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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 1
Station «Situational tasks»

A 42-year-old man complains of fever 38.2 °Cover the 5-day period, productive cough with yellowish sputum, left-sided chest pain, generalized weakness. There was no therapeutic effect after taking antipyretics. The patient didn't display an allergy to any medications. The patient denies concomitant diseases. He didn't receive any antibiotic treatment in the last three months.

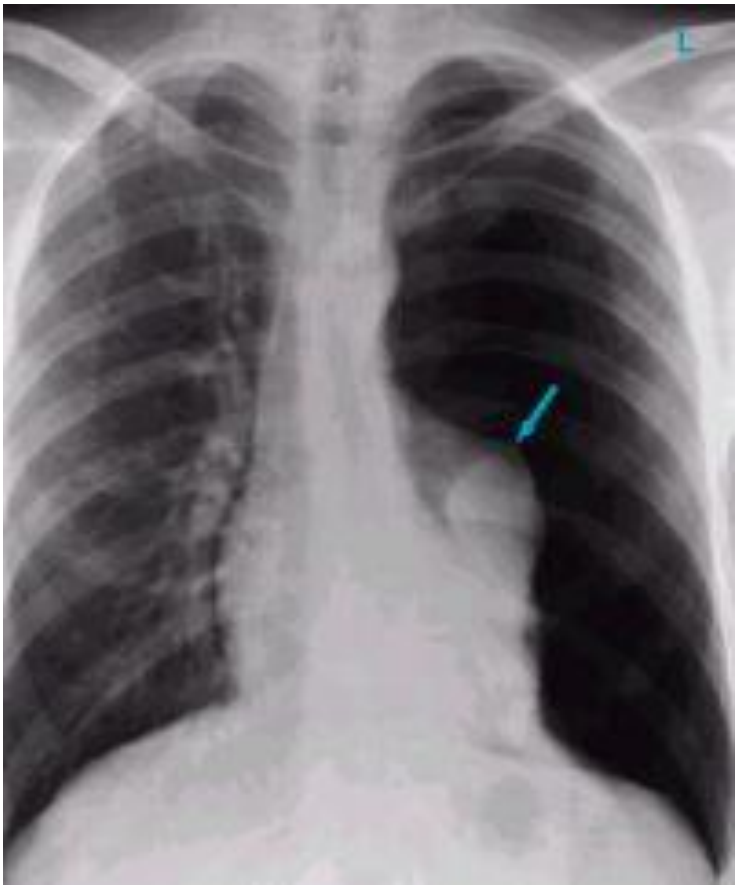
The patient's general state is relatively satisfactory. On auscultation, crepitus is heard over the lower part on the left lung, vesicular breathing with no wheezing over other parts of the lungs. The heart sounds are clear, of a normal rhythm, heart rate is 78 bpm, BP is 125/85 mmHg. The abdomen is soft and painless in all abdominal regions during palpation. The liver and spleen is not enlarged.

Blood analyze: hemoglobin- 162 g/L, leukocytes -12.2×10^9/L, eosinophils-1%, neutrophils - 83%, lymphocytes- 16%, ESR- 24 mm/h.

Chest X-ray: infiltration in the 9-10^{th} segments of the left lung is shown.

Questions:
1. Offer a preliminary diagnosis.
2. Differential diagnosis.
3. Determine a treatment plan and list classes of medicine.
4. Provide examples of medication from each class.
5. Indicate the dosage and dosage regimen.

Station «Practical skills»



Questions:
1. Give a description of the radiograph.
2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 2
Station «Situational tasks»

A 53-year-old woman sought medical help for attack of dyspnoe 2-3 times a day shortness of breath after physical activities, slightly productive cough, chest discomfort. Symptoms of disease appeared after pneumonia 12 years ago. Attacks recure after physical activities and at night. Salbutamol was used 3-4 times a day to alleviate these attacks. The patient claims she has never had any known allergic diseases or bad habits.

The condition is satisfactory, consciousness is clear. Skin and mucosa is clear and of usual color. Lymph nodes are not enlarged. Tympanic sound is heard in percussion, wheezing and coarse breathe – in auscultation. The respiratory rate is 20 per min. The heart sounds are muffled, of a normal rhythm. BP-135/90 mmHg, heart rate is 72 bpm. The abdomen is soft and painless. The liver and spleen is not palpable. Defecation is usual.

Blood analyze: hemoglobin- 122 g/L, erythrocytes- 4.2×10^{12} / L, leukocytes -9.2×10^{9}/L, band neutrophils - 4%, segmented neutrophils - 62%, eosinophils - 4%, monocytes - 5%, lymphocytes- 25%, ESR - 18 mm/h.

ACQ-5 score is 1.2.

Chest x-ray shows low attenuation pattern, increased pulmonary vascularity.

Spirometry: FVC- 82%, FEV_1- 69%, daily PEF fluctuations > 30%, increase in FEV_1 of 22% after salbutamol inhalation.

Questions:

1. Offer a preliminary diagnosis.
2. Differential diagnosis.
3. Determine a treatment plan and list classes of medicine.
4. Provide examples of medication from each class.
5. Indicate the dosage and dosage regimen.

Station «Practical skills»

Questions:
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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 3
Station «Situational tasks»

A 26-year-old man reports episodic shortness of breath 4-5 times a month, difficulty exhale, slightly productive cough with sibilant rales. From the medical history: attacks were observed over the past year; being provoked by exposure to dust, pollen, fur; relieving independently or after salbutamol inhalation. The patient's grandmother is believed to have suffered from similar attacks.

The patient's general state is satisfactory, the respiratory rate is 20 per min. The skin is clear and of usual color. A lot of dry rales are heard during auscultation while exhaling. The heart sounds are clear, of a normal rhythm; heart rate is 78 bpm, BP-120/85 mmHg. The abdomen is soft and painless during palpation. The liver and spleen are not enlarged.

Blood analyze: leukocytes - 7.8×10^9/L, segmented neutrophils - 64%, lymphocytes- 22%, eosinophils - 10%, monocytes - 4%, ESR- 8 mm/h.

General sputum analysis: viscous consistency, mucous, leukocytes- 1-5 in sight, eosinophils- 2 -30 in sight, Curschmann's spirals, Charcot–Leyden crystals.

Serum IgE level is three times higher than the norm.

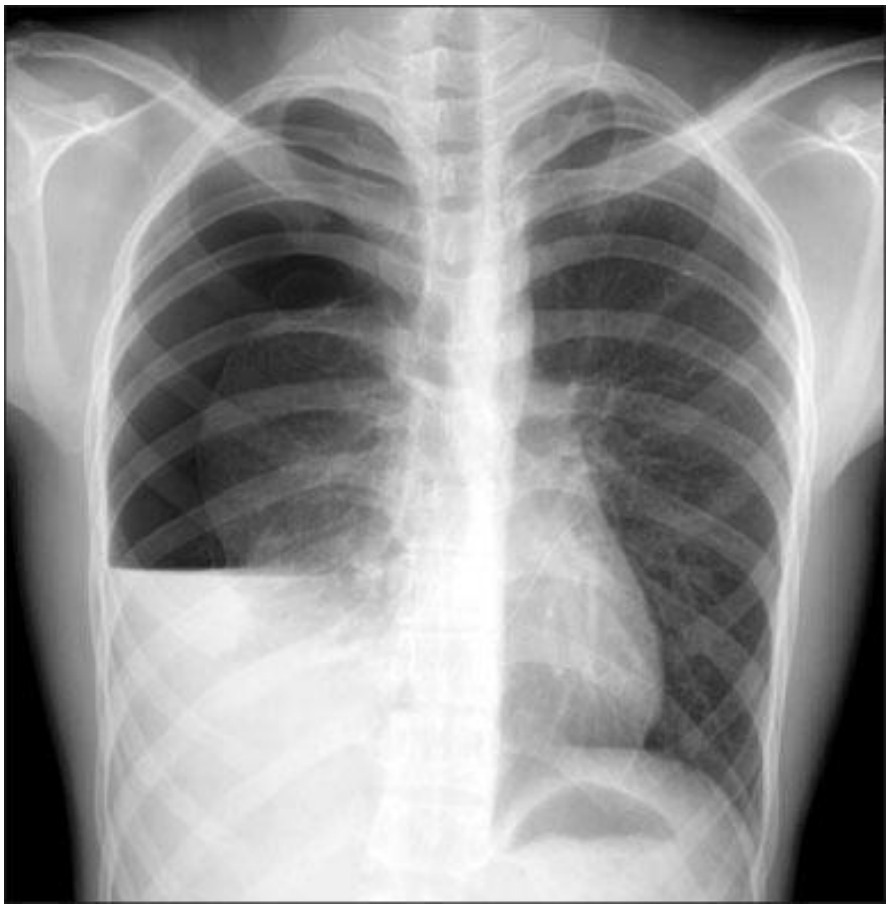
Asthma control questionnaire score is 0.5.

Spirometry: FVC- 86%, FEV_1- 74%, daily PEF fluctuations -20%, increase in FEV_1 of 18 % after salbutamol inhalation. A chest x-ray shows no signs of pulmonary infiltrates.

Questions:

1. Make a preliminary diagnosis.
2. Differential diagnosis.
3. Determine a treatment plan and list classes of medicine.
4. Provide examples of medication from each class.
5. Indicate the dosage and dosage regimen.

