

**FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL UNIVERSITY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

FACULTY OF TREATMENT AND PREVENTION

Assessment materials for the discipline

"Faculty Therapy"

(appendix to the work program of the discipline)

Specialty 05/31/01 General Medicine

1. List of competencies formed by the discipline

professional (PC)

Code and name professional competence	Indicator(s) of achievement of professional competence
PC-2	Conducting a patient examination to establish a diagnosis
PC -3	Prescribing treatment and monitoring its effectiveness and safety

2. Types of assessment materials in accordance with the competencies being developed

Name competencies	Types of assessment materials	number of tasks for 1 competency
PC-2	Closed tasks	25 with sample answers
PK-3	Open type tasks: Situational tasks Questions For interviews Addition tasks (<i>Not more than 10</i>)	75 with sample answers

PC-2 Closed type tasks: *TOTAL 25 tasks.*

Exercise 1.

Choose two correct answers.

To assess the filtration function of the kidneys, the following is determined: 1. glomerular filtration rate by calculation using creatinine;

2. Zimnitsky samples;
3. level of proteinuria;
4. creatinine clearance in the Reberg-Tareev test;

Correct answer: 1, 4

Task 2.

Choose one correct answer. The functions of the kidneys include everything except: 1.

- water excretion;
2. regulation of phosphorus-calcium metabolism;
3. production of acute-phase proteins.

Correct answer: 3. production of acute-phase proteins

Task 3.

Choose one correct answer.

Oliguria means:

1. decrease in the volume of urine excretion per day to less than 400 ml;
2. reducing the frequency of urination per day to less than 7;
3. reducing the volume of a single portion of urine to less than 50 ml.
4. increase in the volume of urine excretion per day by more than 3000 ml.

Correct answer: 1. decrease in urine output per day to less than 400 ml

Task 4.

: Choose two correct answers.

For direct diagnosis of glomerulonephritis, everything is used except: 1. kidney biopsy;

2. urine tests - general and Nechiporenko;
3. spiral computed tomography of the urinary system;
4. selective renal angiography;
5. assessment of blood creatinine and albumin levels.

Correct answer: 3, 4

Task 5.

Choose two correct answers.

Changes in general urine analysis characteristic of glomerulonephritis: 1. proteinuria;

2. leukocyturia;
3. aminoaciduria;
4. erythrocyturia;
5. bacteriuria.

Correct answer: 1, 4

Task 6.

Choose one correct answer.

In the diagnosis of acute glomerulonephritis, the following is of diagnostic importance: 1. titer of antibodies to streptolysin O;

2. titer of antinuclear antibodies;
3. titer of antibodies to the glomerular basement membrane;
4. titer of anticitrullinated antibodies. Correct answer: 1. titer of antibodies to streptolysin O

Task 7.

Instructions: Choose one correct answer.

What syndromes manifest chronic glomerulonephritis: 1. only nephrotic;

2. nephrotic, nephritic or urinary;
3. nephritic or painful;
4. urinary syndrome, fever.

Correct answer: 2. nephrotic, nephritic or urinary

Task 8.

Choose one correct answer. Morphological forms of chronic glomerulonephritis: 1. IgA nephropathy, membranous glomerulonephritis;
2. pyelonephritis, interstitial nephritis;
3. tubular necrosis.

Correct answer: 1. IgA nephropathy, membranous glomerulonephritis

Task 9.

Choose one correct answer.

Chronic kidney disease stage 3A is observed with: 1. GFR 15-29 ml/min;
2. GFR 60-89 ml/min;
3. GFR 45-59 ml/min.

Correct answer: 3. GFR 45-59 ml/min

Task 10.

Choose one correct answer.

Chronic kidney disease stage 3B is observed when: 1. GFR 30-44 ml/min;
2. GFR 60-89 ml/min;
3. GFR 45-59 ml/min.

Correct answer: 1. GFR 30-44 ml/min

Task 11.

Choose one correct answer.

The stimulant best suited for assessing gastric secretion is:

1. alcohol
2. caffeine
3. histamine
3. pentagastrin
4. insulin

Correct answer: 3. pentagastrin

Task 12.

Choose one correct answer.

Diseases in which there is a decrease in the secretory-acid-forming function of the stomach:

1. chronic antrum gastritis
 2. chronic atrophic gastritis
 3. gastrinoma
 4. chronic hypertrophic gastritis
- Correct answer: 2. chronic atrophic gastritis

Task 12.

Choose several correct answers.

To reduce the secretion of hydrochloric acid by the gastric glands, the following groups of drugs are used:

1. adrenergic blockers
2. M-anticholinergics
3. H₂-histamine blockers
4. proton pump blockers
5. all listed

Correct answer: 3, 4

Task 13.

Choose three correct answers. The principles of action of gastrocepin are: 1. selective blockade of muscarinic receptors

2. decreased secretion of hydrochloric acid
3. providing a gastroprotective effect
4. decreased mucus secretion

Correct answer: 1, 2, 3

Task 14.

Choose three correct answers.

Special forms of chronic gastritis according to the Houston Classification include:

1. autoimmune atrophic gastritis
2. reflux gastritis
3. lymphocytic gastritis
4. eosinophilic gastritis
5. giant hypertrophic gastritis

Correct answer: 3, 4, 5

Task 15.

Choose one correct answer.

Initial localization of gastric changes caused by Helicobacter Pilory infection:

1. subcardial section
2. fundus section
3. antrum
4. antrum and fundus. Correct answer:
3. antrum.

Task 16.

Choose one correct answer.

The diagnosis of "chronic gastritis" is established based on the results of: 1. FGDS with targeted biopsy and subsequent morphological examination of biopsy samples

2. X-ray examination
3. Computed tomography of the abdominal cavity
4. hydrogen breath test
5. intraventricular pH-metry

Correct answer: 1. FGDS with targeted biopsy and subsequent morphological examination of biopsy samples

Task 17.

Choose one correct answer.

All drugs belong to the group of proton pump inhibitors except: 1.

- omeprazole
2. pantoprazole
3. famotidine
4. rabeprazole

Correct answer: 3. famotidine

Task 18.

Choose one correct answer.

The most informative method in diagnosing peptic ulcer

- disease: 1. fibrogastroduodenoscopy;
2. ultrasound examination of the stomach;
3. R-scopy of the gastrointestinal tract;
4. determination of amylase and gastrin in the blood.

Correct answer: 1. fibrogastroduodenoscopy

Task 19.

Choose one correct answer.

Complication of gastric ulcer, manifested by belching "rotten egg", vomiting of food taken the day before:

1. penetration;
2. pyloric stenosis;
3. bleeding;
4. perforation.

Correct answer: 2. pyloric stenosis

Task 20.

Choose one correct answer.

A sign characteristic of exacerbation of duodenal ulcer: 1. fever;

2. pain in the epigastrium and right hypochondrium 30 minutes after eating;
3. jaundice;
4. diarrhea.

Correct answer: 2. pain in the epigastrium and right hypochondrium 30 minutes after eating

Task 21.

Choose one correct answer.

All of the following drugs are used to treat peptic ulcers, except: 1.

- anticholinergics;
2. sympathomimetics;
3. bismuth-containing preparations;
4. H₂-histamine blockers.

Correct answer: 2. sympathomimetics

Task 22.

Choose one correct answer.

The most reliable method for excluding malignancy of a gastric ulcer:

1. X-ray;
2. endoscopic;
3. feces for occult blood;

4. endoscopy with biopsy.
Correct answer: 4. endoscopy with biopsy

Task 23.

Choose two correct answers.

Signs characteristic of a bleeding duodenal ulcer: 1. vomit the color of "coffee grounds";

2. increased abdominal pain;

3. increased blood hemoglobin level, leukocytosis;

4. melena.

Correct answer: 1, 4

Task 24.

Choose one correct answer. A stress gastric ulcer manifests itself more often:

1. perforation;

2. malignancy;

3. penetration;

4. bleeding.

Correct answer: 4. bleeding

Task 25.

Choose one correct answer.

2. What symptom is most characteristic of ulcerative colitis?

1. diffuse abdominal pain;

2. frequent bloody bowel movements;

3. erythema nodosum;

4. joint pain.

Correct answer: 2. frequent bloody bowel movements

Open type tasks: 75 tasks in total

Task 1. Insert the correct answer.

The pacemaker of the first order is _____

Correct answer: sinus node

Task 2. Situational task

A patient at a doctor's appointment in a clinic complains of periodic sensations of rhythmic heartbeat, not associated with physical activity. At the same time, there is no sensation of sweating, feelings of fear, or changes in the color of the skin. The emergency physician recorded an ECG and revealed the following changes: no P wave, QRS complexes are not changed, the RR interval is shortened, the same, heart rate = 122 beats/min. What arrhythmia does the patient have? What other diagnostic methods are required?

Correct answer: Junctional tachycardia. Holter monitoring ECG, echocardiography, laboratory tests (TSH, T3f, T4f)

Task 3. Situational task

A 32-year-old woman came for a consultation with a general practitioner on the recommendation of an obstetrician-gynecologist. The woman is 28 weeks pregnant, the pregnancy is uncomplicated. The reason for contacting a therapist is changes in the ECG: the P wave is positive,

The QRS complex is not changed, different RR intervals, heart rate = 98 beats/min. What rhythm disturbances does the patient have? Your treatment tactics.

Correct answer: Sinus arrhythmia, tachycardia. No treatment required.

Task 4. Situational task

A 62-year-old patient was admitted to the emergency department of an emergency hospital with complaints of frequent, irregular heartbeat. This condition arose for the first time. At the time of examination, the patient has a blood pressure level of 200/110 mmHg, the heart rate is irregular. Heart rate = 126 beats/min, pulse = 108 beats/min. What arrhythmia is most likely present in the patient? Suggest a diagnosis.

Correct answer: Atrial fibrillation. First-time atrial fibrillation, tachysystolic variant.

Task 5. Situational task

A 68-year-old patient has a follow-up appointment with a therapist. The patient complains of episodes of irregular heartbeat that last several hours and occur approximately once every 2 weeks. Palpitations interfere with the patient's activity and prevent him from performing normal activities. The patient has hypertension, often uncontrolled, with a history of thromboembolism of the branches of the pulmonary artery, myocardial infarction. At the initial appointment, the patient was prescribed Holter ECG monitoring. Results: a paroxysm of cardiac arrhythmia was detected (f waves, QRS complex unchanged, different RR intervals, heart rate = 85-115 beats/min). Make a diagnosis and prescribe treatment (groups of medications).

Correct answer: IBS, PICS. Heart rhythm disturbances such as atrial fibrillation, paroxysmal variant, normo-tachysystolic form, CHA₂D.S.₂-VASc 5, EHRA 3. HASBLED - 2. Stage III hypertension, uncontrolled hypertension, risk 4 (very high). Condition after thromboembolism of the branches of the pulmonary artery.

Treatment: mandatory therapy - class III antiarrhythmic drugs (amiodarone), anticoagulants, β_1 -adrenergic blockers, ACE inhibitors, statins. It is also possible to prescribe slow calcium channel blockers of the dihydropyridine series, thiazide and thiazide-like diuretics. Performing coronary angiography, followed by stenting of the coronary arteries if necessary.

Task 6. Insert the correct answer

Performing a barrier function, regulating thrombus formation, secreting biologically active substances, and regulating vascular tone is characteristic of the _____ arterial wall.

Correct answer: endothelium

Task 7. Insert the correct answer

Low, very low density lipoproteins, triacylglycerides perform _____ function.

Correct answer: atherogenic

Task 8.

After performing an intravascular ultrasound examination of the coronary arteries, the patient was diagnosed with an unstable atherosclerotic plaque. Is acute coronary syndrome likely to develop? Describe this patient's atherosclerotic plaque.

Correct answer: Probably. Thin plaque cover, large lipid core, little stroma.

Task 9.

A patient with coronary artery disease, stable angina pectoris, develops an attack of anginal pain when going outside in the cold season. Describe the mechanism of pain development.

Correct answer: the action of the trigger factor (cold) leads to vasoconstriction, heart rate and myocardial contractility increase, an increase in myocardial oxygen demand occurs with a reduced possibility of its delivery to the myocardium, and transient myocardial ischemia develops.

Task 10. Situational task

A 72-year-old patient has exertional angina. Chest pain occurs when climbing to the 1st floor and walking at a normal pace up to 150 meters. The patient also experiences shortness of breath during normal physical activity. The average blood pressure level is 156/93 mm Hg. On the ECG: cicatricial changes in the septal region of the left ventricle. Signs of LVH. The patient is taking antihypertensive therapy. On EchoCG: IVS = 12 mm, LV SV = 12 mm, LVEF = 39%, akinesis in the area of the interventricular septum, basal segment. LVDD type 1. There is no peripheral edema. Make a diagnosis of the patient. Does the patient have systolic or diastolic CHF? Justify.

Correct answer: IHD. Angina pectoris FC III. Post-infarction (NOS) cardiosclerosis. Stage III hypertension, uncontrolled hypertension, risk 4 (very high). CHF with low EF IIA FC 3. The patient has systolic and diastolic heart failure. Rationale: systolic, because LV ejection fraction was reduced to 39%, diastolic, because There is type 1 LVDD.

Task 11.

What will you prescribe to a patient in order to reduce lipid metabolism in familial hypercholesterolemia or dyslipidemia refractory to standard treatment? State the class and name of the drugs and prescribe them to the patient. Describe the mechanism of action.

Correct answer: Monoclonal antibodies are inhibitors of the protein proprotein convertase subtilisin/kexin type 9 (PCSK9). Evolocumab (Reyata) 140 mg every 2 weeks or 420 mg once a month, subcutaneously. PCSK9 is directly involved in the degradation of LDL receptors, VLDL receptors, as a result of which the penetration of atherogenic fractions of lipoproteins under the endothelium is impaired. This prevents the formation of atherosclerosis.

Task 12.

A patient with coronary artery disease, angina pectoris and COPD experiences severe bronchospasms after taking β_1 -adrenergic blockers. Why do bronchospasms develop? What will you prescribe to the patient for antianginal action at high heart rate?

Correct answer: β_1 -adrenergic blockers, especially low-selective ones, can also act on β_2 -adrenergic receptors, which are located on the smooth muscles of the bronchi and cause spasm of the smooth muscles of the bronchi, especially in patients with COPD. For the purpose of antianginal action, it is necessary to prescribe non-dihydropyridine calcium antagonists or ivabradine.

Task 13. Insert the correct answer

_____ is any group of clinical signs or symptoms that suggest acute myocardial infarction or unstable angina.

Correct answer: acute coronary syndrome

Task 14.

In a patient with pain in the left half of the chest that is not relieved by taking nitroglycerin, the ECG shows an increase in the ST segment of more than 2 mm in the area of the lower wall of the LV. Guess the patient's diagnosis.

Correct answer: acute coronary syndrome with ST segment elevation in the inferior wall of the LV

Task 15.

The patient was admitted to the emergency cardiology department with a diagnosis of acute coronary syndrome. The patient complains of a burning pain in the left half of the chest, which is not sufficiently relieved by taking nitroglycerin - after a while the intensity of the pain increases. The ECG showed an increase in the ST segment of more than 2 mm in the area of the inferior wall of the LV. Guess the patient's diagnosis. What research method should the patient undergo to establish a final diagnosis?

Correct answer: acute coronary syndrome with ST segment elevation in the inferior wall of the LV. Test for markers of myocardial necrosis (myoglobin, CPK-MB, troponin).

Task 16. The patient developed acute myocardial infarction. Coronary angiography did not reveal hemodynamically significant atherosclerotic plaques. Objectively: blood pressure = 220/110 mm Hg, heart rate = 85 beats/min. Guess the type of myocardial infarction. Explain why the patient developed myocardial infarction.

Correct answer: type 2 myocardial infarction. Due to vasoconstriction, which is caused by high blood pressure, there is an imbalance between the myocardial need for oxygen and the ability to deliver it (low due to vasoconstriction). Prolonged myocardial ischemia occurred and, as a consequence, type 2 myocardial infarction.

Task 17. Insert the correct answer

The most common etiology is _____ myocarditis Correct answer: viral

Task 18.

A 32-year-old patient was diagnosed with viral myocarditis. Symptoms appeared about 10 days ago. EchoCG shows left ventricular dilatation, LVEF = 43%. What is the clinical form of viral myocarditis in the patient? What is the patient's prognosis? Which myocardial biopsy findings are more likely?

Correct answer: Subacute form. Development of dilated cardiomyopathy. Mild inflammation.

Task 19. A 32-year-old patient has myocarditis, subacute clinical form, due to the progression of systemic lupus erythematosus. What is the etiology of myocarditis? Prescribe pathogenetic groups of drugs for the treatment of myocarditis.

