METHODOLOGICAL RECOMMENDATIONS FOR INDEPENDENT WORK

Module name: Basics of Internal diseases -2
Discipline code: OVB 4301-2
Name of EP: 6B10101 "General medicine»
Amount of study hours (credits): 150 /5
Course of study: 4
Semester of study: VIII
Student's independent work: 30

Shymkent, 2022

Guidelines for independent work are developed in accordance with the modular curriculum of the EP "General Medicine", discussed and approved at a meeting of the department.

Protocol No. 11 of "23" 06 2022

Head Chair, candidate of medical sciences, acting associate professor Asanova G.K.

1. Theme 1: Tumors of the esophagus

2. Purpose: To get acquainted with the syndromes of diseases of the digestive system, to study the epidemiology, etiology and pathogenesis of the tumor process, its clinical manifestations, differential diagnosis, complications and treatment of an esophageal tumor. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of a tumor in the esophagus.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery: 2 days

8. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1

A 49-year-old patient was diagnosed with a malignant tumor of the esophagus at the level of the lower edge of the aortic arch. The presence of distant metastases is not established. The duration of dysphagia is 3 months. The patient is significantly exhausted, weakened, anemized.

What treatment tactics should be undertaken?

Task 2

A 45-year-old patient, a strong man, not exhausted, showed a tumor in the thoracic esophagus. Using available research methods, metastases could not be detected.

What patient treatment options can be offered?

Task 3.

A 60-year-old patient, a depleted and weakened person, had cancer of the cervical esophagus.

What is the treatment strategy for this patient?

Task 4.

The patient, 40 years old, 2 months.progressive dysphagia appeared back. He lost weight, but his appetite persists, no changes in the blood test were found. An X-ray examination in the lower third of the esophagus revealed a rather large "filling defect" on the side of the left wall of the esophagus, but the contours of the "defect" are even, although peristalsis is absent at this level.

What disease can be assumed in the patient?

What research methods can confirm this?

How to treat a patient?

Task 5.

A 64-year-old patient was diagnosed with cancer of the lower third of the esophagus of stage IV, due to the presence of a metastatic node on the left neck. The patient is sharply exhausted and dehydrated. At the time of receipt, only water passes through the esophagus, even the most liquid barium mass stops in the esophagus at the level of the tumor.

What help can be provided to the patient?

Task 6.

A patient, 56 years old, went to the doctor with complaints of difficulty in passing solid food through the esophagus, which appeared 3 months ago. Solid food passes after drinking water.

What diseases of the esophagus should be considered?

What research methods should be used to clarify the diagnosis?

Task 7

The patient, 68 years old, was diagnosed with cancer of the middle third of the esophagus. Radiation therapy was prescribed to the patient, against the background of which the patient developed an excruciating cough when taking water or food.
What complication arose in the patient?
How to further treat the patient?

Task 8.

A 43-year-old patient was admitted to the hospital with complaints of dysphagia, food regurgitation, and lost 8 kg. X-ray and endoscopic examination revealed cardioesophageal cancer.
How to treat a patient?

1. Topic 2: Chronic gastritis (CG)

2. Purpose: To get acquainted with the syndromes of diseases of the digestive system, to study the epidemiology, etiology and pathogenesis of HG, its clinical manifestations, differential diagnosis, complications and treatment of HG. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of chronic hepatitis.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery: 2 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1

A 45-year-old patient complains of a feeling of heaviness, fullness, and sometimes non-intense aching pains in the epigastric region that arise after eating; decreased appetite, belching with air or rotten after eating; bloating and rumbling in the abdomen, a tendency to diarrhea (stool 3-4 times a day, mushy, without mucus and blood. in the stool pieces of undigested food; urge to defecate immediately after eating). Notes some weight loss, dry skin, hair loss.
From the anamnesis of life it was found that for 25 years he has been working as a miner in a coal mine, does not follow a diet and diet (abuses very spicy foods), smokes for many years, periodically drinks alcohol.
On examination: normosthenic type of physique; moderate nutrition. On the part of the respiratory and CVS, no changes were detected. The tongue is moist, covered with white coating, the papillae are smoothed. On palpation, the abdomen is soft, slight pain in the epigastric region, rumbling in the umbilical region is determined.

