The Ministry of Health of Ukraine
National Pirogov Memorial Medical University, Vinnytsya
Specialty – 222 "Medicine"

«CONSIDERED»
on the Methodical council of therapeutic disciplines
National Pirogov Memorial Medical University,
Vinnytsya
Protocol № 4 from « 28 » 02 2023
Chairman
_____prof. of HEI Mykola STANISLAVCHUK

«APPROVED»
by the Academic Council of the
National Pirogov Memorial Medical University,
Vinnytsya
Protocol № 7 from « 27 » 04 2023
Chairman
_____prof. of HEI Victoria PETRUSHENKO

Instructions for the student to the station № 1
"Standardized patient in the clinic of internal medicine. Part 1"

Carrying out of the remote State certification of applicants of higher education of preparation specialists of the second (master's) level of higher education in the field of knowledge 22 "Health" in the specialty 222 "Medicine" will take place under martial law in one-day format according to the provisions on the procedure for conducting OSP(C)E in VNMU named after M.I. Pirogov approved at the meeting of the Academic Council on 30.12.2021, protocol №8.

The procedure for conducting OSP(C)E is regulated by the Regulation on the introduction of elements distance learning at VNMU named after M.I. Pirogov and will take place on the Microsoft Teams or Google Meet platform.

On the day of the examination, the Secretary of the State Examination Commission joins the meeting student examiner and a group that takes the exam according to the schedule. At the station the student must greet and introduce himself, present a document (passport) proving his identity.

The student receives a clinical task, which provides for the assessment of patient complaints (will be presented), anamnestic and objective data, interpret laboratory results and instrumental methods of research of the given patient, to establish the diagnosis, to define tactics of patient management and prescribe treatment, naming a group of drugs and representative, give a short answer to additional questions if they are available at task.

The duration of the station is 5-7 minutes.

After the end of the stay at the station, the examiner does not accept the answer. Please note that the teacher is an observer of your actions and does not provide instructions, comment or question.

It is forbidden to use a mobile phone and other electronic gadgets, out of answer during the exam, transfer, copy, screen and distribute any information that is relevant to the exam and is not publicly available.

Requirements for passing the station:

- To use a computer or laptop during the answer;
- the answer is accepted only if a camera is on, where the student who passes the exam is clearly visible, and if a microphone is on with a clear sound;
- video is recorded while working at the station.

Part of OSP(C)E of internal medicine consists of two stations.

Station № 1 "Standardized patient in the clinic of internal medicine, part 1"
Situational problems from the cycles of cardiology, rheumatology, pulmonology, gastroenterology, nephrology, hematology and endocrinology are presented.

Example of task

Female, 66 years, pain in the area of the heart, which is associated with physical activity and occurs after passing 90-100 m or when climbing 15-20 steps. Pain has pressing character, irradiates to the left shoulder, passes after a long rest or 5-10 minutes after intaking nitroglycerin. Shortness of breath mixed nature, provoced by moderate exercise. Edema of legs, that presents throughout the day but increases in the evening.
History: Patient feels sick for about a year, when he experienced pain in the heart firstly. Shortness of breath and swelling increased during the past month. The mother died from myocardial infarction at the age of 65. Patient does not receive permanent treatment, relive pain attacks by intaking nitroglycerin.
Objectively: the patient's overall condition is satisfactory. Pulse –84 beats / min, rhythmic, with satisfactory properties. BP 130/80 mmHg The boundaries of the heart meet the age standards. I tone over the apex of the heart is weakened, the accent of the second tone over the aorta is heard. There is edema of leg is determined. There is no changes were detected in the study of the respiratory system and organs of the abdominal cavity.
Lipidogram::

Indicator	Result	Reference values
Total cholesterol, mmol / l	6,2	3,9-5,2
Triglycerides, mmol / l	2,4	0,45-1,7
LDL cholesterol, mmol / l	2,9	до 2,6
HDL cholesterol, mmol / l	0,8	1,0-1,6

Bicycle ergometry: at 75 W the patient has discomfort in the heart area. The ECG shows ST segment depression 4 mm below the line in I, AVL, V5- V6.
Task:
1. Make a diagnosis.
2. Give interpretation of lipidogram and bicycle ergometry.
3. Assign a treatment by naming the group of drugs and representative.

