might be a colour-altered lymph

40. A 55-year-old man (obese, smoker, being treated for high cholesterol) has been feeling calf pain while walking for a long time. The pain is so intense that he must stop walking. In recent weeks, he had noticed that his calves hurt even in peace, especially at night. Mark the correct statements

    a. the patient probably has ischemic disease of the lower extremities
    b. complications can include muscle atrophy, ulceration, necrosis and even gangrene
    c. his lifestyle is also responsible for this condition
    d. the patient probably has chronic venous insufficiency
    e. as a complication, it can cause stroke and kidney infarction
    f. this condition is mainly due to his age

41. A 57-year-old mechanic with a chronic cough underwent a lung biopsy. The surgeon detected the presence of small 0.5-1.0 mm black-stained lymph nodes. Which of the following could be the most likely cause?

    a. hemosiderosis
    b. anthracosis
    c. lipochrome deposits
    d. melanin accumulation
    e. lipofuscin deposits
    f. tattoo

42. A 60-year-old overweight and hypertensive patient experiences angina, tachycardia, and palpitations with mild physical exertion. At first, the patient feared that it was a myocardial infarction, but the pain disappeared after a while. He has had such episodes for two months now, so he decided to see a doctor. What are the manifestations of the disease?

    a. pneumonia
    b. rheumatic fever
    c. ischemic heart disease
    d. it can be caused by atherosclerosis of the coronary arteries
    e. chronic venous insufficiency
    f. angina pectoris

43. A 62-years-old man with a personal history of active boxing complains about handshaking and numerous falls. What could be the reason?

    a. Alzheimer's disease
    b. Parkinson's disease
    c. Huntington's chorea
    d. Tourette's syndrome
    e. epilepsy
    f. vascular dementia

44. A 63-year-old man complains of polakisuria, nocturia and insufficient emptying of the bladder. The probable cause is

    a. nephrotic syndrome
    b. nephritic syndrome
    c. cystitis
    d. benign prostatic hyperplasia
    e. hormonal changes
    f. pyelonephritis

45. A 65-year-old lady complains of cold upper and lower limbs. The patient is also taking cholesterol-lowering treatment. The probable cause of cold limbs may be

    a. deep vein thrombosis
    b. ischemic limb syndrome
    c. Raynaud's syndrome
    d. aneurysm rupture
    e. atherosclerotic vascular reconstruction
    f. varicose veins

46. A 65-year-old smoker has been suffering from obesity and high blood pressure for 20 years. He is admitted to the hospital with severe chest pain, which shoots into the left hand and sledge. He sweats, is afraid, coughs, he has short of breath. The ECG reveals a heart rate of 120 beats/min and an elevation of the ST segment. Mark the correct statements

    a. the patient probably has a myocardial infarction
    b. the lifestyle also contributed to the emergence of her condition
    c. the patient probably has a stroke
    d. as a result of this condition, heart failure may occur later
    e. as a result of this condition, splenomegaly may occur later
    f. her condition can cause sudden death

47. A 65-year-old woman reports gradual memory loss over the past two years. She cannot remember where she parked her car or when she should visit the doctor. However, she often tells her granddaughter details about her youth, holidays or previous work. The patient is probably suffering from

    a. multiple sclerosis
    b. bacterial meningitis
    c. early stage of Alzheimer's disease
    d. obsessive-compulsive disorder
    e. Parkinson's disease
    f. late stage of Alzheimer's disease

48. A 67-years-old woman presents sudden signs of memory impairment, and speech problems, she has problems finding her way back home and does not recognise her relatives. She also has a history of atherosclerosis and takes cholesterol-lowering medication. This could most probably be caused by

    a. Alzheimer's disease
    b. Lewy's bodies dementia
    c. vascular dementia
    d. cortical and subcortical microinfarctions
    e. aggregation of tau proteins
    f. epilepsy

49. A 68-year-old patient complains of nausea and stomach pain, chest tightness and sweating. She is not aware of any dietary errors; she has no diarrhoea or fever. This condition started after training; she also describes mild chest pain. Mark the correct statements

    a. an ECG should be performed on the patient
    b. the patient is likely to suffer from a heart failure
    c. most likely, the patient has a myocardial infarction
    d. we would find an increased creatine kinase in the patient
    e. we would find an increased activity of the thyroid gland in the patient
    f. nausea is probably caused by generalized oedema

50. A 68-years-old obese woman enters your pharmacy. She cannot catch her breath, has problems with walking, has swollen ankles and takes antihypertensive medications. Her problem probably is

    a. pneumonia
    b. covid-19
    c. heart failure
    d. blood stasis in the venous system
    e. anaemia
    f. type 2 diabetes mellitus

51. A 71-year-old patient complains of prolonged cough, swollen ankles and increased fatigue. He was at his general practitioner who did not detect any respiratory infections. Mark the correct statements

    a. most likely, the patient has a myocardial infarction
    b. cough is probably caused by pulmonary oedema
    c. the patient may have a heart failure
    d. we would detect coronary artery ischemia in the patient
    e. we would find an increased creatine kinase in the patient
    f. the patient may have dilated cardiomyopathy

52. A 75-year-old patient does not remember anything from his past, he twists words, often falls and can no longer take care of himself. He probably suffers from

    a. early stage of Alzheimer's disease
    b. epilepsy
    c. advanced stage Alzheimer's disease
    d. obsessive compulsive disorder
    e. vascular dementia.
    f. Lyme disease

53. A 77-year-old patient has been treated for ischemic heart disease for 15 years. She overcame a severe myocardial infarction 5 years ago. Since then, she often has to rest, she can't even walk up the stairs, she is short of breath, tired, she feels pressure on her chest, she sweats, and she has swollen ankles. The patient is likely to suffer from

    a. heart failure
    b. anaemia
    c. stroke
    d. pulmonary embolism
    e. ventricular tachycardia
    f. Alzheimer's disease

54. A 78-year-old patient complains of hand tremors during rest and stiff muscles in his face. You also notice a squeaky walk and a slight forward bend in it. What can cause this condition?

    a. Parkinson's disease
    b. Alzheimer's disease
    c. degeneration of the basal ganglia in the substantia nigra
    d. dopamine deficiency in the substantia nigra
    e. acetylcholine deficiency in the grey cortex
    f. storage of beta amyloid and tau protein in the brain

55. A mother came to the emergency room with her three-year-old daughter suffering from high fevers, vomiting and severe headaches. The doctor found neck stiffness, a red rash that did not fade when with a glass press, and photophobia. The child had to be hospitalized immediately. The mother does not approve of any vaccination. The diagnosis could be

    a. multiple sclerosis
    b. meningitis
    c. epilepsy
    d. cluster headache
    e. ADHD
    f. migraine

56. A patient (68 years old) complains of feeling heavy legs, especially after standing at work all day (pharmaceutical laboratory assistant). The patient is obese and has varicose veins. In the evening, she also notices swelling in the ankles and forelegs. She complains of a white spot (10 cm large) above the ankle. Mark the correct statements

    a. the cause is probably chronic venous insufficiency
    b. the patient begins to develop a venous ulcer
    c. the patient is likely to have deep capillary thrombosis
    d. swelling of the legs is edema caused by venostasis
    e. oedema around the ankle occurs due to myocardial infarction
    f. a white spot is formed due to excessive oxygenation of the skin

57. A patient is hospitalized with suspected liver cirrhosis and he has a visible caput medusa around the belly. There is a sudden worsening in the patient´s condition, he begins to vomit large amounts of red blood. What is the most likely diagnosis that caused rapid deterioration of the patient's condition?

    a. Renfield syndrome
    b. Crohn's disease
    c. Ulcerative colitis
    d. food poisoning
    e. rupture of oesophageal varices
    f. lung cancer

58. A patient who has been complaining of burning for a long time was soon taken to biopsy tissue from the oesophagus. A multilayered cylindrical epithelium was detected in the tissue. What disease is the patient most likely to have?

    a. amyloidosis
    b. dystrophy
    c. metaplasia
    d. necrosis
    e. reparation
    f. hypoplasia

59. A six-month-old child from a marginalised environment without access to water has a stiff neck and returns to the hospital. Doctors diagnosed him with meningitis. Mark the correct statements

    a. poor hygiene is a risk factor for the disease
    b. the cause of the infection will first be the bacterium Neisseria meningitis
    c. it is probably a prion disease
    d. it is likely to be cerebral palsy
    e. the most serious prognosis of the disease is death
    f. the child is most likely to have tick-borne encephalitis

60. A young 24-year-old patient has systemic lupus erythematosus (SLE). In recent months, the disease has progressed and affected the kidneys. How lupus can affect a patient´s renal functions

    a. it can cause nephritic/nephrotic syndrome
    b. it damages the kidneys based on an autoimmune reaction
    c. there is no real risk of severe renal complications of SLE
    d. the renal functions are not affected by an autoimmune reaction
    e. it can cause bacterial infection
    f. it can cause haematuria and proteinuria

61. A young man woke up with a fever of 39 °C and had severe muscle and head pain and dry coughing. What could be the cause of his problems?