Correct answer: Autoimmune. Glucocorticosteroids, cytostatics.

Task 20. A patient at a doctor's appointment with complaints of asthma attacks. Spirometry was prescribed, as a result of which the norm was revealed.

Bronchoprovocation tests revealed bronchial restriction. Does the patient have a disease? If so, which one?

Correct answer: Yes, bronchial asthma.

Task 21. The patient, 65 years old, has hypertension. When conducting 24-hour blood pressure monitoring, it was found that night-time systolic pressure is 5% less than daytime pressure. The average SBP per day is 168 mm Hg. What type of daily hypertension curve does the patient have?

Correct answer: Non-dipper - decrease in SBP level at night by less than 8% of the daytime SBP level.

Task 22. The patient, 65 years old, has hypertension. Echocardiography was performed. Describe findings indicating the presence of hypertension.

Correct answer: left ventricular hypertrophy - an increase in the interventricular septum and posterior wall of the LV by more than 11 mm.

Task 23. A 68-year-old patient, at an appointment with a therapist, complains of shortness of breath during physical activity, sometimes at rest, and a cough producing sputum after waking up. The nature of the sputum is mucous. He has been smoking for 40 years. Spirography revealed obstructive bronchoconstriction. Which disease is most likely for this patient?

Correct answer: Chronic obstructive pulmonary disease.

Task 24. A 38-year-old patient complains of episodes of sharp increases in blood pressure to 220/120 mmHg. An increase in blood pressure occurs suddenly - after intense physical activity, eating certain foods, or straining the abdomen. During an increase in blood pressure, the patient feels the fear of death, tachycardia sets in, the face becomes red, and the palms sweat. Which disease is most likely for this patient?

Correct answer: Pheochromocytoma, symptomatic hypertension.

Task 25. A 38-year-old patient complains of an increase in blood pressure from 180/100 to 220/110 mm Hg. Increased blood pressure has occurred over the last 6 months. The patient has an autoimmune disease, and therefore has been taking glucocorticosteroids in high doses for a long time. On examination, there is a dysplastic body type, a tubercle in the area of the VII cervical vertebra, a moon-shaped face, and a large belly. Which disease is most likely for this patient?

Correct answer: Yatsenko-Cushing syndrome, symptomatic hypertension

Task 26. Addition task. Insert the correct answer.

Distal colitis in nonspecific ulcerative colitis occurs in ___% of cases. Correct answer: 100%

Task 27. Addition task. Insert the correct answer.

Endoscopic changes in Crohn's disease are most often presented as _____ painting in

Correct answer: "cobblestone street"

Task 28. Addition task. Insert the correct answer.

Absorption of vitamin B12 requires _____, the parietal _____ produced cells of the stomach

Correct answer: gastromucoprotein

Task 29. Addition task. Insert the correct answer.

A general blood test _____ in patients _____ with aplastic anemia most often reveals _____

Correct answer: pancytopenia

Task 30. Addition task. Insert the correct answer.

Iron deficiency anemia is characterized by _____ levels of ferritin in the blood.

Correct answer: decrease

Task 31. Addition task. Insert the correct answer.

The onset of the disease with the clinical picture of DIC syndrome is characteristic of acute _____ leukemia.

Correct answer: promyelocytic

Task 32. Addition task. Insert the correct answer.

Intracellular hemolysis is characterized by the formation of stones in _____

Correct answer: in the gallbladder

Task 33. Addition task. Insert the correct answer.

Atrophic autoimmune gastritis is characteristic of _____ anemia

Correct answer: B12 deficiency

Task 34. Situational task

The patient has enlarged lymph nodes, enlarged liver, spleen, general blood test shows leukocytes $40 \times 10^9/l$, absolute lymphocytosis $11 \times 10^9/l$. Determine possible diagnosis.

Correct answer: chronic lymphocytic leukemia

Task 35. Situational task

A 39-year-old patient complains of severe general weakness, fever up to $39^{\circ}C$, bruises on the body, nosebleeds, and gum bleeding for the last 7 days. In the general blood test: hemoglobin 70 g/l, erythrocytes $2.3 \times 10^{12}/l$, leukocytes $42 \times 10^9/l$, of which blasts 70%, nuclear neutrophils 11%, lymphocytes 20%, monocytes 9%, platelets $9 \times 10^9/l$.

Questions: 1. Formulate a preliminary diagnosis.

2. Name the studies necessary to confirm the diagnosis. Correct answer: 1. Acute leukemia

2. It is necessary to perform a sternal puncture - detection of more than 20% of blast cells in the myelogram. To determine the type of acute leukemia (myelo or lymphoblastic) - immunophenotyping, cytochemical study of blasts

Task 36. Situational task

In a patient with chest pain lasting more than 40 minutes, the ECG revealed ST elevation in leads II, III and aVF. State the suspected diagnosis. Correct answer: acute coronary syndrome with ST elevation of the inferior wall of the left ventricle

Task 37. Situational task

In a 52-year-old patient, examination revealed splenomegaly (+8 cm below the costal arch upon palpation). In the general blood test: hemoglobin 125 g/l, erythrocytes $4.1 \times 10^{12}/l$, leukocytes $19 \times 10^9/l$, of which promyelocytes 5%, metamyelocytes 6%, myelocytes 8%,

band neutrophils 15%, segmented neutrophils 29%, lymphocytes 10%, monocytes 2%, basophils 10%, eosinophils 15%, platelets $560 \times 10^9/l$

Questions: 1. Formulate a preliminary diagnosis

2. Name the studies necessary to confirm the diagnosis. Correct

answer: 1. chronic myeloid leukemia

2. myelogram, standard cytogenetic study of bone marrow (detection of Ph chromosome), determination of bcr-abl gene expression

Task 38. Situational task

The patient has flexion contracture of the metacarpophalangeal joints, hyperextension of the proximal interphalangeal joints and flexion of the distal interphalangeal joints. Determine the variant of deformation and possible diagnosis

Correct answer: swan neck deformity, rheumatoid arthritis.

Task 39. Situational task

An X-ray examination of the patient revealed periarticular osteoporosis, narrowing of the joint space, and multiple erosions. Determine the radiographic stage of rheumatoid arthritis.

Correct answer: Stage III

Task 40. Situational task

A patient with a long history of gastric ulcer developed constant pain radiating to the back. Name a possible complication of gastric ulcer that manifests itself

similar

symptoms:

Correct answer: penetration of gastric ulcer

Task 41. Interview questions

Name the local complications of nonspecific ulcerative colitis

Correct answer: Local complications include massive intestinal bleeding, phlebitis of the intestinal wall with dilation and rupture of veins, toxic dilatation of the colon, degeneration into cancer

Task 42. Interview questions

Describe pathomorphological changes in Crohn's disease

Correct answer: inflammation affects the submucosal layer and can spread to all layers of the intestinal wall (transmural lesion)

Task 43. Interview questions: Name the main signs of nephrotic syndrome

Correct answer: proteinuria more than 3.5 g/l, hypoalbuminemia (blood albumin less than 30 g/l), edema syndrome, hypercoagulation, hyperlipidemia

Task 44. Interview questions

A patient with B12 deficiency anemia complains of paresthesia in the feet and gait instability. Describe the underlying pathological process that caused these changes.

Correct answer: The patient has funicular myelosis. Deficiency of adenosylcobalamin (vitamin B12 cofactor) leads to disruption of the synthesis of myelin in nerve fibers, accumulation of toxic methylmalonic and propionic acids, which have a direct damaging effect on neurons

Task 45. Interview questions

Name the characteristic ECG changes during myocardial infarction with ST segment elevation of the lateral wall of the left ventricle in the acute stage.

Correct answer: ST elevation, pathological Q wave in leads I, aVL, V5-V6

Task 46. Interview questions

Name the signs characteristic of a bleeding duodenal ulcer: Correct answer: coffee-ground-colored vomit, melena

Task 47. Interview questions

Name the mechanism for the development of edema in nephrotic syndrome.

Correct answer: protein-free edema due to decreased oncotic pressure.

Task 48. Interview questions

Name the most characteristic changes for rheumatoid arthritis in an immunological blood test.

Correct answer: detection of RF and ACCP in high titer

Task 49. Interview questions

Name a pro-inflammatory cytokine that is of primary importance in the pathogenesis of rheumatoid arthritis.

Correct answer: tumor necrosis factor alpha

Task 50. Name the joints whose damage is most typical for the onset of gout.

Correct answer: first metatarsophalangeal joints

Task 51. Situational task

Patient M., 70 years old, pensioner. He has been suffering from hypertension for 20 years (stage III, degree 3 hypertension). In 2011 (4 years ago) she suffered a large focal myocardial infarction. For 3 years – signs of chronic heart failure (CHF). Within a month, peripheral edema appears, the liver is not enlarged, physical activity is reduced to FC III.

Questions:

1. Formulate a diagnosis.
2. Create a non-drug treatment plan.
3. What drug therapy is most optimal?
4. What are the criteria for the effectiveness of treatment?

Correct answer: 1. Stage III hypertension, grade 3 hypertension. IHD. Post-infarction cardiosclerosis (2011). Risk 4 (very high). CHF stage IIA, FC III. 2. Lipid-correcting diet, with salt restriction. Moderate physical activity. 3. Treatment: ACE inhibitor perindopril (Prestarium A) 10 mg once a day in the morning; beta blocker bisoprolol (Concor) 5 mg once a day in the morning; calcium antagonist (amlodipine) 5 mg 1 time per day in the evening; antiplatelet agent aspirin (cardiomagnyl) 75 mg once a day; statin rosuvastatin (Crestor) 20 mg once a day. 4. Criteria for the effectiveness of treatment: achieving target blood pressure (less than 140/90 mm Hg), heart rate (55-60 per minute), total cholesterol (less than 4.0 mmol/l), LDL cholesterol (less than 1.8 mmol/l).

Task 52. Situational task

An 18-year-old girl complains of discomfort and dull pain in the heart area, swelling and pain in the knee joints, and an increase in body temperature to low-grade levels. 20 days ago I suffered from a purulent sore throat.

Objectively: The boundaries of relative dullness of the heart are increased to the left by 1.5 cm. Heart sounds are muffled, rhythmic, systolic murmur at the apex, heart rate 64 per minute. There is vesicular breathing in the lungs, no wheezing. The abdomen is soft and painless. The liver is not enlarged. There is no peripheral edema. Complete blood count: ESR – 34 mm/hour, leukocytes – $15.0 \times 10^9/l$, fibrinogen – 6.8 g/l, antistreptolysin "O" 1:625 units. ECG: sinus rhythm, heart rate 60 per minute, first degree atrioventricular block.

Questions:

1. What diagnosis is most likely?

Correct answer:

1. Acute rheumatic fever, carditis, polyarthritis.

Task 53. Situational task

A 47-year-old man came to the clinic with complaints of pain in the knee joints, pressing pain in the heart area, shortness of breath with slight physical exertion, rapid heartbeat, attacks of suffocation, and weakness. History of chronic tonsillitis.

Objectively: pale skin. There is swelling on the legs. The joints are not changed. Blood pressure 110/70 mm Hg. Art. Borders of the heart: right - 2 cm outward from the right edge of the sternum, upper - 2nd rib, left - 2 cm outward from the midclavicular line. Heart sounds are muffled, rhythmic, heart rate is 92 per minute, at the apex the 1st sound is increased, systolic and presystolic murmur, the emphasis of the 2nd tone is on the pulmonary artery. Pulse – 92 per minute. There is vesicular breathing in the lungs, no wheezing. The abdomen is soft, painful in the right hypochondrium. The liver is 4 cm below the edge of the costal arch.

Questions:

1. What diagnosis is most likely?

2. What additional research methods need to be carried out?

Correct answer:

1. Chronic rheumatic heart disease, combined mitral valve disease: mitral valve insufficiency and stenosis. Sinus tachycardia. CHF 2B, III FC. 2. Additional studies: general blood and urine tests; biochemical blood test, including determination of the level of antistreptococcal antibodies, CRP, fibrinogen, creatinine (GFR), natriuretic peptide, total protein and protein fractions; ECG, EchoCG, chest x-ray, knee x-ray, ultrasound of the abdominal organs.

Task 54. Situational task

Patient R., 24 years old, a nurse, was admitted to the clinic with complaints of stabbing pain in the heart area, rapid heartbeat, shortness of breath when walking, pain in all joints, fever in the evenings up to 37.3 C. She has been sick for about a month. For a week, he has been experiencing sore throat, pain in the heart area, shortness of breath when walking, and persistent low-grade fever.

Objectively: the condition is satisfactory, the skin is of normal color, the joints are not changed. The thyroid gland is not enlarged. The tonsils are enlarged, fused with the anterior arches, hyperemic, loosened, with serous-purulent contents in the crypts. There is a clear percussion sound above the lungs, vesicular breathing. Borders of the heart: right - along the right edge of the sternum, upper - along the third rib, left - along the midclavicular line. Heart sounds are muffled, rhythmic, heart rate is 92 per minute, at the apex the first sound is weakened, a gentle systolic murmur, occupying most of the systole. Pulse - 92 per minute, labile; Blood pressure - 110/80 mm Hg. Art. The abdomen is soft and painless. The liver is not enlarged. There is no peripheral edema.

ECG: sinus rhythm, heart rate 90 per minute, left ventricular hypertrophy.
Laboratory test results: CBC: red blood cells – $4.1 \times 10^{12}/l$; Hb – 121 g/l; c.p. - 0.9;

leukocytes - $5.6 \times 10^9/l$, ESR - 18 mm/hour. Total protein - 78 g/l; albumins - 44%; globulins - 56%. Diphenylamine test - 0.350; fibrinogen - 6.1 g/l, C - reactive protein ++.

Questions:

1. What preliminary diagnosis is most likely?

Correct answer: 1. Repeated rheumatic fever: carditis, arthralgia, mitral valve insufficiency. CHF stage I, FC II. Chronic tonsillitis, exacerbation.

Task 55. Situational task

A 37-year-old patient was brought from the street in a comatose state. Objectively: right-sided hemiparalysis. Acrocyanosis. The borders of the heart are shifted upward and to the right. The heart rhythm is abnormal, heart rate 86 per minute, pulse deficit 10, "clapping" sound at the apex I, accent of the II tone on the pulmonary artery, presystolic murmur at the apex. There is vesicular breathing in the lungs, no wheezing. The abdomen is soft and painless. The liver is at the edge of the costal arch. There is no peripheral edema. It was established that there was a history of acute rheumatic fever.

Questions:

1. What diagnosis can be assumed? What causes the severity of the condition? sick?

Correct answer:

1. Clinical and anamnestic data suggest that the patient has: chronic rheumatic heart disease, acquired heart disease: mitral valve stenosis, rhythm disturbance such as atrial fibrillation. The severity of the condition is due to the development of acute cerebrovascular accident, apparently due to thromboembolism of cerebral vessels against the background of atrial fibrillation.

Task 56. Situational task

Patient L., 28 years old, came for a medical examination. No complaints. History of acute rheumatic fever.

Objectively: The borders of the heart are shifted upward and to the right. Heart sounds are muffled, arrhythmic, heart rate is 80 per minute, the first sound is increased, the emphasis of the second tone is on the pulmonary artery, diastolic murmur at the apex, "quail" rhythm. Pulse 78 per minute, satisfactory filling and tension. There is vesicular breathing in the lungs, no wheezing. The abdomen is soft and painless. The liver is at the edge of the costal arch. There is no peripheral edema.

ECG: atrial fibrillation, heart rate 75 per minute. P-mitrale, right ventricular hypertrophy.

Questions:

1. What preliminary diagnosis is most likely?

Correct answer: 1. Chronic rheumatic heart disease. Acquired heart disease: mitral valve stenosis. Rhythm disturbance: constant atrial fibrillation, normosystolic form. CHF 0.

Task 57. Situational task

Patient M., 18 years old. Complaints of pain in the joints of the arms and legs, limitation of movements in them, high temperature, shortness of breath, heart pain, sweating. Two weeks ago, swelling appeared in the right knee, a week later in the right ankle joint, and the temperature increased to 38.5 °C. Two days later, the pain intensified, he could not move independently, shortness of breath and pain in the heart appeared. History of acute rheumatic fever.

Objectively: The condition is moderate, t 38.1 °C. The right ankle joint is swollen, hyperemic, painful on palpation, movement is limited due to

pain. Vesicular breathing in the lungs, RR 28/min. The boundaries of the heart are expanded. Heart sounds are muffled, arrhythmic, heart rate is 100 per minute. The first tone is enhanced at the apex, the accent of the second tone is on the pulmonary artery, at the apex there is a presystolic murmur and a blowing systolic murmur. The abdomen is soft and painless. The liver is not enlarged. There is no swelling.