Example of answer and scoring:

Parameters that evaluate	Evaluation of completed tasks, points		
	Completely	Partially	Absent
Lipidogram. Increase in all indicators, and decrease in HDL, which indicates dyslipidemia.	0,25	0,15	0
Bicycle ergometry. Depression of the ST segment 4 mm below the isoline in I, AVL, V5-V6 indicates ischemia in the anterolateral wall of the left ventricle. The load of 50 W corresponds to the III FC of stable angina.	0,5	0,25	0
Diagnosis:			
- *CHD. Stable angina pectoris*	0,75	0,5	0
- FC III	0,25	0	0
- Diffuse cardiosclerosis. CH II A	0,25	0,15	0

Treatment. For attacks of pain: short-acting nitrates - nitroglycerin in tablets or sprays sublingually	0,5	0,25	0
β-blockers (nebivolol, bisoprolol)	0,5	0,25	0
Prolonged nitrates (isosorbide dinitrate, isosorbide mononitrate)	0,5	0,25	0
Statins (atorvastatin, rosuvastatin)	0,5	0,25	0
Antiplatelet agents (ASA, clopidogrel)	0,5	0,25	0
Treatment of heart failure: - ACE inhibitor (ramipril); - mineralocorticoid antagonist (eplerenone) - loop diuretics (torasemide)	0,5	0,25	0

The maximum number of points per station is 5

List of the situations:

- arterial hypertension;
- acute coronary syndrome;
- myocarditis;
- atrial fibrillation;
- chronic heart failure;
- aortic stenosis;
- mitral stenosis;
- cardiogenic shock;
- acute left ventricular failure;
- paroxysmal ventricular tachycardia;
- Morgan-Edems-Stokes syndrome;
- rheumatoid arthritis;
- gouty arthritis;
- Bekhterev's disease;
- systemic lupus erythematosus;
- osteoarthritis;
- gastroesophageal reflux disease;- gastric dyspepsia;
- peptic ulcer;
- biliary colic;
- chronic pancreatitis;
- cirrhosis;
- pneumonia;
- chronic obstructive pulmonary disease;
- bronchial asthma;
- chronic pyelonephritis;
- acute and chronic glomerulonephritis,
- chronic kidney disease, including chronic diabetic kidney disease;
- acute leukemia;
- chronic myeloblastic leukemia;
- autoimmune hemolytic anemia;- B12 - deficiency anemia;
- hereditary microspherocytosis;
- diabetes;
- obesity,
- hepatosis;
- diffuse toxic goiter;
- autoimmune thyroiditis;
- chronic adrenal insufficiency,

- Itsenko-Cushing's disease,
- diabetes mellitus.

List of laboratory research methods: complete blood count, general analysis of urine; biochemical analysis of blood for total protein and its fractions, bilirubin, transaminases, alkaline phosphatase, GGTP, markers of viral hepatitis, urine diastase, fecal elastase-1, sputum analysis, blood lipid spectrum, creatinine, urea, acidity coagulogram, hematocrit, CRP, ASL-O, D-dimer, troponin I, rheumatoid factor, ACCP, antinuclear antibodies; antibodies to DNA DNA, electrolytes (potassium, sodium), phosphorus, glucose tolerance test, gliohemoglobin; urobilin, urinary bilirubin; urine analysis by Nechiporenko and Zymnytsky, microbial count, daily proteinuria, Coombs' tests, thyroid hormones, ACTH, OTTG, blood cortisol; stercobilin stools; copro gram,

List of instrumental research methods: ECG, echocardiography, radiography of OGK, joints, spine, ultrasound of the abdominal cavity, kidneys and thyroid gland, FEGDS, daily intraesophageal pH monitoring, urinary breath test, radioisotope renography.

List of situational tasks

Situational task

Complaints and medical history will be presented.
Objectively: pulse 80 beats / min, rhythmic. Blood pressure - 130/80 mm Hg., heart auscultation - normal loudness of I sounds, aortic accentuation of II sound. Lung auscultation, palpation of the abdomen without pathological changes.
Done: CBC, ECG
Task:
1. Give an interpretation of troponin value.
2. Provide an ECG interpretation.
3. Establish a preliminary diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: moderate condition. The patient is pale, there is sweating. Pulse - 120 beats / min, arrhythmic, alternating. Heart rate - 152 beats / min, blood pressure - 110/80 mm Hg. Heart auscultatation - arrhythmic heart sounds. Auscultation of the lungs - vesicular breathing. The liver is not palpable. There is no swelling in the legs.
Done: Coagulogram, ECG
Task:
1. Give an interpretation of the coagulogram, indicating the target value of INR in the use of warfarin
2. Provide an ECG interpretation.
3. Formulate a diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: skin is pale. RR - 16 / min. Lung auscultation - weak vesicular breathing. Blood pressure - 120/80 mm Hg., pulse - 74 beats / min., rhythmic. Heart auscultation – I sound soft at the apex, systolic murmur over all points with radiation to the neck vessels and into the left axillary. Other objective data - without pathological changes.
Done: Blood tests, Echocardiography