    a. tonsillitis
    b. pertussis
    c. influenza
    d. cold
    e. sinusitis
    f. rhinitis

62. An 8-years old boy started to manifest many vocal and motoric tics. Also, his behaviour is violent, irritable and have no friends. He started to experience repetitive involuntary shoulder shrugging, grimacing, erratic limb movements, and neck twisting to the right side. Biochemical tests are in the norm, EEG and MRI showed no abnormalities and ADHD were excluded. What is the potential cause?

    a. obsessive-compulsive disorder
    b. major depression
    c. Huntington's disease
    d. Tourrette's syndrome
    e. epilepsy
    f. Parkinson's disease

63. An 80-year-old man complains of polyuria, and nycturia, when he urinates, he does not feel that he has urinated completely. Moreover, he urinates intermittently. He does not report fever or other pains. This condition lasts for 3 months. It is probably caused by

    a. diabetic nephropathy
    b. pyelonephritis
    c. benign prostatic hyperplasia
    d. inflammation of the bladder
    e. renal failure
    f. Alport's syndrome

64. An 80-year-old patient lives only with her son. She has hypertension and hyperthyroidism. For the last 3 years, she has had worsening memory problems, she is still looking for things, she doesn't know where she put them, and she is nervous, sometimes aggressive and crying. She didn't hit home from the store a few times. MMSE test was done for 20 points. Which disease does the patient have?

    a. neurodegenerative disease
    b. Alzheimer's disease
    c. meningitis
    d. epilepsy
    e. mild cognitive deficit
    f. borreliosis

65. An 82-year-old man overcame colon cancer. Although intensive pharmacotherapy helped to cure the tumour, it damaged the heart. The consequence on the heart is most probably

    a. dilated cardiomyopathy
    b. restrictive cardiomyopathy
    c. hypertrophic cardiomyopathy
    d. ischemic heart disease
    e. angina pectoris
    f. acute coronary syndrome

66. 85-year-old female patient reports problems with balance, cognitive impairment, slowed thinking, and often is not able to find an appropriate word expression. The family also reports sudden significant but temporary worsening of the described symptoms. The worsening usually lasts approximately one day. The patient's medical records also mention hypertension and high cholesterol. The patient probably suffers from

    a. vascular dementia
    b. bacterial meningitis
    c. early-stage Alzheimer's disease
    d. obsessive-compulsive disorder
    e. Parkinson's disease
    f. advanced Alzheimer's disease

67. An elderly patient was diagnosed with influenza. What complications can arise from the disease he has?

    a. pneumonia
    b. pericarditis
    c. rhabdomyolysis
    d. renal failure
    e. skin eczema
    f. eye damage

68. An elderly polymorbid diabetic has been diagnosed with diabetic nephropathy. Recently, his kidney parameters worsened, despite the fact that he had no inflammatory disease. Mark the correct statements

    a. the man probably has nephrotic syndrome
    b. a man may also have edema on his face
    c. the man probably has prostatic hyperplasia
    d. hypertension leads to myocarditis
    e. he is likely to have autoimmune inflammation
    f. its glomerular filtration gradually increases

69. An older 55-year-old cyclist complains of frequent urge to urinate. Even at night, he wakes up for this reason. It has no comorbidities. Mark the correct statements

    a. the man probably has benign prostatic hyperplasia
    b. the man probably has nephrotic syndrome
    c. the man probably has nephritic syndrome
    d. the man probably has kidney stones
    e. it is important to rule out proteinuria as it could be an autoimmune kidney injury
    f. it is important to monitor haematuria as it may decide to be hospitalized immediately due to acute renal failure

70. An older 82-year-old hypertensive woman complains of a sudden severe headache. She is slightly somnolent. The pain is urgent. Mark the correct statements

    a. she has probably a stroke
    b. she has probably tension headaches
    c. epilepsy should be ruled out
    d. she needs to call an ambulance immediately
    e. it is probably a migraine
    f. the woman should be advised to rest in bed and sleep

71. An older 82-year-old patient has recently been agitated, aggressive, forgetful, have sudden mood swings and his incontinence and insomnia have worsened. Mark the correct statements

    a. the patient is likely to have Alzheimer's disease
    b. etiopathogenesis of patient problems is associated with damage to the substantia nigra and corpus callosum
    c. the patient has progressive chronic disease
    d. the patient is likely to have an acute complication of obsessive-compulsive disorder
    e. the patient may also experience other symptoms such as loss of semantic memory, executive function, pressure ulcers
    f. the patient may also experience other symptoms such as rigidity, tremor, myoclonus

72. Benign prostate hyperplasia was found in a 55-year-old man. Mark the correct statements

    a. the disease is caused by aging
    b. intermittent urination may be a symptom
    c. the patient is likely to complain of haematuria
    d. endocrine factors are involved in the development of this disease
    e. this disease is also common in women
    f. complication may be renal failure

73. A chronic diabetic patient (63 years old, treated for DM for min 5 years) complains of polyuria with cloudy urine, and severe oedema of the face and ankles. The doctor has found a low level of plasma albumin. The probable problem is

    a. benign prostatic hyperplasia
    b. nephritic syndrome
    c. nephrotic syndrome
    d. complicated cystitis
    e. diffuse glomerulonephritis
    f. urethritis

74. In 34-year-old patient developed deep vein thrombosis. Which risk factors contribute to its emergence?

    a. pregnancy
    b. long sitting
    c. varicose veins
    d. use of oral contraceptives
    e. venous ulcer
    f. claudication

75. In the morning, a 48-year-old woman began to feel discomfort and the urge to urinate with an increased frequency of urination. During the day, the symptoms worsened and the patient felt severe burning sensations when urinating, other systemic symptoms were absent. What common diagnosis could be the cause of these symptoms?

    a. lupus erythematosus
    b. bacterial infection of the bladder
    c. syphilis
    d. glomerulonephritis
    e. bladder inflammation
    f. cystitis

76. Joseph was diagnosed with Parkinson's syndrome for 59 years, but the striatum and substance nigra are undamaged. Mark the correct statements

    a. Parkinson’s syndrome is an extrapyramidal symptom
    b. dopamine deficiency can also be caused by a recent head injury in a car accident that Joseph overcame
    c. the diagnosis manifests itself mainly in tremor
    d. dopamine deficiency is only in the substantia nigra, not in the striatum and therefore we cannot talk about Parkinson's disease
    e. Joseph has an excess of acetylcholine rather than a lack of dopamine, so we are only talking about Parkinson's syndrome
    f. Joseph only has symptoms at night, so it was recognised as of Parkinson's syndrome

77. The little boy likes to play in the forests. After discovering erythema migrans in his thigh, the doctor diagnosed him with a serious disease. What are the risk factors for this disease?

    a. drinking raw goat milk
    b. tickling with a tick
    c. Neisseria infection
    d. age
    e. injuries
    f. Borrelia infection

78. Mr Alex was taken to the hospital after his chest ached in golf. The pain shot into his left hand and he gasped for breath. He felt sick, nauseous and also very scared. At the hospital, he had a blood pressure of 165/100mmHg, an HR of 107 beats/min, and an elevated ST segment was seen on the ECG. Troponin T and LDH were elevated in the blood. What happened to Mr Alex?

    a. ventricular tachyarrhythmia
    b. stroke
    c. ischemic heart disease
    d. acute heart failure
    e. myocardial infarction
    f. bradyarrhythmia with cardiac arrest

79. Ms Melanie (35 years old) complains of pain around the eyes, pressure above the parasinuses and headache. She had a cold a few days ago, but she didn't get over it. What complications can arise from the disease she has?

    a. meningitis
    b. otitis
    c. bronchitis
    d. migraine

e. Reye's syndrome
f. jaundice

80. Nadya is a 24-years old woman which started to express strange behaviour. First, she suddenly stood up from the table in the kitchen, vocalizing indifferent deep noises and then collapsed on the floor. Also, she had bitten her tongue. She can't recall the event. A similar event occurs during her stay in the work office where her colleagues witnessed this. What is the possible cause?

a. polio
b. ADHD
c. OCD
d. epilepsy
e. Alzheimer's disease
f. cerebral stroke

81. Parkinson's disease patient complains of restless legs syndrome, which manifests in her, especially at night. Mark the correct statements

a. can cause somnolence and fatigue during the day
b. the woman probably has insomnia
c. the risk of falls as complications is increased
d. woman has catalepsy
e. nocturia should be ruled out
f. the woman has circadian rhythms disorder

82. Symptoms include high temperatures above 38.5 °C, muscle aches, headaches and fatigue, and mostly dry, unproductive cough. The disease has a seasonal occurrence, especially in autumn or winter. Complications can include pleurisy, pneumonia or ARDS. What disease it may be?

a. covid-19
b. bronchitis
c. influenza
d. tonsillitis
e. pertussis
f. sinusitis

83. Symptoms include high temperatures above 38.5 °C, muscle aches, headaches and fatigue. In addition, loss of taste and smell. Complications of the disease can be pleurisy, pneumonia or ARDS. What disease it may be?

a. tonsillitis
b. pertussis
c. sinusitis
d. cold
e. covid-19

f. pneumonia

84. Symptoms include swelling of the throat, lymph nodes and problems with swallowing. Complications of the disease can be inflammation of the heart or arthritis. What disease is it?