ECG: sinus rhythm, heart rate 96 per minute, single extrasystoles, signs of hypertrophy of the left atrium and both ventricles. In the general blood test: leukemia - $9.8 \times 10^9/l$, ESR - 32 mm/hour. Biochemical blood test: total protein - 74 g/l; albumins - 42%; globulins - 58%. Diphenylamine test - 0.420; sialic acid - 0.360; C-reactive protein + ++.

Questions:

1. What preliminary diagnosis is most likely?

Correct answer:

1. Repeated rheumatic fever: carditis, polyarthrits, combined mitral heart disease: stenosis and insufficiency of the mitral valve. Ventricular extrasystole. CHF I, II FC.

Task 58. Situational task

Male, 47 years old. Complaints of pressing pain in the heart area, palpitations, shortness of breath with slight physical exertion, weakness. History of chronic tonsillitis.

Objectively: the skin is pale. Swelling up to the middle of the lower leg. The boundaries of relative dullness of the heart have been expanded. Heart sounds are muffled, rhythmic, at the apex the 1st sound is enhanced, systolic and presystolic murmur, the emphasis of the 2nd tone is on the pulmonary artery. Heart rate 92/min. Pulse - 92 per minute. In the lungs there is vesicular breathing, respiratory rate 20 per minute. The abdomen is soft, painful in the right hypochondrium. The liver is 4 cm below the edge of the costal arch.

Questions:

1. What diagnosis is most likely?

Correct answer:

1. Chronic rheumatic heart disease. Combined mitral valve disease: stenosis and mitral valve insufficiency. CHF IIB stage, III FC

Task 59. Situational task

Patient L., 31 years old. She was admitted with complaints of shortness of breath at the slightest physical exertion, suffocation at night, cough, and a feeling of irregularities in the heart. As a child, I often suffered from sore throats. At the age of 12, my knee joints became swollen. At the age of 17, tonsillectomy. From the age of 26, after giving birth, fatigue and weakness appeared. Later, she developed a cough and has had hemoptysis three times over the past year.

Objectively: the face has a "ruddy-bluish" coloration. The pulse is arrhythmic. Emergency rate - 86 beats per minute, heart rate - 116 beats per minute. Above the apex there is a flapping sound, protodiastolic murmur. Above the pulmonary artery there is an accent and splitting of tone II. In the lower parts of the lungs there is dullness of percussion sound and fine rales. The abdomen is soft and painless. The liver is at the edge of the costal arch. The shins are pasty.

Blood tests show no indication of an inflammatory process.

Questions:

1. Your preliminary diagnosis.

2. What instrumental studies need to be carried out? Correct

answer:

1. Chronic rheumatic heart disease. Acquired heart disease: mitral valve stenosis. Rhythm disturbance: constant atrial fibrillation, tachysystolic form. CHF IIA, IIIFC.

2. ECG, EchoCG, chest x-ray.

Task 60. Situational task

Patient S., 43 years old, was admitted with complaints of dizziness, shortness of breath and pain in the heart area that occurred during physical activity, relieved by nitroglycerin. At the age of 22, she suffered from severe tonsillitis. The condition worsened within three months when the above complaints appeared.

Objectively: the condition is satisfactory. The skin is pale. There is no swelling. NPV - 16 per minute. On percussion there is a clear pulmonary sound. The lung boundaries are within normal limits. On auscultation, there is vesicular breathing in the lungs, no wheezing. The apical impulse is diffuse, dome-shaped, palpated 2.5 cm outward from the midclavicular line. The boundaries of the heart are expanded. The heart sounds are muffled, the second sound is weakened in the second intercostal space to the right of the sternum, there is also a systolic murmur conducted to the carotid arteries. The heart rhythm is correct, heart rate is 60 beats/min. Pulse is weak, rhythmic, 60 beats/min. Blood pressure 110/80 mm Hg. Art. The abdomen is soft and painless. The liver and spleen are not palpable.

Additional research methods:

Complete blood count - indicators are normal. CRP is negative, antihyaluronidase titer is 190 IU (normal is up to 300 IU), antistreptolysin-O titer is 170 IU (normal is up to 250 IU).

Questions:

1. Formulate a diagnosis.
2. What additional laboratory and instrumental studies need to be performed to clarify the diagnosis?

Correct answer:

1. Chronic rheumatic heart disease. Acquired heart defect: stenosis

the mouth of the aorta. CHF stage I, FC II.

2. EchoCG, ECG, chest x-ray, determine the level of indicators lipid profile.

Task 61. Situational task

Patient P., 44 years old. Complains of weakness, shortness of breath with slight physical exertion, swelling of the legs. Considers himself sick for 5 years when shortness of breath appeared. Over the past year, shortness of breath has increased, and swelling of the legs has appeared. As a child, I often suffered from sore throats, and at the age of 25 I had an episode of joint pain after a sore throat. I didn't go to the doctors.

Objectively: the condition is of moderate severity. Asthenic physique. The skin is pale. Increased pulsation of the carotid arteries is detected. Swelling of the feet and legs. NPV - 25 per minute. The lung boundaries are within normal limits. Auscultation over the lungs reveals harsh breathing, no wheezing. The chest is without deformation. The apical impulse is diffuse, palpated in the sixth intercostal space along the anterior axillary line. The boundaries of the heart are expanded. On auscultation - weakening of 1 tone at the apex, emphasis of 2 tones in the second intercostal space to the left of the sternum. The heart rhythm is correct. Heart rate 96/min. In the second intercostal space to the right of the sternum and at Botkin's point, a soft, blowing, protodiastolic murmur is heard. Pulse - 96 per minute. Blood pressure 150/40 mm Hg. Art. The abdomen is painless. Dimensions of the liver according to Kurlov: 14x12x11 cm. The lower edge of the liver protrudes from the right hypochondrium by 3-4 cm.

Additional research methods:

General blood test is normal. CRP is negative, antihyaluronidase titer is 190 IU (normal is up to 300 IU), antistreptolysin-O titer is 170 IU (normal is up to 250 IU). X-ray of the chest organs: the shadow of the heart with an emphasized "waist", an enlarged left ventricle, a rounded apex, reminiscent of a "sitting duck or shoe".

Questions:

1. Formulate a diagnosis.
2. What additional studies are needed to confirm the diagnosis? Correct answer:

1. Chronic rheumatic heart disease. Aortic valve insufficiency. CHF IIB, FC III.

2. EchoCG, biochemical blood parameters, ECG, ultrasound of the abdominal organs. Test 6 minute walk.

Task 62. Situational task

A 35-year-old patient complains of shortness of breath when walking, heart pain during physical activity, and dizziness. History of frequent sore throats.

The condition is satisfactory. The skin is pale. Vesicular breathing in the lungs. The heart area is not changed. Pulsation is visible in the jugular fossa. The apical impulse is in the sixth intercostal space, high, resistant. Systolic trembling of the chest wall along the right edge of the sternum in the second intercostal space is carried out to the vessels of the neck. Borders of the heart: right - at the right edge of the sternum, left - 2 cm outward from the midclavicular line, upper - third intercostal space. The vascular bundle extends beyond the right edge of the sternum by 2 cm. Heart sounds are rhythmic, heart rate 60 per minute, 1 tone is dull, 2 tone is not heard on the aorta, over the entire area of the heart there is a rough, loud, scraping systolic murmur with maximum amplification during second intercostal space on the right, carried out on the carotid arteries. Pulse - 60 per minute, rhythmic. Blood pressure - 110/80 mmHg. In the lungs there is vesicular breathing, RR 22/min. The abdomen is painless. The liver is at the edge of the costal arch. Pastiness of the legs.

Questions:

1. Formulate a diagnosis.
2. What additional studies are needed to make a diagnosis? Correct answer:

1. Chronic rheumatic heart disease. Aortic stenosis. CHF IIA, III FC.

2. EchoCG, ECG, chest x-ray, biochemical blood parameters.

Task 63. Situational task

Patient Sh., 48 years old. At the age of 26, the examination suggested the presence of rheumatic mitral disease. Over the past 3 years, he has noted weakness, dizziness, and occasional fainting.

On examination, the skin is pale. The borders of the heart are expanded to the left. Heart sounds are muffled, rhythmic, heart rate 56 per minute, rough systolic murmur with a maximum at Botkin's point. The second tone above the aorta is preserved. Blood pressure 120/80 mm Hg. Art. Vesicular breathing in the lungs, RR 18/min. The abdomen is soft and painless. The liver is at the edge of the costal arch. There is no swelling.

ECG: blockade of the anterior branch of the left bundle branch. EchoCG: IVS thickness - 2.7 cm; the posterior wall of the left ventricle is 1.7 cm, the movement of the mitral valve in diastole is normal, in systole the movement of the anterior leaflet towards the IVS is detected. Chest X-ray: enlargement of the border of the heart to the left. General blood and urine tests are unremarkable.

Questions:

1. Which diagnosis is most likely and why?

Correct answer:

1. Hypertrophic cardiomyopathy, obstructive form, subaortic stenosis. CHF stage I, FC II.

Task 64. Situational task

Patient R., 38 years old, African. Considers himself sick for a year when shortness of breath appears when walking. Over the past months, shortness of breath has increased, and swelling has appeared in the legs and feet. He was admitted to the hospital due to the development of severe heart failure.

X-ray of the chest organs: moderate enlargement of the borders of the heart, signs of pulmonary congestion. ECG: sinus tachycardia and ventricular extrasystole, blockade of the anterior branch of the left leg and right bundle branch. EchoCG: dilatation of the cavities and myocardial hypertrophy were not detected, the movement of the valve leaflets is normal. Severe hypokinesia of the posterior wall of the left ventricle and interventricular septum. In the CBC - eosinophilia up to 15%.

Despite the treatment, the patient died 2 weeks later.

At autopsy, the heart weight was 400 g; left ventricular wall thickness 1.2 cm; right ventricle - 0.4 cm. The endocardium of the left ventricle is sclerotic to a depth of 3 mm. The valves are intact. Sclerosis, thinning of the trabecular and papillary muscles of the left ventricle.

Questions:

1. What disease led to the death of the patient?

Correct answer:

1. Restrictive cardiomyopathy, against which rapid progression heart failure resulted in death

Task 65. Situational task

Patient K., 19 years old, was admitted with complaints of shortness of breath with slight physical exertion and in a lying position, palpitations, pasty feet and legs, weakness, low-grade fever. 3 weeks ago I suffered from ARVI. The first 4 days the temperature rose to 38.5 C, and then - low-grade fever until now. About 10 days ago I woke up at night from suffocation and had to spend the night sitting. Subsequently, shortness of breath increased, pastyness of the feet and legs appeared, and therefore she was hospitalized.

Objectively: pale skin. The borders of the heart are expanded to the left to the midclavicular line. Heart sounds are rhythmic, muffled, heart rate is 100 per minute, at the apex the 1st sound is weakened, a short systolic murmur without irradiation, the 3rd tone is heard. There are fine bubbling rales in the lower parts of the lungs. The liver protrudes from under the costal edge by 2 cm, the edge is smooth and painful. The shins are pasty.

ECG: sinus tachycardia, heart rate 94 per minute, EOS is not rejected, atrioventricular block 1st degree, diffuse changes in the myocardium.

Chest x-ray shows an increase in the borders of the heart to the left, signs of congestion in the lower sections.

In UAC: Nv-130 g/l, leuk- $10.4 \times 10^9/l$, ESR-25 mm/h, CRP /+++/, sialic acid-0.360. EchoCG: increase in the cavity of the left ventricle up to 6 cm in diastole, 5 cm in systole. The right ventricle is 1.5 cm. The thickness of the posterior wall is 10 mm, the interventricular septum is 8 mm. The movement of the mitral valve leaflets is normal. The left atrium is 3 cm, the aorta is 2.5 cm, the movement of the aortic valve is normal.

Questions:

1. Formulate a diagnosis.

Correct answer:

1. Acute diffuse myocarditis, moderate form, CHF IIB, FC III.

Task 66. Situational task

Patient S., 48 years old. Complaints of shortness of breath and attacks of chest pain during physical activity. These complaints appeared 6 months ago. The patient is physically active. Heredity is not burdened. There are no concomitant diseases.

Physical examination revealed the following changes: heart rate 94 per minute, systolic murmur at the apex.

EchoCG: pronounced asymmetric thickening of the walls of the left ventricle, IVS thickness - 2.9 cm; posterior wall of the left ventricle - 1.9 cm, decrease in the cavity of the left ventricle. LVEF 52%.

Questions:

1. What disease should you think about?
2. What additional research should be done? Correct answer:

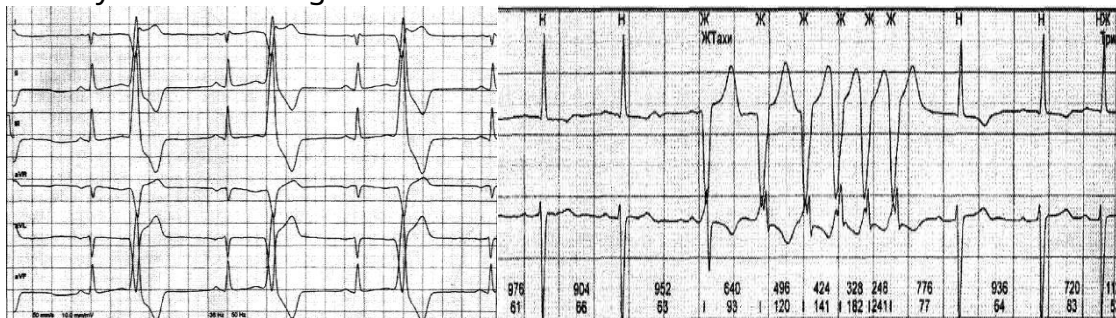
1. The presence of systolic murmur and EchoCG data suggest that the patient has hypertrophic cardiomyopathy with obstruction. Apparently, angina is one of the manifestations of the disease.

2. Daily ECG monitoring, coronary angiography, radiography of organs chest, lipid profile indicators.

Task 67. Situational task

Patient F., 41 years old. Complaints of darkening of the eyes, dizziness, a feeling of interruption in the functioning of the heart.

The patient underwent 48-hour ECG monitoring. Fragment of daily ECG recording:



Questions.

1. What rhythm disorder does the patient have?

Correct answer:

1. Ventricular bigeminy with runs of ventricular tachycardia.

Task 68. Situational task

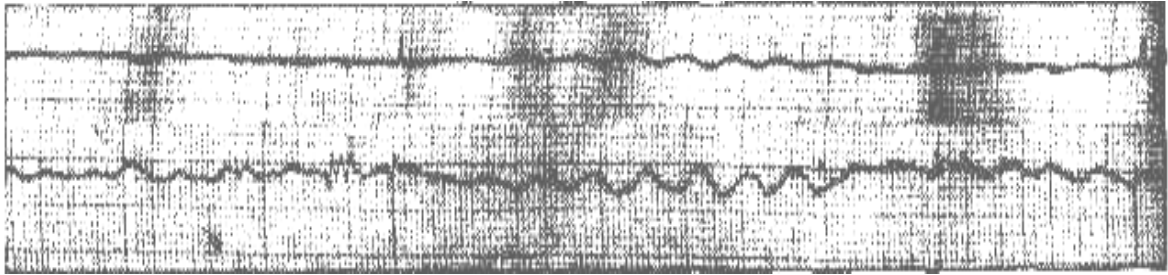
Patient V., 75 years old, came to the clinic with complaints of severe shortness of breath at rest, swelling of the lower extremities and anterior abdominal wall, an increase in the size of the abdomen, and weakness.

At the age of 67 years, he suffered a myocardial infarction with the formation of a chronic left ventricular aneurysm. Over the following years, shortness of breath began to increase, edema of the lower extremities appeared, and over the last three years - ascites.

Upon examination, the condition is extremely serious. Orthopnea position. Acrocyanosis. On percussion of the lungs - dullness on the right below the IV rib, on the left below the angle of the scapula. On auscultation of the lungs there are moist rales. NPV - 30 per minute. Heart sounds are arrhythmic. Heart rate - 138 beats/min, pulse deficit - 10 beats/min. Blood pressure - 90/60 mmHg. The boundaries of the heart are significantly expanded. Edema of the lower extremities, anterior abdominal wall, anasarca.

Upon examination, the patient's condition sharply worsened, the patient does not respond to stimuli, breathing is noisy, blood pressure is 40/0 mmHg, the pulse is thready. The ongoing resuscitation is ineffective, blood pressure and pulse are not determined, breathing is not carried out.