Task:
1. Provide an interpretation of the blood test.
2. Interpret the echocardiographic data.
3. Formulate a preliminary diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: Pulse 80 beats / min, rhythmic. BP 130/80 mm Hg. Auscultation of the heart: sounds rhythmic, soft I sound at the apex, aortic accentuation of II sound. Pulmonary auscultation: vesicular breathing, no wheezing. Liver + 2 cm from the edge of the costal arch. Pitting edema of the legs.
Done: Biochemical combined blood test, Echocardiography
Task:
1. Interpret the blood test, indicating the target level of LDL in this patient.
2. Evaluate the echocardiographic data.
3. Formulate a diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objective examination: pale skin and visible mucous membranes. Pulse 95 beats / min., Rhythmic. Blood pressure - 115/70 mm Hg. The left border of the relative dullness of the heart is 1.5 cm outward from the mid-clavicular line. Soft I sound, accent of II sound on the pulmonary artery. Auscultation of lungs - vesicular breathing. The abdomen is soft and painless. Mild edema of both legs.
Done: Blood tests, ECG, EchoCG
Task:
1. Interpretation of the blood test
2. Interpret the results of ECG and echocardiography.
3. Formulate a diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objective examination: blood pressure - 165/105 mm Hg. Art. Pulse - 75 beats / min., rhythmical, tense. The left border of the relative dullness of the heart - on mid-clavicular line. Soft I sound at apex, accent of the II sound on the aorta. Lung auscultation - vesicular breathing. Abdomen is soft and painless. Swelling in the lower extremities is absent.
Done: Biochemical analysis of blood, ECG, EchoCG
Task:
1. Give an interpretation of the biochemical analysis of blood, indicating the target level of LDL for this patient
2. Provide an interpretation of instrumental research methods (ECG, echocardiography)
3. Formulate a diagnosis.
4. Determine the tactics of the patient and prescribe treatment, naming the group of drugs and the representative.

Situational task

Complaints and medical history will be presented.
Objectively: skin is moist and cold. Pulse 85 / min., rrhythmic, weak, blood pressure 130/80 mm. Hg. Oxygen saturation 96%. Respiration rate 18 / min. The left border of cardiac dullness is shifted outwards. I sound at the apex is weakened, aortic accent of the II sound. Lung auscultation - vesicular breathing.
Done: Blood tests, ECG
Task:
1. Provide an interpretation of the blood test.
2. Provide an ECG interpretation.
3. Establish a preliminary diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: the general condition of the patient is severe. Pulse 110 / min., rhythmic, weak, blood pressure - 80/40 mm Hg. Heart auscultation - weak I sound on apex, the gallop rhythm is auscultated. In the lower parts of both lungs - weakened vesicular breathing, wet small-bubble rales. SaO2 - 95%, respiratory rate - 24 / min.
Done: Blood tests, ECG
Task:
1. Provide an interpretation of the blood test
2. Provide an ECG interpretation.
3. Establish a preliminary diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: the general condition of the patient is severe. The skin is pale, moist. Pulse 160 / min., rhythmic, weak filling. Blood pressure - 80/50 mm. Hg. The borders of the heart are not shifted, heart sounds are weakened, rhythmic. No accents or murmurs are detected. Lung auscultation - vesicular breathing.
Done: Blood tests, ECG
Task:
1. Provide an interpretation of the blood test.
2. Provide an ECG interpretation.
3. Formulate a preliminary diagnosis.
4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.
Objectively: Pulse - 52 beats / min., arrhythmic, moderate size, Blood pressure - 140/60 mm Hg. Auscultation: heart sounds are weakened, aortic accent of the II sound. Lung auscultation - vesicular breathing. The liver edge is palpable + 2 cm. Swelling of the legs.
Done: Blood tests, ECG
Task:
1. Provide an interpretation of the blood tests.
2. Provide an ECG interpretation.
3. Formulate a preliminary diagnosis.

4. Determine the tactics of this patient, prescribe treatment with groups of drugs and it's representatives.

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods. The general patient's condition is satisfactory. Body temperature 36.6°C. Respiration rate 24 / min., pulse 96 beats / min, arrhythmic, BP 135/75 mm Hg.

On cardic exam, reveals the shift borders of relative cardiac dullness up and to the right on percussion. On auscultation of the heart - arrhythmic tones of varying intensity, at the apex of the heart is audiable amplifiyng, clapping of the SI and diastolic murmur, accent of the SII above pulmonary artery. On palpation of abdoman revealed an increase the liver + 2 cm. Edema of the lower extremities.

Done: ECG, Blood tests, Echocardiography

Task:

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (EchoCG).
3. Prescribe therapy with name of the group of drugs and the representatives

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods.

On physical exam, the general condition is satisfactory. The skin and visible mucous membranes are slightly pale. Musculoskeletal exam reveals subluxation of thumb of both hands, atrophy of the interosseous muscles with formation of look like "shuttle" hand, tenderness of the wrists and fingers on palpation, and range of motion is restricted. Pulse 80 beats / min, blood pressure 130/80 mm Hg. Cardiac exam is within normal limits. No pulmonary or abdominal abnormalities were found.