Questions

1. What syndromes can you highlight in a patient?
2. Between what diseases you will carry out differential. diagnosis?
3. Formulate a preliminary diagnosis.
4. What factors contributed to the development of this disease?
5. List the basic principles of treatment.

The answers

1. - hyposecretory
- gastric dyspepsia
- intestinal dyspepsia
- pain

2. Chronic gastritis. Stomach cancer.
3. Chronic gastritis, with decreased secretory function of the stomach, exacerbation.
4. Alimentary factor:
- violation of diet
- spicy food abuse
Long-term smoking for many years.
Occupational hazards (inhalation of coal dust).
Alcohol consumption.
5. The elimination of factors contributing to the development of the disease,
- treatment regimen
- medical nutrition,
- relief of exacerbation of the inflammatory process,
- correction of gastric secretion,
- correction of intestinal digestion disorders,
- correction of motor disorders of the stomach,
- stimulation of reparative and regenerative properties of the gastric mucosa,
- physiotherapy
- Spa treatment.

1. Topic 3: Chronic pancreatitis (CP)
2. Purpose: To get acquainted with the syndromes of diseases of the digestive system, to study the epidemiology, etiology and pathogenesis of CP, its clinical manifestations, differential diagnosis, complications and treatment of CP. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for the diagnosis of CP.
3. Tasks:
1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.
4. Implementation / Evaluation Form: Presentation
SIW verification is carried out during the **SIWT**.
5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.
6. Delivery time: 3 day
7. Literature: indicated in the syllabus.
8. Control (questions, tests, tasks, etc.).
Task 1
Patient P., 42 years old, complains of sharp girdle pains in the epigastric region that occur after ingestion of any food, especially after fatty and acute. The pain subsides during fasting, as well as when taking atropine, omeprazole and analgin. Concerned about nausea, vomiting at the height of pain, which does not bring relief.After eating - severe bloating, rumbling. Stool 3-4 times a day, plentiful, brilliant, with a pungent smell of rancid oil and rotten meat.
Grew and developed usually. After serving in the army, he worked as a mechanic at a distillery, and now he is a storekeeper. Abuses alcohol. Three years ago, after heavy consumption of alcohol and fatty foods, burning girdle pains, vomiting, temperature rose to 42 ° C, turned yellow. He was treated in a surgical hospital: starvation for four days, infusion of contracal, 6-fluorouracil, hemodesis, antibiotic therapy. Checked out in two weeks, there were no complaints within four months. After an alcoholic excess, pains of a girdle nature reappeared; there was no jaundice and fever. He was treated on an outpatient basis, fasted for four days, received atropine, omeprazole, almagel, creon, antibiotics. After going to work, he again began to drink alcohol. The pain occurred three more times after alcohol abuse and plentiful food. Treated on an outpatient basis. During the year after implantation, Espiral did not drink. I felt good, no pain.