ECG:



Questions.

1. What rhythm disturbance is shown on the ECG?
2. What condition did the patient have?
3. Describe the resuscitation measures that need to be carried out.

Correct answer:

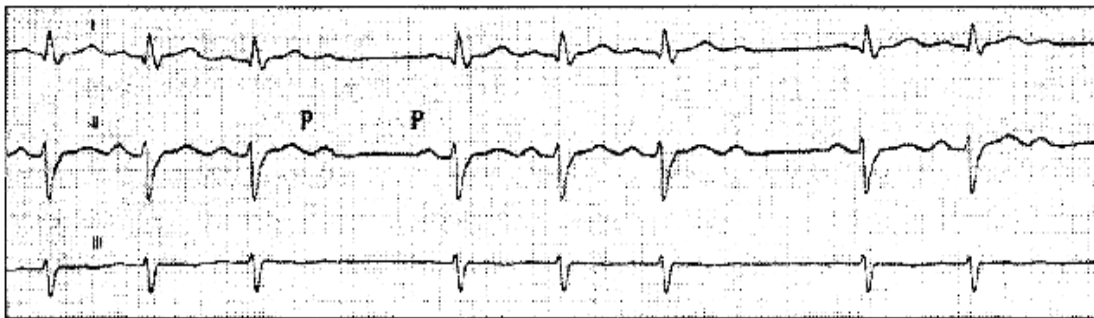
1. Ventricular fibrillation alternating with asystole.
2. State of clinical death.
3. Punch to the sternum; indirect cardiac massage and artificial ventilation lungs before defibrillation; defibrillation with a shock of 200 J; installation of IV access; adrenaline 0.5-1 mg IV bolus; infusion therapy

Task 69. Situational task

Patient K., 19 years old. Complaints of weakness, interruptions in heart function, stabbing pain in the heart area that arises and goes away spontaneously, shortness of breath with moderate physical activity — going up the stairs to the first floor.

On examination: the patient has an asthenic build. The skin is pale, joints are hypermobile. In the lungs, breathing is vesicular, wheezing is not heard. NPV – 16 per minute. On auscultation of the heart: muffled, arrhythmic tones. Heart rate – 52 beats/min. Blood pressure – 110/70 mmHg. The abdomen is soft and painless.

ECG:



Questions:

1. What rhythm disturbance was detected in the patient?
2. Describe the ECG criteria for this cardiac arrhythmia.

Correct answer:

1. Second degree AV block, Mobitz type II.
2. ECG signs of second degree AV block, Mobitz type II: loss of the QRS complex with normal or steadily increased duration of the P-R(Q) interval in the ratio 2:1, 3:1, 4:1, etc.

Task 70. Situational task

A 62-year-old patient complained of shortness of breath, attacks of suffocation at night, swelling of the legs, periodic pain in the heart area, of a pressing nature, not associated with physical activity.

Three years ago he suffered a transmural myocardial infarction. After being discharged from the hospital, he began to notice shortness of breath when walking and attacks of suffocation at night. Appeared

swelling of the legs, pain in the right hypochondrium. I did not take recommended medications regularly.

On examination: the condition is moderate. Lip cyanosis, acrocyanosis. Swelling of the legs and feet. The pulse is rhythmic, 96 per minute. Blood pressure - 105/60 mmHg. There is harsh breathing in the lungs, fine moist rales in the lower parts of the lungs. The borders of the heart are expanded to the left. Heart sounds are dull, rhythmic, accent of the second tone over the aorta, heart rate 96 per minute. The abdomen is soft, painful in the right hypochondrium. The liver extends 4 cm from under the edge of the costal arch, is dense and painful. ECG - normogram. Voltage reduced. Deep Q wave in standard lead III. The result of the 6-minute walk test is 160 m.

Questions:

1. Formulate a diagnosis.

Correct answer:

1. IHD. Post-infarction cardiosclerosis (transmural myocardial infarction three years ago). CHF IIB stage, III FC.

Task 71. Situational task

Patient M.I., 70 years old. She was admitted with complaints of shortness of breath at rest, orthopnea, nocturnal attacks of cardiac asthma, rapid heartbeat, swelling of the legs and feet.

Suffering from hypertension for 30 years, blood pressure increased to 170/100 mm Hg. Art. For 12 years - IHD, symptoms of CHF for 2 years. 8 months ago she suffered a large-focal myocardial infarction of the posterior wall of the left ventricle. PCI was performed and a drug-eluting stent was installed in the right coronary artery. Deterioration of the condition within a month. Due to the progression of CHF, she was referred to the cardiology department.

Objectively: The condition is moderate. Hypersthenic physique. BMI - 34.5 kg/m². Blood pressure (lev) = 165/95 mm Hg. Heart sounds are rhythmic, systolic murmur at the projection points of the aortic and mitral valves, PS=HR=96 per minute. In the lungs there is crepitus in the lower sections on both sides. RR 20/min. The abdomen is soft, painful in the right hypochondrium. The liver is 2 cm below the edge of the costal arch. Swelling of the legs and feet. Results of laboratory and instrumental examination:

NT-proBNP - 600 pg/ml. TC - 6.1 mmol/l/

Conclusion EchoCG: dilatation of the left ventricle, tendency to dilatation of the left atrium. Akinesia of the posterior wall, hypokinesis of the IVS. Left ventricular systolic function is reduced, EF = 38%. Left ventricular hypertrophy. Mitral regurgitation grade 1-2. LVDD type 1. The aorta is compacted.

ECG: Sinus rhythm 86 per minute. Scar changes on the posterior wall of the left ventricle.

Questions:

1. Formulate a diagnosis.

Correct answer:

1. Hypertension stage III. Degree of hypertension 2. Risk 4 (very high). IHD. Post-infarction cardiosclerosis (MI 8 months ago, PCI was performed - a stent was installed in the RCA). CHF IIB stage, III FC. Concomitant diseases: chronic cholecystitis, chronic pancreatitis, alimentary-constitutional obesity, stage I.

Task 72. Situational task

Patient I.M., 78 years old, retired. Suffering from coronary artery disease for 15 years. In 2003, he suffered a transmural myocardial infarction of the posterior wall of the left ventricle. PCI was performed (a stent was installed in the right coronary artery (RCA)). Repeated PCI for RCA restenosis in 2005. For 10-12 years - CHF.

Taking into account the results of a physical examination and laboratory and instrumental studies, a diagnosis was made: IHD. Post-infarction cardiosclerosis (MI in 2003),

PCI (stent in RCA in 2003 and 2005). Complete block of the left bundle branch (QRS 140 ms). Ascites. Cardiac fibrosis of the liver. CHNIIIB stage, IV FC. The patient was hospitalized in the cardiology department. The reason for hospitalization was decompensation of CHF, refractory edema syndrome.

Question:

1. What treatment should be prescribed upon admission (list the groups of drugs)?

Correct answer:

1. Upon admission: diuretics, cardiotonic drugs; vasodilators.

Task 73. Situational task

Patient N.M., 66 years old. Complaints of shortness of breath at rest, fatigue, orthopnea, rapid heartbeat, swelling of the legs and feet.

He has suffered from hypertension for about 20 years. For 10-11 years - CHF (according to the outpatient card). Progression of CHF - over the last 3 months. On the recommendation of the local doctor, she took hypothiazide 25 mg in the morning and enalapril 10 mg/day, but the condition did not improve.

Features of the objective examination: blood pressure = 195/110 mm Hg. Heart sounds are muffled, rhythmic, emphasis of the second tone on the aorta. Heart rate=116/min. Pulse 116 beats per minute, satisfactory filling. In the lungs there are fine bubbling moist rales in the lower sections on both sides. The abdomen is soft and painless. The liver is at the edge of the costal arch. Swelling of the legs and feet.

Features of laboratory and instrumental studies: TC – 7.1 mmol/l, NTproBNP – 450 pg/ml.

ECG: Sinus rhythm, 96 per minute. Single ventricular extrasystoles. Left ventricular hypertrophy.

Questions:

1. Formulate a diagnosis.

2. What indicator confirms the presence of CHF?

Correct answer:

1. Stage III hypertension. Degree of hypertension 3. Risk 4 (very high). CHF IIB stage, III FC.

2. NT-proBNP – 450 pg/ml (normally less than 220 pg/ml).

Task 74. Situational task

A 67-year-old man who had never previously suffered from hypertension began to experience persistent headaches over the past 4 months, nosebleeds were noted several times, inspiratory shortness of breath appeared, and his vision began to deteriorate progressively, which was not corrected with glasses. Blood pressure up to 180/120 mmHg, which increased every month. Recently, blood pressure remained stably at very high values - 270/145 mmHg, despite taking three antihypertensive drugs in high doses: amlodipine 10 mg/day, atenolol 200 mg/day, hypothiazide 25 mg/day.

During the examination: CBC - without features, protein was found in the CAM - 1.25 g/l, ECG - signs of left ventricular hypertrophy, EchoCG: severe left ventricular hypertrophy and dilatation of the left atrium. Creatinine level – 101 µmol/l. Ultrasound of the kidneys: the left kidney is 3 times smaller than normal, the right one is enlarged. Doppler ultrasound of the renal arteries showed locally accelerated blood flow at the orifice of the left renal artery from the aorta, and the volumetric characteristics of blood flow in the left renal artery system were sharply reduced. On angiopulmonoscintigraphy, the left kidney is small, poorly visualized, without a radioactive core, parenchymal blood flow in it is poorly visible. The ophthalmologist discovered grade 3 retinopathy in both eyes according to the Salus-Gun classification. A pharmacological test was carried out with 50 mg of captopril. After 2 hours, SBP decreased by 29 mm Hg, DBP decreased by 18 mm Hg.

Questions:

1. Formulate a preliminary diagnosis. What are
2. the management tactics?

Correct answer:

1. Vasorenal hypertension, 3 degrees. Secondary wrinkled left kidney. CRF in the latent stage. Risk 4 (very high)
2. Removal of the wrinkled left kidney. Before surgery, blood pressure should be reduced to a level no higher than 160/90 mmHg. Renin blockers, ACE inhibitors, angiotensin II receptor blockers, in combination with calcium antagonists and torsemide.

Task 75. Situational task

A young man, 19 years old, complains of constant headaches in the occipital region, shortness of breath during physical activity, constantly high blood pressure (220/110 mmHg), pain and cramps in the calf muscles when walking.

During an objective examination, attention was drawn to the disproportionality of the physique: the upper half of the body, both arms and face were hyperemic, with well-developed muscles; the lower part of the body is hypotrophic, the color of the skin is pale, the legs are cold to the touch, pulsation in the arteries of the dorsum of the foot and in the popliteal fossae on both sides is weakly palpable due to the low blood supply and the strength of the pulse waves. Percussion borders of the heart: the right one is 4 cm from the right edge of the sternum. Auscultation: heart sounds of increased sonority, heart rate 90 beats/min, rough accent 2 tones at the first point of auscultation; A constant, rough pansystolic murmur is heard in the left axillary fossa and under the left clavicle. ECG: sinus rhythm, regular, signs of left ventricular hypertrophy.

Questions:

1. Make a preliminary diagnosis.
2. Determine your tactics.

Correct answer:

1. Symptomatic arterial hypertension stage III, degree of hypertension 3.
2. Surgical treatment - plastic surgery of the aorta at the site of its narrowing. Before surgery, antihypertensive drugs from the group of calcium antagonists and renin system blockers should be used to lower blood pressure.

PC-3 Closed type tasks: *TOTAL25 tasks.*

Exercise 1.

Choose one correct answer.

Drug therapy for a patient with ulcerative colitis includes everything except: 1. 5-aminosalicylic acid preparations;

2. immunosuppressants (azathioprine, methotrexate);
3. pulse therapy with cytostatics (cyclophosphamide 1000 mg IV);
4. genetically engineered biological products.

Correct answer: 3. pulse therapy with cytostatics (cyclophosphamide 1000 mg IV)

Task 2.

Choose one correct answer.

Triggering factors for inflammatory bowel diseases include all except: 1. smoking;
2. nervous stress;
3. diet low in dietary fiber;
4. intestinal infections, especially C.difficile infection;
5. adenoviral infection.
Correct answer: 5. adenoviral infection

Task 3.

Choose one correct answer.

Indications for surgical treatment of ulcerative colitis include everything except: 1. profuse bleeding;
2. toxic dilatation of the colon;
3. ineffectiveness of conservative treatment;
4. Clostridium difficile-associated infection.
Correct answer: 4. Clostridium difficile-associated infection

Task 4.

Choose one correct answer.

The purposes of using steroid hormones for ulcerative colitis are all of the following except:
1. reduction in exacerbation activity;
2. achieving remission;
3. maintaining remission for a long time;
4. treatment of moderate or severe relapse. Correct answer: 3. maintaining remission for a long time

Task 5.

Choose one correct answer.

What area of the abdomen is most likely to cause pain in Crohn's disease?
1. epigastric region;
2. right hypochondrium;
3. lower left quadrant;
4. lower right quadrant.
Correct answer: 4. lower right quadrant

Task 6.

Choose one correct answer.

X-ray signs of Crohn's disease are all of the following, except: 1. symptom of a "rigid tube";
2. "cord" symptom;
3. Kloiber bowls;
4. "water pipe" symptom;
5. "cobblestone pavement" symptom.
Correct answer: 3. Kloiber bowls

Task 7.

Choose one correct answer.

5-aminosalicylic acid preparations include all except: 1. salazopyridazine;
2. salofalk;
3. sulfasalosin;

4. ursofalk.

Correct answer: 4. ursofalk

Task 8.

Choose one correct answer.

Extraintestinal manifestations of inflammatory bowel disease include all except:

1. erythema nodosum;
2. aphthous stomatitis;
3. polymyositis;
4. spondyloarthritis.

Correct answer: 3. polymyositis

Task 9.

Choose two correct answers.

Characteristic signs of aplastic anemia are: 1.

hypochromia of erythrocytes;

2. aniso-poikilocytosis;

3. macrocytosis of erythrocytes;

4. pancytopenia;

5. increased iron levels in the blood serum;

6. sharp depletion of hematopoietic sprouts in bone marrow punctate.

Correct answer: 4, 6

Task 10.

Choose one correct answer.

What factor is necessary for the absorption of vitamin B12 1.

hydrochloric acid;

2. gastrin;

3. gastromucoprotein;

4. pepsin;

5. folic acid.

Correct answer: 3. gastromucoprotein

Task 11.

Choose one correct answer.

What causes complaints of paresthesia in the feet and gait instability in B12-deficiency anemia:

1. hypokalemia;

2. funicular myelosis;

3. ischemic encephalopathy;

4. angiopathy of the arteries of the lower

extremities. Correct answer: 2. funicular myelosis

Task 12.

Choose one correct answer.

Which sign does not correspond to the diagnosis of iron deficiency

anemia: 1. color index 0.7;

2. color index 1.3;

3. microcytosis;

4. anisochromia of erythrocytes. Correct

answer: 2. color index 1.3

Task 13.

Choose one correct answer.

Iron deficiency anemia is characterized by all indicators, except: 1.

increased total iron-binding capacity of blood serum;

2. low level of ferritin in the blood;

3. hypochromia and microcytosis of erythrocytes;

4. anisochromia of erythrocytes;

5. bone marrow megaloblastosis.

Correct answer: 5. bone marrow megaloblastosis

Task 14.

Choose one correct answer.

At what stage of acute leukemia is cytostatic therapy used in the induction phase: 1.

Remission;

2. Expanded stage.

Correct answer: 2. Expanded stage

Task 15.

Choose one correct answer.

If the patient has anemia, thrombocytopenia, blastosis in the peripheral blood, then you should think about:

1. Erythremia;

2. Aplastic anemia;

3. Acute leukemia;

4. B-12 deficiency anemia. Correct

answer: 3. Acute leukemia

Task 16.

Choose one correct answer.

The patient has enlarged lymph nodes, enlarged spleen, and lymphocytic leukocytosis.

These symptoms are typical for:

1. Lymphogranulomatosis;

2. Acute lymphoblastic leukemia;

3. Chronic lymphocytic leukemia;

4. Chronic myeloid leukemia.

Correct answer: 3. Chronic lymphocytic leukemia

Task 17.

Choose one correct answer.

What sign is not typical for deforming osteoarthritis? 1.

prolonged morning stiffness;

2. starting pain;

3. mechanical nature of the pain syndrome;

4. crunching in the joint.

Correct answer: 1. prolonged morning stiffness

Task 18.

Choose three correct answers.