Done: Blood tests, X-ray

Task:

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (X-ray).
3. Identify the strategies of management with SMARD and DMARD agents with name of the group of drugs and the representatives.

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods.

On examination, the patient is overweight, the both knee joints are deformed. Physical examination shows a large effusion of the right knee, pain and crepitus the both knee joints to palpation. Range of motion of both knees is limited by pain. Pulse 70 beats / min., rhythmic, blood pressure 130/80 mm Hg. No cardiopulmonary or abdominal abnormalities were found.

Done: Blood tests, X-ray

Task:

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (X-ray).
3. Identify the strategies of management with SMARD and SYSADOA agents with name of the group of drugs and the representatives

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods

On examination, the patient is asthenic, the skin and visible mucous membranes are unremarkable. Physical exam is notable smoothing of a lumbar lordosis, moderate atrophy of muscles. The patient's gait is difficult due to pain in the spine and hips. Palpation reveals pain in the thoracic and lumbosacral spine, in the area of the sacroiliac joints. Positive Schober's test decreased spinal range of motion. Blood pressure - 130/75 mm Hg, pulse – 80/min, body temperature - 36.5^0 C. No cardiopulmonary or abdominal abnormalities were found.

Done: Blood tests, X-ray

Task.

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (X-ray).
3. Identify the strategies of management with name of the group of drugs and the representatives

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods.

The patient's condition is stable. Examination reveals a diffuse alopecia, an erythematous rash on the skin of the face, neck, forearms and hands, an oral ulcer. Mild pain and swelling of the whrist on palpation, no deformation of the joints. Lung examination shows dull sound to percussion and bilateral basilar decreased vesicular breathing on auscultation. Heart sounds are sonorous, rhythmic, blood pressure - 130/80 mm Hg, pulse - 86 per minute, respiratory rate – 20/min. The abdomen is painless on palpation, hepatosplenomegaly were found. No renal abnormalities were found.

Done: Blood tests, X-ray

Task:

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (X-ray).
3. Identify the strategies of management with name of the group of drugs and the representatives.

Situational task

Complaints and medical history will be presented.

Objective examination and results of additional research methods.

On inspection, general condition is satisfactory, the patient is overweight. Musculoskeletal exam reveals swelling and redness left first metatarsophalangeal joint, painful joints to palpation, present subcutaneous nodules over affected joints (firm, painless, slightly mobile). Pulse 78 beats / min, blood pressure 140/80 mm Hg. Cardiac exam is within normal limits. No pulmonary or abdominal abnormalities were found.

Done: Blood tests, X-ray

Task:

1. Make and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory parameters and instrumental research method (X-ray).

Identify the strategies of management with name of the group of drugs and the representatives.

Situational task

Complaints and medical history will be presented.

Objective examination: The general condition is relatively satisfactory. BF - 22 / min., Oxygen saturation 94%. At percussion of lungs - a box sound, at auscultation the weakened vesicular breath, a large number of dry whistling rales over all surface of lungs. Heart rate - 96 per minute. BP - 110/70 mm Hg. Heart tones are rhythmic, attenuated. The abdomen is soft, painless, the liver and spleen do not enlarged. An additional survey methods were performed, the results of which are given below.

Done: spirography, analysis of sputum

Task:

1. Formulate a preliminary diagnosis.
2. Interpret the spirography data
3. Interpret the results of sputum analysis.
4. Prescribe treatment for exacerbation and basic treatment outside of exacerbation, naming the group of drugs and the representative.

Situational task

Complaints and medical history will be presented.

Objectively: forced position - with the body tilted forward, diffuse cyanosis, oxygen saturation 78%, pulse 110 beats / min., Blood pressure 140/80 mm Hg. Additional muscles take part in the act of breathing. In the lungs during auscultation - vesicular hard breathing, a large number of dry wheezing rales over the entire surface of the lungs, which can be heard in the distance. Heart tones overlapped by rales. Other physical data without pathological changes.

Done: spirography, analysis of sputum

Task:

1. Formulate a preliminary diagnosis.
2. Interpret the spirography data
3. Interpret the results of sputum analysis.
4. Determine the tactics of the patient's management and give an unavailable supplementary help, named a group of drugs and representative of the well-known algorithm.

Situational task

Complaints and medical history will be presented.

Objectively: general condition of the patient of moderate severity, BF 22 / min., Oxygen saturation 93%, heart rate - 100 beats / min., Blood pressure 130/80 mm Hg. At percussion of lungs: the dull percussion sound on the right on average clavicular and front axillary lines since the 4th intercostal space is defined. Auscultation: bronchial respiration, ringing small-bubble wet rales and crepitation in the area of dull sound.

Done: General blood test, analysis of sputum, chest radiography

Task:

1. Give an interpretation of the analysis of sputum.
2. Evaluate the data of the radiograph, focusing on pathological changes
3. Make a diagnosis.
4. Determine the patient's treatment and prescribe treatment, naming the group, representative and route of administration.