    a. tonsillitis
    b. sinusitis
    c. pneumonia
    d. covid-19
    e. asthma
    f. pertussis

85. The 17-year-old adolescent vomits, has a stiff neck and slight twitching. Mark the correct statements

    a. it is necessary to rule out cerebral palsy
    b. epilepsy should be ruled out
    c. meningeal syndrome should be considered
    d. tick-borne encephalitis should be considered
    e. head injury should be considered
    f. the third stage of Lyme disease should be considered

86. The 18-year-old is afraid of infections, constantly washing his hands, disinfecting everything at home, and refusing to go out and touch things that are not disinfected. Probably he suffers from

    a. obsessive-compulsive disorder
    b. aura
    c. insomnia
    d. tension headache
    e. schizophrenia
    f. depression

87. The 33-year-old woman is perfect in her profession. She works as a secretary. The boss is satisfied that the employee checks everything after herself and after him several times. In addition, all things are always in place and every day she dedicates an hour of her time after working hours to clean the office perfectly. The woman probably has

    a. ADHD
    b. bipolar affective disorder
    c. insomnia
    d. obsessive-compulsive disorder
    e. schizophrenia
    f. depression

88. The 68-year-old Mr Philip is a former successful boxer in super heavyweight. He has suffered from a mild unilateral tremor for the last three years. His gait has also changed, which is "whispering" in the forward bend, sometimes he has a problem walking (or he can't move from the place and start walking). Mark the correct statements

    a. symptoms indicate that he may has Parkinson's disease
    b. the essence of the disease he suffers from is the formation of beta-amyloid plaques
    c. the essence of the disease he suffers from is a lack of dopamine in the brain
    d. one of the risk factors for his illness is boxing, which he once addressed
    e. symptoms indicate that he may suffer from vascular dementia
    f. risk factors for his disease include gender and age

89. The 76-year-old man has an ulcer. What other concomitant diseases that affected the development of varicose veins ulcer are most likely to occur?

    a. heart failure
    b. diabetes mellitus
    c. atherosclerosis
    d. prostate hyperplasia
    e. alopecia
    f. bronchopneumonia

90. The 8-year-old girl vomits, she is lethargic, has a very sore headache, has a stiff neck and hates the light. She probably has

    a. epilepsy
    b. bacterial meningitis
    c. Creutzfeldt-Jakob disease
    d. ADHD
    e. Parkinson's disease
    f. stroke

91. The 80-year-old mathematician Emil can no longer take care of himself. He does not remember anything from his past, he distorts words, and he often falls and suffers from insomnia. He relies on the help of other people. Probably suffering from

    a. early stage of Alzheimer's disease
    b. epilepsy
    c. advanced stage Alzheimer's disease
    d. Hunting’s disease
    e. vascular dementia
    f. meningitis

92. The boys drank cold water from a stream after a hard football match in a summer camp. The next day, several boys have a fever and refuse to eat. Mark the correct statements

a. it is probably tonsillitis
b. the risk factor is football
c. the disease is definitely of viral origin
d. it is also important to monitor the swelling of nodes in the body other than those in the throat
e. it can be complicated by inflammation of the heart muscle even a few weeks after healing
f. this state requires immediate tonsillectomy

93. The child complains of a headache. It has severe nasal congestion, otitis and fever. The pain hinders him in every activity. Mark the correct statements

a. headache is secondary to inflammatory diseases of the respiratory tract and ear
b. migraine should be ruled out first
c. first, a head injury to the child should be ruled out
d. the disease can be complicated by sinusitis
e. cluster headaches should be ruled out
f. glaucoma should be ruled out

94. The older 75-year-old gentleman has a peaceful unilateral tremor, his posture has gradually changed and walking is "whispering" - slow and squeaky. Mark the correct statements

a. one of the risk factors for his illness is boxing, which he dealt with almost professionally at a young age
b. in the etiopathogenesis of the brain, atrophy of selected parts of the brain and subsequent dopamine deficiency occurs
c. its prognosis is aggravated by a potentially high risk of falling
d. symptoms indicate prion disease
e. symptoms indicate low bone density
f. symptoms indicate vascular dementia

95. The patient (75 years old male) is hospitalized for ischemic artery disease in the right leg. What symptoms of this disease would you notice in him?

a. claudication
b. trophic skin changes
c. postural skin discoloration
d. aneurysm
e. acrocyanosis
f. rigidity

96. The patient complains of rhinitis, sneezing, sorethroat. He reports fever (38 °C) and muscle and joint pain. The patient surely DOES NOT SUFFER from

a. cold
b. covid-19

c. swine flu
d. tonsillitis
e. whooping cough
f. bird flu

97. The patient complains of pain in the gallbladder area. The examination reveals that he has a blocked bile duct and that bile accumulates in his liver. The patient has yellow eyes. What is the most likely cause?

a. amyloidosis
b. accumulation of bilirubin in the body
c. increased storage of melanin in cells
d. jaundice
e. impaired glucose metabolism
f. impaired glycogen production in the liver

98. The patient feels pain in the forehead and cheekbones, has lost his sense of smell, and his nasal secretions are purulent. The patient is probably suffering from

a. rhinitis
b. covid-19
c. sinusitis
d. flu
e. allergic rhinitis
f. sore throat

99. A patient is a 48-year-old man, at work, he began to be pricked slightly on the chest and had difficulty breathing. He attributed it to the sophistication, stress, and anxiety he had experienced in recent months. An hour later, the pain worsened, she began to radiate to her left shoulder, and her colleagues had to call an ambulance. The diagnosis was an acute myocardial infarction (MI). Myocardial necrosis was relatively serious in the patient. What can be the long-term consequences of overcoming MI?

a. heart failure
b. systolic dysfunction
c. diastolic dysfunction
d. reversible myocardial damage occurs as a result of MI
e. risk of arrhythmias
f. irreversible myocardial damage occurs as a result of MI

100. The patient suddenly began to feel pain when swallowed, she had a fever, she felt enlarged lymph nodes and she noticed a white coating on her tonsils. The patient is probably suffering from

a. sinusitis
b. rhinitis
c. covid-19

d. flu
e. tonsillitis
f. whooping cough

101. The patient was diagnosed with cerebral infarction. What type of necrosis is most likely to have a brain?

a. simple necrosis
b. coagulation necrosis
c. caseous necrosis
d. fat necrosis
e. liquefactive necrosis
f. haemorrhagic necrosis

102. The patient was diagnosed with a stroke. What type of necrosis is most likely in his brain?

a. simple necrosis
b. coagulative necrosis
c. caseous necrosis
d. fat necrosis
e. liquefactive (colliquative) necrosis
f. haemorrhagic necrosis

103. The patient was diagnosed with insomnia. Which of the following factors could be the cause?

a. aneurysm
b. cough
c. stress
d. depression
e. alcohol
f. dyspnoea

104. The patient, a 67-year-old man, suffers from postural instability - frequent falls, tremors in the hands and movement difficulties. The patient also for the first time noticed the presence of hallucinations and impaired cognitive functions. What is the possible diagnosis?

a. Huntington's disease
b. bacterial meningitis
c. parkinsonism
d. Alzheimer´s disease
e. dementia with Lewy bodies
f. Meniere's disease

105. The skier developed a yellow-brown discolouration at the edges of the wound after 8 days of injury that did not damage the skin. Which of the pigments is responsible for its formation?

    a. lipofuscin
    b. melanin
    c. hemosiderin
    d. lipochrome
    e. bilirubin
    f. ceroid

106. The woman was diagnosed with migraine. Which risk factors are associated with this disease?

    a. genetics
    b. stress
    c. hormone fluctuations
    d. cardiomyopathy
    e. rheumatic fever
    f. insomnia

3.2 CASE STUDIES – PART 2

1. 10-year-old Mary is a cancer patient (leukaemia) who has been in remission for a year. She has a younger sister, Lydia (4 years old). She received chickenpox in kindergarten. Mary, who already had chickenpox, began to feel more tired, she is lethargic, she has a fever and she is being itched around the ribs. In 3 days, a papulopustular rash formed there. Mark the correct statements

    a. Mary probably has leukaemia again
    b. Mary probably has shingles
    c. Mary may have contracted the chickenpox again, even though she has overcome them
    d. Mary's condition will be improved by a bone marrow transplant
    e. Mary is a high-risk patient for shingles
    f. Mary's condition can be complicated by postherpetic neuralgia

2. A 12-year-old boy is hospitalized with the following symptoms, which lasted for 3 weeks: diarrhoea with grey stools, vomiting, and flatulence. He has eczema on his skin and aphthae in his mouth. He is pale to anaemic and has severe bone pain. Mark the correct statements

    a. the patient has probably celiac disease
    b. aphthae can occur due to poor absorption of vitamins
    c. the patient has probably histamine intolerance
    d. the anaemic appearance is due to insufficient absorption of iron
    e. the patient should follow a diet with strict fat restriction
    f. it is enough if the patient follows a gluten-free diet for 1 month, then he can consume gluten again