What radiographic findings are typical for osteoarthritis? 1.

erosion of articular surfaces;

2. osteophytes;

3. narrowing of the joint space;
4. subchondral osteosclerosis;
5. purulent bursitis.

Correct answer: 2, 3, 4

Task 19.

Choose one correct answer.

Bouchard's nodes are a manifestation of osteoarthritis of which joints?

1. proximal interphalangeal joints of the hand;
2. distal interphalangeal joints of the hand;
3. knee joints;
4. first metatarsophalangeal joint.

Correct answer: 1. proximal interphalangeal joints of the hand

Task 20.

Choose one correct answer.

An increase in transaminase and alkaline phosphatase levels more than three times higher than normal is an indication for discontinuation of:

1. methotrexate;
2. sulfasalazine;
3. NSAIDs;
4. leflunamide;
5. any of the drugs listed above.

Correct answer: 5. any of the drugs listed above

Task 21.

Choose one correct answer.

The most informative method in diagnosing peptic ulcer disease: 1.

1. fibrogastroduodenoscopy;
2. ultrasound examination of the stomach;
3. R-scopy of the gastrointestinal tract;
4. determination of amylase and gastrin in the blood.

Correct answer: 1. fibrogastroduodenoscopy

Task 22.

Choose one correct answer.

Complication of gastric ulcer, manifested by belching "rotten egg", vomiting of food taken the day before:

1. penetration;
2. pyloric stenosis;
3. bleeding;
4. perforation.

Correct answer: 2. pyloric stenosis

Task 23.

Choose one correct answer.

The most reliable method for excluding malignancy of a gastric ulcer:

1. X-ray
2. endoscopic
3. feces for occult blood

4. endoscopy with biopsy

Correct answer: 4. endoscopy with biopsy

Task 24.

Choose one correct answer.

Pathological conditions characteristic of decompensated pyloric stenosis include all except:

1. hypochloremia

2. iron deficiency anemia

3. blood thickening

4. hypokalemia

Correct answer: 2. Iron-deficiency anemia

Task 25.

Choose one correct answer.

Signs characteristic of a bleeding duodenal ulcer: 1. vomit the color of "coffee grounds"

2. increased abdominal pain

3. increase in hemoglobin

4. melena

5. true 1) and 3)

Correct answer: 5. 1) and 3) are correct

Open type tasks: 75 tasks in total

Task 1. Situational task.

The patient, 53 years old, is in the surgical department after cholecystectomy; on the 4th day there were complaints of cough with the release of a small amount of mucopurulent sputum, an increase in body temperature to 38.6°C, and general weakness. Auscultation of the lungs on the right below the angle of the scapula against the background of hard breathing reveals a significant amount of sonorous fine-bubble rales.

Question: make a preliminary diagnosis.

Correct answer: hospital-acquired right-sided bronchopneumonia;

Task 2. Situational task

The patient, 29 years old, complains of a cough with the release of mucopurulent sputum, pain in the right side when breathing, an increase in body temperature to 39.6, chills, and shortness of breath. He became acutely ill more than a day ago after hypothermia. Objectively: the general condition is of moderate severity. The skin is of normal color. The chest is of regular shape, symmetrical, the right half is somewhat behind in the act of breathing. During percussion from the back from the middle of the scapula downward, dullness of the percussion tone is noted. Auscultation also reveals bronchial breathing, increased bronchophony, and crepitus. Heart rate = 100 per minute. BP=105/70 mmHg. Art. Body temperature=39.0 °

Question: make a preliminary diagnosis and name the most likely causative agent of the disease.

Correct answer: community-acquired right-sided lower lobe pneumonia, moderate severity; pneumococcus

Task 3. Situational task.

The patient, 17 years old, an 11th grade student, was admitted to the clinic with complaints of cough with the release of "rusty" brownish sputum, pain in the left side, aggravated by deep breathing and coughing, shortness of breath with moderate physical activity, increased body temperature to 39.8° C, general weakness, palpitations. She became acutely ill 4 days ago. Taking ciprofloxacin orally did not lead to an improvement in her condition.

Objectively: The general condition is of moderate severity. RR = 26 per 1 min., HR = 110 beats. in 1 min., blood pressure = 110/80 mmHg. The chest is symmetrical, the left half of it is slightly behind in the act of breathing. On the left below the angle of the scapula there is dullness of pulmonary sound, weakened bronchial breathing, crepitus, vocal tremor and bronchophony are increased. X-ray examination of the chest: on the left there is a heterogeneous, medium-intensity darkening of the lower lobe of the lung. The diaphragm on the left is somewhat limited in mobility, on the right there is no pathology. The mediastinal organs are normal.

General blood test: er. - $4.0 \times 10^{12}/l.$; Hb - 120 g/l; c. p. - 0.9; leuk.- $15.9 \times 10^9/l$; e-1%, p-16%, s-56%, l-14%, m-11%; ESR-36 mm/h.

Questions: make a preliminary diagnosis, name the most likely causative agent of the disease

Correct answer: community-acquired left-sided lower lobe pneumonia, moderate severity; pneumococcus

Task 4. Situational task.

In a patient with a traumatic brain injury who was in the intensive care unit, on the 6th day after the start of mechanical ventilation, the body temperature increased to 39.5 C, purulent sputum appeared, which was released through the tracheostomy tube.

Objectively: Temperature - 39.6 C. The general condition is serious. Heart sounds are muffled, rhythmic, heart rate = 110 per minute, blood pressure = 80/50 mmHg, SatO₂=91%.

On a chest x-ray, there is a shadow with unclear contours occupying the lower lobe of the right lung. The right root is expanded and unstructured.

In the general blood test: Hb-95 g/l, leukemia. - $20.0 \times 10^9/l$, p - 14%.

Questions: formulate a preliminary diagnosis, name the drugs of choice (group of antibiotics) for empirical etiotropic therapy in this case

Correct answer: hospital-acquired, late ventilator-associated pneumonia, severe; carbapenems.

Task 5. Situational task.

A patient with a traumatic brain injury who is in the intensive care unit has an increased body temperature to 39.5 C, and purulent sputum appears, which is released through a tracheostomy tube. From the anamnesis it was found that the increase in body temperature was preceded by aspiration of gastric contents.

Objectively: Temperature - 39.8 C. The general condition is serious. Heart sounds are muffled, rhythmic, heart rate = 115 per minute, blood pressure = 80/50 mmHg, SatO₂=91%.

On a chest x-ray, a darkening with unclear contours occupies the lower lobe of the right lung; small areas of destruction of the lung tissue are identified. The right root is expanded and unstructured.

In the general blood test: Hb-95 g/l, leukemia - $20.0 \times 10^9/l$, p - 14%.

Question: formulate a preliminary diagnosis. Correct answer: hospital-acquired, aspiration, right-sided lower lobe abscess pneumonia associated

Task 6. Situational task.

Patient D., 40 years old. Feels almost healthy. However, he is concerned about the risk of developing a myocardial infarction, since he has a family history: his father, mother and older brother died of a myocardial infarction before the age of 42. Among other risk factors, he has a 23-year smoking history, BMI = 32 kg/m², abdominal type of obesity.

Lipidogram results: total cholesterol - 8.8 mmol/l, HDL cholesterol - 0.88 mmol/l, LDL cholesterol - 4.1 mmol/l, triglycerides - 1.2 mmol/l, AI - 5.1.

Questions: Name the type of atherogenic dyslipidemia according to the Fredrickson classification in the patient; Provide recommendations for lifestyle and nutrition correction.

Correct answer:

2A type. Quitting smoking, losing weight, following a lipid-lowering diet, increasing physical activity.

Task 7. Situational task.

Patient K., 66 years old, complains of burning pain behind the sternum, radiating to the left shoulder, forcing him to stop and take nitroglycerin under the tongue, which relieves the pain in 3-5 minutes. Similar attacks occur when climbing to the 3rd floor, carrying heavy objects, or leaving a warm room into the cold. He has been ill for 10 years and notes a gradual decrease in exercise tolerance.

Objectively: BMI= 25 kg/m². Blood pressure 150/90 mm Hg. Percussion, the left border of relative cardiac dullness is determined 2 cm outward from the left midclavicular line. Heart sounds are muffled, rhythmic, heart rate 64 beats per minute. Vesicular breathing in the lungs, RR 18/min. The liver is not enlarged. There is no swelling.

Examination results: CBC and TAM without features, glucose - 5.5 mmol/l, creatinine - 0.101 μmol/l, total cholesterol - 6.6 mmol/l, HDL cholesterol - 1.0 mmol/l, LDL cholesterol - 4, 0 mmol/l, AI - 4, triglyceride level - 2.7 mmol/l. ECG: sinus rhythm, regular, no signs of ischemia on the ECG at rest. EchoCG: left ventricular hypertrophy.

Question: formulate a preliminary clinical diagnosis. Correct answer:

IHD: stable angina pectoris class II. Hypertension stage III, uncontrolled hypertension (target blood pressure - less than 140/90 mmHg), risk 4 (very high). Left ventricular hypertrophy. Atherogenic dyslipoproteinemia type 2B according to the Fredrickson classification. CHF stage 0, FC II 1.

Task 8. Situational task.

Patient V., 58 years old, who had no previous pathology of the cardiovascular system, sought help from a polyclinic doctor due to an attack of intense, compressive pain in the chest at the moment when the patient alone moved the refrigerator from one room to another. Externally, the patient became pale and could not move due to fear for 3 minutes, during which the pain disappeared without drug intervention. I have not noticed such attacks before. Heredity is aggravated: my father suffered a myocardial infarction at the age of 52 and has high blood pressure. Before the described episode, the patient considered himself healthy and did not take any medications. An ECG taken at rest in 12 standard leads did not reveal any pathology.

Question: make a differential diagnosis.

Correct answer:

IHD, new-onset angina pectoris, spinal osteochondrosis with radicular pain syndrome.

Task 9. Situational task.

Patient O., 74 years old. I am worried about attacks of burning pain in the heart area, which radiate to the left arm. The pain recurs up to 10 times a day, is provoked by the slightest physical activity, lasts for 10 minutes, is relieved by 3 nitroglycerin tablets taken sequentially one after the other with an interval of 3 minutes. In addition, he began to notice shortness of breath when moving within the apartment, daily night attacks of suffocation appeared, during which the patient was forced into a sitting position, swelling in the legs, and aching pain in the right hypochondrium. A similar condition without dynamics has been observed for 4 months. 6 years ago he suffered a myocardial infarction, no PCI was performed. For 20 years he has suffered from hypertension with blood pressure levels up to 170/100 mm Hg. Art. Takes prescribed medications irregularly. Objectively: BMI= 34 kg/m², tachypnea – RR 34/min, inspiratory dyspnea. Blood pressure - 175/105 mm Hg. Art., heart rate = 110 beats per minute, rhythmic. The percussion boundaries of the heart are expanded in both directions. During auscultation of the heart, a constant blowing systolic murmur is heard at the auscultation points of the mitral and tricuspid valves, with an emphasis of 2 tones on the aorta. In the lungs in the lower sections on both sides there are fine bubbling rales. The lower extremities are swollen. Palpation of the liver is enlarged: the lower edge of the right lobe stands 6 cm from under the costal arch, rounded, moderately painful. On a chest x-ray: the shadow of the heart is expanded in both directions, aortic configuration, the cardiophrenic angles on the right and left are obtuse, in the projection of the lower lobes of both lungs the vascular pattern is sharply enhanced, similar to venous stagnation.

Questions: formulate a diagnosis, possible complications

Correct answer:

IHD: stable angina pectoris of FC IV and at rest. Post-infarction cardiosclerosis (AMI in 2009). Hypertension stage III, uncontrolled hypertension (target blood pressure - less than 140/90 mmHg), risk 4 (very high). CHF stage 2A, FC III. Abdominal obesity 1st degree. Possible complications: development of repeated myocardial infarction, pulmonary edema, sudden arrhythmic death.

Task 10. Situational task.

Woman S., 48 years old, who had not previously been ill, complains that almost every night, at approximately the same time, she wakes up from "chest-tearing" unbearable pain, forcing the patient to sit up in bed and wait for the end of the attack, which lasts up to half an hour. Nitroglycerin does not bring relief. She was hospitalized at the cardiac center to clarify the diagnosis. No pathology was detected on the resting ECG in 12 standard leads. During daily ECG monitoring using the Holter method at 3.00 am, when the patient developed habitual pain, the ECG showed ST segment elevation in all precordial leads, turning into an inverted coronary T wave. After 20 minutes, the ECG picture returned to normal.

Questions: formulate a presumptive diagnosis; name the antianginal drugs that should be prescribed to the patient

Correct answer:

IHD: spontaneous variant Prinzmetal angina; calcium antagonists (amlodipine, diltiazem, verapamil)

Task 11. Situational task.

A 50-year-old patient suffers from coronary heart disease and stable angina pectoris class II for 5 years. Over the past 3 weeks, attacks of chest pain have become more frequent up to 6-8 times a week, their duration has increased, attacks have become provoked by less physical activity, the reaction to taking nitroglycerin has changed, and work capacity has decreased. When visiting a clinic by a doctor

removed ECG: ischemic changes Not discovered sick appointed
drug treatment.

Question: establish the clinical variant of angina pectoris

Correct answer:

IHD: unstable progressive angina.

Task 12. Situational task.

A 49-year-old patient, during a month of physical activity (fast walking, climbing stairs to the 2nd floor), began to notice pressing pain in the chest, lasting up to 5 minutes, radiating to the left arm, passing at rest. Objectively: BMI 32 kg/m². Pulse 82 per minute, blood pressure 130/75 mm Hg. Art., Heart sounds are loud, rhythmic, heart rate 82 per minute. Vesicular breathing in the lungs, RR 18/min. The liver is not enlarged. There is no swelling.

Lipidogram: total cholesterol - 8.8 mmol/l, LDL cholesterol - 4.2 mmol/l, triglycerides - 1.2 mmol/l. ECG at rest: sinus rhythm, heart rate 78 per minute.

Question: what clinical variant of angina should be established?

Correct answer:

IHD: unstable first-time exertional angina pectoris 2 FC.

Task 13. Situational task

A patient with coronary artery disease, stable angina pectoris, develops an attack of anginal pain when going outside in the cold season.

Question: describe the mechanism of pain

development. Correct answer:

The action of a trigger factor (cold) leads to vasoconstriction, heart rate and myocardial contractility increase, an increase in myocardial oxygen demand occurs with a reduced possibility of its delivery to the myocardium, and transient myocardial ischemia develops.

Task 14. Situational task

A 72-year-old patient has exertional angina. Chest pain occurs when climbing to the 1st floor and walking at a normal pace up to 150 meters. The patient also experiences shortness of breath during normal physical activity. Blood pressure level is 156/93 mm Hg. On the ECG: cicatricial changes in the septal region of the left ventricle. Signs of LVH. The patient is taking antihypertensive therapy. On EchoCG: IVS = 12 mm, LV SV = 12 mm, LVEF = 39%, akinesis in the area of the interventricular septum, basal segment. LVDD type 1. There is no peripheral edema.

Question: Formulate the patient's diagnosis.

Correct answer: IHD. Angina pectoris FC III. Post-infarction (NOS) cardiosclerosis. Stage III hypertension, uncontrolled hypertension, risk 4 (very high). CHF with low FVIA FC 3.

Task 15. Situational task.

Patient L., 48 years old, was admitted to the emergency department with complaints of pressing pain in the epigastrium. Considers himself sick within 1 hour when the above-described complaints first appeared. The disease is associated with intense physical activity: I had to quickly climb to the 10th floor (the elevator in the building was broken). Family history: the patient's father suffers from coronary artery disease and suffered 2 myocardial infarctions, the first at the age of 45 years. On examination: the skin is pale, moderately moist. There is no swelling. BH - 16 per minute.

Auscultation over the lungs reveals hard breathing. The boundaries of the heart are within normal limits. On auscultation, heart sounds are muffled, rhythmic, heart rate - 85 per minute. Blood pressure 130/80 mm Hg. The liver is palpated at the edge of the costal arch. Troponin test

positive upon admission. The ECG shows sinus rhythm. ST segment depression in V₃₋₆, negative T in I, V₄₋₆.

Question: Make a plan for examining the patient.

Correct answer: repeated determination of troponins and MB-CK after 6 hours, daily monitoring of ECG and blood pressure, routine tests: clinical blood and urine analysis, biochemical blood test (determining the level of total protein, urea, creatinine, glucose, transaminases, electrolytes, indicators lipid profile), echocardiography, coronary angiography.

Task 16. Situational task.