The last exacerbation began a week ago. The day before I drank about a liter of vodka, ate a lot of fatty ham and pickles. At night, intolerable pains and vomiting began. The ambulance team called out carried out a siphon gastric lavage, injected atropine, analginum, and relanium. He refused hospitalization. He starved for three days and received atropine and soda orally. In connection with the deterioration, he entered the hospital. On examination, the state of moderate severity. Low nutrition patient. Body temperature 37.9 ° C. Sclera is subicteric. On the skin of the chest and abdomen, small “red droplets”. There is no percussion sound over the slight blunting, breathing is harsh, there are no wheezing. Pulse -104 per minute, rhythmic. HELL - 105/60 mm RT. Art. The tongue is covered with a thick white coating. The abdomen is swollen, participates in respiration, there is no muscle tension, there are no symptoms of peritoneal irritation. The positive symptom of Kach on the left. The liver along the midclavicular line extends 5 cm, the edge is soft, elastic, painful on palpation. The spleen is not enlarged. A sharp soreness on palpation is determined. Palpation above the navel, at the Mayo-Robson point, is also painful, a positive symptom of rotation and a positive symptom of tension of the mesentery are determined. The large intestine is spasmodic, sensitive to palpation.
In blood tests: hemoglobin - 10 g / ml, erythrocytes - 3.8 million, white blood cells - 9700, young ones - 2%, s / I - 12%, s / I - 58%, lymphocytes -24%, eosinophils - 4% , ESR - 28 mm / h, total bilirubin - 2.1 mg%, direct bilirubin - 1.2 mg%, cholesterol - 180 mg%, total protein - 9.4 mg / dl. ALT - 95 units / ml, ACT - 108 units / ml, blood amylase -79 mg / ml / h, glucose - 100 mg%. GTP - 164 units / ml.
In the analysis of urine: amylase - 180 mg / ml / h.
Ultrasound: liver of increased echogenicity, increased in size. The pancreas is increased by 8 mm in the tail region and 12 mm in the head region due to edema. The main pancreatic duct is dilated, the parenchyma in the tail region is reduced echogenicity, in the head region is increased.
The task:
• Perform a diagnostic search.
• After the 2nd stage of the diagnostic search, formulate a preliminary diagnosis.
• Make a survey plan. Indicate what additional studies are needed to make a diagnosis.
• Formulate a clinical diagnosis. Specify diagnostic criteria.
• Prescribe a treatment and justify it.
At the 1st stage of the diagnostic search, the analysis of complaints allows us to conclude that the leading syndrome is pain. Localization and, most importantly, the girdle nature of pain, intensification of pain after ingestion of spicy and fatty foods, subsidence during fasting are characteristic of chronic pancreatitis. The nature of the pain is due to the location of the pancreas and occurs in lesions of the head, body, and tail. The intensification of pain after spicy and fatty foods is due to stimulation of the secretion of the pancreas, respectively, by secretin and cholecystokinin, starvation creates peace for this organ. In parallel with the pain, the phenomena of "gastric" dyspepsia developed - nausea and, most importantly, vomiting that did not bring relief. Syndrome of intestinal dyspepsia is also expressed - flatulence, diarrhea, megafecalia, steatorrhea.
Thus, the analysis of complaints suggests that there is a symptom complex characteristic of the painful form of pancreatitis (pain, gastric dyspepsia syndrome) and exocrine pancreatic insufficiency (steatorrhea).
In the history of life, an etiological factor is clearly traced - alcohol abuse. The same factor as a launcher is noted in the history of the disease. Alcohol excesses are also factors of relapse.
An analysis of the medical history suggests that the patient has alcoholic pancreatitis, its course is characteristic of chronic recurrent pancreatitis. Currently, there is a clinical picture of the stage of exacerbation. During the course of the disease, the syndrome of impaired absorption was noted, which allows thinking about exocrine insufficiency. To this exacerbation, standard therapy has been effective.
At the 2nd stage of the diagnostic search, clinical signs of exacerbation of chronic pancreatitis (positive Kach's symptom, pain on palpation at the Mayo-Robson point, positive symptoms of rotation and tension of the mesentery), clinical manifestations of malnutrition syndrome (weight loss) were identified, clinical manifestation of mesenchymal-inflammatory syndrome (fever, symptoms of liver damage, jaundice, hepatomegaly, pain on palpation), damage to the colon (cramping, sensitivity with palpation ii).
Thus, after the 2nd stage of the diagnostic search, a preliminary diagnosis can be formulated: "Chronic alcoholic pain pancreatitis with exocrine insufficiency, recurrent variant, stage of exacerbation."

The 3rd stage of the diagnostic search - laboratory and instrumental examinations - includes the following items: general blood test, general urinalysis, total bilirubin and its fractions, ACT, ALT, ALP, GGT, blood amylase, blood lipase, blood sugar , total protein, coprogram, ultrasound of the abdomen, ERCP.

Laboratory signs of mesenchymal-inflammatory syndrome - leukocytosis, a shift of the leukocyte formula to the left, an acceleration of ESR - confirm the stage of exacerbation of chronic pancreatitis. An increase in bilirubin in the blood, the appearance of its direct fraction, an increase in ALT activity (laboratory signs of a cytolytic syndrome), an increase in liver density, determined by ultrasound, make the opinion expressed at the 2nd stage quite significant that there is an exacerbation of chronic alcoholic hepatitis. To confirm this diagnosis, a puncture biopsy of the liver will help.

Clinical diagnosis: "Chronic alcoholic parenchymatous recurrent pancreatitis with exocrine insufficiency in the acute stage, chronic hepatitis of alcoholic etiology."