3. 12-year-old Lucy was diagnosed with severe histamine intolerance. Her diet must not include

    a. foods high in histamine
    b. foods high in histidine
    c. whole grain rice
    d. eggplant, tomatoes
    e. sausages
    f. eggs

4. 13 years old Arthur has a cold sore. In addition to being very painful, he also has a fever and a headache. He also suffers from atopic eczema. A few days after a cold sore, small vesicle filled with clear fluid formed on his throat. Mark the correct statements

    a. in addition to herpes simplex, Arthur also has herpetic eczema
    b. the cause of this condition is infection with herpes simplex virus 1
    c. Arthur has shingles
    d. the cause of this complication in simplex herpes is Arthur's weakened immunity

e. the cause of this complication in herpes simplex virus is herpes simplex virus 2
f. Arthur can still go to school because he is not infectious

5. 30-year-old Aurel is a stockbroker and has been working under great pressure for months. He has had severe abdominal pain and bloody diarrhoea for the last 5 days. Colonoscopy revealed deep inflammation of the intestinal mucosa, the presence of deep ulcers, and even abscesses in some sections of the intestine. He had these symptoms during puberty, later disappeared, and now reappeared. Mark the correct statements

    a. Aurel probably has Crohn's disease
    b. long-term stress at work may be responsible for the recurrence of these symptoms and findings in the gut
    c. Aurel probably suffers from duodenal ulcers
    d. H. pylori may be responsible for the recurrence of these symptoms and findings in the gut
    e. as a complication, toxic megacolon can occur
    f. as a complication, myocardial infarction can occur

6. 5-year-old Johnny was stung by a bee. After a while, generalized urticaria occurred and he became dizzy. What happened to Johnny and what should his mom do?

    a. an allergic reaction mediated by IgE antibodies
    b. an allergic reaction mediated by IgG antibodies
    c. Janko has a large local reaction to the bite
    d. mother should seek medical assistance immediately
    e. if available, inject EpiPen immediately
    f. mother should give Janko ice packs, put Janko in a stable position. They can stay home

7. 5-year-old Meghan goes to kindergarten. Her parents did not succumb to anti-vaccination hysteria and therefore Meghan is properly vaccinated according to the valid vaccination calendar. Nevertheless, a dump on her forehead and chest was thrown out on Sunday morning. Tiny white spots itched, and fever was also present. Meghan is tired and despite her usual temperament, she spent the day lying in the living room on the couch. This condition is probably

    a. insect bites, specifically the so-called tiger mosquito
    b. measles
    c. mumps
    d. rubella
    e. right smallpox
    f. chicken pox

8. 50-year-old Paul was hospitalized for acute appendicitis. He already has surgery, but since he is HIV positive and has diabetes, he stayed in the hospital longer. Two days before the planned discharge from the hospital, his fever increased, inflammatory parameters increased, and microbial tests confirmed nosocomial infection. Mark the correct statements

    a. Paul had to be operated using non-sterile instruments
    b. Paul may be at risk for other patients in the room, so he must be released from the hospital to home care
    c. Paul has a high chance of cure because nosocomial infections are relatively easy to treat
    d. Paul is a high-risk patient because he is an HIV-positive diabetic and has stayed in the hospital longer
    e. nosocomial infection can be fatal for him
    f. due to nosocomial infection, Paul should have been isolated from other patients in the room

9. 50-year-old Stephen complains about erectile problems. Recently, he has also been going to the toilet frequently during the night and finds it difficult to urinate. He has lost weight recently but attributes this to stress due to his father's newly diagnosed lymphatic cancer, who used to complain of similar symptoms that Stephen is complaining about now. Mark the correct statements

    a. Stephen suffers from a psychogenic form of erectile dysfunction
    b. Stephen has no positive family history of prostate cancer
    c. Stephen has a positive family history of prostate cancer
    d. Stephen should undergo a DRE
    e. if adenocarcinoma of the prostate is suspected, he will have reduced PSA levels
    f. if adenocarcinoma of the prostate is suspected, he will have elevated PSA levels

10. 6-year-old Richard is tired for the last 7 days, does not like to eat, he has a fever. His mother noticed that he had a swollen place between his right jawbone and his ear, making it harder for him to swallow. Richard is not vaccinated against selected childhood diseases. Mark the correct statements

    a. Richard probably has angina
    b. Richard probably has parotitis
    c. because Richard is not vaccinated, the disease can be complicated by testicular inflammation and subsequent sterility
    d. since Richard is not vaccinated, the disease can be complicated by shingles
    e. the cause of the disease that Richard suffers from is a virus
    f. the cause of the disease that Richard suffers from is Methicillin-resistant Staphylococcus aureus

11. A 10-year-old girl is brought to the hospital in serious condition. Her mother reports the following symptoms: loose stools with blood and mucus, diarrhoea, which is more common at night than during the day, does not like to eat and is pale to anaemic. She has a slightly elevated temperature and aphthae in the mouth. Her older brother also suffers from this disease. The patient was in remission for almost a year. She is now having a stressful period at school, so the disease has reappeared. What disease is he likely to suffer from?

    a. ulcerative colitis
    b. irritable bowel syndrome
    c. duodenal ulcer
    d. celiac disease
    e. oesophageal varices
    f. colorectal cancer

12. A 23-year-old woman, a smoker, has experienced significant GIT problems for the last month - diarrhoea with fresh blood (17 / day), abdominal pain, nausea. He searched for the doctor as the pain escalated and after she began to lose weight. The patient is also taking oral contraceptives. What is the probable diagnosis?

    a. chronic inflammatory bowel disease
    b. H. pylori
    c. GERD
    d. ulcer disease
    e. Crohn's disease
    f. ulcerative colitis

13. A 24-year-old male patient presented to the hospital with sharp pain in the iliac region shooting into the lower abdomen and burning on urination. He reported intermittent heart rhythm disturbances. Laboratory examination of blood showed normal CRP and creatinine values, serum calcium and parathyroid hormone concentrations are mildly elevated. On the basis of these data, we can conclude that

    a. the pain in the lumbar region may be due to a bacterial infection of the kidneys
    b. the filtration activity of the kidneys is impaired
    c. the cause of the pain may be the presence of a calculus
    d. the patient should undergo an ultrasound examination of the neck
    e. the patient suffers from a thyroid disorder
    f. the disease may be caused by an adenoma of the parathyroid gland

14. A 25-year-old medical student noticed an unconventional nipple discharge during a monthly breast self-examination, as well as breast pain and tension for the past week. Her mother was diagnosed with breast cancer at the age of 45. Mark the correct statements.

    a. the patient is in the risk group for breast cancer due to a family history

b. the patient did not feel a lump, so it is not breast cancer
c. nipple discharge is not a risk factor for breast cancer
d. in this case, ultrasound / mammography examination of the breasts is appropriate
e. the most likely diagnosis is suspected breast cancer
f. the patient does not need additional examinations, she is too young for breast cancer

15. A 25-year-old Zdena was diagnosed with hyperthyroidism. Which of the following symptoms would you probably identify with her?

a. nervousness
b. diarrhoea
c. weight gain
d. edema
e. constipation
f. exophthalmos

16. A 30-year-old woman was hospitalized with the following symptoms, which lasted for 2 months: fever (38 °C), sweating, especially at night, weight loss, general fatigue, enlarged cervical lymph nodes. Mark the correct statements.

a. the patient has covid-19
b. the patient probably suffers from Hodgkin's lymphoma
c. the patient suffers from chronic myeloid leukaemia
d. the patient suffers from acute lymphoblastic leukaemia
e. the patient suffers from multiple myeloma
f. the patient suffers from a disease caused by the Zika virus

17. A 42-year-old manager working in banking comes to the pharmacy and complains of a dry cough. What could be the possible cause of cough?

a. Helicobacter pylori
b. covid-19
c. gastroesophageal reflux
d. cor pulmonale
e. respiratory infection
f. bronchial asthma

18. A 53-year-old patient was hospitalized for a non-healing ulcer on his right lower extremity. The man is obese and has been treated for diabetes mellitus for 11 years. The patient also complains of impaired vision, shortness of breath, and elevated temperature. Mark the correct statements

a. the patient appears to be developing diabetic retinopathy
b. diabetes mellitus does not affect the development of pathologies of the cardiovascular system

c. the cause of DM in this case is probably insulin resistance
d. the swelling ulcer is also called Bert's ulcer
e. the patient probably has type 1 diabetes
f. the swelling ulcer on the limb is not related to DM

19. A 55-year-old man has been feeling pain in his epigastrium for a few weeks. As the pain worsens after eating, he avoids food and is noticeably losing weight. He suffers from haematemesis. What could be the cause of his problems?

a. ulcerative colitis
b. Crohn's disease
c. gastric ulcer disease
d. duodenal ulcer
e. dyspepsia
f. malabsorption syndrome

20. A 59-year-old patient (2 children) was diagnosed with cervical cancer. Which of the risk factors could have contributed to its emergence?

a. HPV virus
b. lactation
c. smoking
d. promiscuous sexual partner
e. surgical breast augmentation
f. common cystitis