What should be prescribed to a patient in order to reduce lipid metabolism in familial hypercholesterolemia, refractory to treatment with statins and ezetimibe in maximum tolerated doses? State the class and name of the drugs and prescribe them to the patient. Describe the mechanism of action.

Correct answer: Monoclonal proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors

Evalocumab (Repata) 140 mg every 2 weeks or 420 mg once a month, subcutaneously.

PCSK9 is directly involved in the degradation of LDL receptors, VLDL receptors, as a result of which the penetration of atherogenic fractions of lipoproteins under the endothelium is impaired. This prevents the formation of atherosclerosis.

Task 17. Situational task.

A patient with coronary artery disease, angina pectoris and COPD was prescribed complex antianginal therapy, after which the pain in the heart stopped, but shortness of breath increased, and wheezing appeared on exhalation.

Question: Name a class of drugs in antianginal therapy that could lead to increased shortness of breath in a patient with COPD.

Correct answer: β_1 -adrenergic blockers, especially low-selective ones, can also act on β_2 -adrenoreceptors of the bronchi and cause spasm of smooth muscles, leading to increased broncho-obstructive syndrome.

Task 18. Situational task.

12 hours ago, a patient was admitted to the department with complaints of chest pain that was not relieved by taking 3 tablets of nitroglycerin. Upon admission, the patient was excited, the skin was moist, pale, heart rate was 96 beats per minute, blood pressure was 100/70 mm Hg. Art. On ECG - rise of the ST segment, change in QRS in the form of Qr in V_{1-V3}.

Question: name the suspected diagnosis, prescribe studies to confirm the diagnosis

Correct answer: IHD: Spicy macrofocal myocardial infarction myocardium anterior septal region of the left ventricle. CHF 0. Troponin test, determination of the level of MB-CPK and myoglobin in the blood.

Task 19. Situational task.

The patient, 81 years old, the night before noted the appearance of weakness, there was a short-term loss of consciousness; In the morning of the next day, the episode of impaired consciousness was repeated, paresthesia, weakness of the muscles of the left arm, and the left half of the neck appeared.

She was taken to the emergency department with a diagnosis of acute cerebrovascular accident. ECG-elevation of the ST segment in leads V_{1-V4}, changing QRS as QR. Question: suggest tactics for managing the patient.

Correct answer:

Considering the patient's age, the presence of acute cerebrovascular accident and acute large-focal anteriorly extended myocardial infarction, PCI in

not currently shown. Drug therapy is indicated: beta-blockers in small doses, statins. The question of the possibility of prescribing anticoagulants and antiplatelet agents should be decided by a council with the participation of a neurologist.

Task 20. Situational task.

A 62-year-old patient has been experiencing chest pain for the last 1.5-2 years with significant exertion, which can be relieved by taking 1 tablet of nitroglycerin under the tongue. About 1 hour ago, while going up to the 3rd floor, a burning pain appeared behind the sternum, which disappeared after taking 2 tablets of nitroglycerin for 20 minutes. 3 years ago he suffered a posterodiaphragmatic myocardial infarction. I went to the clinic at my place of residence. The ECG revealed the following changes: cicatricial changes in the posterior wall of the LV, QS wave in III, aVF.

Question: What do changes on the ECG indicate?

Correct answer: Changes in the ECG indicate the presence of coronary heart disease, post-infarction cardiosclerosis (scar changes in the posterior wall). The development of recurrent myocardial infarction is doubtful; a troponin test should be performed.

Task 21. Situational task.

A patient diagnosed with acute transmural myocardial infarction of the anterior wall of the left ventricle had a drop in blood pressure to 70/40 mm Hg. Art., anuria. The skin is moist, marbled in color; phenomena of acute left ventricular failure. The pressor reaction to anti-shock measures is slow and unstable. Question:

1. What complication of myocardial infarction developed in the patient? Correct answer:

1. True cardiogenic shock, possibly true heart rupture.

Task 22. From interview questions.

Determine the treatment tactics for uncomplicated hypertensive crisis.

Correct answer:

Relief of a hypertensive crisis: a rapid but incomplete decrease in blood pressure in the first hours – by 25% of the initial value, then continue decreasing. You can use beta-blockers, ACE inhibitors, diuretics, sedatives. Selection of the remaining therapy taking into account the examination results.

Task 23. Situational task.

Male, 54 years old. Complaints of headache in the occipital region. Heredity is aggravated: the mother suffers from hypertension, suffered a stroke. Objectively: blood pressure in both arms is 170/100 mmHg. Art. Heart sounds are muffled, rhythmic, the accent of the second tone is on the aorta. Heart rate – 88 per minute. There is vesicular breathing in the lungs, no wheezing. There is no peripheral edema. ECG: sinus rhythm, regular. Heart rate 80/min. Left ventricular hypertrophy.

Question:

1. Determine the stage of hypertension, degree of risk, target blood pressure level. Correct answer:

1. Stage II hypertension, target blood pressure level 120-129/70-79 mm Hg, risk 3 (high).

Task 24. Situational task.

No complaints. Objectively: The skin is of normal color. There is vesicular breathing in the lungs, no wheezing. NPV – 18 per minute. Heart sounds are muffled, rhythmic, heart rate – 64

beats/min. Blood pressure - 165/100 mm Hg. There is no peripheral edema.

ECG: sinus rhythm, normal position of the electrical axis of the heart.

Question:

1. Formulate a diagnosis.

Correct answer:

1. Stage I hypertension, uncontrolled hypertension, target blood pressure level 120-129/70-79 mm Hg, risk 2 (moderate).

Task 25. Situational task.

The patient has stage II hypertension, uncontrolled hypertension, target blood pressure level 120-129/70-79 mm Hg, LV hypertrophy, risk 3 (high). Dyslipidemia.

Question:

1. Make a treatment plan.

Correct answer:

1. Treatment is recommended: a diet limited in animal fats and salt, combination antihypertensive therapy: an ACE inhibitor (for example, enalapril 10 mg per day) in combination with a thiazide diuretic (for example, indapamide 2.5 mg per day) or a calcium channel blocker (for example, amlodipine 5 mg per day), statins (for example, atorvastatin 20 mg per day). Self-monitoring of blood pressure and heart rate daily - keeping a diary. Monitor lipid levels after 1 month, target LDL level is <1.8 mmol/L.

Task 26. Situational task.

The patient has chronic glomerulonephritis, nephritic syndrome, hyperkalemia, stage 4 CKD (GFR = 20 ml/min.). Anemia of chronic disease. Secondary renoparenchymal hypertension, stage 3 hypertension. Risk 4 (very high).

Question:

1. What antihypertensive drugs should be prescribed?

Correct answer:

1. Angiotensin receptor antagonists (for example, irbesartan 150 mg per day), calcium channel blockers (for example, amlodipine 5 mg per day), diuretics (for example, torasemide 10 mg per day). Consider starting hemodialysis.

Task 27. Addition task Insert

the correct answer.

Acute kidney injury is a pathological condition that develops as a result of direct acute exposure to renal and/or extrarenal damaging factors, lasting up to ____ days and characterized by rapid (hours to days) development of signs of kidney damage or dysfunction of varying severity.

Correct answer: 7 (days)

Task 28. Situational task.

Patient K., 42 years old. Complains of consistently high blood pressure numbers up to 210/130 mm Hg. Art., weakness in the legs, especially in the morning, pasty shins, cramps in the calf muscles unrelated to physical activity.

The results of the examination in the hospital: urea - 9.0 mmol/l, creatinine - 110 µmol/l, serum sodium level - 147 mmol/l, potassium - 2.7 mmol/l, glucose - 8.2 mmol/l. The ACTH level is at the lower limit of the reference values of the norm, the cortisol level is normal, the aldosterone level is 2.5 times higher than the reference values of the upper limit of the norm. MRI of the adrenal glands: the left one is sharply enlarged in size, a round formation 2 cm in diameter is visualized.

Question:

1. Formulate a preliminary diagnosis.

Correct answer:

1. Primary hyperaldosteronism (Conn's syndrome). Symptomatic arterial hypertension of the 3rd degree. Hypokalemia.

Task 29. Addition task Insert

the correct answer.

Glomerular filtration rate (GFR) is the number of milliliters of blood plasma filtered in all glomeruli of the kidneys in ____ minute. Correct answer: 1 (minute).

Task 30. Addition task Insert

the correct answer.

Chronic kidney disease is an organ damage that persists for three months or more due to the action of various etiological factors, the anatomical basis of which is the process of replacement of normal anatomical structures ____, leading to its dysfunction.

Correct answer: fibrosis

Task 31. Addition task Insert

the correct answer.

Criteria for nephrotic syndrome: massive proteinuria - more than 3.5 g/day, hypoalbuminemia (less than 30 g/l), hypoproteinemia, edema, _____

Correct answer: hyperlipidemia.

Task 32. Situational task.

The patient was diagnosed with: CKD 5, end-stage chronic renal failure. Uremic coma. Uremic pleurisy, pericarditis. Moderate anemia.

Question:

1. Patient management tactics.

Correct answer:

1. Carrying out hemodialysis.

Task 33. Addition task Insert

the correct answer.

Peptic ulceris a chronic, _____ disease, occurring with alternating periods of exacerbation and remission, the leading manifestation of which is the formation of a defect (ulcer) in the wall of the stomach and duodenum.

Correct answer: recurrent

Task 34. Situational task

About 6 hours ago, a 25-year-old patient developed severe weakness, cold sweat, dizziness, and vomited "coffee grounds" twice. Before hospitalization, she had black, loose stools three times. Objectively: the skin is pale. Blood pressure 90/70 mm Hg. Art. Heart sounds are rhythmic, heart rate 80 per minute. Vesicular breathing in the lungs. The abdomen is painful on palpation in the epigastrium. The liver is not enlarged.

Fibrogastroduodenoscopy: Along the greater curvature of the stomach, an ulcerative defect measuring 1 cm with uneven edges is determined, from which blood is actively flowing. Questions:

1. What can be done to stop the bleeding?

Correct answer:

1. Rinse the stomach with cold water through a tube, inject aminocaproic acid into the stomach and intravenously, use endoscopic methods to stop bleeding (electrocoagulation, local use of glue, injecting the ulcer with an adrenaline solution).

Task 35. Situational task

Patient M, 30 years old. For 2 years I have been experiencing pain in the epigastric region, sour belching, and nausea that appear after eating. Objectively: blood pressure 110/70 mm Hg. Art. Heart sounds are loud, rhythmic, heart rate 60 per minute. Vesicular breathing in the lungs. The tongue is moist and covered with a white coating. The abdomen is soft on palpation, painful in the epigastrium. The liver is not enlarged.

FGDS: the defect is round in shape, the edges are clearly defined. The mucous membrane is swollen, hyperemic and around the defect it looks like a raised shaft, which is clearly demarcated from the surrounding mucosa and rises above it, the bottom is smooth.

Questions:

1. What additional diagnostic methods are needed to clarify the diagnosis?

Correct answer:

1. Detection of *Helicobacter pylori* by non-invasive methods (breath test, determination of antibodies to *Helicobacter pylori*), histological examination of a biopsy specimen, coprogram, ultrasound of the abdominal organs, blood test, urine test.

Task 36. Situational task

A patient was brought to the hospital emergency department with an attack of sudden "dagger" pain in the abdomen. Initially, the pain was localized in the epigastrium, then spread throughout the entire abdomen. The patient took a forced position - on his side with his legs brought to his stomach. Objectively: The patient's face is pale with an ashen-cyanotic tint, perspiration on the forehead. The tongue is covered with a white coating. The abdomen is tense on palpation, tympanitis over the liver area. Blood pressure - 90/70 mm Hg. Art., heart rate - 110 per minute, heart sounds are rhythmic. Breathing is shallow, respiratory rate is 26 per minute. CBC: leukocytes - $15.0 \times 10^9/l$; ESR - 40 mm/h. A plain radiograph shows free air under the diaphragm.

Questions:

1. What disease does the patient have? What complication developed?

Correct answer:

1. Gastric ulcer, exacerbation. Complication: perforation of a gastric ulcer, diffuse peritonitis.

Task 37. Situational task

A 52-year-old patient suffers from gastric ulcer. I am concerned about intense, constant pain in the epigastric region, radiating to the back, which does not decrease after taking antacids and antispasmodics. The pain is not associated with eating. Objectively: low-grade fever. The abdomen is painful on palpation in the epigastrium and left hypochondrium, an inflammatory infiltrate is palpable.

In the UBC: leukocytes - $14.0 \times 10^9/l$, shift of the leukocyte formula to the left, ESR - 40 mm/h.

Fibrogastroduodenoscopy: the ulcer is deep, the crater is steep, the edges are high, in the form of a shaft, clearly demarcated from the surrounding mucosa.

Questions:

1. What complication of peptic ulcer developed in the patient?

Correct answer:

1. Penetration of a stomach ulcer into the body of the pancreas.

Task 38. Situational task

A 35-year-old patient, during treatment with NSAIDs, developed intense pain in the epigastric region 30 minutes after eating, heartburn, sour belching, nausea, and there was a single vomiting that brought relief. Objectively: The tongue is covered with a white coating. The abdomen is soft on palpation, painful in the epigastrium. The liver is not enlarged. Blood pressure 120/85 mm Hg. Art. Heart sounds are rhythmic. Vesicular breathing in the lungs.

FGDS: a small ulcerative defect is determined in the antrum of the stomach, the edges are even, smooth, there is a bright red rim around, the bottom is shallow. The mucous membrane around the ulcer is moderately edematous and slightly hyperemic.

Questions:

1. What are your opinions about the diagnosis? Correct answer:

1. NSAID gastropathy. Acute ulcer of the antrum of the stomach.

Task 39. Addition task Insert the correct answer.

Crohn's disease (CD) is a chronic, relapsing disease of the gastrointestinal tract of unknown etiology, characterized by transmural, segmental, _____ inflammation with the development of local and systemic complications.

Correct answer: granulomatous

Task 40. Addition task Insert the correct answer.

Ulcerative colitis– a chronic disease of the colon characterized by _____ inflammation of its mucous membrane. Correct answer: immune

Task 41. Situational task.

A 32-year-old man, when visiting the clinic, complains of weakness, unformed stool mixed with blood, mucus and pus up to 10 times a day, cramping pain in the lower abdomen before defecation, weight loss of 7 kg in 3 months.

On palpation, the abdomen is painful in the left iliac region.

Complete blood count: hemoglobin – 90 g/l, ESR – 35 mm/h.

Fiber colonoscopy: in the rectosigmoid section, the intestinal mucosa is diffusely hyperemic, bleeds easily upon contact with the colonoscope, the vascular pattern is blurred, multiple erosions covered with fibrin are revealed.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.

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Correct answer

1. Ulcerative colitis, proctosigmoiditis, new onset, severe course. Chronic posthemorrhagic anemia of moderate severity.

2. The diagnosis of "ulcerative colitis" was established on the basis of characteristic clinical manifestations - abdominal pain and diarrhea mixed with blood, pus mucus up to 10 times a day for three months, endoscopic signs of damage to the rectum with a continuous transition to the sigmoid region, contact bleeding, the presence superficial ulcers of the colon mucosa. The diagnosis of anemia was established on the basis of a decrease in hemoglobin and red blood cells in a general blood test.

Task 42. Situational task.

In patient N., 25 years old, with an exacerbation of ulcerative colitis, bright red painful confluent nodes appeared on the extensor surface of both legs against the background of swelling of the legs and feet. Changes in the skin are accompanied by febrile fever, in the blood test - leukocytes - $13.0 \times 10^9 / l$; ESR 35 mm/hour. SRB - (+++).

Questions:

1. Formulate a diagnosis.
2. Is there a connection between this pathology and the underlying disease?

Correct answer

1. Erythema nodosum.
2. Yes, erythema nodosum is one of the extraintestinal manifestations of ulcerative colitis.

Task 43. Situational task

A 43-year-old woman consulted a doctor with complaints of constant aching pain to the left of the navel, radiating to the back, under the left shoulder blade, which occurs after eating fatty foods. Notes decreased appetite, nausea, and unstable stool. These symptoms have been bothering me for 4 months. He has been suffering from chronic cholecystitis for many years.

The abdomen is soft, painful in the upper half of the abdomen and in the left hypochondrium. According to the ultrasound report of the abdominal organs, "pronounced fibrous changes in the pancreas."

Questions:

1. Formulate and justify the presumptive diagnosis.

Correct answer:

1. Chronic pancreatitis with impaired exocrine function in the acute stage.

Task 44. Situational task.

Patient L., 48 years old, complains of pain in the metacarpophalangeal and proximal interphalangeal joints of 2-3 fingers of both hands, as well as in the wrist, shoulder, ankle joints, morning stiffness until lunch; low-grade fever in the evenings, general weakness. She has been ill for about 3 months, her professional activities and ability to self-care are preserved, and her non-professional activities are limited.