Therapeutic measures should be aimed at the following:

• suppression of gastric secretion by drugs [H2-histamine receptor blockers (ranitidine) or proton pump blockers (omeprazole)];

• suppression of pancreatic secretion by parenteral administration of sandostatin;

• inhibition of proteolysis of pancreatic tissue - trypsin inhibitors (iv drip contraal, gordox) - until remission (pain subsides);

• stopping water-electrolyte disturbances in / in by infusions of reopolyglycine and other solutions;

• decrease in the activity of chronic hepatitis - detoxification therapy (iv drip glucose solution 5%);

• relief of severe pain - analgesics, antispasmodics;

• replacement therapy - oral digestive pancreatic enzymes (mesim-forte, creon, pancytrate).

Task 2

Patient M., 85 years old.Complains of weakness, fatigue, weight loss, dry mouth, thirst, an increase in the amount of urine, skin itching, bloating after eating, frequent (up to 5-6 times a day), plentiful, oily-like paste with a smell of rancid oil stool profuse diarrhea after eating milk and fats.Aching pain in the left hypochondrium after consuming fried, oily and spicy.

Born in a large peasant family, working life from 12 years old.Member of the Second World War, since 1947 he worked as an accountant. In 1942, he suffered dystrophy of the second century. For 15 years he was treated for metabolic (arthritic?) Polyarthritis. Adheres to a diet with a sharp restriction of meat, fish, poultry, cottage cheese. I didn’t smoke, I didn’t drink alcohol.

Five years ago, he noted that he had ceased to tolerate fats and milk normally - diarrhea appeared. I started to lose weight. For four years, he lost 12 kg, the last year he began to eat often because of bloating after a plentiful meal. The chair became frequent up to 4-5 times a day. Deterioration most often after spicy and fried foods. Reception of phthalazole and antibiotics did not bring relief. Six months ago, dry mouth, skin itching appeared, more urine began to be secreted, weakness worsened.

Low nutrition patient. The skin is of normal color, dry, turgor is reduced, in the corners of the lips - jams. There is no dullness of percussion sound over the lungs, there is sound with a box-like hue, vesicular breathing, no wheezing. Pulse - 76 per minute, rhythmic, full. HELL -140/80 mm RT. Art. The tones are clear, no noise. The abdomen is soft, participates in breathing. The liver protrudes 2 cm, along the midclavicularline, the edge is soft, rounded, painless. The spleen is not enlarged. Moderate pain on palpation of the transverse colon and sigmoid colon.

In blood tests: hemoglobin - 61 g / ml, red blood cells - 3.3 million, white blood cells - 6.4 thousand, the formula has not been changed. ESR - 35 mm / h, total protein - 3.5 g / l, total bilirubin - 0.7 mg%, no direct, cholesterol - 110 mg%, amylase - 12 mg / ml / h, glucose - 154 mg%.

In the feces analysis, the reaction to occult blood with benzidine is negative, the reaction to stercobilin is positive, muscle fibers are ++, neutral fat is +++, starch ++, leukocytes, red blood cells are absent.

At a fluoroscopy of a stomach organic changes are not revealed.

When sigmoidoscopy revealed hyperemia of the mucosa, the vascular pattern is clearly pronounced. Irrigoscopy did not reveal a tumor process.

Ultrasound: in all departments of the pancreas, the phenomenon of fibrosis, a decrease in the size of the tail by 6 mm.
With selective angiography: depletion of the vascular pattern of the gland, atypical, "amputated" and newly formed vessels are absent in all parts of the gland.
In the study of amylase in the urine and blood revealed a normal amount of the enzyme.

The task:

• Perform a diagnostic search.
• After the 2nd stage of the diagnostic search, formulate a preliminary diagnosis.
• Make a survey plan. Indicate what additional studies are needed to make a diagnosis.
• Formulate a clinical diagnosis. Specify diagnostic criteria.
• Prescribe a treatment and justify it.