Situational task

Complaints and medical history will be presented.

Objectively: Pulse 95 per minute, rhythmic. Blood pressure - 130/80 mm Hg. First tone at the top is slightly weakened, no noise. Breathing: hard, scattered dry "whistling" rales over the entire surface of the lungs. BF-23/min. Body temperature - 37.8°C. The abdomen is not painful, soft, participates in the act of breathing. The liver does not protrude from under the costal arch.

Done: General blood test, analysis of sputum, spirometry

Task:

1. Formulate a preliminary diagnosis.
2. Interpret the results of the laboratory test.
3. Give an interpretation of the instrumental survey.
4. Assign treatment for a patient.

Situational task

Complaints and medical history will be presented.

Objectively: Height 170 cm, body weight - 107 kg (BMI = 37 kg/cm²). Scleral icterus. Telangiectasia in the upper half of the body; palmar erythema, gynecomastia. Slurred speech. Disorientation in time. Asterixis. Increased tendon reflexes. BP- 125/82 mm Hg (while taking antihypertensive drugs). Pulse 80 beats. in min. Lungs, heart, thyroid gland - no abnormalties. Palpation of the abdominal organs is painless. The abdomen is partially bloated. Percussion signs of fluid in the abdominal cavity and a fluid wave over the abdomen. Liver palpation – firm painless edge +3 cm under costal arch. Liver percussion - 13 cm on midclavicular line and 11 cm on midsternal line. The spleen is not palpable due to bloating. Swelling of the feet and lower third of both shins.

Done: CBC, Biochemical tests, Abdominal Ultrasound, Upper endoscopy

Tasks:

1. Formulate a preliminary diagnosis indicating the etiological factor and list its complications.
2. Give an interpretation of the laboratory tests (CBC and biochemical tests), highlighting the main pathophysiological syndromes of the disease.
3. Give an interpretation of the instrumental examinations, highlighting the main pathophysiological syndrome of the disease.
4. Name the main treatment measures (surgical, endoscopic, pharmacological), that prolong the survival of patients in this clinical situation

Situational task

Complaints and medical history will be presented.

Objectively: The general condition of the patient is satisfactory. Skin and visible mucous membranes of normal color, clean. BH 20 / min., HR - 72 beats / min., BP 120/70 mm Hg. Tongue moist, coated with a whitish bloom. With superficial palpation of the abdomen, there is a slight muscle defense in the epigastrium. With deep palpation, there is pain in the epigastrium and pyloroduodenal zone. Mendel's symptom is positive. The liver and spleen are not enlarged. No pathology was revealed from other organs and systems. Additional tests were carried out, the results of which are given below.

Done: CBC, routine urine test, plasma glucose, C13 –urea breath test, Upper endoscopy

Tasks:

1. Formulate a preliminary diagnosis.
2. Interpret the data of C13 –urea breath test.
3. Interpret the results of upper endoscopy.
4. List the possible treatment regimens for this clinical case (naming the group of drugs and an example) and the duration of therapy.

Situational task

Complaints and medical history will be presented.

Objectively: relatively satisfactory, skin and visible mucous membranes of normal colour, clean. Heart tones are pure, rhythmic. Pulse - 78 beats / min., Rhythmic. Blood pressure - 125/85 mm Hg The abdomen is soft on palpation, moderately painful in the epigastric region. The liver and spleen are not enlarged. Defecation is normal

Done: Complete blood count, C -13 - urea breath test on IRIS infrared isotope analyzer

Tasks:

1. Establish the diagnosis.
2. Estimate the data of available laboratory tests
3. Assign additional methods of examination and justify their purpose
4. Prescribe treatment for this pathology (groups of drugs, representatives)

Situational task

Complaints and medical history will be presented.

Objectively: The general condition is satisfactory. Skin, mucous membranes of normal color. The tongue is moist, moderately covered with a white layer. Pulse – 86 beats per minute, BP -155/90 mm Hg. Rhythmic heart tones, the accent of the second tone over the aorta. Above the lungs - vesicular breathing. During abdominal auscultation normal intestinal noises were detected. The abdomen is soft on palpation, but the patient suddenly stops breathing on palpation of the right upper quadrant of the abdomen. The lower edge of the liver can not be palpated, the spleen is not enlarged. Pasternatsky's symptom is negative on both sides. No pathology was detected from other organs and systems.

Done: Blood glucose, Diastase urine, Total bilirubin, Ultrasound of the abdominal organs

Tasks:

1. Formulate a preliminary diagnosis
2. Give an interpretation of the laboratory tests.
3. Give an interpretation of the abdominal ultrasound.
4. Prescribe emergency treatment of exacerbation of the disease, naming groups of drugs and specific drugs and maintenance treatment of the patient (drug and non-drug)

Situational task

Complaints and medical history will be presented.