Station «Practical skills»



Questions:
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Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 4
Station «Situational tasks»

A 62-year-old man presents to physician office due to productive cough with sputum and shortness of breath after slight physical activities. Cough with sputum has been observed for 10 years. The patient has been smoking a pack of cigarettes a day for 30 years.

Objective examination: the face is puffy, cyanotic, swelling in the veins of the neck. The thorax is barrel-shaped. Tympanic sound is heard over both lungs in percussion. On auscultation: diminished breathing with dry rales above the lungs. The respiratory rate is 23 per minute. The heart sounds are muffled. The emphasized second heart sound is heard over the pulmonary artery, heart rate is 90 bpm, regular, BP – 130/90 mmHg. No peripheral swelling.

Blood analyze: hemoglobin - 168 g/L, leukocytes - 9.1×10^9/L, eosinophils - 1%, neutrophils -73%, lymphocytes - 26%, ESR - 10 mm/h.

Chest x-ray shows low attenuation pattern, increased pulmonary vascularity, distorted vascular markings, roots of lungs are expanded, no infiltrative changes.

ECG: sings of right ventricular hypertrophy.

Spirometry: FVC- 79%, FEV_1- 42%, increase in FEV_1 of 4% after salbutamol inhalation.

The assessment of symptoms showed grade 2 in accordance with the Modified medical research council scale and >10 units in accordance with COPD assessment test.

Questions:

1. Make a preliminary diagnosis.
2. Differential diagnosis.
3. Determine a treatment plan and list classes of medicine.
4. Provide examples of medication from each class.
5. Indicate the dosage and dosage regimen.

Station «Practical skills»

Questions:
1. Give a description of the radiograph.
2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 5
Station «Situational tasks»

A 18 years old man went to the emergency room for bleeding after tooth extraction. The tight bandage did not stop the bleeding. The patient notes the easy appearance of bruises. According to her mother, her father had similar problems when wisdom teeth were removed, bruising and arthropathy could easily appear. The patient is not taking medication. Physical examination revealed hemorrhagic syndrome of hematoma type. Body weight 60 kg, height 164 cm. Laboratory studies:

Indicators \ Units	Normal level	Patient level
Hemoglobin	Female:120–140 g/l	132 g/l
	Male: 130–160 g/l	
Red blood cells	Female:3,7–4,7x10^{12}/l	4,4x10^{12}/l
	Male: 4,0–5,0x10^{12}/l	
Mean corpuscular volume, MCV	80–100 fl	82 fl
Mean corpuscular hemoglobin, MCH	27–35 pg	28 pg
Erythrocyte sedimentation rate, ESR	Female: 2–15 mm/h	9 mm/h
	Male: 1–10 mm/h	
White blood cells	4–9x10^{9}/l	8,0x10^{9}/l
Platelets	180–320x10^{9}/l	220x10^{9}/l
Leukocyte formula		
blasts	0 %	0 %
myelocytes	0 %	0 %
young cells	0 %	0 %
banded neutrophils	1–5 %	4 %
segmented neutrophils	47–72 %	54 %
basophils	0,5–1 %	1 %
eosinophils	1–5 %	2 %
lymphocytes	18–38 %	34 %
monocytes	3–11 %	5 %

Coagulogram		
Prothrombin time	9,8–12,1 sec	11 sec
Activated Partial Thromboplastin Time, APTT	22–32 sec	60 sec
D–dimer	< 0,5 FEU/ml	0,3 FEU/ml

Level of factors: FVIII – 10%, FIX – 90%, FII – 92%, Inhibitory antibodies to FVIII are absent.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases it is necessary to carry out differential diagnostics.
3. Identify treatment tactics and list groups of drugs.
4. Name the agents in each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

Questions:
1. Give a description of the radiograph.
2. Conclusion.

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Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 6
Station «Situational tasks»

A 43 years old woman came to a cardiologist because of an increase in blood pressure, a frequent hypertensive crisis. Complaints: general weakness, redness of the skin of the face, neck, palms of hands, periodic headache, itching of the skin, which is exacerbated after contact with water.

Objectively: general condition is satisfactory. The skin and visible mucous are hyperemic. There are no hemorrhages. Peripheral lymph nodes are not enlarged. Auscultation of the lungs – vesicular breathing, respiratory rate –16 / min. The heart boundaries are not expanded. At auscultation of the heart tones are rhythmic, heart rate 78 / min, blood pressure 140/90 mm Hg. Abdomen is soft, painless. The liver is not enlarged, the spleen + 3 cm. There is no edema.

The patient's blood test revealed:

Units / Indicators	Normal level	Patient level
Hemoglobin	Female:120–140 g/l	183 g/l
	Male: 130–160 g/l	
Red blood cells	Female:3,7–4,7x10^{12}/l	6,2x10^{12}/l
	Male: 4,0–5,0x10^{12}/l	
Hematocrit	Female: 36–46 %	64 %
	Male: 41–51%	
Mean corpuscular hemoglobin, MCH	27–35 pg	34,5 pg
Erythrocyte sedimentation rate, ESR	Female: 2–15 mm/h	1 mm/h
	Male: 1–10 mm/h	
White blood cells	4–9x10^{9}/l	12x10^{9}/l
Platelets	180–320x10^{9}/l	728x10^{9}/l
Leukocyte formula		
blasts	0 %	0 %
myelocytes	0 %	0 %

young cells	0 %	0 %
banded neutrophils	1–5 %	3 %
1	2	3
segmented neutrophils	47–72 %	57 %
basophils	0,5–1 %	0 %
eosinophils	1–5 %	0 %
lymphocytes	18–38 %	38 %
monocytes	3–11 %	2 %
Biochemical parameters		
Erythropoietin	4,3–29 mU/mL	2,61 mU/mL

Bone marrow trepanobiopsy was performed.
Results of histological examination:
The *leuko*/*erythro ratio*: 8 : 1 (normal 3.5 – 4 : 1).
Size of myeloid colonies: enlarged.
Dimensions of erythroid colonies: enlarged.
The number of megakaryocytes is approximately 12–15 in vision area of large magnification.
JAK2 mutation is positive

Question:

1. Make a preliminary diagnosis.
2. With what diseases it is necessary to carry out differential diagnostics.
3. Identify treatment tactics and list groups of drugs.
4. Name the agents in each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

Questions:

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2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
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Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 7
Station «Situational tasks»

A 54 years old man complains of general weakness, dizziness, pain in the thoracic and lumbar spine, which is exacerbated by movement. Objective data. The skin is pale. The thyroid gland is not enlarged. Pulse – 84 per 1 minute, rhythmic. Blood pressure – 130/85 mm Hg. Heart tones are rhythmic. In the lungs – vesicular breathing. The abdomen is soft, not painful.

The patient's blood test revealed:

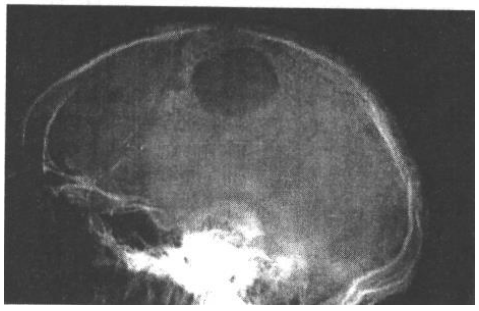
Indicators \ Units	Normal level	Patient level
Hemoglobin	Female:120–140 g/l	81 g/l
	Male: 130–160 g/l	
Red blood cells	Female:3,7–4,7x10^{12}/l	2,4x10^{12}/l
	Male: 4,0–5,0x10^{12}/l	
Mean corpuscular volume, MCV	80–100 fl	92 fl
Mean corpuscular hemoglobin, MCH	27–35 pg	34,5 pg
Erythrocyte sedimentation rate, ESR	Female: 2–15 mm/h	84 mm/h
	Male: 1–10 mm/h	
White blood cells	4–9x10^{9}/l	5,2x10^{9}/l
Platelets	180–320x10^{9}/l	182x10^{9}/l
Leukocyte formula		
blasts	0 %	0 %
myelocytes	0 %	0 %
young cells	0 %	0 %
banded neutrophils	1–5 %	3 %
segmented neutrophils	47–72 %	60 %
basophils	0,5–1 %	1 %
eosinophils	1–5 %	2 %
lymphocytes	18–38 %	28 %

monocytes	3–11 %	7 %
Biochemical parameters		
Protein	66–87 g/l	106 г/л
Creatitin	62–106 μmol/l	64 μmol/l
Calcium	2,15–2,5 mmol/l	4,2 mmol/l

Electrophoresis of blood and urine proteins revealed an M–paraprotein gradient.

Urine analysis: gravity – 1,019, protein–1,2 g / l, erythrocytes – 3–4 in vision area, leukocytes – 0–5 in vision area.

The radiography of the bones is shown.