The 1st stage of the diagnostic search begins with the analysis of complaints.
The variety of complaints requires their grouping and systematization. First of all, complaints about intestinal dysfunction should be considered, the peculiarities of this dysfunction are feces (polyphase), an oily appearance and the smell of rancid oil. This is a sign of an increase in the content of neutral fat in feces, i.e. steatorrhea. With the usual color of feces (feces are not discolored, which means bile enters the intestines), steatorrhea is the result of severe exocrine pancreatic insufficiency. Confirmation of this suggestion is increased diarrhea after eating fats and milk, bloating.
Dry mouth, thirst, polyuria, as a rule, appear with a violation of carbohydrate metabolism - diabetes. Sugar diabetes at this age may cause insufficiency of the intra-secretory (endocrine) function of the pancreas.
General complaints of weakness, fatigue, weight loss can also be a consequence of exocrine pancreatic insufficiency, leading to malabsorption, and diabetes.
An analysis of the history of life allows us to conclude about the period of malnutrition and the apparent deficiency of protein in the diet.
From the history of the disease it follows that it manifested itself from the signs of “intolerance” of fats - the appearance of diarrhea after their use. Fat causes diarrhea if in the small intestine the neutral fat is not broken down into glycerin and fatty acids, i.e. those substances that can be absorbed in this section of the intestine. If hydrolysis (splitting) does not occur, neutral fat enters the colon and causes steatorrhea - profuse, oily-looking diarrhea. Violation of the breakdown and absorption of fats in case of insufficient pancreatic secretion of lipase leads to weight loss. Confirmation of the pancreatic cause of complaints is the following from the history of exacerbations after eating fats, and the lack of effect when taking phthalazole and antibiotics.
Symptoms of diabetes mellitus occur in old age, and the patient is 85 years old, or with insulin resistance arising from obesity, or with fibrosing of the pancreas.
The 2nd stage of the diagnostic search confirms the presence of the effects of malabsorption of energy substances, vitamins and dehydration - a patient is undernourished, there are seizures, skin turgor is reduced. At this stage, moderate hepatomegaly is detected, the causes of which will be clarified at the 3rd stage. The absence of obvious positive palpation symptoms should not exclude the presence of chronic pancreatitis, since at the first stage we suggested latent CP, in which pain does not occur, and there is no pain on palpation.
At the end of the 2nd stage of the diagnostic search, a preliminary diagnosis can be made: "Chronic latent (painless) pancreatitis with exocrine insufficiency and endocrine insufficiency (diabetes mellitus)."
The 3rd stage of the diagnostic search allowed to complete the diagnostic process.
In the analysis of feces, confirmation of the assumption of exocrine pancreatic insufficiency was obtained, microscopy revealed drops of neutral fat, which suggests an insufficient production of lipolytic enzymes, mainly lipase. The presence of muscle fibers indicates a lack of proteolytic enzymes, and starch - a lack of amylase in the intestines.
Ultrasound showed the presence of fibrosis of pancreatic tissue, angiography revealed a depletion of the vascular pattern, which also indicates fibrosis of this organ.
Normal levels of amylase in the blood and urine indicate the absence of pancreatic cytolytic syndrome, i.e. necrosis and inflammation.

Biochemical analysis confirmed the presence of malnutrition syndrome as a consequence of malabsorption syndrome - the level of total serum protein and cholesterol was reduced. Anemia can also be attributed to this syndrome. The assumption about diabetes is also confirmed - fasting glucose levels are increased.

Clinical diagnosis: "Chronic inductive pancreatitis, latent (painless) option, exocrine pancreatic insufficiency, endocrine pancreatic insufficiency (diabetes mellitus)."

The treatment includes the following. Diet with the restriction of fats and carbohydrates, an increase in the diet of protein. Replacement therapy with pancreatic digestive enzymes: Creon 25 LLC ED after each meal. The effectiveness control is the number of bowel movements and the content of neutral fat and muscle fibers in the feces under microscopy. If the stool doesn't normalize, the dose of creon should be increased to 2-3 capsules of 25,000 units after each meal. Intravenously, it is necessary to administer a solution of albumin 20% in 100 ml. Substitution insulin therapy - short-acting insulin before breakfast, lunch and dinner, under the control of blood glucose level.

1. Topic 4: Gallstone disease (cholelithiasis)

2. Purpose: To get acquainted with the syndromes in diseases of the digestive system, to study the epidemiology, etiology and pathogenesis of cholelithiasis, its clinical manifestations, differential diagnosis, complications and treatment of cholelithiasis. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of cholelithiasis.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery time: 2 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1.