Objectively: The general condition is satisfactory. Skin, mucous membranes of normal color. The tongue is moist, moderately covered with a white layer. Pulse – 86 beats per minute, BP -155/90 mm Hg. Rhythmic heart tones, the accent of the second tone over the aorta. Above the lungs - vesicular breathing. During abdominal auscultation normal intestinal noises were detected. The abdomen is soft on palpation, but the patient suddenly stops breathing on palpation of the right upper quadrant of the abdomen. The lower edge of the liver can not be palpated, the spleen is not enlarged. Pasternatsky's symptom is negative on both sides. No pathology was detected from other organs and systems.

An additional tests were conducted, the results of which are given below.

Done: Blood glucose, Diastase urine, Total bilirubin, Ultrasound of the abdominal organs

Tasks:

1. Formulate a preliminary diagnosis
2. Give an interpretation of the laboratory tests.
3. Give an interpretation of the abdominal ultrasound.
4. Prescribe emergency treatment of exacerbation of the disease, naming groups of drugs and specific drugs and maintenance treatment of the patient (drug and non-drug)

Situational task

Complaints and medical history will be presented.

Objectively: moderate, skin and visible mucous membranes are pale, clean. Heart tones are pure, rhythmic. Pulse is 78 beats / min., rhythmic. Blood pressure is 125/80 mm Hg. The abdomen is soft and painless on palpation. The liver and spleen are not enlarged.

An additional survey was conducted, the results of which are given below.

Done: C -13 - urea breath test on IRIS infrared isotope analyzer, 24-hours intraesophageal pH - monitoring:

Tasks:

1. Establish the diagnosis.
2. Evaluate the result of the Urea breath test
3. To interpret pH-metry and upper endoscopy
4. Prescribe treatment for this pathology (groups of drugs, representatives) and indicate drugs that may lead to a false-negative result of UDT

Situational task

Complaints and medical history will be presented.

Objectively: the skin is warm, pale, swollen limbs, torso and face. Pulse 80 per minute, intense, rhythmic. BP 170/110 mm.Hg. The heartbeat is diffuse, resistant, the left border of the relative dullness of the heart is shifted to the left by 2 cm. The first tone above the apex is weakened, the accent of the second tone is above the aorta. In the lower posterior lungs percussion sound - dull, auscultatory in these places the weakening of vesicular respiration. The abdomen is painless on palpation. The liver is not palpable. In the lateral flanks of the abdomen is determined by the dulling of the percussion sound. The kidneys are not palpable, the area of their palpation is painless.

Done: General urine analysis, general blood analysis, radionuclide renography, renogram

Task:

1. Formulate and justify a complete clinical diagnosis.
2. Interpret laboratory methods of blood and urine tests.
3. Evaluate the Radionuclide renography data and list the obtained pathological changes.
4. Determine the treatment tactics of this patient, prescribe pharmacological therapy with the name of the group of drugs and its representative.

Situational task

Complaints and medical history will be presented.

Objectively: the general condition is satisfactory, the skin is normal color, temperature 37.9°C. Pathological changes in the respiratory system are not detected. Pulse 86 beats/min. BP 160/105 mm Hg. The left border of the heart is defined by 1 cm outward from the midclavicular line. The abdomen is soft on palpation. Pasternatsky's symptom is positive on both sides. The kidneys are not palpable, the area of their palpation is painful on both sides.

Done: General urine analysis, general blood analysis, ultrasound examination of the kidneys

Task:

1. Formulate and justify a complete clinical diagnosis.
2. Give an interpretation of laboratory methods of blood and urine.
3. Evaluate the ultrasound data of the kidneys and list the pathological changes.
4. Determine the treatment tactics of this patient, prescribe pharmacological therapy with the name of the group of drugs and its representative.

Situational task

Complaints and medical history will be presented.

Objectively: the patient is pale, the skin is dry. There is swelling under the eyes. Pulse -76 per minute, rhythmic, intense. BP 162/100 mm Hg. The boundaries of the heart are normal. The tone above the apex of the heart is preserved, the accent of the second tone over the aorta is heard. Examination of the respiratory system and abdominal organs revealed no changes. The kidneys are not palpable, palpation of the kidneys is sensitive on both sides. Pasternatsky's symptom is weakly positive on both sides.

Done: General urine analysis, general blood analysis

Task:

1. Formulate and justify the previous clinical diagnosis.
2. Interpret blood and urine tests.
3. Determine the treatment tactics of the patient and prescribe pharmacological therapy, naming the group of the drug and the representative.

Situational task

Complaints and medical history will be presented.

Objectively: The skin is pale, dry with traces of itching. Pastosity of the face and legs. In the lungs - without changes. BP-180/110 mm Hg. Pulse 60 for 1 minute, intense. The left border of the relative dullness of the heart is shifted 3 cm outward from the mid-clavicular line. The tone is

weakened at the apex, the emphasis is 2 tones on the aorta. The abdomen is soft and painless. The kidneys are not palpable. Pasternatsky's symptom is negative on both sides.