ESR - 54 mm/h, CRP - 27.2 mg, rheumatoid factor - 82 IU/ml (normal up to 40 U/ml). ACCP - 200 U/ml (normal <30 U/ml).

X-ray of the hands shows moderately narrowed joint spaces of the metacarpophalangeal joints, epiphyseal osteoporosis.

Questions:

1. Assume the most likely diagnosis.
2. What drug is advisable to prescribe as basic therapy?

Correct answer:

1. Seropositive rheumatoid arthritis, ACCP-positive, early stage, high degree of activity, X-ray stage 2, FC2.
2. Methotrexate (MTX) is the "first-line" drug for the treatment of RA with proven effectiveness and safety. Prescribed in combination with folic acid at a dose of 10-25 mg/week.

Task 45. Situational task.

A 30-year-old woman came to the clinic with complaints of severe pain and swelling of the metacarpophalangeal and proximal interphalangeal joints of 2-3 fingers of both hands, morning stiffness until 2 pm, and weakness. She has been ill for about 7 months and takes diclofenac with some positive effects. In the area of the left elbow joint there are 2 subcutaneous dense nodular formations measuring 0.5×0.5 cm. ESR - 76 mm/hour (Westergren), CRP - 54.7 mg/l, rheumatoid factor - 22.1 U/l (norm 0-40 U/l), ACCP - 180 U/ml (normal <30 U/ml).

X-ray of the hands: periarticular osteoporosis of the metacarpal bones and narrowing of the joint spaces of the II-III metacarpophalangeal joints of both hands.

Questions:

1. Formulate a detailed diagnosis.
2. What drug would you recommend as basic therapy?

Correct answer:

1. Rheumatoid arthritis, early stage, seronegative, ACCP (+), stage 3 activity, radiological stage 2, with extra-articular manifestations (rheumatoid nodules, weight loss).
2. Methotrexate (MTX) is the "first-line" drug for the treatment of RA with proven effectiveness and safety. Prescribed at a dose of 15-25 mg/week in combination with folic acid.

Task 46. Situational task.

Patient E., 31 years old, complains upon admission: severe pain and swelling of the joints of the hands, wrists, elbows, shoulders and knees, morning stiffness in the affected joints lasting up to 14-15 hours, low-grade fever, weight loss by 6 kg in the last 4 months.

She has been ill for about 7 months, has not consulted a doctor, has been taking acetylsalicylic acid and indomethacin irregularly with little positive effect, but while taking these medications, epigastric pain and heartburn have developed.

On examination: swelling and hyperemia of the metacarpophalangeal, wrist and elbow joints, in the area of the left elbow joint there are 2 subcutaneous dense nodular formations measuring 0.5x0.5 cm. The abdomen is soft on palpation, moderately painful in the epigastrium. The liver and spleen are not enlarged.

Blood tests: hemoglobin - 129.4 g/l, leukocytes - 9.1 thousand, ESR - 46 mm/h.

CRP - 64.7 mg/l, rheumatoid factor - 122.1 U/l (normal 0-40 U/l), ACCP - 180 U/ml (normal <30 U/ml).

X-ray of the hands: periarticular osteoporosis of the metacarpal bones and narrowing of the joint spaces of the metacarpophalangeal joints of the II-III fingers of both hands, narrowing of the joint spaces of both wrist joints.

Esophagogastroduodenoscopy: bright hyperemia of the gastric antrum mucosa. No erosions or ulcers were detected.

Questions:

1. Formulate a clinical diagnosis.

Correct answer:

1. Clinical diagnosis: rheumatoid arthritis, early stage, seropositive, II radiological stage, III degree of activity with systemic manifestations (rheumatoid nodules). NSAID-associated gastropathy.

Task 47. Situational task.

A 42-year-old patient consulted her local doctor with complaints of moderate pain and swelling of the metacarpophalangeal and proximal interphalangeal joints II, III, IV

fingers of both hands, wrist joints. Notes morning stiffness for 3 hours, low-grade fever. I got sick a month ago after an acute respiratory infection. Does homework with difficulty. Blood tests: ESR - 35 mm/hour, rheumatoid factor - 122.1 U/l (normal 0-40 U/l), antibodies to cyclic citrullinated peptide - 375.8 U/ml (normal <30 U/ml). X-ray of the joints of the hands: periarticular osteoporosis, narrowing of the joint spaces and single bone lesions of the metacarpophalangeal and proximal interphalangeal joints.

Questions:

1. Assume the most likely diagnosis.
2. What basic drug is appropriate to prescribe in this case and why?

Correct answer:

1. Seropositive rheumatoid arthritis, ACCP+, early clinical stage, moderate activity, radiological stage II, functional class II.
2. The first-line drug is methotrexate, since this drug most effectively controls the autoimmune inflammatory process in RA, slows down the radiological destruction of bone tissue and prevents the development of systemic manifestations of the disease. Prescribed at a dose of 15-25 mg/week in combination with folic acid.

Task 48. Situational task.

Patient P., 70 years old, turned to her local physician with complaints of severe pain in the left hip joint, in the knee joints (more on the left), and sometimes in the small joints of the hands. Joint pain appears after physical activity, when going down stairs, after prolonged sitting (difficulty getting up from a chair). Joint pain first appeared about 5 years ago; I never went to the doctor. When examining the joints of the hands, there are nodular growths in the area of the distal phalanges. An x-ray of the left knee reveals a narrowing of the joint space on the medial side, subchondral sclerosis with the formation of osteophytes.

Questions

1. Formulate a preliminary clinical diagnosis.
2. What are lesions of the distal interphalangeal joints called?

Correct answer:

1. Primary osteoarthritis with predominant damage to the knee and left hip joint, stage 3 (an x-ray of the left knee joint shows narrowing of the joint space and osteophytes).

2. Heberden's nodes

Task 49. Situational task.

Patient Z., 63 years old, complains of pain and limitation of movement in the knee joints that occurs when going down the stairs, "starting" pain, and morning stiffness for 20 minutes. The onset of the disease is gradual.

Objectively: the knee joints are of normal shape, movements are not limited, crepitus is detected when moving.

General blood test without pathology.

Questions:

1. Formulate a tentative preliminary diagnosis.
2. What medications are appropriate to prescribe for pain relief?

Correct answer:

1. Primary osteoarthritis. Bilateral gonarthrosis.

2. Paracetamol, external NSAIDs, oral selective NSAIDs.

Task 50. Situational task.

Patient K., 56 years old, came to the clinic with complaints of pain in the left knee joint, intensifying with exercise, and periodic crunching sounds during active movements in this joint. Notes morning stiffness of movements in the left knee joint for 15-20 minutes. The pain appeared about 2 years ago and gradually intensified.

Upon examination, the joints were not externally changed, the range of active and passive movements was slightly reduced in the left knee joint.

The blood test showed no deviations from normal values, ESR - 18 mm/h.

An x-ray of the left knee joint reveals narrowing of the joint space, subchondral sclerosis with the formation of osteophytes.

Questions:

1. Assume the most likely diagnosis.

Correct answer:

1. Preliminary diagnosis of "osteoarthritis of the left knee joint," stage 3. The diagnosis is based on the patient's characteristic complaints (load-bearing pain, crepitus during active movement), the patient's age and X-ray data of the left knee joint (narrowing of the joint space, subchondral sclerosis with the formation of osteophytes).

Task 51. Situational task.

In a 64-year-old man, 8 years ago, for the first time, against a background of relative well-being, intense pain appeared at night in the first toe of the right foot, redness of the skin over it, swelling, and he could not step on his foot. The symptoms persisted for 2 weeks and then stopped on their own. Subsequently, arthritis of the metatarsophalangeal joints of the first toes of both feet recurred repeatedly, mainly after drinking alcohol and eating a lot of food. Currently there is no exacerbation. Uric acid - 780 mmol/l.

Questions:

1. Assume the most likely diagnosis.

Correct answer:

1. Chronic gout, recurrent arthritis of the metatarsophalangeal joints of the first toes of both feet, interictal period, hyperuricemia.

Task 52. Situational task.

Patient Sh., 54 years old, consulted a doctor with complaints of paroxysmal pain in the epigastric region and left hypochondrium of a girdle nature, intensifying after eating, bloating and rumbling in the abdomen, copious pasty stools up to 3 times a day, gray in color with a shiny surface. From the medical history it is known that the patient abuses alcohol. Palpation reveals abdominal pain in the left hypochondrium, the liver is not enlarged.

Questions:

1. Formulate and justify a preliminary diagnosis.

Correct answer:

1. Chronic pancreatitis with impaired exocrine function, in the acute stage.

Task 53. Situational task.

Eight years ago, for the first time, against a background of relative well-being, a 64-year-old man developed intense pain at night in the first toe of his right foot, redness of the skin over it, swelling, and he could not step on his foot. The symptoms persisted for 2 weeks and then disappeared on their own. Subsequently, arthritis of the metatarsophalangeal joints of the first toes of both feet recurred repeatedly, mainly after drinking alcohol and eating a lot of food. Currently there is no exacerbation. Uric acid - 780 mmol/l.

Questions:

1. Can a patient be prescribed medications to lower uric acid levels?

Correct answer:

Since the patient has an interictal period of chronic gout and hyperuricemia persists, it is advisable, in addition to dietary recommendations, to prescribe allopurinol at a dose of 300 mg per day until the uric acid level decreases to 350 mmol/l, followed by a maintenance dose of 100 - 200 mg per day.

Task 54. Situational task

A 40-year-old woman consulted a gastroenterologist with complaints of constant pain in the left hypochondrium, radiating to the spine, bloating, heavy stool, and a feeling of nausea. The patient had a history of cholecystectomy 3 years ago for calculous cholecystitis. On palpation, the abdomen is soft, painful in the left hypochondrium and in the region of the costovertebral angle on the left, the liver is not enlarged. According to ultrasound of the abdominal organs: the echostructure of the pancreas is heterogeneous, the echogenicity is increased, the Wirsung protocrass is dilated, and stones are detected in it.

Questions:

1. Formulate and justify the presumptive diagnosis.

Correct answer:

1. Chronic calcific pancreatitis with impaired exocrine function, in the acute stage.

Task 55. Situational task.

Patient R., 47 years old, consulted a doctor with complaints of pain in the upper half of the abdomen, like an incomplete belt on the right, nausea, and bloating. History of cholelithiasis. Objectively: the skin and visible mucous membranes are jaundiced, the tongue is coated at the root with a white coating, the abdomen is soft, painful in the epigastric region, left and right hypochondrium. The liver is at the edge of the costal arch. On an ultrasound of the abdominal organs: 2 stones with a diameter of 7 mm and 11 mm are visualized in the lumen of the gallbladder. The extrahepatic bile ducts and common bile duct are dilated, the head of the pancreas is enlarged, calcifications are detected in it, the Wirsung duct is not dilated. Questions:

1. Formulate and justify the presumptive diagnosis.

2. Name the necessary additional research.

Correct answer:

1. Chronic calcific pancreatitis, in the acute stage. Cholelithiasis, chronic calculous cholecystitis. Extrahepatic cholestasis, obstructive jaundice

2. General analysis of blood and urine, determination of blood levels of bilirubin, ALT, AST, alkaline phosphatase, γ -GTP, amylase and blood lipase, MR cholangiopancreatography.

Task 56. Situational task.

Patient B., 23 years old, complains of weakness, increased fatigue, dizziness, palpitations, shortness of breath with moderate physical activity, fragility

nails, dry skin. These symptoms appeared about six months ago during breastfeeding. Menstruation from the age of 13, 6 days, heavy. Pregnancy - 1, childbirth - 1. On examination: the skin and visible mucous membranes are pale, nails are cross-striated, exfoliated. Hair is dull, split, pale. Heart rate - 94 beats per minute, blood pressure 100/60 mm Hg. Art. The liver and spleen are not palpable. Hb - 72 g/l, red blood cells - $3.2 \times 10^{12}/l$, color index - 0.67, anisocytosis, poikilocytosis. Leukocytes - $6.8 \times 10^9/l$, formula without features. Questions:

1. Formulate a preliminary diagnosis. Identify the syndromes.
2. What reasons does the patient have for developing this disease?

Correct answer:

1. Iron deficiency anemia II degree of severity. Syndromes: anemic, sideropenic.
2. Loss of iron during heavy menstruation, increased iron consumption during pregnancy and lactation.

Task 57. Situational task.

A 66-year-old patient suffering from coronary artery disease and angina pectoris experienced frequent attacks of chest pain, increased heart rate, and shortness of breath with slight exertion. ECG without dynamics. The doctor increased the dose of long-acting nitrates, but the condition did not improve. In the general blood test, Hb is 70 g/l, color index is 1.1, moderate leukemia and thrombocytopenia, hypersegmentation of neutrophils. The patient refused bone marrow examination.

Questions:

1. What type of anemia does the patient have?
2. What causes the exacerbation of IHD in the patient?

Correct answer:

1. Macrocytic anemia II degree of severity
2. Anemic hypoxemia

Task 58. Situational task.

Patient V., 74 years old, has been experiencing discomfort in the epigastric region, nausea, decreased appetite, and weight loss of 5-7 kg for more than six months. He noted several episodes of black, unformed stool, after which severe weakness, shortness of breath, dizziness, and spots flashing before the eyes appeared. Heart rate - 92 beats/min, blood pressure - 110/70 mm Hg. Art. On palpation, the abdomen is painless in the epigastrium, the liver is not enlarged.

Hb - 65 g/l, erythrocytes - $2.2 \times 10^{12}/l$, color index - 0.82, MCV - 70 fl, anisocytosis, poikilocytosis, leukocytes - $6.8 \times 10^9/l$. Leukocytes - $7.8 \times 10^9/l$, platelets - $560 \times 10^9/l$, ESR - 42 mm/h. FGDS: in the body of the stomach there is an ulcer measuring 0.8-1.2 cm with fibrin deposits at the bottom. Histological examination of the biopsy of the edge of the ulcer did not reveal any atypical cells. Questions:

1. Formulate a preliminary diagnosis.

Correct answer:

1. Gastric ulcer, exacerbation. Recurrent gastric bleeding. Chronic iron deficiency anemia III degree of severity.

Task 59. Situational task

Patient, 54 years old, engineer. Complains of shortness of breath, palpitations, weakness, unsteadiness of gait and numbness of the legs. She has been ill for 2 years. The disease developed gradually. She was treated by a neurologist, but without effect. On physical examination, there is a violation of deep sensitivity of the lower extremities, a positive Babinski sign on both sides. The liver and spleen are not palpable.

Complete blood count: red blood cells - $2.4 \times 10^{12}/l$, Hb - 90 g/l, color index - 1.1, reticulocytes - 0.2%, megaloblasts 2:100, anisocytosis, poikilocytosis, leukocytes - $3.8 \times 10^9/l$, polysegmentation of neutrophils. Questions:

1. Formulate a diagnosis.

Correct answer:

1. Megaloblastic (B_{12} deficiency) anemia. Funicular myelosis.

Task 60. Situational task

The patient is 20 years old. Complaints of weakness, dizziness, subcutaneous hemorrhages, bleeding from the gums. I've been sick for about a year.

Objective examination: pale, there are hematomas at the injection sites. Heart sounds are rhythmic, systolic murmur at the apex. Heart rate - 90 per minute, blood pressure - 110/80 mm Hg. Art. The liver and spleen are not palpable.

Complete blood count: red blood cells - $2.1 \times 10^{12}/l$, Hb - 64 g/l, reticulocytes - 0.1%, platelets - $100 \times 10^9/l$, leukocytes - $2.7 \times 10^9/l$.

Sternal punctate is poor in cellular elements, the content of cells is reduced, especially young forms, and proliferation and maturation are impaired.

Questions:

1. Formulate a preliminary diagnosis.

Correct answer:

1. Aplastic anemia, mild granulocytopenia, thrombocytopenia.

Task 61. Situational task

Patient T., 48 years old, consulted a urologist about renal colic, which was treated by an emergency physician. Upon questioning, it was found that over the past three years he has been experiencing weakness, increased fatigue, and headaches.

Objectively: the skin is of normal color. Peripheral lymph nodes are not enlarged. Vesicular breathing. Heart sounds are muffled, rhythmic, heart rate 80 min. Blood pressure 80/30 mmHg. The abdomen is soft and painless. The liver protrudes from under the edge of the costal arch by 4 cm, the spleen by 11 cm. Pasternatsky's symptom is negative on both sides.

Urinalysis: relative density - 1024, no protein, 2-3 leukocytes in the field of view, salts - urates in large quantities.