Sternal puncture was performed. Results of myelogram count:

Myelogram		Normal level	Patient level
blasts		0,1–1,1%	0%
Neutrophils	promyelocytes	0,4%	1%
	myelocytes	1%	7%
	metamyelocytes	0,8%	1,4%
	banded neutrophils	1%	5%
	segmented neutrophils	21,2%	20,5%
eosinophils		0,5–5,8%	0,8%
basophils		0,0–0,5%	0,2%
erythroblasts		0,2–1,1%	0,4%
pronormocytes		0,1–1,2%	0%
Normocytes	basophilic	0,2%	0%
	polychromatophilic	1,2%	1%
	oxyphilic	2,0%	0,5%
megaloblasts		0%	0%
lymphocytes		4,3–13,7%	20,4%
plasmocytes		0,1–1,8 %	35,4%
monocytes		0,7–3,1%	6,4%
leuko/erythro ratio		(3,5–4:1,0)	25:1
megakaryocytes		functional	functional

Questions:

1. Make a preliminary diagnosis.
2. With what diseases it is necessary to carry out differential diagnostics.
3. Identify treatment tactics and list groups of drugs.
4. Name the agents in each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Educational and Qualification Level "Master"
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 8
Station «Situational tasks»

A 18 years old woman came to the doctor complaining of weakness, rapid fatigue, dizziness, tinnitus, shortness of breath and palpitations with slight physical exertion, brittle her nails, hair loss. In additions, he notes the change in taste: likes to eat chalk, likes the smell of paint, gasoline. She considers ill for about 6 months. At first there was weakness, increased fatigue, then dizziness, tinnitus, shortness of breath and palpitations at low physical activity.

Objective data. Paleness of the skin and mucous membranes. The skin is dry, the nails are brittle or with transverse folds. Auscultation of the lungs – vesicular breasing, respiratory rate – 18/min. At auscultation of the heart tones are rhythmic, systolic murmur at the apex, heart rate 88 / min, blood pressure 110/65 mm Hg. Abdomen is soft, painless. Clinical blood test of the patient:

Units / Indicators	Normal level	Patient level
Hemoglobin	Female:120–140 g/l	56 g/l
	Male: 130–160 g/l	
Red blood cells	Female:3,7–4,7x10^{12}/l	2,75x10^{12}/l
	Male: 4,0–5,0x10^{12}/l	
Mean corpuscular volume, MCV	80–100 fl	66 fl
Mean corpuscular hemoglobin, MCH	27–35 pg	22,1 pg
Erythrocyte sedimentation rate, ESR	Female: 2–15 mm/h	7 mm/h
	Male: 1–10 mm/h	
White blood cells	4–9x10^{9}/l	7,2x10^{9}/l
Platelets	180–320x10^{9}/l	248x10^{9}/l
Leukocyte formula		
blasts	0 %	0 %
myelocytes	0 %	0 %
young cells	0 %	0 %
banded neutrophils	1–5 %	2 %

segmented neutrophils	47–72 %	61 %
basophils	0,5–1 %	0 %
1	2	3
eosinophils	1–5 %	2 %
lymphocytes	18–38 %	31 %
monocytes	3–11 %	4 %
Біохімічні показники		
Serum iron	5,83–34,5 μmol/l	3,08 μmol/l
Ferritin	Female: 13,0–150,0 ng/ml Male: 30,0–400,0 ng/ml	8,6 ng/ml

ECG: sinus tachycardia.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases it is necessary to carry out differential diagnostics.
3. Identify treatment tactics and list groups of drugs.
4. Name the agents in each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

Questions:
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2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
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Educational and Qualification Level "Master"
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 9
Station «Situational tasks»

The 33 years old patient complains of unformed stools with blood up to 8 times a day, abdominal pain before defecation, weight loss by 7 kg for 3 months. From the anamnesis: blood in the stool and unformed stools has been disturbing for 3 months. The temperature did not rise. Contact with infectious patients denies, he did not travel outside the region. The patient had smoked 1 pack of cigarettes a day for 10 years, stopped a year ago. The patient denies alcohol abuse and intravenous drug abuse. The relatives do not have diseases of the gastrointestinal tract. The patient works as a manager, no professional harm.

Objectively: the condition is satisfactory. Body temperature is 36.7°C. The skin is pale, moist. In the lungs vesicular respiration. Respiratory rate – 18/min. In auscultation the rhythm of the heart is regular, the ratio of sounds is normal, there are no murmurs. HR – 98/min. Blood pressure – 110/70 mmHg. On examination, the abdomen is symmetrical, during palpation is soft, painful in the left iliac region. The liver size by Kurlov – 9×8×7 cm. The size of the spleen – 6×4 cm. Urination is free, painless.

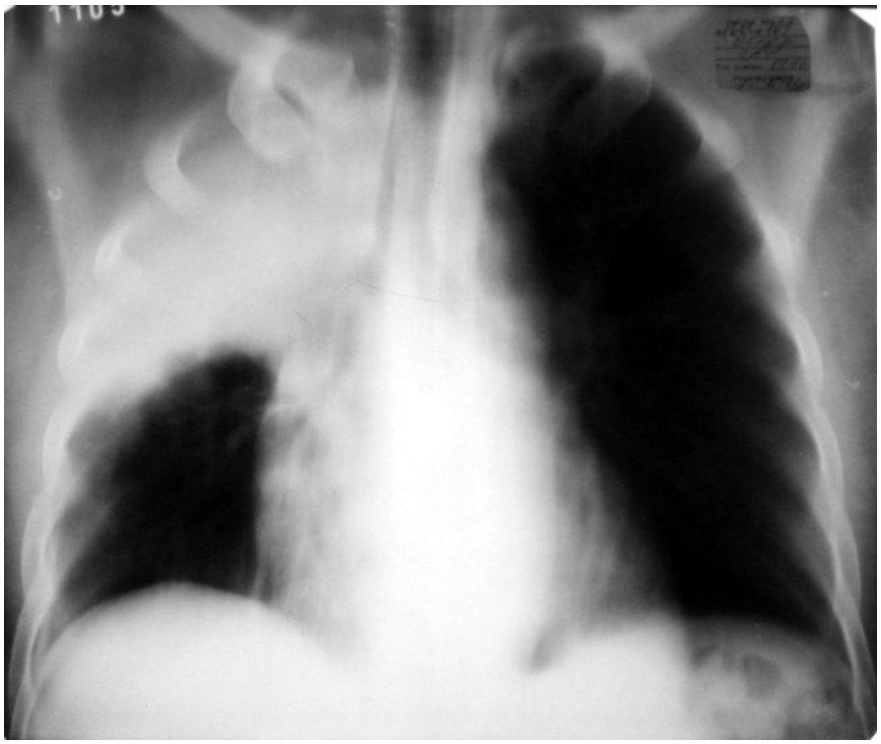
Clinical blood test: RBC – $2,7\times10^{12}$/l, Hb – 108 g/l, MCV – 65 fl, platelets – 270×10^{9}/l, WBC – $7,0\times10^{9}$/l, leukocyte formula: eosinophil – 1%, band neutrophils – 2%, segmented neutrophils – 65%, lymphocyte – 27%, monocytes – 5%, ESR – 22 mm/hour.

Coprogram: feces are liquid, large amount of mucus, leukocytes 10 – 15 in sight, erythrocytes 8 – 10 in sight.

Videcolonoscopy: descending colon, sigmoid and rectum is diffuse-hyperemic, vascular pattern is absent, easily bleeds on contact with colonoscope.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases should differential diagnosis be performed?
3. Identify treatment tactics and list groups of drugs.
4. Name the representatives from each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»



Questions:
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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 10
Station «Situational tasks»

A 39-year-old man complains of aching pain in the epigastric area, occurring 20 to 30 minutes after eating, nausea and periodic vomiting of gastric contents, which occurs at the height of pain and brings relief. From the anamnesis of the disease: for the first time this complaints appeared approximately 6 years ago, patient took almagel and drotaverine hydrochloride. He has not sought medical help previously. The patient notes the spring and autumn exacerbations of the disease.

Worsening of health happened two days ago after drinking alcohol and fried food. The patient works as a taxi driver, eats irregularly, often consumes alcohol. He had been smoking up to 2 packs of cigarettes a day for 20 years. Hereditary history: the father had peptic ulcer.

Objectively: the condition is satisfactory, height – 180 cm, weight – 51 kg. The skin and visible mucous membranes are pale pink. Peripheral lymph nodes are not enlarged. On auscultation vesicular breathing, no wheezing. Respiratory rate – 17/min. Pulse of satisfactory filling and tension, HR – 72 beats/min. Blood pressure – 122/80 mmHg. Heart tones are clear, rhythmic. White plaque on the tongue. Palpation of the abdomen is painful in the epigastric region. The spleen is not enlarged. Stool occurs daily, without pathological impurities.

Clinical blood test: RBC – $4{,}2\times10^{12}$/l, Hb – 130 g/l, platelets – 230×10^{9}/l, WBC – $6{,}5\times10^{9}$/l, leukocyte formula: eosinophil – 1%, band neutrophils – 1%, segmented neutrophils – 60%, lymphocyte – 30%, monocytes – 8%, ESR – 10 mm/hour.

Videoesophagogastroduodenoscopy: esophagus is free to pass, mucous membrane is not altered, reflux is absent. Stomach of normal shape and size. The mucous is hyperemic, folds are of the usual form and the size. Superficial ulcer detect of 1 – 1,5 cm with smooth edges was determined in a cardiac on the big curvature. The bottom of ulcer covered with fibrin is defined. Ampoule of the duodenum of normal shape and size, mucous is pale pink. Helicobacter pylori was detected.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases should differential diagnosis be performed?
3. Identify treatment tactics and list groups of drugs.
4. Name the representatives from each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

A 56 years-old man with complaints of general weakness and pain in the left hypochondrium was examined by a family doctor who prescribed a clinical blood test. The results were obtained.