Done: General urine analysis, general blood analysis

Task:

1. Formulate and justify a complete clinical diagnosis.
2. Interpret laboratory methods of blood and urine tests.
3. Determine the treatment tactics of this patient, prescribe pharmacological therapy with the name of the group of drugs and its representative.

Situational task

Complaints and medical history will be presented.

Objectively: The skin and mucous membranes color is normal. Pulse rate is 80 per min., rhythmic. BP 120/80 mm Hg. Heart sounds are rhythmic, weakened.

BR 18 in minutes. Lungs examination - a clear pulmonary sound, vesicular breathing.

The abdomen is soft, painless. The lower edge of the liver 3 cm protrudes from the costal arch, soft, rounded, painless. The spleen is 2 cm below the costal arch. Urine and feces are the usual color.

Done: Complete Blood Count

Tasks:

1. What is the diagnosis?
2. What is the result of a genetic study confirms the diagnosis? What is the effect of this mutation?
3. What are the stages of disease progression?
4. What is the tactics of treatment of this patient?

Situational task

Complaints and medical history will be presented.

Objectively: The general condition is severe. Consciousness is clear. The skin is pale, multiple petechiaes and bruises are on the skin. Lymphnodes are not enlarged. Sternalgia, ossalgia are pronounced. BR 20 per minute. Lungs examination - a clear pulmonary sound and vesicular breathing. Pulse rate is110 in min., rhythmic. BP 110/70 mm Hg. Heart sounds are rhythmic, systolic murmur at all five points of auscultation and on the cervical vessels. Liver - at the edge of the costal arch, the spleen is palpated 3 cm below the costal arch.

Done: Complete Blood Count

Tasks:

1. Formulate a diagnosis.
2. What studies are needed to confirm complete diagnosis?
3. Prescribe symptomatic treatment.
4. The principles of treatment of this disease.

Situational task

Complaints and medical history will be presented.

Objectively: The general condition is severe, the consciousness is clear. The skin and mucous membranes are pale and yellow. The joints are not changed. Ossalgia and sternalgia are absent. Pulse rate - 100 rpm, rhythmic. BP - 110/70 mm Hg. Heart sounds are rhythmic, systolic murmur at all five points of auscultation and on the vessels of the neck. BR is 18 in minutes. Lungs examination - a clear pulmonary sound and vesicular breathing. The abdomen is soft, painless. Lymphnodes are not enlarged. Liver +2 cm, spleen +2 cm below the costal arch, soft, sensitive to palpation.

Done: Complete Blood Count

Tasks:

1. Formulate a diagnosis.
2. Write a plan to detection of the etiology of this disease.

3. What type of jaundice? What clinical and laboratory data are specific for it?
4. Prescribe treatment.

Situational task

Complaints and medical history will be presented.

Objectively: The skin and mucous membranes are pale and yelowish. The tongue is brightly red, with a glossy surface, the papillae are atrophied. Pulse rate 100 per min., rhythmic. BP 110/70 mm Hg. Heart sounds are rhythmic, systolic murmur at all five points of auscultation and on the vessels of the neck. BR 20 per minute. Lungs examination - a clear pulmonary sound and vesicular breathing. The abdomen is soft, painless.

Done: Complete Blood Count

Tasks:

1. Formulate leading clinical syndromes.
2. Make a preliminary diagnosis.
3. Write and explain investigations which are necessary for diagnosis.
4. Assign treatment of anemia, methods of monitoring the effectiveness, prevention of relapse.

Situational task

Complaints and medical history will be presented.

Objectively: General condition is moderate severity. Consciousness is clear. The skin and mucous membranes are pale and yellow. Body temperature 36.7°C. Pulse 110 in min., rhythmic. BP 110/70 mm Hg. Heart sounds are rhythmic, systolic murmur at all points of auscultation. BR 20 per minute. Lungs examination - a clear pulmonary sound and vesicular breathing. The abdomen is soft, painless. The liver is +3 cm below the costal arch, is soft, painless. The spleen is +5 cm below the costal arch.

Done: Complete Blood Count

Tasks:

1. Formulate a diagnosis.
2. White a plan of investigations.
3. What complications are possible?
4. Prescribe treatment and prevention of complications.

Situational task

Complaints and medical history will be presented.

Objectively: BMI - 33.0 kg / m2. The skin is dry. Pulse 80 per minute. Blood pressure - 120/80 mm Hg. Art. Heart tones are weakened. Vesicular respiration. The abdomen is not painful, soft. The liver protrudes from the costal arch by 2 cm. Pasternatsky's symptom is negative on both sides. The skin of the feet is not changed. There is no edema. Pulsation on the a.dorsalis pedis et tibialis posterior is preserved.