A patient, 48 years old, was admitted to the clinic on the third day of the disease with complaints of severe persistent pain in the right hypochondrium, nausea, repeated vomiting of bile, fever up to 38 ° C. The patient's condition is serious, the number of breaths is 30 per minute, the pulse is 110 in 1 min., The tongue is dry, coated with white coating. The abdomen is tense and sharply painful in the right hypochondrium, where the bottom of the gallbladder is palpated. The symptom of Shchetkin-Blumberg is also determined there, the symptoms of Ortner, Murphy, Mussi are positive. The number of leukocytes in the blood is 18 * 109 / l.

The patient was prescribed conservative treatment. Six hours after admission, severe abdominal pain suddenly appeared, a cold sweat appeared, a pulse of 120 beats in 1 min., The abdomen was sharply painful and tense, a positive symptom of Shchetkin-Blumberg in all departments.

The task:

1. What disease did the patient enter the hospital with?
2. What complication of the underlying disease developed in the patient?
3. What should be done in this situation?

Task 2

The guy is 20 years old, he complains of acute abdominal pain, localized in the right hypochondrium, radiating to the right shoulder blade and lumbar region, nausea and repeated vomiting of food eaten. Abdominal pain appeared 15 minutes after breakfast, consisting of a sandwich with butter, eggs, coffee. A similar attack was observed 7 months ago. The chair is periodically discolored.

Baby from 1 pregnancy; urgent delivery; birth weight 3500 g, length 55 cm. Naturalfeedingupto 9 months.

Mother suffers from cholelithiasis (cholecystectomy performed); father - chronic gastroduodenitis; grandmother (by mother) - calculouscholecystitis.
Inspection: Height 172 cm, weight 61 kg. The skin is slightly icteric, sclera subicteric. Respiratory organs and cardiovascular system without pathology. With superficial palpation of the abdomen, rigidity of the muscles of the right half of the abdomen, pain in the right hypochondrium are noted. Positive cystic symptoms. For other bodies unchanged.
General blood test: Hb - 128 g / l, Er - 4.0 x 1012; CPU - 0.9; Lake - 9.2 x 109 / L; PO Box - 5%; s / s - 45%; e - 4%; m - 6%; ESR - 16 mm / hour.
General analysis of urine: color light yellow, transparent; pH 5.5, density 1011; protein - no; sugar - no; flat epithelium - a small amount; Er - no; mucus - no.
Biochemical blood test: total protein - 80 g / l; albumin - 56%, globulins: alpha1 - 5%, alpha2 - 9%, beta - 13%, gamma - 17%; ALT - 24 units / liter, AST - 28 units / liter, alkaline phosphatase - 277 units / liter (norm 70 - 140), amylase 54 units / liter (norm 10-120), thymol test - 3.5 units, bilirubin total. - 12 μmol / l, bound - no.
Coprogram: color dark brown, decorated, pH 7.5; muscle fibers - in a small amount; starch intracellular and extracellular - a lot, iodophilic flora - a significant amount, vegetable fiber indigestible - a little, mucus - no, L - 0-1 in n / a.
Ultrasound of the liver: The liver parenchyma is not changed. The portal vein is of normal diameter. The wall of the gallbladder is thickened, in the lumen of the gallbladder, an echogenic inclusion of a rounded shape up to 0.5 cm in diameter is visualized.
The task:
1. What pathology of the gastrointestinal tract can be thought of?
2. Specify the differential diagnosis algorithm.
3. What additional history data are required?
4. What additional research methods need to be carried out?
5. Evaluate blood counts.
6. Create a general treatment plan.

Answer
1. Gallstone disease, the onset.
2. The disease should be differentiated from simple cholecystitis, biliary dyskinesia, gastroduodenitis, peptic ulcer of the stomach and duodenum.
3. The history of episodes of articular syndrome, changes in urine, clinical symptoms of kidney damage, previous infections immediately before the episode of the disease, the nature of nutrition before the disease, its nutritional preferences, that is, those signs that will help to judge metabolic disorders in the body, should be clarified a child.
4. It is necessary to consult a surgeon, study the level of C-reactive protein, a test for lamblia, urine for metabolic defects, serum cholesterol and uric acid levels.
5. An elevated level of alkaline phosphatase is noted, which indicates a cholestatic component of the process. In the general analysis of blood - leukocytosis, a shift of the leukocyte formula to the left, accelerated ESR, which indicates the presence of an inflammatory process in the body.
6. Drug litholytictherapy - with ursodeoxycholic acid preparations, and shock - wave apparatus therapy with lithotripters.
According to the abatement of the exacerbation, therapy is indicated aimed at normalizing the general vegetative status of the child (electrosleep, balneotherapy), treatment with mineral waters. During exacerbation, physiotherapeutic effects are contraindicated