Clinical blood test of the patient:

Indicators \ Units	Normal level	Patient level
Hemoglobin	Female:120-140 g/l	142 g/l
	Male: 130-160 g/l	
Red blood cells	Female:3,7-4,7x10^{12}/l	4x10^{12}/l
	Male: 4,0-5,0x10^{12}/l	
Mean corpuscular volume, MCV	80-100 fl	88 fl
Mean corpuscular hemoglobin, MCH	27-35 pg	34,5 pg
Erythrocyte sedimentation rate, ESR	Female: 2-15 mm/h	11 mm/h
	Male: 1-10 mm/h	
White blood cells	4-9x10^{9}/l	79x10^{9}/l
Platelets	180-320x10^{9}/l	516x10^{9}/l
Leukocyte formula		
blasts	0 %	3 %
myelocytes	0 %	8 %
1	2	3
young cells	0 %	8 %
banded neutrophils	1-5 %	17 %
segmented neutrophils	47-72 %	51 %
basophils	0,5-1 %	2 %
eosinophils	1-5 %	6 %
lymphocytes	18-38 %	1 %
monocytes	3-11 %	4 %

Sternal puncture was performed. Results of myelogram count:

Myelogram		Normal level	Patient level
blasts		0,1-1,1%	2,5%
Neutrophils	promyelocytes	1,0-4,0%	2%
	myelocytes	7,0-12,2%	37%
	metamyelocytes	8,0-15,0%	10,5%
	banded neutrophils	12,8-23,7%	15%
	segmented neutrophils	13,1-24,1%	20,5%
eosinophils		0,5-5,8%	8%
basophils		0,0-0,5%	1,5%
erythroblasts		0,2-1,1%	0%
pronormocytes		0,1-1,2%	0%
Normocytes	basophilic	1,4-4,6%	0%
	polychromatophilic	8,9-16,9%	1%

	oxyphilic	0,8-5,6%	0,5%
megaloblasts		0%	0%
lymphocytes		4,3-13,7%	1,5%
plasmocytes		0,1-1,8 %	0%
monocytes		0,7-3,1%	2%
leuko/erythro ratio		(3,5-4:1,0)	66:1
megakaryocytes		functional	Narrowed megakaryocytic row

Questions:
1. Evaluate hemogram and sternal puncture test.
2. Draw a conclusion. Assign the necessary examinations to confirm the diagnosis.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 11
Station «Situational tasks»

A 43-year-old man has gone to the doctor complaining of heartburn, chest pain that appears after eating or exercising, exacerbated in a horizontal position. Heartburn has been worrying for about 10 years. The patient has not been examinated before. Chest pain has been worrying 2 month. On examination: satisfactory condition. Body mass index – 39 kg/m^2. Skin is normal color, clean. In auscultation vesicular breathing, no wheezing. Respiratory rate – 18 beats/min. Heart sounds are clear, rhythmic, HR – 72 beats/min, blood pressure – 120/80 mmHg. the tongue coated with white plaque. On palpation, the abdomen is soft, painless. The liver and spleen are not enlarged.

Clinical blood test: RBC – $3,7\times10^{12/}$l, Hb – 128 g/l, platelets – 230×10^9/l, WBC – $6,1\times10^9$/l, leukocyte formula: eosinophil – 1%, band neutrophils – 1%, segmented neutrophils – 60%, lymphocyte – 30%, monocytes – 8%, ESR – 10 mm/hour.

Video esophagogastroduodenoscopy: erosions of more than 5 mm in length, which not coalesce, not extend beyond the folds of the esophagus is found in the lower third of the esophagus. Stomach is of normal shape and size. The mucous is hyperemic, the folds are of the usual shape and size, the presence of bile in the stomach. Ampoule of the duodenum of normal shape and size, mucous is pale pink. Helicobacter pylori was not detected.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases should differential diagnosis be performed?
3. Identify treatment tactics and list groups of drugs.
4. Name the representatives from each group.
5. Specify the dosage and frequency of administration.

Station «Practical skills»

A 42 years-old woman came to the hematologist with complaints of general weakness, dizziness, weight loss of 15 kg over the past 2 months.

In clinical blood test:

Indicators \ Units	Normal level	Patient level
Hemoglobin	Female:120-140 g/l	56 g/l
	Male: 130-160 g/l	
Red blood cells	Female:3,7-4,7x10^{12}/l	1,85x10^{12}/l
	Male: 4,0-5,0x10^{12}/l	
Mean corpuscular volume, MCV	80-100 fl	86 fl
Mean corpuscular hemoglobin, MCH	27-35 pg	30,27 pg
Erythrocyte sedimentation rate, ESR	Female: 2-15 mm/h	50 mm/h
	Male: 1-10 mm/h	
White blood cells	4-9x10^{9}/l	20x10^{9}/l
Platelets	180-320x10^{9}/l	52x10^{9}/l
Leukocyte formula		
blasts	0 %	56 %
myelocytes	0 %	0 %
young cells	0 %	0 %
banded neutrophils	1-5 %	0 %
segmented neutrophils	47-72 %	21 %
basophils	0,5-1 %	3 %
eosinophils	1-5 %	0 %
lymphocytes	18-38 %	16 %
monocytes	3-11 %	4 %

Sternal puncture was performed. Results of myelogram count:

Myelogram		Normal level	Patient level
blasts		0,1-1,1%	72,5%
Neutrophils	promyelocytes	0%	2%
	myelocytes	0,5%	37%
	metamyelocytes	1,0%	10,5%
	banded neutrophils	0,5%	15%
	segmented neutrophils	3,5%	20,5%
eosinophils		0,5-5,8%	2,0%
1		2	3
basophils		0,0-0,5%	0%

erythroblasts		0,2-1,1%	0%
pronormocytes		0,1-1,2%	0%
Normocytes	basophilic	2%	0%
	polychromatophilic	1%	1%
	oxyphilic	0%	0,5%
megaloblasts		0%	0%
lymphocytes		4,3-13,7%	12,5%
plasmocytes		0,1-1,8 %	0%
monocytes		0,7-3,1%	3,5%
leuko/erythro ratio		(3,5-4:1,0)	32:1
megakaryocytes		functional	Narrowed megakaryocytic row

Questions:
1. Evaluate hemogram and sternal puncture test.
2. Draw a conclusion. Assign the necessary examinations to confirm the diagnosis.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 12
Station «Situational tasks»

Patient B., 59 years old, underwent a preventive examination at a clinic. He did not have any complaints at the time of examination. He had suffered from a transient ischemic attack three years ago; since that time, he had never visited a doctor. He took his medications irregularly.

Objective findings: The general condition is satisfactory. On auscultation: vesicular breathing, no rales in the lungs. Respiratory rate is 18 per minute. Heart sounds are muffled, rhythmic, no murmur. Heart rate is 75 beats per minute. Blood pressure is 185/95 mmHg. The abdomen is soft, painless on palpation, the liver is not enlarged. No peripheral edema observed. Body mass index is normal.

Blood count and urine analysis are without pathological findings. On ECG: regular sinus rhythm; heart rate – 75 beats per minute; left axis deviation; increased S-wave amplitude in the right chest leads and increased R-wave amplitude in the left chest leads; ST-segment depression by 0.3 mm in I, aVL, V5–V6; negative asymmetric T-wave in I, aVL, V5–V6. On EchoCG: left atrium – 3.9 cm (reference range: 3.0–4.0 cm), right atrium – 2.6 cm (reference range: 2.9–4.5 cm), interventricular septum thickness – 1.5 cm (reference range: 0.6–1.0 cm), posterior wall of the left ventricle – 1.6 cm (reference range: 0.6–1.0 cm), ejection fraction of the left ventricle – 61% (reference range: > 55%), impaired diastolic function of the left ventricle.

Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

Station «Practical skills»

A 33 years-old woman went to the doctor complaining of general weakness, palpitations, shortness of breath during exercise, fever to 37,2°C during the month, butterfly skin rash.

The blood test found:

Indicators \ Units	Normal level	Patient level
Hemoglobin	Female:120-140 g/l	109 g/l
	Male: 130-160 g/l	
Red blood cells	Female:3,7-4,7x10^{12}/l	3,3x10^{12}/l
	Male: 4,0-5,0x10^{12}/l	
Mean corpuscular volume, MCV	80-100 fl	75 fl
Mean corpuscular hemoglobin, MCH	27-35 pg	24 pg
Erythrocyte sedimentation rate, ESR	Female: 2-15 mm/h	23 mm/h
	Male: 1-10 mm/h	
White blood cells	4-9x10^{9}/l	4,2x10^{9}/l
Platelets	180-320x10^{9}/l	182x10^{9}/l
Leukocyte formula		
blasts	0 %	0 %
myelocytes	0 %	0 %
young cells	0 %	0 %
banded neutrophils	1-5 %	2 %
segmented neutrophils	47-72 %	55 %
basophils	0,5-1 %	0 %
eosinophils	1-5 %	2 %
lymphocytes	18-38 %	37 %
monocytes	3-11 %	4 %
Serum iron	5,83-34,5 μmol/l	3,08 μmol/l
Ferritin	Female: 13,0-150,0 ng/ml Male: 30,0-400,0 ng/ml	289 ng/ml

Questions:
1. Evaluate hemograms and iron metabolism.
2. Draw a conclusion. Assign the necessary examinations to confirm the diagnosis.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 13
Station «Situational tasks»

A 57-year-old man visited a doctor, complaining of compressive pain behind the breastbone, which occurred when he was walking at a distance of 250 meters and was climbing one flight of stairs; this pain irradiated to the left shoulder and passed within 3–5 minutes after stopping. He never took nitroglycerin. From the anamnesis: similar pains had disturbed him for a year and a half. The patient received Nebivolol 5 mg daily and Aspirin 100 mg daily. Despite that, the attacks persisted. He had smoked for 20 years ½ packs per day.