Blood test: er. - $3.3 \times 10^{12}/l$, Nb - 100 g/l, c.p. - 0.85, leuk. - $200 \times 10^9/l$, myeloblasts - 7, promyelocytes - 9, myelocytes - 16, metamyelocytes - 14, b - 3, e - 2, p - 14, p. - 32, lymph. - 2, mon. - 1, ESR - 38 mm/hour.

Question:

1. State the preliminary diagnosis.

Correct answer:

1. Chronic myeloid leukemia, advanced stage, uric acid diathesis.

Task 62. Situational task.

Patient T., 68 years old, was admitted to the therapeutic department with complaints of weakness, sweating, and a feeling of heaviness in the left hypochondrium.

Three years ago, he was diagnosed with chronic myeloid leukemia; he regularly took myelosan, but over the past year he stopped taking it on his own.

On examination: there are multiple hemorrhages on the skin and mucous membranes. Peripheral lymph nodes are enlarged to 2 cm in diameter. Vesicular breathing. Heart sounds are muffled. The liver protrudes from under the edge of the costal arch by 8 cm, the spleen is large in size 19-12-31 cm according to Kurlov.

Blood test: er. – $2.6 \times 10^{12}/l$, Nb – 75 g/l, c.p. – 0.86, thrombus. – $10.4 \times 10^9/l$, leuk. – $42 \times 10^9/l$, blasts - 68%, myelocytes - 5%, metamyelocytes - 2%, b - 1%, e - 2%, p - 2%, c - 14%, lymph. - 4%, mon – 2%, ESR 40 mm/hour.

The myelogram shows almost total metaplasia with blast cells.

Question:

1. What laboratory tests need to be performed to make a final diagnosis?

Correct answer:

1. Determination of neutrophil alkaline phosphatase activity, cytogenetic study for the Ph chromosome, trephine biopsy.

Task 63. Situational task

Patient I., 58 years old, was admitted to the therapeutic department with complaints of weakness, decreased ability to work, the appearance of icteric discoloration of the skin and sclera, and dark urine. Over the past year, he noted a growing weakness, which he did not attach importance to. A sharp deterioration in the condition is associated with the appearance of yellowness of the skin.

Objectively: the skin and visible mucous membranes are icteric in color. There is an increase in the submandibular, axillary, cervical, inguinal lymph nodes, 2.2 cm in diameter or more, with a soft consistency. Breathing is vesicular. Heart sounds are muffled. Pulse 80 beats per minute, rhythmic. The liver protrudes from under the edge of the costal arch by 5 cm, the spleen by 12 cm.

Blood test: er. – $2.4 \times 10^{12}/l$, Nb – 80 g/l, c.p. – 0.9, reticulocytes – 80%, throm. – $130 \times 10^9/l$, leuk. – $90 \times 10^9/l$, s - 3%, lymph. – 97%, ESR – 3 mm/hour. Botkin-Gumprecht cells 1-2 in p/z.

Questions:

1. What preliminary diagnosis can be considered the most likely?

Correct answer:

1. Chronic lymphocytic leukemia, terminal stage, autoimmune hemolytic anemia.

Task 64. Situational task

A 59-year-old patient complains of general weakness, malaise, and increased fatigue. Upon examination, a generalized enlargement of the lymph nodes was revealed.

Blood test: er. – $3.0 \times 10^{12}/l$, Nb – 90 g/l, c.p. – 1.0, thrombus. – $110 \times 10^9/l$, leuk. – $5.0 \times 10^9/l$, ESR 22 mm/hour. Botkin-Gumprecht cells 8:100.

Questions:

1. Specify the main syndrome.

2. Your preliminary diagnosis.

Correct answer:

1. Lymphadenopathy.

2. Chronic lymphocytic leukemia.

Task 65. Situational task

Patient K., 64 years old, was admitted with complaints of weakness and tinnitus. Objectively: Peripheral lymph nodes are not enlarged. The liver is 7 cm below the edge of the costal arch, the spleen is 12 cm. In the CBC: anemia, severe thrombocytosis, leukocytosis, myeloblasts, promyelocytes, myelocytes, ESR 30 mm/hour.

Myelogram: blasts - 1.2%, promyelocytes - 3.8%, myelocytes - 30.2%, metamyelocytes - 11.4%, erythrokaryocytes - 7.4%, megakaryocytes - single in the preparation.

Questions:

1. Assume a final diagnosis Correct

answer:

1. Chronic myeloid leukemia.

Task 66. Situational task

A 35-year-old woman in labor, M., in the postpartum period developed severe pain in the chest, severe shortness of breath of a mixed nature, and lost consciousness.

Objectively: the general condition is severe, respiratory rate is up to 30 per minute. In the right half of the chest, breathing is sharply weakened, isolated dry rales, in the lower parts there are fine rales. The neck veins are swollen, the pulse is rhythmic 100 per minute. BP - 90/60 mm Hg. Art. Heart sounds are muffled, splitting of the second tone above the pulmonary artery. UAC, OAM: normal. Coagulation time - 4 minutes, LDH - 4.2 $\mu\text{mol/h/l}$.

Questions:

1. Assume a preliminary diagnosis.

Correct answer:

1. PE, shock, acute respiratory failure.

Task 67. Situational task

A 39-year-old woman, M., a day after a long flight, suddenly developed chest pain, severe shortness of breath, and lost consciousness. Regularly takes hormonal contraceptives. Suffering from obesity. Previously suffered from thrombophlebitis of the left leg.

Objectively: The general condition is serious. NPV - 32/min. Breathing is weakened, medium- and fine-bubble wheezing over the entire surface of the lungs. The neck veins are swollen, the pulse is thready, 112 beats/min. Blood pressure 90/40 mm Hg.

Questions:

1. Establish a preliminary diagnosis.

2. Specify the risk factors for the suspected disease.

Correct answer:

1. PE, shock, acute respiratory failure..

2. Risk factors: obesity, air travel, taking hormonal contraceptives, history of DVT.

Task 68. Situational task

A 52-year-old patient, on the 3rd day after appendectomy, suddenly developed shortness of breath, dry cough, pressing pain over the entire surface of the chest, general weakness, and later hemoptysis. Objectively: moderate condition, swelling of the neck veins. Breathing is vesicular, no wheezing. NPV - 36 per minute. Heart sounds are muffled, accent of 2 tones is on the pulmonary artery. ECG: righthogram, symptom Q III, S I. Depression of the ST segment in V1-V3 leads, high P waves in standard leads.

Questions:

1. Make the most likely diagnosis.

2. What research methods are needed in this case?

Correct answer:

1. Postoperative pulmonary embolism.
2. Determination of the level of D-dimer, troponin in blood plasma; EchoCG, CT angiopulmonography, ultrasound of the veins of the lower extremities.

Task 69. Situational task.

Patient S., 43 years old, was admitted to the clinic with complaints of dizziness, shortness of breath and compressive pain in the heart area, occurring during moderate physical activity, relieved by nitroglycerin. History: frequent sore throats in childhood. On examination: condition is satisfactory. There is vesicular breathing in the lungs, no wheezing. The apical impulse is diffuse, dome-shaped, palpated 2.5 cm outward from the midclavicular line. The borders of the heart are expanded to the right, intense systolic murmur is heard on the aortic valve and carotid arteries. Heart rate is 60 beats/min. Blood pressure 110/80 mm Hg. Art.

Questions:

1. Suggest a diagnosis.

Correct answer:

1. Chronic rheumatic heart disease. Aortic valve stenosis. IHD, angina pectoris III FC.

Task 70. Situational task.

Patient P., 44 years old, was admitted to the clinic with complaints of weakness and shortness of breath with slight physical exertion. History: frequent sore throats in childhood. On examination, the condition was of moderate severity. Increased pulsation of the carotid arteries. Swelling of the feet and legs. NPV - 25 per minute. Apical impulse in the VI intercostal space along the anterior axillary line. Heart rate 96/min. Weakening of the 1st tone at the apex, emphasis of the 2nd tone in the 2nd intercostal space to the left of the sternum. In the 2nd intercostal space to the right of the sternum and at Botkin's point there is a soft, blowing, protodiastolic murmur. Blood pressure 150/40 mm Hg. Art. The lower edge of the liver protrudes from the right hypochondrium by 3-4 cm.

On chest x-ray, the shadow of the heart resembles a "sitting duck." Questions:

1. Suggest a diagnosis.

Correct answer:

1. Chronic rheumatic heart disease. Aortic valve insufficiency. Symptomatic arterial hypertension stage II, degree 1, risk 2 (moderate).

Task 71. Situational task.

Patient M., 37 years old, lost consciousness on the street and was taken to the hospital in a comatose state. Neurologist's conclusion: right-sided hemiparesis. Cardiologist: history of acute rheumatic fever. Examination revealed acrocyanosis, no peripheral edema. The borders of the heart are shifted upward and to the right; when auscultating the heart, the rhythm is abnormal, heart rate is 116 per minute, pulse deficit is 20, there is a "popping" sound at the 1st sound at the apex, an accent of the 2nd tone on the pulmonary artery, a presystolic murmur at the apex.

Questions:

1. What diagnosis can be assumed?

Correct answer:

1. Main diagnosis: Rheumatic heart disease. Mitral stenosis. Complications: Newly diagnosed atrial fibrillation, tachysystolic form. Thromboembolism of cerebral vessels, stroke.

Task 72. Situational task.

Patient L., 28 years old, came to see a therapist with complaints of constant palpitations and shortness of breath during physical activity. In childhood, frequent sore throats and polyarthritis.

Objectively: The borders of the heart are shifted upward and to the right. Heart sounds are muffled, arrhythmic, heart rate is 120 beats/min, the first sound is increased at the apex, diastolic murmur at the apex, "quail" rhythm, the accent of the second tone is on the pulmonary artery, pulse is 98 per minute, pulse deficit is 22 beats. per minute

ECG: EOS is deviated to the right, atrial fibrillation, tachysystole, 120 beats/min per minute. P-mitrale, right ventricular hypertrophy.

Questions:

1. What preliminary diagnosis is most likely? Correct answer:

1. Main diagnosis: Chronic rheumatic heart disease. Mitral stenosis. Complications: Newly diagnosed atrial fibrillation, tachysystolic form.

Task 73. Situational task.

Patient G., 26 years old, at an appointment with a therapist, complains of shortness of breath with little physical exertion. There is a history of frequent sore throats in childhood. Over the past 6 months, shortness of breath began to occur when walking normally. There was an attack of frequent irregular heartbeat, lasting 5 hours. On examination: cyanosis of the lips, tip of the nose, "blush" of the cheeks, respiratory rate - 24 per minute. At the apex there is a three-part rhythm, a clapping first sound, and a diastolic murmur. The tones are rhythmic, heart rate - 90 beats per minute, blood pressure - 100/60 mm Hg. Art. Liver: +2 cm from the edge of the costal arch. The shins are pasty.

Questions:

1. Suggest a diagnosis.

2. What is the reason for the three-part rhythm detected during auscultation of the patient?

Correct answer:

1. Chronic rheumatic heart disease. Mitral valve stenosis. Complications: probable paroxysmal atrial fibrillation.

2. The three-part rhythm with mitral stenosis is caused by the appearance of an additional tone in diastole - the sound of the opening of the mitral valve.

Task 74. Situational task.

Patient N., 46 years old, a flight attendant, complained of attacks of rapid heartbeat, interruptions in heart function not associated with physical activity, accompanied by aching pain in the heart area, and fainting twice. As a child, I was diagnosed with a heart defect. Objectively: the patient is malnourished and tall. Hypermobility of the wrist joints, flat feet. The boundaries of the heart are not expanded. A short systolic murmur is heard at the apex. Heart rate is 100 per minute, blood pressure is 130/80 mm Hg. Art. ECG: sinus tachycardia, heart rate 90 beats/min, EOS is not abnormal.

Questions:

1. Identify the main syndromes of the disease

2. Formulate a diagnosis.

Correct answer:

1. Syndromes: heart rhythm disturbance; cardialgia; damage to the valve apparatus (auscultation - prolapse); syncope.

2. Connective tissue dysplasia syndrome. Mitral valve prolapse. Paroxysmal tachyarrhythmia, unspecified.

Task 75. Situational task.

A 47-year-old man came to the clinic with complaints of palpitations, shortness of breath with slight physical exertion, and weakness. History: chronic tonsillitis, frequent sore throats.

Objectively: Heart sounds are muffled, rhythmic, heart rate = pulse = 92 per minute, blood pressure – 120/80 mm Hg, respiratory rate 22 per minute. In the lying position on the left side, a weakening of the 1st tone at the apex, a rough systolic murmur conducted to the left axillary region, and an accent of the 2nd tone on the pulmonary artery are heard. Systolic tremor at the apex. Pastiness of the legs. The liver is at the edge of the costal arch.

Questions:

1. What diagnosis is most likely?
2. Make an examination plan.

Correct answer:

1. Chronic rheumatic heart disease, mitral valve insufficiency.
2. EchoCG, SMECG, CBC, biochemical blood test, CRP, ASL-O.

CRITERIA for assessing competencies and rating scales

Grade "unsatisfactory" (not accepted) or absence formation competencies	Grade "satisfactorily" (passed) or satisfactory (threshold) level of development competencies	Grade "Fine" (passed) or sufficient level development competencies	Grade "Great" (passed) or high level development competencies
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<p>failure to student on one's own demonstrate knowledge when solving assignments, lack independence in application of skills. Absence availability confirmation formation competencies indicates negative development results academic discipline</p>	<p>student demonstrates independence in application of knowledge skills and abilities to solve educational tasks in full According to sample given teacher, by tasks, solution of which there were shown teacher, it should be considered that competence formed on satisfactory level.</p>	<p>student demonstrates independent application knowledge, skills and skills at decision tasks, tasks similar samples that confirms Availability formed competencies for higher level. Availability such competencies for sufficient level testifies about sustainable fixed practical skill</p>	<p>student demonstrates ability to full independence in choosing a method solutions non-standard assignments within disciplines with using knowledge, skills and skills, received as in development progress given disciplines and adjacent disciplines should be considered competence formed on high level.</p>
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Criteria for assessing test control:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
70-80	satisfactorily
Less than 70	unsatisfactory

When grading tasks with multiple correct answers, one error is allowed.

Interview assessment criteria:

Mark	Descriptors		
	strength of knowledge	ability to explain (introduce) the essence of phenomena, processes, do conclusions	logic and sequence b answer
Great	strength of knowledge, knowledge of basic processes of the studied subject area,	high skill explain the essence phenomena, processes, events, do	high logic And subsequence answer

	the answer is different depth and completeness disclosure of the topic; possession terminological apparatus; logic and consistency answer	conclusions and generalizations, give reasoned answers, give examples	
Fine	solid knowledge main processes subject matter being studied area, different depth and completeness disclosure of the topic; possession terminological apparatus; free possession monologue speech, however one is allowed - two inaccuracies in the answer	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; however one or two inaccuracies in the answer are allowed	logic and subsequence answer
satisfy flax	satisfactory process knowledge subject matter being studied areas, answer, different insufficient depth and completeness of disclosure Topics; knowledge of basic questions theory. Allowed several errors in content of the answer	satisfactory ability to give reasoned answers and provide examples; satisfactorily formed analysis skills phenomena, processes. Allowed several errors in content of the answer	satisfactory logic and subsequence answer
dissatisfy strictly	poor knowledge of the subject area being studied, shallow opening Topics; poor knowledge main issues theories, weak skills analysis of phenomena, processes. Allowed serious mistakes in content of the answer	inability to give reasoned answers	absence logic and sequences answer

Criteria for assessing situational tasks:

Mark	Descriptors			
	understanding Problems	analysis situations	skills solutions	professional thinking

			situations	
Great	complete implication problems. All requirements, declared task, completed	high benefit analyze situation, draw conclusions	high benefit select method solutions problems, faithful solution skills situations	high level professional thoughts
Fine	complete implication problems. All requirements, declared task, completed	benefit analyze situation, draw conclusions	benefit select method solutions problems faithful solution skills situations	residual level professional thoughts. one goes down - there are inaccuracies in reply
satisfy flax	astastic implication problems. majority requirements declared task, completed	please satisfy nyaya benefit analyze situation, draw conclusions	satisfactory skills solutions situations, falsity with choosing a method solutions to the problem	residual level professional thoughts. falls more a bunch of inaccuracies in reply or error sequences solutions
dissatisfy strictly	misunderstanding problems. legs requirements, declared task, not completed. No Tveta. Did not have experiments to solve hello	izkaya benefit analyze situation	insufficient solution skills situations	missing