21. A patient (68 years old, heavy smoker) working in a factory with a lot of dust developed a dry cough. This is unpleasant especially in the morning, when it lasts more than half an hour. The patient complains of dyspnoea and his lips have recently turned blue. What disease is most likely present in patient?

a. acute bronchitis
b. chronic bronchitis
c. pneumonia
d. TBC
e. asthma
f. ARDS

22. A patient (71 years old) was diagnosed with prostatitis. What symptoms would we probably identify in him?

a. blood in the urine
b. urge to urinate
c. ulcus durum
d. perineal pain
e. maculopapular sowing
f. lump (nodules) during DRE examination

23. A promiscuous patient (45 years old) was found to have a tertiary stage of syphilis. Mark the correct statements.

    a. the causative agent of syphilis is the bacterium Treponema pallidum
    b. the tertiary stage manifests itself e.g., CNS disorders, syphilitic gum and aortic aneurysm
    c. the causative agent of syphilis is HIV
    d. the primary stage of syphilis is manifested by a severe ulcer
    e. it is manifested mainly by perineal pain
    f. it is not transmitted transplacentally

24. A young atopic woman observed vesicular erythema on her face and neck in an area where her atopic eczema often manifests. She has a headaches and temperature. What could she be suffering from?

    a. impetigo
    b. gingivostomatitis herpetica
    c. eczema herpeticum
    d. hand, foot, mouth disease
    e. herpesvirus infection
    f. rubella

25. A young woman has recently lost 5 kg. She complains of a gradual onset of diarrhoea with blood, currently 30 per day, and has significant abdominal cramps. She also observed the skin ulcers, fatigue, weakness and pallor. What may be the cause of her problems?

    a. dyspepsia
    b. polyps
    c. ulcerative colitis
    d. Crohn's disease
    e. gastric ulcer disease
    f. ulcer disease of the duodenum

26. A young woman, 20 years old, has severe lower abdominal pain, fever, and an abnormal, foul-smelling discharge from her vagina sometime after unprotected intercourse. Prior to sexual intercourse, she regularly performed frequent vaginal lavages. The pain got worse about a week after menstruation, what the disease it may be?

    a. syphilis
    b. pelvic inflammatory disease
    c. ectopic pregnancy
    d. benign endometriosis
    e. HPV virus
    f. balanitis

27. An 18-year-old business academy student was diagnosed with celiac disease. What extraintestinal symptoms could she show?

    a. rash
    b. diarrhoea
    c. flatulence
    d. muscle pain
    e. night blindness
    f. nausea

28. An 18-year-old woman living in the Congo gave birth to a child who was diagnosed with cretinism by a doctor. What factors could have led to its emergence?

    a. iodine deficiency in the diet
    b. development errors
    c. administration of thyrostatics administered to the mother during pregnancy
    d. increased ACTH production in the mother during pregnancy
    e. autoimmune inflammation due to improper diet
    f. the presence of prolactinoma in the mother

29. An ambulance was called to a 25-year-old patient at a summer party for the following symptoms: hypotension, burning in the mouth, swollen lips, rhinitis, and tearing. Red spots appeared on her body. Before the ambulance arrived, she briefly lost consciousness. At the party, she ate strawberries, pineapples, and chocolates and drank sparkling wine (sparkling wine). Mark the correct statements

    a. the patient may be suffering from histamine intolerance
    b. this is due to the food she consumed because it contains a lot of histidine
    c. the patient appears to be suffering from a non-tropical sprue
    d. this condition can only be treated with medication
    e. her condition will improve if she follows a histamine-free diet
    f. this is due to the food she consumed because it contains a lot of leptin

30. An elderly gentleman has been diagnosed with prostatitis. The symptoms last for more than a year. What are the symptoms?

    a. he suffers from pain in her lower abdomen
    b. feels a frequent urge to urinate
    c. he often urinates even at night
    d. he has a fever
    e. has protein in his urine
    f. he has empyema

31. An elderly woman was diagnosed with breast cancer without metastasis. What problems could she have?

    a. she felt pain in her right shoulder
    b. she could have enlarged lymph nodes
    c. during the self-examination of her breasts, she could feel a swollen lump in her armpit
    d. she easily has bruises
    e. she has melena
    f. she is forgetful

32. At the pharmacy, the patient complains of fever, night sweats, a swollen lymph node, weight loss and joint pain. You would recommend a doctor's examination, as it is most likely to be (which disorder?)

    a. anaemia
    b. leukaemia
    c. coagulation factor disorder
    d. platelet disorder
    e. DNA synthesis disorder
    f. leukocyte disorder

33. Chris was diagnosed with celiac disease. His diet

    a. must not contain rice
    b. must not contain wheat
    c. it must not contain sauerkraut
    d. must not contain soft cheeses
    e. must not contain beer
    f. must not contain gluten stabilizers

34. Claire, a 40-year-old nurse, works in the pulmonary department. She is very busy and has been working under great stress for almost 2 years. She complains of pain in his right lower abdomen (especially at night), but when she eats something, the pain becomes less intense. She did not lose weight, she's not on a diet, and she's a smoker. She noticed that he had black stools. The urease test was positive. Mark the correct statements

    a. Claire probably suffers from duodenal ulcers
    b. stress and smoking also contribute to the etiology of this condition
    c. only Helicobacter pylori is involved in the etiology of this condition
    d. a complication of this condition may be peritonitis
    e. a complication of this condition can be cancer
    f. Claire probably suffers from gastroesophageal reflux

35. Daisy, a 2.5 years old girl, has been restless lately, she often has diarrhoea stools and complains of abdominal pain, especially after eating. The paediatrician noticed that the child had lost weight. The mother confirmed that the girl avoids food, as it is often followed by diarrhoea. Last week, unpleasant eczema on the cheeks was added. What could be the cause of this condition?

    a. allergic rhinitis
    b. lactose intolerance
    c. food allergy
    d. milk protein allergy
    e. psoriasis
    f. Helicobacter pylori infection

36. Diabetes insipidus was diagnosed in 68-year-old mechanic Karol. Mark the correct statements

    a. diabetes insipidus is caused by a lack of vasopressin
    b. diabetes insipidus is caused by a lack of cortisol
    c. this disease is manifested by excessive production of strongly alkaline, concentrated urine
    d. the patient often develops dehydration
    e. diabetes insipidus is caused by a lack of insulin and glucagon
    f. the patient develops polydipsia

37. Doctors confirmed myxoedema in 52-year-old Olinka. What could have led to its emergence?

    a. endemic goitre
    b. thyroid tumours
    c. disorder of the hypothalamic-pituitary region
    d. insufficient production of vasopressin
    e. increased ACTH production
    f. increased production of growth hormone

38. Donya came home from kindergarten with a fever and complained that her mouth hurt. Her mother noticed painful erythematous macules on the mucous membrane and aphthae. What is Donya probably suffering from?

    a. chickenpox
    b. gingivostomatitis herpetica
    c. eczema herpeticum
    d. the hands, foot, mouth disease
    e. impetigo
    f. herpes zoster

39. Emilia, 42 years old, noticed an unusual discharge from the nipple on her left breast with blood admixture during her menstruation. She feels pain under her armpit and has recently become shorter of breath during exercise, although she exercises regularly. She has not noticed any other changes; she uses a body sponge for shower gel while showering. Mark the correct statements

    a. since nipple discharge is present during menstruation, Emilia may not give importance to this problem
    b. nipple discharge is a symptom for breast cancer
    c. the body sponge is a handy tool for self-examination of the breasts during the shower
    d. Emilia probably neglects breast self-examination
    e. Emilia should see a gynaecologist and have a mammogram
    f. Emilia's age is not a risk factor for breast cancer

40. Eva has Crohn's disease. She has also recently been diagnosed with histamine intolerance. Mark the correct statements

    a. she must avoid alcohol
    b. before meals she can supplement the missing enzyme diamine oxidase
    c. she can eat eggs
    d. pastry is a problem due to the gluten content
    e. the so-called divided diet is suitable for her - meat with vegetable side dishes
    f. milk products are not suitable for it due to the lack of the enzyme lactase

41. For the last week, 26-year-old Patrick has been experiencing pain when urinating, associated with cloudy urine and pain in his lower abdomen. He does not have a stable partner but recently had unprotected random sexual intercourse. Mark the correct statements

    a. Patrick has probably a sexually transmitted disease
    b. Patrick has probably syphilis
    c. Patrick has probably gonorrhoea
    d. Patrick's difficulties are not infectious and not transmissible to other people
    e. Patrick's difficulties are caused by an increased intake of purines in his diet
    f. For Patrick, his problem may even cause infertility

42. Galina (16 years old) developed a food allergy. What symptoms of food allergy could be present in her?

    a. hair loss
    b. diarrhoea
    c. urticaria
    d. warts
    e. headache
    f. swelling of the lips