The skin is clean, of normal color. Breathing is vesicular, no rales in the lungs. Heart sounds are muffled, rhythmic. HR – 102 beats per minute, blood pressure – 120/80 mm Hg. The abdomen is soft, painless on palpation. The liver and spleen are not enlarged. No peripheral edema and no dysuria found.

Test findings: total cholesterol - 6.6 mmol/L, LDL cholesterol - 3.5 mmol/L, TG - 2.7 mmol/L, fasting glucose - 5.1 mmol/L, creatinine - 96 μmol/L, GFR (according to CKD-EPI) – 86.6 mL/min.

On ECG: sinus rhythm, heart rate – 102 beats per minute, normal electric axis position, R/S wave ratio in the chest leads reveals no abnormalities, sinus tachycardia present.

Veloergometry: the test was stopped at 75 watts load due to chest discomfort and ST-segment depression by 2 mm in the leads V4, V5, V6.

On EchoCG: left atrium size - 3.8 cm (reference range: 3.0–4.0 cm), thickness of the interventricular septum - 1.0 cm (reference range: 0.6–1.0 cm), posterior wall of the left ventricle - 1.0 cm (reference range: 0.6–1.0 cm), left ventricular ejection fraction - 57% (reference range: > 55%).

Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

Station «Practical skills»

Lipidogram:
Cholesterol – 6.2 mmol/l
LDL cholesterol – 3.8 mmol/l
TG – 1.9 mmol/l
HDL cholesterol – 1.0 mmol/l

Questions:
1. Evaluate the indices of the lipid chart.
2. Draw a conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No.14
Station «Situational tasks»

Patient M., 25 years old, complained about severe weakness, temperature rise up to 39–40 °C, drenching sweating during declination of fever, labored breathing during exercise, arthralgia. Anamnesis: the patient was sick during the week. He noted body temperature rise and weakness 3–4 days after the extraction of a molar tooth on the right side. He took antipyretic drugs, which produced no effect. The fever and weakness progressed, later joint pain and shortness of breath occurred. The patient was hospitalized.

Objective data: the condition is grave, the skin is pale. The body temperature is 38.9 °C. Breathing is vesicular, no rales. Respiratory rate – 22 per min. The left border of relative cardiac dullness is in the 5th intercostal space along the mid-clavicular line, heart sounds are muffled, rhythmic, the systolic sound is heard in the 3–4 intercostal space to the left of the sternum, diastolic murmur over the aorta is heard in the upright position. Heart rate – 95 beats per min, blood pressure – 115/70 mm Hg. The abdomen is soft and painless. The liver does not protrude below the costal margin. No costovertebral angle tenderness on both sides.

Blood count: ESR – 34 mm/hr, RBC – $4.6x10^{12}$/L, Hb – 137 g/L, WBC – $14.3x10^{9}$/L, basophils – 0%, eosimophils – 2%, stabs – 10%, segmented – 71%, lymphocytes – 12%, monocytes – 5%. Urine analysis: clear, weakly acidic, proteins – 0 g/L, no glucose, WBC – 0–1–2 per power field, RBC – 0 per power field, epithelium – 0 per power field.

ECG: the rhythm is sinus and regular, sinus tachycardia present.

Ultrasound of the heart: the aorta is not indurated, the left atrium is 40 mm (reference range: 3.0–4.0 cm), the left ventricular ejection fraction is 55% (reference range: > 55%), the thickness of the interventricular septum is 10 mm (reference range: 0.6–1.0 cm), left posterior ventricular wall – 10 mm (reference range: 0.6–1.0 cm), large vegetations are on aortic valve leaflets, the mitral valve is without pathological changes. Grade 2 aortic valve regurgitation.

Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

Station «Practical skills»

Lipidogram:
Cholesterol – 5.8 mmol/l
LDL cholesterol – 3.8 mmol/l
TG – 2.2 mmol/l
HDL cholesterol – 0.8 mmol/l

Questions:
1. Evaluate the indices of the lipid chart.
2. Draw a conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Educational and Qualification Level "Master"
Specialty 222 "Medicine"
Discipline «Internal Medicine»
Variant No. 15
Station «Situational tasks»

Patient A., 75 years old, visited a GP with complaints of headache in the occipital region, dizziness, increased blood pressure, arrhythmia, palpitations. Anamnesis: headache and elevated BP to 175/90 mm Hg and palpitations had been present for two months. He did not seek medical help in this regard.

Objective findings: the skin is clear, of normal color. Breathing is vesicular, no rales in the lungs. Heart tones are muffled, arrhythmic. HR – 97 beats per min, blood pressure: on the right hand – 175/90 mm Hg, on the left hand – 170/85 mm Hg. The borders of the heart: the left border is 1.5 cm medial of the left mid-clavicular line. Heart sounds are sonorous, rhythmic, P-tone accent is on the aorta. The abdomen is soft and painless. The liver is not enlarged. No costovertebral angle tenderness found on both sides. No edema observed.

Blood count: HB – 142 g/L, RBC – $4.9x10^{12}$/L, WBC – $6.0x10^{9}$/L; eosinophils – 1%, stabs – 4%, segmented – 66%, lymphocytes – 24%, monocytes – 5%, ESR – 6 mm/hr. Blood glucose – 4.5 mmol/L.

Urine analysis: S.G. – 1014, protein – 0, glucose – 0, WBC – l–1–2 per power field.

On ECG: the rhythm is sinus, irregular; heart rate – 97 beats per min, electric axis deviation to the left, high RV4–V6, RV4 < RV5 > RV6, high RAVL (> 11 mm), RV5 + SV2 = 44 mm. Left ventricular hypertrophy, sinus tachycardia, and ventricular extrasystole are present.

Ultrasound of the heart: the left atrium – 4.5 mm (reference range: 3.0–4.0 cm), thickness of the interventricular septum – 1.4 cm (reference range: 0.6–1.0 cm), back wall of the left ventricle – 1.5 cm (reference range: 0.6–1.0 cm), left ventricular ejection fraction – 60% (reference range: > 55%). Enlarged left atrial cavity, left ventricular hypertrophy, sclerotic changes in the aorta, and diastolic dysfunction are found.

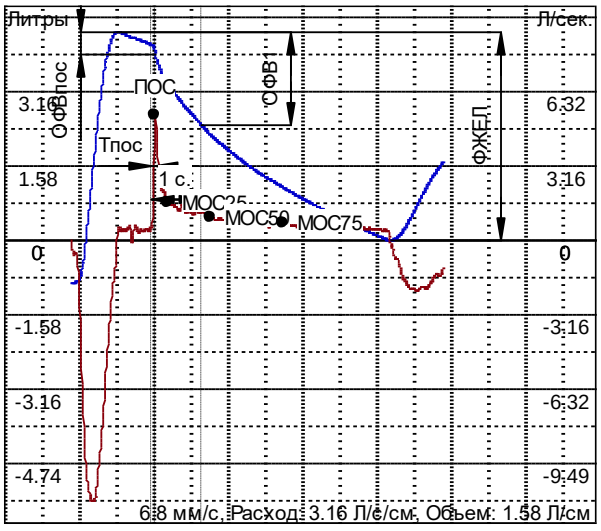
Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

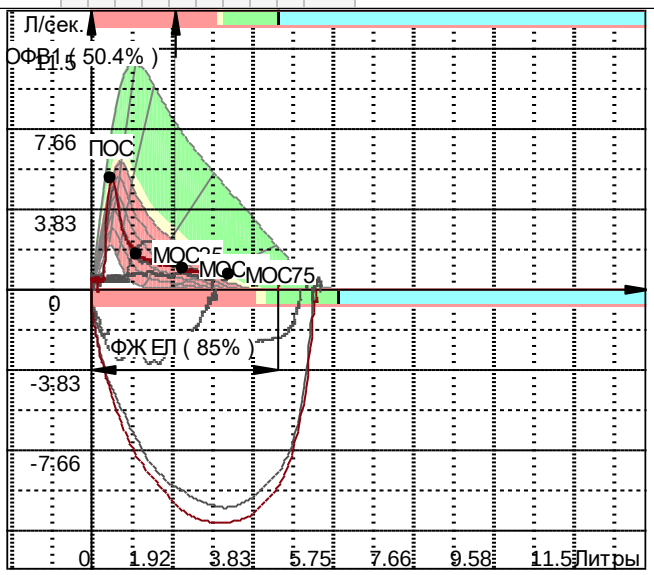
Station «Practical skills»

Spirogram № 21				
Date of birth: **22 Jun, 1941**	Age: **70**	Sex: **M**	Height: **185**	Weight: **90**
Date of examination: **7 May, 2012 10:25**				

"VC" and "FVC"

Title	Un.		norma	%	Deviation	Conclusion
FVC	l	4.4	5.2	85		conditional norm
FEV 0.5	l	1.37				
FEV 1	l	2	4	52		sharp decrease
FEV 2	l	2.9	4.9	59		significant decrease
FEV 3	l	3.6	5.2	69		slight decrease
FEVpos	l	0.495				
FEV1/FVC	%	45	70	64		significant decrease
PEF/FEV	l/s	11				
PEF	l/s	5.3	9.4	56		moderate decrease
MEF25	l/s	1.6	8.2	20		sharp decrease
MEF 50	l/s	0.96	4.5	21		з significant decrease
MEF 75	l/s	0.679	1.65	41		moderate decrease
COC0.2-1.2	l/s	1.79				
COC25-75	l/s	0.962	3.8	25		significant decrease
COC75-85	l/s	0.596	1.24	48		
Tпос	s	0.09				





1. Interpretation of spirometric indices.
2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 16
Station «Situational tasks»

A 65-year-old patient N., visited a cardiologist with complaints about dizziness, fatigue, short-term fainting (up to 20 s), headache, increased BP, general weakness. The patient reported that feeling unwell, the complaints and fainting episodes had been present for four months. She could not associate her illness with any reason.