1. Topic 5: Acute rheumatic fever (ARF)
2. Purpose: To get acquainted with the syndromes of systemic diseases, to study the epidemiology, etiology and pathogenesis of diffuse connective tissue diseases, its clinical manifestations, differential diagnosis, complications and treatment of acute respiratory infections. Mastering the algorithm for making a preliminary

diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of ORL.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery time: 5 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1

Patient P., 25 years old, was admitted to the clinic as a cardiorematologist. Complains of pain in the heart, palpitations, shortness of breath, general weakness. At 13, he suffered rheumatoid arthritis and small chorea. After that, I felt good. The condition worsened for 6 months. back after a sore throat. He was undergoing treatment at a cardiology center where rheumatic exudative pericarditis was diagnosed. Pericardial puncture was performed three times, while hemorrhagic exudate was obtained (a total of 2.5 liters of fluid was recovered). After a short-term improvement, after 2 months, the condition worsened again: shortness of breath intensified, pain in the heart, swelling on the legs appeared.

On examination: moderate severity, body temperature 38.3, pale skin, acrocyanosis. Pulse 96 in min., Arrhythmic, weak filling, on inhalation disappears. HELL 105/50 mm Hg The heart is large, the heart beat is spilled, the right border of relative cardiac dullness is 3 cm to the right of the right sternum line, the upper one is in the second intercostal space, the left one almost reaches the front axillary line. The first tone above the apex clapping, systolic and protodiastolic murmurs above the apex, amplification of the second tone above the pulmonary artery. At the left edge of the sternum, a rough noise of pericardial friction is determined. Above the lower back of the lungs hard breathing. The liver 3 cm protrudes from under the edge of the costal arch, compacted, sensitive to palpation. The legs are slightly swollen.

Blood test: er-4.9 * 10 / l, Hb-120 g / l, lake - 7.0 * 10 / l, e-1%, n-6%, s-66%, lymph-18%, mon-9%, ESR-42 mm / hour. Urine unchanged. Sialic acid-0.320 units, DFA-0.300 units, total serum protein-87.1 g / l, albumin-42.5%, globulins-57.5%, 8.8% -17.8% -11 , 3% -18.4%, AG coefficient-0.7, ASL-O 1: 1000.

X-ray of the chest: pulmonary fields are transparent, the heart is bovine, the pulsation of the contours is almost not detected.

ECG: signs of left atrial hypertrophy, diffuse changes in the ventricular myocardium, a decrease in the ST interval, and negative T waves in the V 1-2 stages.

The questions are:

1. What is your preliminary diagnosis?
2. What research is needed?
3. What is your medical tactic?

Task 2

Patient G, 27 years old, was sent to the clinic by a local therapist in connection with the appearance of an impurity of dark blood in sputum. On admission, a small cough complains with the release of a small amount of light sputum. In the sputum several times during the morning there was an admixture of dark blood. In addition, shortness of breath with little effort, edema of the lower extremities is disturbing.

For 5 years, it has been observed about rheumatism. In the spring and autumn he carried out a course of treatment with bicillin. The last six months there was a pronounced shortness of breath, palpitations, interruptions in the work of the heart. In the past, he often suffered from tonsillitis, but after removing the tonsils (2 years ago), the tonsillitis stopped.

On examination: a state of moderate severity, low nutrition, cyanotic flush on the cheeks. Cyanosis of the lips.NPV-28 per min. Arrhythmic pulse up to 122 per min., Weak filling. HELL 100/75 mm Hg Heart beat spilled. The right border of the relative dullness of the heart is 2 cm outward from the right edge of the sternum, the upper is in the second intercostal space, the left is 2 cm outward from the left mid-clavicular line. The first tone above the apex of the heart is amplified, the protodiastolic and short systolic murmur above the apex, the second tone is strengthened and split over the pulmonary artery. In the basal zones of the lungs, a blunting of the percussion tone, breathing in the posterior regions of the lungs is harsh, here isolated single, noisy, small bubbling rales are determined. The 3 cm liver protrudes from under the costal arch, is compacted, slightly painful on palpation. The lower legs and rear feet are swollen.