43. Grandfather Peter (68 years old) is a cancer patient (skin cancer) in remission. Because he is the only one who can stay at home, he is babysitting his grandson Joseph, who has chickenpox. After a week, he suddenly feels tired, has a slightly elevated temperature, and itches his back. The next day, his wife discovers that she has a papulopustular exanthema on his back. Mark the correct statements

    a. his wife was frightened that it could be a reactivation of the disease
    b. cancer in remission is a risk factor for shingles
    c. Joseph cannot infect his grandfather unless his grandfather touches his rash
    d. grandpa cannot get chickenpox because he overcame it in childhood
    e. grandpa' infection might be complicated by postherpetic neuralgia
    f. Joseph's babysitting was a risk factor for the occurrence of shingles in grandpa Peter

44. Grandmother Mina (71 years old) is hospitalized in connection with the removal of gallstones, by the standard method. The urinary catheter was removed a week ago, but she had to stay in the hospital longer, as she lives alone and has no one to take care of it. She is hypertensive and diabetic. Just before her release, her plans changed as her fever rose sharply and a microbiological examination confirmed a nosocomial infection. Mark the correct statements

    a. risk factors for infection are catheter, long hospital stay, polymorbidity and age
    b. etiologically it is a nosocomial infection
    c. they probably infected her wound using non-sterile instruments during surgery
    d. Grandmother must be released immediately, regardless of how complicated her condition becomes
    e. the infection was caused by a change in diet in the hospital
    f. nosocomial infection can be fatal for Zdenka's grandmother

45. Hyperparathyroidism was diagnosed in a patient (49 years old lumberjack). Mark the correct statements

    a. we would find an increased level of parathyroid hormone in the patient
    b. we would probably detect osteoporosis in the patient
    c. the disease is manifested by elevated calcium levels
    d. tetanus convulsions often occur
    e. the patient may develop periorbital edema
    f. the disease can be caused by adenoma

46. Igor (40 years old), has a round moon-shaped face with these symptoms, conspicuous obesity of his neck, and red-purple striae on his lower abdomen. He has been diagnosed with hypertension and is often moody. Mark the correct statements

    a. elevated ACTH levels may be responsible for these symptoms
    b. Igor was diagnosed with Cushing's syndrome (Central form), which was caused by a tumour on the pituitary gland

c. elevated epinephrine levels may be responsible for these symptoms
d. the central form of Cushing's syndrome is also well treatable with medication
e. Igor has Conn's syndrome, which is caused by elevated cortisol levels
f. the central form of Cushing's syndrome cannot be treated with medication

47. In a 20-year-old girl, doctors confirmed acute psoriasis after an upper respiratory tract infection. Mark the correct statements

a. her psoriasis was triggered by a pertussis vaccination she underwent a month ago
b. psoriasis was triggered by upper respiratory tract disease
c. on her body we can observe a spotty to droplet sowing, which itches
d. on her body (especially on her elbows, knees and head) we can observe limited pink-red lesions
e. lesions must be treated very carefully
f. lesions are more difficult to treat

48. In 40-year-old Mr Andrew, was found hyperparathyroidism. What could be the cause of this disease?

a. parathyroid adenoma
b. parathyroid carcinoma
c. goitre
d. parathyroid hyperplasia
e. pheochromocytoma
f. thyroid cancer

49. In 78-year-old Hedviga, a doctor diagnosed rheumatoid arthritis. Based on the presence of which specific symptoms could he do so?

a. symmetrical involvement of the joints
b. involvement of weight-bearing joints
c. morning stiffness for more than an hour
d. morning stiffness less than 30 minutes
e. the presence of rheumatoid nodules
f. fatigue

50. In a 3-year-old David, the dermatologist found the presence of severe atopic eczema, probably caused by a cross-allergic reaction. David's menu should not contain

a. milk formula HA
b. citrus fruits
c. carrots and celery
d. seafood
e. sourdough bread
f. poultry

51. In an 18-month-old child, an immunologist found an allergy to milk proteins. This child's menu may include

    a. cow milk
    b. goat milk
    c. sheep's milk
    d. milk formula for infants
    e. milk formula HA
    f. soya milk

52. In December, 14-year-old Kate had sinusitis and rhinitis. When the symptoms of sinusitis and rhinitis disappeared, pink-red spots appeared on her skin all over her body. Some are as big as drops; others are as big as coins. It itches. She already had such symptoms once, about 2 years ago. Now that she is going through a stressful period at school, her symptoms have returned. Mark the correct statements

    a. Kate probably has acute psoriasis
    b. stress, upper respiratory tract infections and cold weather in December may have contributed to the recurrence of the disease
    c. Kate probably has tinea capitis
    d. citruses, which Kate consumed to an increased extent during December, contributed to these symptoms
    e. psoriasis therapy requires a longer time and gentle treatment of red spots
    f. psoriasis does not require any special skin treatment

53. In the patient occurs hematemesis. What causes could lead to its occurrence?

    a. oesophageal varices
    b. chronic peptic ulcers
    c. gastric cancer
    d. celiac disease
    e. Crohn's disease
    f. ulcerative colitis

54. Jane (35 years old) underwent thyroid surgery. Thyroid gland was completely removed, because there was a malignant tumour in the thyroid gland. Subsequently, the following symptoms occurred after the operation: high temperature above 40 °C, very severe dysrhythmias and signs of heart failure. She died three days later. The probable cause of death is

    a. uncontrolled thyrotoxic crisis
    b. endemic nodular goitre
    c. myxoedema
    d. Graves-Basedow disease
    e. Hashimoto's thyroiditis
    f. excessive parathyroid hormone levels

55. Jennifer was diagnosed with herpes labialis on her lower lip by a dermatologist. Mark the correct statements for this disease

    a. reactivation of the disease is possible with illness, hormonal changes or stress
    b. she may also infect her children
    c. she will have lifelong immunity and will never get herpes again
    d. it is not infectious
    e. she can use the same towel as her husband and certainly won't transmit the disease to him
    f. the incubation period of the disease is 10-21 days

56. John (75 years old) has metabolic syndrome. Recently, he has had pain in the joints of his lower limbs, he has a red, swollen thumb. Doctors have found that uric acid crystals are deposited in his joints. They recommended him a diet. Mark the correct statements

    a. he must avoid purine
    b. sea fish are not recommended either
    c. beer, which cannot even due to other comorbidities, should really be omitted now
    d. he must also guard the amount of fluids, high fluid intake increases the amount of uric acid
    e. he must limit the amount of fruit (e.g., bananas) and vegetables (e.g., potatoes) as they cause swelling
    f. high fat foods do not affect the amount of uric acid and are therefore suitable for him

57. Joseph is a 64-year-old hunter who loves to eat meat after hunting. He has long been suffering from seizure pains in his joints. Periods of pain seizures alternate with periods of no symptoms. He has elevated uric acid levels in his blood. Mark the correct statements

    a. Joseph suffers from rheumatoid arthritis
    b. Joseph suffers from gout
    c. Joseph should avoid foods high in purines
    d. Joseph should avoid foods high in histamine
    e. Joseph should follow a gout diet
    f. Joseph should drink a lot of fluids

58. Joseph, a 35-year-old pharmaceutical company manager, and a tough smoker, suddenly lost weight. He is pale and tired. Doctors ruled out an ulcer disease in him. He suffers from diarrhoea and his colleagues think he has celiac disease. They were shocked that Joseph had non-specific intestinal inflammation. Mark the correct statements

    a. Joseph probably has Crohn's disease
    b. smoking and stress exacerbated the risk of the disease

c. Joseph has probably anaemia, due to excessive blood loss through the stool and insufficient absorption of nutrients
d. Joseph has probably ulcerative colitis
e. Joseph has probably stomach ulcers
f. Joseph gets treatment, fortunately he doesn't have to follow a diet

59. Julie is a 17-year-old high school student who was diagnosed with celiac disease as a child. Since then, she has been on a gluten-free diet, but lately, she has not been feeling good - she has been suffering from bloating and diarrhoea, she is tired and easily irritated during class. These problems make her even more isolated from the people. Mark the correct statements

a. Julie is probably not following a gluten-free diet
b. Julie suffers from lactose intolerance in addition to coeliac disease
c. Julie's fatigue may be due to anaemia as a result of iron malabsorption
d. serological testing for IgA autoantibodies is appropriate to verify adherence to a gluten-free diet
e. impaired mood is not related to coeliac disease
f. in addition to adherence to the diet, DAO preparations can be used to improve her condition

60. Karen, 38-year-old, works in the top management of an insurance company. She must submit the project for the following year by the end of November. It has two more weeks to complete. She has lost weight in the last month; she is tired and her skin has deteriorated. She wakes up at night with severe dyspeptic pain. Mark the correct statements

a. Karen has probably duodenal ulcers
b. Karen has probably stomach ulcers
c. Karen has probably celiac disease
d. Karen has probably Helicobacter pylori
e. Karen needs to start with a diet
f. Karen probably has oesophageal varices

61. Kate has pancreatitis. What her diet should be like?

a. with fat restriction (low-fat)
b. soft
c. large
d. reducing
e. liquid
f. gluten free

62. Manifestations of the disease are enlargement of the parotid nodes, headache, muscle pain, and swelling of the testicles or breasts in adults. The disease can cause infertility. The disease can be prevented by vaccination, what disease is it?

    a. herpes zoster
    b. mumps
    c. rubella
    d. borreliosis
    e. acanthosis
    f. chickenpox