Objective findings: general health condition is of moderate severity. The skin is pale pink. Pulse – 39 per minute, rhythmic, tense. BP – 160/85 mm Hg. The left border of the heart is 1 cm medial of the left mid-clavicular line. Heart rate is rhythmic, 39 per min; weak first heart sound over the apex of the heart, moderate diastolic shock over the aorta. The abdomen is soft and painless. The liver reveals no abnormalities, liver size according to Kurlov – 9x8x7 cm. No edema on the feet.

Blood count and urinalysis: no abnormalities.

Blood chemistry: high cholesterol – 6.5 mmol/L. On ECG: third-degree atrioventricular block.

Ultrasound of the heart: the left atrium – 47 mm (reference range: 3.0–4.0 cm), thickness of the interventricular septum – 13 mm (reference range: 0.6–0.9 cm), posterior wall of the left ventricle – 14 mm (reference range: 0.6–0.9 cm), ejection fraction – 56% (reference range: > 55%). Increased left atrial cavity, left ventricular hypertrophy, aortic sclerosis, diastolic dysfunction of the left ventricular.

Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

Station «Practical skills»

Spirogram № 23				
Date of birth: **14 Mar, 1952**	Age: **61**	Sex: **M**	Height: **163**	Weight: **62**
Date of examination: **2 Dec, 2018 09:58**				

"VC" and "FVC"

Title	Un.		norma	%	Deviation	Conclusion
FVC	l	2.5	3.9	64		significant decrease
FEV 0.5	l	0.922				
FEV 1	l	1.27	2.9	43		significant decrease
FEV 2	l	1.79	3.7	48		significant decrease
FEV 3	l	2.2	3.9	57		significant decrease
FEVpos	l	0.237				
FEV1/FVC	%	52	75	69		moderate decrease
PEF/FEV	l/s	15				
PEF	l/s	3.7	8	46		significant decrease
MEF25	l/s	1.64	6.9	24		significant decrease
MEF 50	l/s	0.621	3.5	18		significant decrease
MEF 75	l/s	0.483	1.04	46		slight decrease
COC0.2-1.2	l/s	1.22				
COC25-75	l/s	0.642	2.8	23		significant decrease
COC75-85	l/s	0.456	0.696	65		
Tпос	s	0.07				

At 10:15 the patient received 4 inhalations of salbutamol 100 µg

"VC" and "FVC" 10:35

Title	Un.		norma	%	Deviation	Conclusion
FVC	l	3.5	3.9	72		moderate decrease
FEV 0.5	l	1.352				
FEV 1	l	1.58	2.9	54		significant decrease
FEV 2	l	2.19	3.7	58		significant decrease
FEV 3	l	2.9	3.9	64		significant decrease
FEVpos	l	0.637				
FEV1/FVC	%	64	75	75		moderate decrease
PEF/FEV	l/s	15				
PEF	l/s	4.6	8	55		significant decrease
MEF25	l/s	2.14	6.9	38		significant decrease
MEF 50	l/s	1.71	3.5	22		significant decrease
MEF 75	l/s	0.973	1.04	49		slight decrease
COC0.2-1.2	l/s	1.59				
COC25-75	l/s	0.982	2.8	25		significant decrease
COC75-85	l/s	0.856	0.696	70		
Tпос	s	0.09				

1. Interpretation of parametres.
2. Conclusion.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 17
Station «Situational tasks»

A 55-year-old patient working as a driver visited a doctor, complaining about compressive pain behind the breastbone with irradiation to the left shoulder and shoulder blade; the pain occurred during fast walking, vigorous physical activity, and was followed by a feeling of fear, which disappeared at rest. He reported being sick for two months. He was treated by a neurologist for intercostal neuralgia. He took analgen, diclofenac, and received physiotherapy treatment, but these were ineffective. From the anamnesis: for about 5 years, the patient had been suffering from hypertension with a maximum blood pressure increase to 175/100 mm Hg. The patient did not receive permanent antihypertensive therapy. Hereditary background: the patient's father and elder brother had myocardial infarction before 55 years of age.

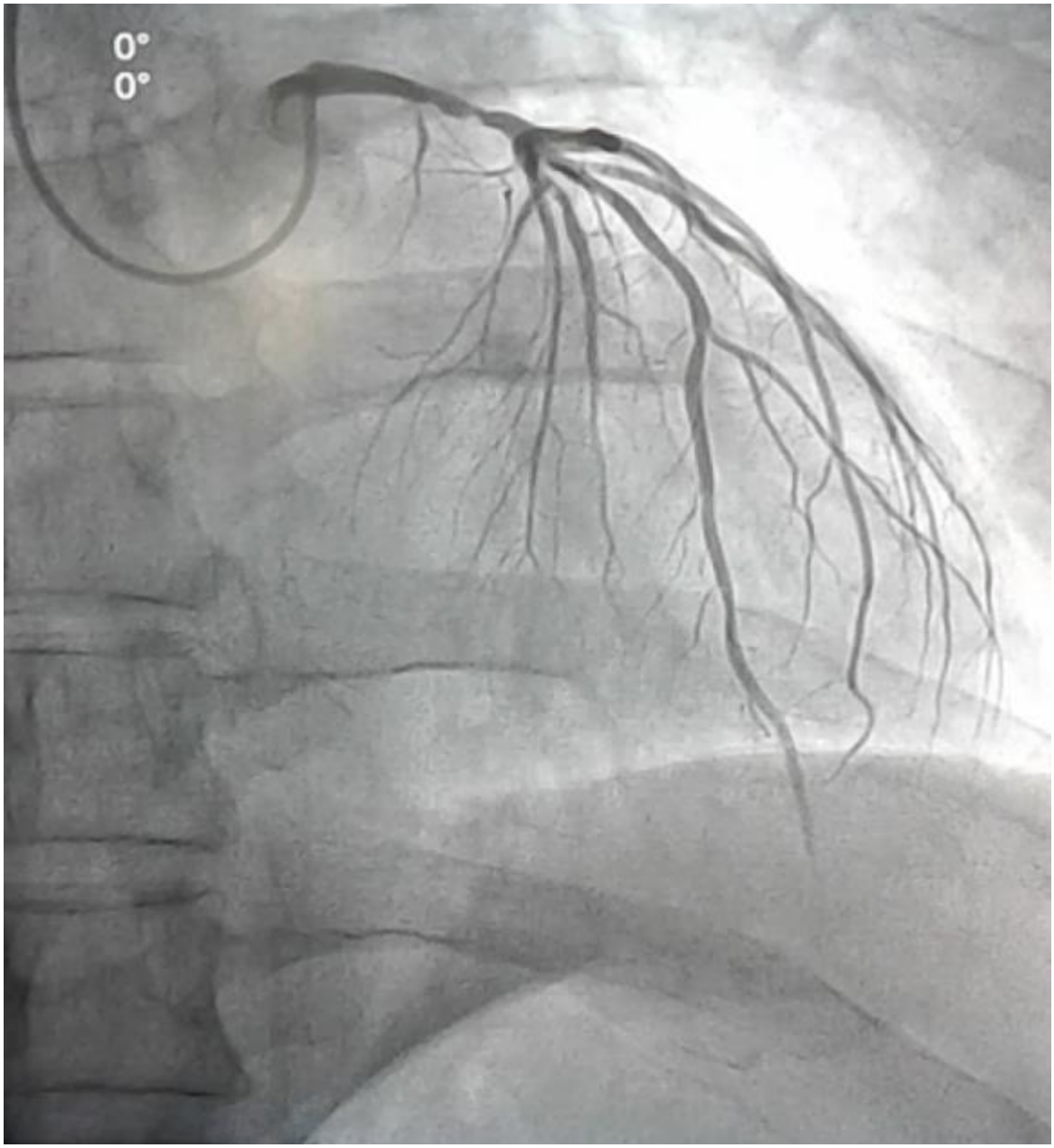
Objective findings: the condition is relatively satisfactory. The skin and visible mucous membranes are of normal color. There is no peripheral edema. The breathing is vesicular, no rales in the lungs. RR – 17 beats per minute. On auscultation: weak tone I over the apex of the heart, diastolic shock above the aorta. Heart sounds are muffled, rhythmic. BP – 170/100 mm Hg. The heart rate – 88 beats per minute. The abdomen is soft, painless on palpation. The liver is not enlarged. No costovertebral angle tenderness found on both sides. Bowel and bladder habits are normal.