Done: General blood test, Blood glucose, HbAlc, General analysis of urine.

Task:

1. Establish a preliminary diagnosis.
2. Evaluate glycated hemoglobin.
3. Determine the tactics of this patient, provide basic treatment, listing groups of drugs and representatives.

Situational task

Complaints and medical history will be presented.

Objectively: height - 167 cm, body weight - 57 kg. The skin is moist, warm to the touch. Pulse - 118 per minute, rhythmic, fast, medium. The limits of relative dullness of the heart are normal. I tone at the apex loud, systolic murmur at the apex. Blood pressure - 155/60 mm Hg. Art. Eyelid pigmentation. Grefe and Moebius symptoms are negative. The thyroid gland is visualized in the

normal position of the head, shifted when swallowing, on palpation elastic, not painful. Shallow tremor of the fingers of outstretched hands.

Done: TSH, vT4, BP of TSH receptors.

Task:

1. To evaluate clinically the function of the thyroid gland.
2. Make a preliminary diagnosis.
3. Evaluate the main research.
4. Indicate which groups of drugs and representatives should be prescribed in the first place.
5. Indicate which laboratory criterion is used to assess the effectiveness of treatment.

Situational task

Complaints and medical history will be presented.

Objectively: height - 174 cm, body weight - 82 kg. The skin is pale, cold, dry. Pulse 58 in 1 minute, rhythmic. Blood pressure - 120/80 mm Hg. The limits of relative cardiac dullness are not shifted. Heart tones are weakened. The face is pasty, the hands are swollen, soft, there is no hole when pressed. The thyroid gland is not palpable.

Done: TSH, vT4, AT to TPO, Ultrasound of the thyroid gland.

Task:

1. To evaluate clinically the function of the thyroid gland.
2. Make a preliminary diagnosis.
3. Evaluate the main research.
4. Indicate which group of drugs and the representative should be prescribed in the first place, the initial daily dose.
5. Indicate which criterion is used in the selection of adequate doses of the drug in the patient.

Situational task

Complaints and medical history will be presented.

Objectively: height - 166 cm, body weight - 54 kg. Intensive tanning skin, increased pigmentation near the nipple areas of the breasts, the back of the hands, elbows. Pulse 88 in 1 minute, small. Blood pressure lying - 100/60 mm Hg, standing 80/50 mm Hg. The boundaries of the heart are normal. The tones above the top are weakened, more so than the first.

The abdomen is soft on palpation, sensitive in the epigastric region. The liver is not enlarged. There is no edema.

Done: Cortisol, ACTH, OTTG, h / s 2 hours, Na +, K +.

Task:

1. Make a preliminary diagnosis.
2. Evaluate the main research.
3. Indicate what features of the patient's diet.
4. Indicate which group of drugs and representative should be prescribed in the first place.
5. Indicate which of the vitamins should be prescribed first.

Situational task

Complaints and medical history will be presented.

Objectively: height 172 cm, body weight - 105 kg. BMI 35.5 kg / m2. Subcutaneous fat deposition on the dysplastic type, mainly in the torso and face. The skin is dry, in the neck and elbows there is pigmentation, in the buttocks - cyanosis. On the lateral surfaces of the abdomen, thighs - crimson-red stripes. Hypoplasia of the gluteal muscles and thigh muscles. Pulse - 76 per minute, blood pressure - 165/105 mm Hg. Art. The left border of the relative dullness of the heart is shifted by 2 cm to the left of the mid-clavicular line. The tones of the heart above the apex are weakened, the accent of the second tone over the aorta. Vesicular respiration. Abdominal organs could not be palpated due to obesity. There is no edema.

Done: General blood test, Blood glucose, Blood cortisol, ACTH, MRI, Ultrasound of the adrenal glands, Fields of view research.

Task:

1. Make a preliminary diagnosis.
2. Type of obesity in the patient.
3. Assessment of the state of carbohydrate metabolism in the patient.
4. Evaluate the main research.
5. What test should be performed.
6. Indicate which hormonal disorders are the cause of hypertension.

Situational task

Complaints and medical history will be presented.

Objectively: Height - 168 cm, body weight - 78 kg. Pulse - 68 per minute. Blood pressure - 130/80 mm Hg. Art. Heart tones are pure, sonorous. Vesicular respiration. The abdomen on palpation is soft, not painful. The thyroid gland is not palpable.

Done: General blood test, General analysis of urine, Urine analysis according to Zemnitsky, Fasting blood glucose, Glycemia after 2 hours. after loading, Plasma sodium, Potassium

Task:

1. Make a preliminary diagnosis.
2. Evaluate blood glucose.
3. Evaluate the main research.
4. Indicate which group of drugs and representative should be prescribed in the first place.
5. Indicate which laboratory criterion is used to assess the effectiveness of treatment in everyday practice.

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