63. Marianne, a 25-year-old woman, was diagnosed with lactose intolerance. Which food should she not consume?

    a. fermented milk
    b. cow milk
    c. cottage cheese
    d. soya milk
    e. condensed milk
    f. ripe cheeses

64. Mona (18 years old girl) had unprotected sexual intercourse with an unknown man at a disco 17 days ago. She now feels pain in the abdominal area, has a purulent discharge and feels pain when urinating. Mark the correct statements

    a. Mona probably has gonorrhoea
    b. Mona must undergo a bacteriological examination to diagnose gonorrhoea
    c. Mona has probably endometriosis
    d. a complication of endometriosis is cervical cancer
    e. if Mona is pregnant and it is confirmed that she has gonorrhoea, she may have a baby with conjunctivitis
    f. endometriosis can be prevented by vaccination

65. The mother noticed that her 8-month-old daughter Isabella has red, dry spots on her cheeks. Izabella is restless and wants to scratch it. Moreover, mom noticed that dry, red spots also form on her forehead and neck. What is probably Isabella suffering from?

    a. smallpox
    b. psoriasis
    c. diaper dermatitis
    d. allergic reaction
    e. atopic dermatitis
    f. urticaria

66. Mr Marian visited his doctor and noticed swollen testicles and a purulent discharge from the penis accompanied by pain in the abdominal area. He also feels pain when urinating. He made no secret of the fact that 2 weeks ago he had unprotected sexual intercourse with an unknown person. What is the most likely diagnosis?

    a. treponema pallidum infection
    b. gonorrhoea
    c. Neisseria gonorrhoeae infection
    d. staphylococcus aureus infection
    e. non-infectious inflammatory disease
    f. prostate hyperplasia

67. Mr Mark has the following symptoms: headache, palpitations, excessive sweating, tremors, nervousness, and fatigue. The cause of these health problems may be

    a. pheochromocytoma
    b. Klinefelter's syndrome
    c. Cushing's syndrome
    d. Simmonds' disease
    e. cretinism
    f. hyperparathyroidism

68. Mr Smith, 67-year-old, complains in the pharmacy about nocturia, intermittent urination and a feeling of insufficient emptying. Diseases that manifest with these symptoms include

    a. prostatitis
    b. erectile dysfunction
    c. benign prostatic hyperplasia
    d. prostate cancer
    e. urinary tract infection
    f. none of the above

69. Mrs Bernadette, 55 years old, has been suffering from low back pain for a year, has atypical vaginal discharge and is often bleeding. She is a smoker and she is a mother of 8 children. She was on preventive control by a gynaecologist 5 years ago and at that time she had bad results from a cytological examination of her cervix. Mark the correct statements

    a. Mrs Bernadette probably has cervical cancer
    b. she is a high-risk patient because she is a smoker, has been pregnant 8 times and has bad cytological results
    c. Mrs Bernadette probably has deep pelvic inflammation
    d. multiple pregnancies reduce the risk of cervical cancer
    e. cervical cancer can be prevented by vaccination, proper lifestyle and regular gynaecological examinations

f. the BRCA gene is responsible for the development of cervical cancer

70. Ms Julie (65), who works as a cashier at a local grocery store, has recently noticed increased fatigue, dizziness and lethargy while working. She has also noticed that her hands have been very dry and cold lately and she has put on a few extra pounds. She suffers from

    a. excessive parathyroid function
    b. excessive thyroid function
    c. reduced parathyroid function
    d. reduced thyroid function
    e. hypothyroidism
    f. pheochromocytoma

71. Parizad, a 40-year-old man, was diagnosed with rheumatoid arthritis 20 years ago. In addition to the symptoms of rheumatism, he has been suffering from grey stool diarrhoea, flatulence, anorexia, and considerable weight loss for the last 3 months. In addition, he is anaemic, his bones hurt and he noticed that his teeth are scratched. Mark the correct statements

    a. in addition, Parizad probably suffers from celiac disease
    b. he had anaemia as a result of poor absorption of iron and folic acid
    c. the other symptoms mentioned are also typical of rheumatism, there seems to be an exacerbation of the disease
    d. if celiac disease is confirmed, he must follow a gluten-free diet for life
    e. all he has to do is undergo a 3-month reduction diet and he will be relieved
    f. if he does not start treatment, he will develop Crohn's disease

72. Peter, 28, wanted to make his girlfriend happy and prepared her a French evening. After tasting wines and various kinds of cheese along with chocolate-covered strawberries, Peter began to experience a burning sensation in his mouth, itching under his tongue, and a rush of heat coupled with red spots on his forearms. What is Peter probably suffering from?

    a. celiac disease
    b. GERD
    c. histamine intolerance
    d. lactose intolerance
    e. milk allergy
    f. pyrosis

73. Peter, 29 years old, has been suffering from chronic diarrhoea for several weeks (the number of stools is 15 to 20 per day) including during the night. For the last 10 days, he has observed the presence of fresh blood in the stool. Diarrhoea is accompanied by persistent colic-like abdominal pain, which prevents him from engaging in the work process. There were also aphthae on the gums and a special rash on the skin. The patient lost weight significantly and the doctor recommended hospitalization. What can cause this condition?

    a. gastritis
    b. Helicobacter pylori infection
    c. duodenal ulcer
    d. gastric ulcer
    e. Crohn's disease
    f. ulcerative colitis

74. Rudolph (40 years old man) reports these symptoms: dysuria, frequent urination, fever, testicular pain, and cloudy urine for the last 4 months. Mark the correct statements

    a. Rudolph has probably prostatitis
    b. Rudolph must undergo palpation of the prostate and analysis of urine to diagnose the prostatitis
    c. Rudolph probably has gonorrhoea
    d. complications of prostatitis can include septicaemia, infertility, and testicular infection
    e. Rudolf must undergo palpation of the testicles and lumbar puncture to diagnose gonorrhoea
    f. complications of gonorrhoea include CNS damage and aortic aneurysm

75. Sandra, 45 years old, has been experiencing mastalgia for about half a year. She also noticed that her right breast had changed shape (she has a lump there) and a bloody discharge from her nipple. She feels tired. She is afraid to see a doctor even though her mother died of breast cancer. Mark the correct statements

    a. Sandra probably just banged her breast and injured her nipple, so she has a lump and discharge there
    b. Sandra has probably breast cancer
    c. to confirm the diagnosis, she must undergo mammography, taking a tissue sample from the lump
    d. all she needs to confirm the diagnosis is a breast test
    e. if cancer is confirmed, Sandra must undergo surgery, chemotherapy and hormone therapy
    f. if the cancer is confirmed, it is enough for Sandra to undergo a total mastectomy. No further treatment is required

76. Sheehan's syndrome was found in a 38-year-old woman after giving birth. What symptoms would you look for in her?

    a. exophthalmos
    b. lactation arrest
    c. amenorrhea
    d. loss of pubic and axillary hair
    e. hypergonadism
    f. excessive lactation

77. 6-months-old boy has diaper dermatitis. Mark the correct statements about this disease

    a. it most often occurs in the buttocks, folds and groin
    b. it appears as small wounds with cracks that are red, wet, and swollen
    c. it manifests itself as a drop or coin rash that does not itch
    d. it can be prevented by using cotton diapers, changing diapers as needed, bathing in clean water and then treating the skin
    e. it most often occurs in the knees and elbows
    f. it can be prevented by using disposable diapers and frequent bathing

78. Small red papules filled with serous exudate were formed on Agathe’s (10 years) body (especially on the chest) 5 days ago. Papules itch. Agatha also has a fever; she is tired and she vomited. Mark the correct statements

    a. Agathe has smallpox
    b. pneumonia and encephalitis can occur as a complication
    c. Agathe has measles
    d. as a complication, she may develop severe otitis, which can cause deafness
    e. the varicella-zoster virus is responsible for this condition
    f. the paramyxovirus is responsible for this condition

79. Susan is 18 years old; she is preparing for graduation. However, her learning process was complicated by a painful and itchy rash on the skin, in the waist area. She thinks she has an allergy to a new belt, but she doesn't understand why she has it on her back. Mark the correct statements

    a. Susan has a herpes zoster
    b. the trigger for the disease is probably the pre-graduation strain
    c. Susan can also have an elevated temperature
    d. the fluid in her blisters is not infectious
    e. it is good to pierce of the vesicles for faster healing and less itching
    f. the itching of the rash excludes that it could be shingles, as Susan smallpox has already overcome

80. Symptoms include frequent diarrhoea with blood, aphthae, anaemia or eczema. Patients often lose weight without changing their diet. The typical onset is younger, adulthood. What disease is it?

    a. peptic ulcer
    b. melena
    c. ulcerative colitis
    d. oesophageal reflux
    e. dyspepsia
    f. Crohn's disease

81. Symptoms include frequent diarrhoea with blood, weight loss, severe abdominal pain or vomiting. The typical onset is adolescence or early adulthood. What disease is it?

    a. Crohn's disease
    b. heartburn
    c. hematemesis
    d. oesophageal reflux
    e. Barrett's oesophagus
    f. liver failure