ECG: rhythm is sinus, regular; heart rate – 88 beats per min; left axis deviation; increased amplitude of S-wave in the right chest leads and increased amplitude of R-wave in the left chest leads; left ventricular hypertrophy.

Echocardiography: the left atrium size – 4.0 cm (reference range: 3.0–4.0 cm), thickness of the interventricular septum – 1.5 cm (reference range: 0.6–1.0 cm), posterior wall of the left ventricle– 1.4 cm (reference range: 0.6–1.0 cm), left ventricular ejection fraction – 61% (reference range: > 55%). Left ventricular hypertrophy and diastolic dysfunction of the left ventricle are observed.

Questions:
1. Make a preliminary diagnosis.
2. What diseases should you differentiate this condition from?
3. Define the treatment strategy and indicate groups of drugs to be used.
4. Name the representatives of drugs from each group.
5. Specify the dose and frequency of drug administration.

Station «Practical skills»



Questions:
1. Describe the changes found in the coronary angiogram.
2. What diseases can occur in patients with such lesions?

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 18
Station «Situational tasks»

A 42-years-old patient complains of deformity of the nose, massive purulent discharge from the nasal passages, impaired nasal breathing, wheezing, periodic fever to 37,5˚C, dry cough, shortness of breath during normal physical exertion, tearing, recurrent pain, swelling of the joints of the hands, wrist joints, the presence of small ulcers in the mouth.

On objective examination: the patient is of reduced nutrition, the skin is pale. Moderately painful aphtha with a diameter of 0.8 cm is seen in the oral cavity in the upper palate. There is a "saddle" deformity of the back of the nose, purulent discharge from the nose, constant lacrimation. Peripheral lymph nodes are not enlarged. During auscultation, breathing over the lungs is vesicular, weakened in the lower sections. Heart sounds are clear and rhythmic. Wrist joints are tender and oedematous.

Blood test: erythrocytes – $3,9*10^{12}$/l, hemoglobin - 96 g/l, leukocytes – $7,2*10^{9}$/l, ESR – 44 mm/h, CRP (++), rheumatoid factor - negative, fibrinogen – 5,77 g/l, creatinphosphokinaze – 80 U/l, cANCA - positive.

Urine analysis: protein — 0,6 g/l, red blood cells — 25-30 in hpf, leukocytes — 13-15 in hpf.

On CT of the additional sinuses of the nose: thinning and destruction of the lumen of the lattice maze, maxillary sinus is found.

On CT of the lungs in the lower parts of both lungs, mainly subpleural, round shadows of 2-3 cm in size are determined.

Ophthalmologist consultation: canaliculitis, secondary blepharoconjunctivitis, retinal angiopathy of both eyes.

Otolaryngologist consultation: secondary atrophic rhinosinusitis with cartilage and bone defects.

Questions:

1. Make a preliminary diagnosis.
2. With what diseases should the differential diagnostics be carried out?
3. Identify treatment tactics and list groups of medications.
4. Name the agents of each group.
5. Specify the dose, frequency of use.

Station «Practical skills»

ECG of a 28 year old pregnant woman with complaints of cardiac arrhythmia.

Questions:
1. What changes to the ECG?
2. Conclusion.
ECG is attached.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»
Variant No. 19

Station «Situational tasks»

A 35-years-old patient complains of intense pain, swelling, restriction of movement in the right knee joint, pain, restriction of movement in the wrists, interphalangeal joints as well as morning stiffenss for two hours. She has been ill for 6 months. The disease began with arthritis of small joints of hands. The patient took diclofenac, which facilitated the overall condition.

The last worsening occurred a week ago and was manifested mainly by symptoms from the right knee. Non-steroidal anti-inflammatory drugs were ineffective.

On objective examination: general condition of moderate severity. The patient is of reduced nutrition. On palpitation of joints swelling, increased local temperature above the right knee joint, sharp pain in movements in it, swelling and tenderness on palpation of the patella; swelling and tenderness of radial wrist joints, metacarpophalangeal and proximal interphalangeal joints of the second fingers, positive symptom of lateral compression

Blood test: erythrocytes – $3{,}8 \cdot 10^{12}$/l, hemoglobin - 106 g/l, CI — 0,81, leukocytes – $4{,}8 \cdot 10^{9}$/l, ESR - 57 mm/h, RF - 1:320, C-reactive protein - 35 mg/L

X-ray examination of the hands: narrow joint space, periarticular osteoporosis, multiple marginal erosions.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases should the differential diagnostics be carried out?
3. Identify treatment tactics and list groups of medications.
4. Name the agents of each group.
5. Specify the dose, frequency of use.

Station «Practical skills»

32-year-old woman was taken to hospital with heartbeat complaints. She noted similar attacks before. Questions: 1. What changes to the ECG? 2. Conclusion. ECG is attached.

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EXAMINATION TASK
Unified State Qualification Exam: Stage 2
(Objective Structured Clinical Exam (OSCE))
Second (Master`s) level
Specialty 222 "Medicine"

Discipline «Internal Medicine»

Variant No. 20

Station «Situational tasks»

A 43-years-old female patient complains of weakness, weight loss, moderate shortness of breath, decreased tolerance to physical activity, swallowing disorders, pain in the hip, shoulder joints, wrists, chill and blanching of fingers in the cold. C She considers herself ill for three years.

On objective examination: The patient is of reduced nutrition, skin is dark, dense, swelling of the hands, forearm. Body temperature - 37,5° C, heart rate - 98 per min, blood pressure - 100/60 mm Hg. Heart borders are normal, systolic murmur is heard at the apex. Breathing in the lungs is weakened, diffuse wheezing is heard above lower lung field. In palpation, abdomen is soft, liver is not enlarged.

Blood test: erythrocytes – $3{,}2\cdot10^{12}$/l, hemoglobin - 94 g/l, leukocytes – $7{,}2\cdot10^{9}$/l, ESR - 54 mm/h, platelets - $209\cdot10^{9}$/l. Anti-topoisomerase antibodies are in elevated titer.

X-ray examination of the lungs revealed basal pneumofibrosis.

Questions:
1. Make a preliminary diagnosis.
2. With what diseases should the differential diagnostics be carried out?
3. Identify treatment tactics and list groups of medications.
4. Name the agents of each group.
5. Specify the dose, frequency of use.

Station «Practical skills»

ECG of a patient 58 years old with chest pain at rest for about 20 minutes.

Questions:
1. What changes to the ECG?
2. Conclusion.

ECG is attached.