82. Symptoms include vomiting of blood and pain in the epigastrium after eating or vomiting. It most often occurs after the 50th resp. 60th year of life. What disease it may be?

    a. acute pancreatitis
    b. Crohn's disease
    c. ulcerative colitis
    d. dyspepsia
    e. gastric ulcer
    f. heartburn

83. Symptoms of abdominal pain, meteorism, gargling, heartburn, flatulence, and diarrhoea are associated with the intake of dairy products. What disease can it be?

    a. milk allergy
    b. lactose intolerance
    c. Crohn's disease
    d. histamine intolerance
    e. malabsorption syndrome
    f. gluten intolerance

84. Symptoms of the disease include burning in the mouth, itching, sweating, swelling of the lips and tongue, hot flushes or nervousness. They are associated with foods such as alcohol, cheese, dairy products and citrus fruits. In women, it can also cause painful menstruation, what disease can it be?

    a. celiac disease
    b. histamine intolerance
    c. fructose regurgitation
    d. lactose intolerance
    e. Crohn's disease
    f. ulcerative colitis

85. Symptoms of the disease include diarrhoea after food, bloating, abdominal pain, eczema and loss of weight. They are associated with the intake of food such as bread, pasta or desserts. What disease can it be?

    a. lactose intolerance
    b. histamine intolerance
    c. milk allergy
    d. fructose deficiency
    e. gluten-free intolerance
    f. celiac disease

86. The 22-year-old computer science student has experienced episodes of severe epigastric pain in the last month 1-2 hours after a meal. She also mentioned that she has irregular eating habits and drinks excessive amounts of coffee due to strenuous studies. He regularly takes ibuprofen for frequent headaches. The pain also includes heartburn and nausea and vomiting. What is the probable diagnosis?

    a. gastric wall perforation
    b. ulcerative colitis
    c. Crohn's disease
    d. gastric ulcer disease
    e. pancreatitis
    f. cerebral aneurysm

87. The 40-year-old defence minister, who has been working under great pressure for months, is hospitalized with the following symptoms: vomiting, hematemesis, heartburn and abdominal pain. He further states that in the last 4 months he has lost weight, and the pain in the epigastrium arises mainly when he eats heavy, fried, spicy food. He does not follow any diet. He is a smoker. Mark the correct statements

    a. the cause of these symptoms is probably a ruptured stomach ulcer
    b. the etiology of this condition is probably due to stress, smoking, poor lifestyle and untreated gastritis
    c. Helicobacter pylori is mainly responsible for these symptoms

d. the patient should adjust his lifestyle - stop smoking, follow a diet, slow down the work pace
e. failure to treat this condition can lead to colorectal cancer at a later stage
f. to confirm the diagnosis, doctors mainly use a urease breath test

88. The 5-year-old boy is very apathetic for 2 weeks. He is weak, has a fever, has numerous bruises on his legs, and sweats. He also suffers from anaemia and has a 3-fold increase in leukocyte counts. Mark the correct statements

a. the boy suffers from Hodgkin's lymphoma
b. the boy has smallpox
c. the boy suffers from acute lymphoblastic leukaemia
d. the boy suffers from chronic myeloid leukaemia
e. the boy suffers from haemophilia
f. the boy suffers from pernicious anaemia

89. The characteristics of the disease are seasonal occurrence, especially in winter, swelling of the lymph nodes, petechiae in the mouth palate and generalized rash. The disease can be prevented by vaccination. Placental transmission can damage the foetus. What disease is it?

a. scarlet fever
b. genital herpes
c. mumps
d. chickenpox
e. rubella
f. eczema herpeticum

90. The doctor confirmed the presence of psoriasis in Mrs Helena. What factors can alleviate her illness?

a. stay at the seaside
b. summer holiday at the Mediterranean Sea
c. winter vacation
d. pregnancy
e. increased work commitment
f. increased sugar intake

91. The doctor diagnosed the patient with myxoedema. Which of the following symptoms would you probably identify in him?

a. fatigue
b. diarrhoea
c. weight gain
d. edema
e. constipation
f. exophthalmos

92. The mother of 10-year-old Milan noticed that recently her son has lost weight, is nervous and complains of diarrhoea. Milan also told his mother that he has trouble falling asleep at night, even when he is tired because his heart is pounding so much and he is scared. The paediatrician referred him for an endocrinological examination. Mark the correct statements

    a. Milan probably suffers from excessive parathyroid function
    b. Milan is probably suffering from excessive thyroid function
    c. Milan is probably suffering from thyrotoxicosis
    d. Milan's problems may have a genetic basis
    e. Milan's problems may be related to reduced dietary iodine intake
    f. Milan's gender is a risk factor for this disease

93. The parents of the 16-year-old boy sought medical attention because they could no longer afford to buy him shoes. They report that at about age 11, they noticed their son's faster growth compared to his peers. At age 14, the boy began to experience intermittent dull pain behind his left eye. Recently, he has been experiencing fatigue and joint pain. His hormone profile showed elevated levels of STH and IGF-I, but other hormones were normal. X-ray examination of the bones revealed that the growth clefts are not yet completely closed. Mark the correct statements

    a. the disease is caused by hyperfunction of the adenohypophysis
    b. the disease is caused by neurohypophyseal hyperfunction
    c. unsealed growth (epiphyseal) clefts lead to acromegaly
    d. increased STH secretion may be due to high somatostatin levels
    e. fatigue and joint pain are one of the symptoms in gigantism
    f. the cause of increased STH secretion may be the presence of an adenoma

94. The patient (38 years old) was diagnosed with celiac disease. What risk factors can lead to the development of this disease?

    a. genetics
    b. stress
    c. pregnancy
    d. bad lifestyle
    e. H. pylori
    f. smoking

95. The patient (63 years old construction technician) was diagnosed with secondary lactose intolerance. Mark the correct statements

    a. we would detect a congenital lactase deficiency in the patient
    b. we would find a transient decrease in lactase production in the patient
    c. the disease was probably caused by another GIT disease (infection, celiac disease)
    d. we would notice diarrhoea, heartburn, and flatulence in the patient

e. we would notice rash and pruritus in the patient
f. the patient's symptoms appear continuously throughout the day

96. The patient complains of an early knee stiffness (less than 30 min) accompanied by pain and swelling. He is 56 years old, he played active football in his youth. Which disorder is it?

a. rheumatoid arthritis
b. knee hypertrophy
c. osteoarthritis
d. osteoporosis
e. knee joint hyperplasia
f. osteomalacia

97. The patient complains of morning stiffness of the knee (30 min) accompanied by pain and swelling. He is 56 years old, in his youth he played active football. What disease could the patient have?

a. rheumatoid arthritis
b. knee hypertrophy
c. osteoarthritis
d. osteoporosis
e. hyperplasia of the knee joint
f. osteomalacia

98. The patient complains of myalgia. The breakdown of muscle fibres was detected in the removed muscle tissue. Which disease is present probably in the patient?

a. rheumatoid arthritis
b. osteoporosis
c. osteoarthritis
d. rhabdomyolysis
e. metaplasia
f. muscle necrosis

99. The patient developed frequent nosebleeds and haematuria and developed anaemia. His stomach is swollen and you find that he has overcome alcohol cessation treatment but has started drinking again. Most likely

a. he suffers from acquired coagulopathy (liver)
b. he suffers from haemophilia
c. he has a general lack of coagulation factors
d. he has a deficiency only of clotting factor VIII
e. he is in danger of bleeding
f. his symptoms are related to liver damage

100. The patient was diagnosed with prostate cancer. Mark the correct statements

    a. the cancer is usually detectable by palpation through the rectum
    b. the patient may experience back pain
    c. the prostate health index is used to diagnose prostate cancer
    d. an increased risk of developing this disease is associated with the use of oral contraceptives
    e. a complication of this disease may be the early onset of menopause
    f. most often occurs after repeated infections of N. gonorrhoea

101. The symptoms of the disease are blistering sowing on the lips, which occurs after a period of increased stress/overcoming the disease. It itches first, then cracks and heals in the form of a scab. The disease can occur repeatedly. What disease can it be?

    a. mumps
    b. rubella
    c. herpes labialis
    d. chickenpox
    e. lichen islandicus
    f. dental gingival virosis

102. The wife of Mr Marian (45 years) who has been treated for 10 years with corticosteroids after a heart transplant, has noticed that her husband has recently become more tired, has started to put on weight, especially in his face and abdomen, and suspects that he has problems with his potency. Mark the correct statements

    a. Mr Marian suffers from Addison's disease
    b. Mr Marian has exogenous Cushing's syndrome
    c. Mr Marian has a peripheral form of Cushing's syndrome
    d. Mr Marian has iatrogenic Cushing's syndrome
    e. Mr Marian's difficulties were probably caused by long-term treatment with corticosteroids after a heart transplant
    f. Mr Marian's potency problems are not related to adrenal disease

103. While changing a diaper, the nurse noticed that the 85-year-old patient had red spots and blisters in the groin and butt area. What is a man suffering from?

    a. rheumatoid arthritis
    b. psoriasis
    c. diaper dermatitis
    d. allergic reaction
    e. measles
    f. urticaria

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