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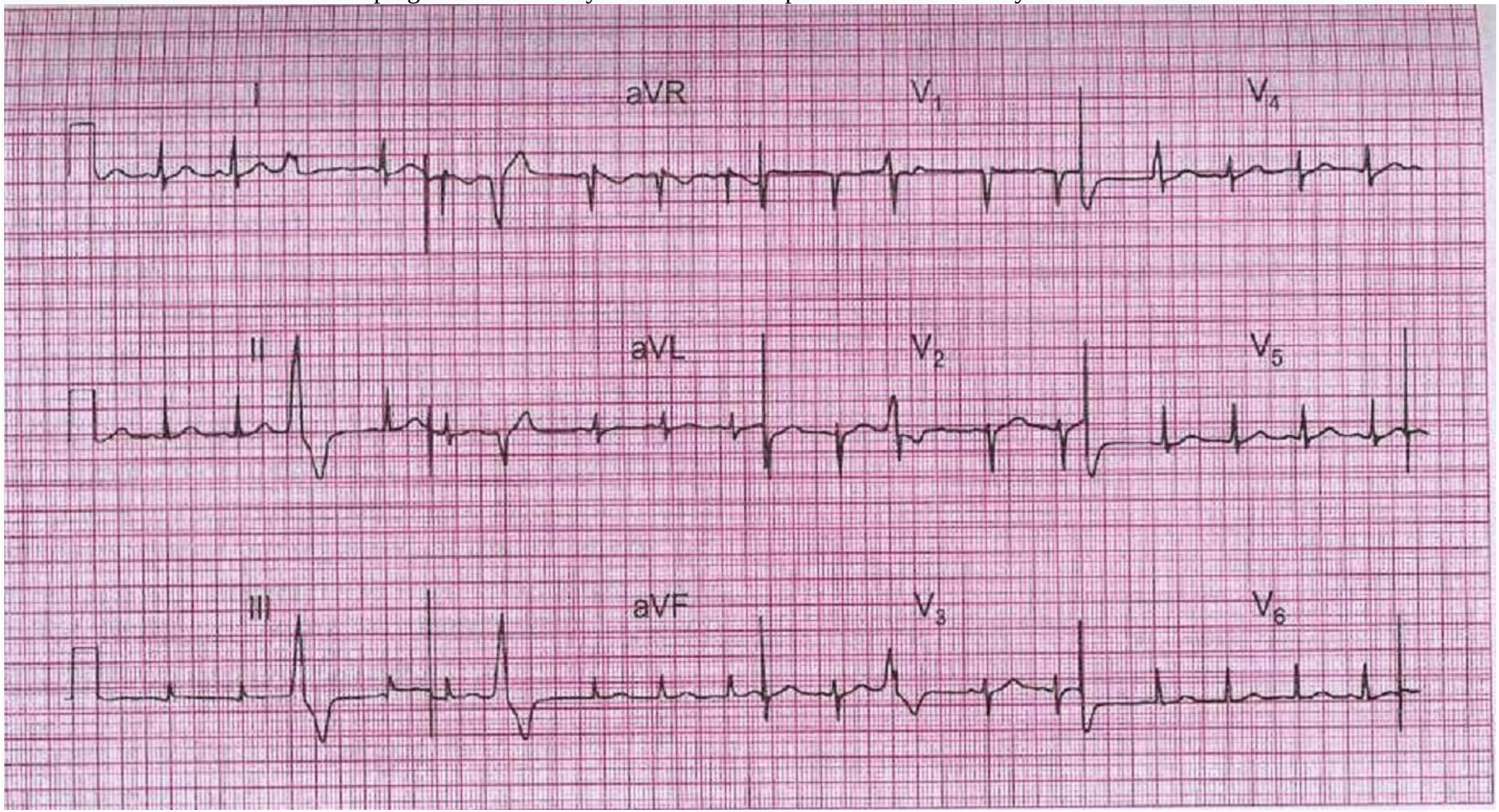
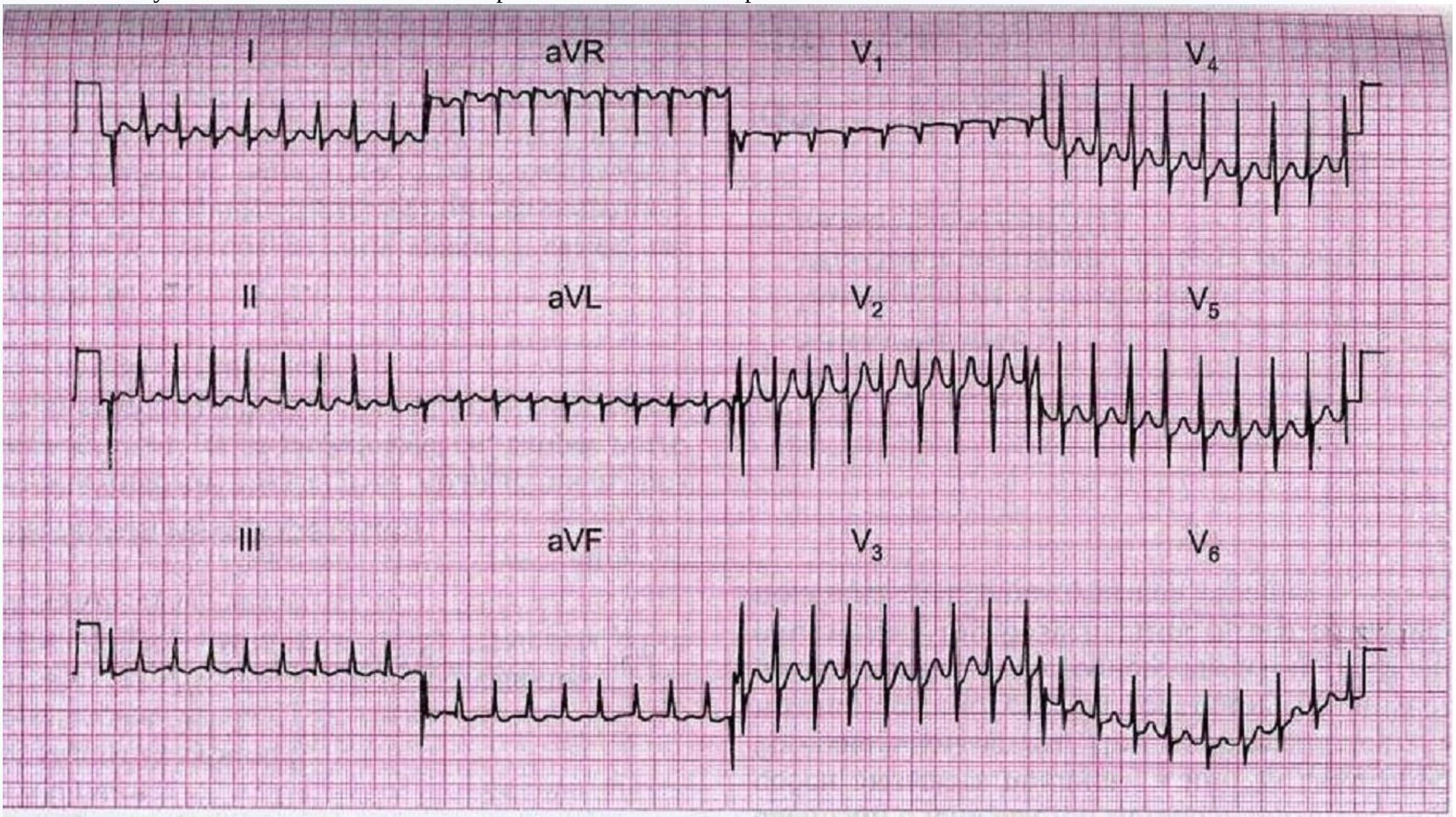
ECG 18 ECG of a pregnant woman 28 years old with complaints of cardiac arrhythmia



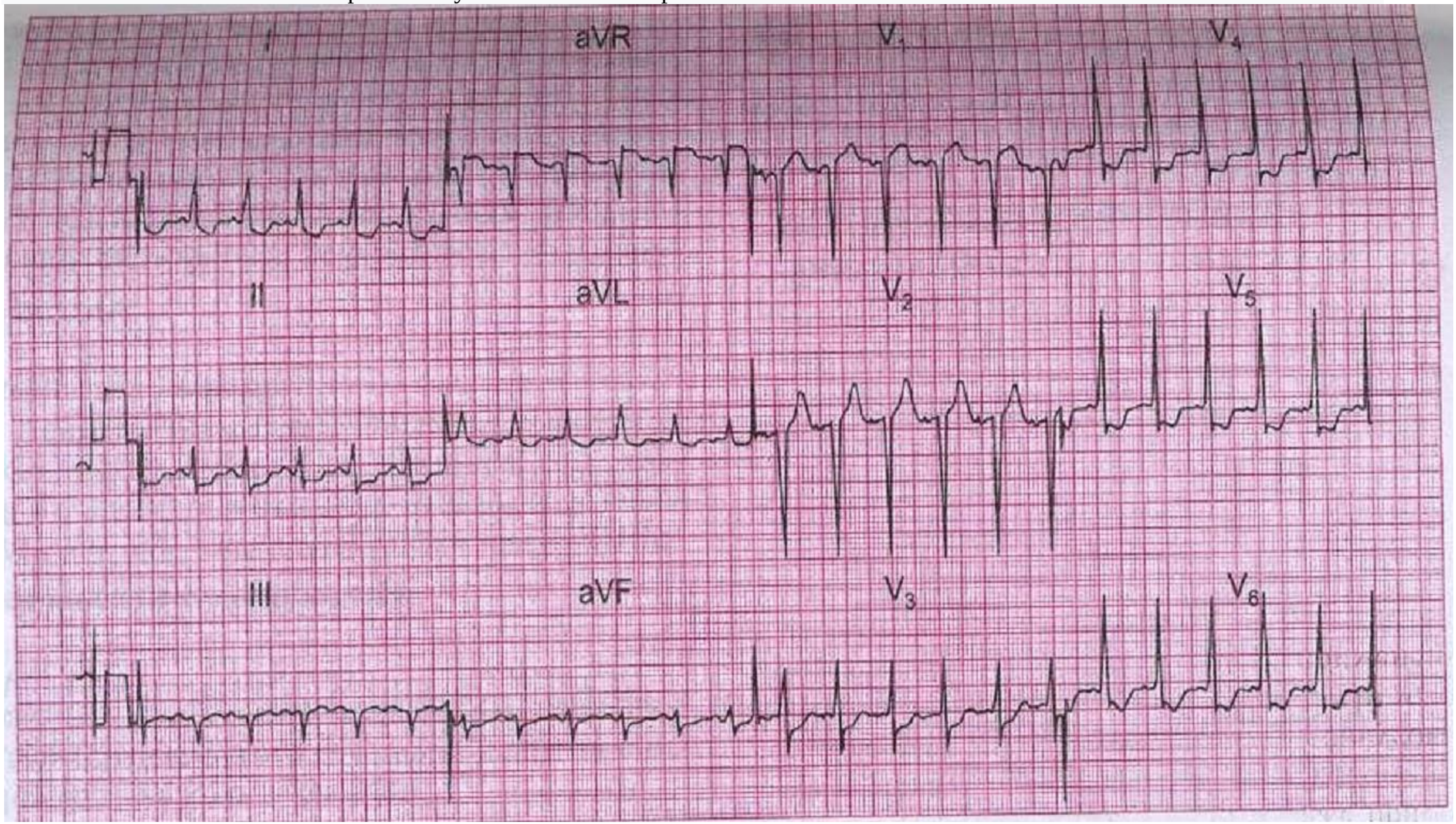
Question:
1. What changes to the ECG?
2. Conclusion.

ECG 19 32-year-old woman was taken to hospital with heartbeat complaints. She noted similar attacks before.



Question:
1. What changes to the ECG?
2. Conclusion.

ECG 20 ECG of a patient 58 years old with chest pain at rest for about 20 minutes.



Question:
1. What changes to the ECG?
2. Conclusion.