The questions are:

1.Preliminary diagnosis?
2. What are the required examination methods?
3.Your treatment tactics?
4. What is your prognosis for disability?

Task 3

Patient S., 15 years old, a student of grade 7, complained of pain in the knee joints upon admission, aggravated by slight movement in the bed, swelling in the knee joints, general weakness, fever up to 38.2. The disease began 3 days ago after swimming in the river. 2 weeks before, he suffered a sore throat. In the past, almost every year he suffered from tonsillitis.

On examination: moderate severity, body temperature 38.3,

a patient of the correct physique, somewhat lowered nutrition, the skin is pale, moist, hot to the touch. The muscles are developed satisfactorily. The knee joints are swollen, the skin above them is hyperemic, movements in the knee joints are sharply painful, patella balloting is noted during palpation. Pain is also noted when moving in the hip joints.

The left border of the relative cardiac dullness of the heart is 1 cm offset to the left of the mid-clavicular line, 1 tone above the apex of the heart is muffled, soft systolic murmur above the top of the heart, 2 tone is amplified over the pulmonary artery. Pulse 96 per minute, rhythmic, satisfactory properties.HELL 95/55 mm RT. Art. No changes were found in the lungs and organs of the abdominal cavity. The pharynx is hyperemic, tonsils protrude from under the arches, loose, with purulent plugs.

Blood test:er. 4.5 * 10 / l, Hb-152g / l, lake-9.8 * 10 / l., E-3%, n-10%, s-66%, lymph-17%, mon-4%, ESR-40 mm / hour. Urine unchanged. Sialic acid - 0.37 units, DFA - 0.42 units, total serum protein - 87 g / l, albumin - 40.5%, globulins - 59.5% -8.8% -14.8% -15, 3%, A \ G-coefficient-0.7, CRP - ++++.

ECG data: PQ-0.22, high T waves in V2-V4 leads.

The questions are:

1. What is your preliminary diagnosis?
2. What are the required examination methods?
3. What is your medical tactic?

1. Topic 6: Systemic vasculitis

2. Purpose: To get acquainted with the syndromes of connective tissue diseases, to study the epidemiology, etiology and pathogenesis of systemic vasculitis, its clinical manifestations, differential diagnosis, complications and treatment of vasculitis. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of systemic vasculitis.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.
6**. Delivery time:** 6 day
7. Literature: indicated in the syllabus.
8. Control (questions, tests, tasks, etc.).
Task 1
Patient K., nurse, 39 years old. I entered the rheumatology department with complaints of severe weakness, fever up to 37.2–37.5 ° C daily, no chills, dizziness, headaches, sometimes there are discomfort in the heart, joint pain. She considers herself sick for about a year when, accidentally after aerobics at the end of the workout, she could not feel for the pulse in her right hand. She was consulted by a surgeon, after which she was sent for examination to the regional center, where narrowing of the carotid arteries by 80% was revealed on the ultrasound of vessels with dopplerography. Directed for treatment in the Department of Angiosurgery. The operation was performed: bypass surgery of the left carotid artery. After the operation, she began to feel much worse: all of the above complaints appeared, expressed inflammatory changes in the KLA (increase in ESR to 60 mm / h). On examination: satisfactory condition, normal physique. The skin is clean, without rashes. Keloid scars on the neck on the left, Horner's symptom on the left. Percussion above the lungs pulmonary sound, auscultatory - vesicular breathing. The boundaries of the heart are not extended. Heart sounds are rhythmic, slightly muffled. HELL on the right hand - 180/120 mm RT. Art., on the left - can not be measured. The pulse on the right hand is 72 beats / min, on the left hand it is not possible to feel. During auscultation, a rough systolic murmur is heard on the carotid arteries on both sides and a soft blowing murmur on the abdominal aorta. The abdomen is soft, sensitive to palpation in the epigastric region. Chair and diuresis without features. The joints are apparently not changed, without signs of inflammation, movement in full.
The task:
1. Formulate a preliminary clinical diagnosis.
2. What are the diagnostic criteria for this disease in this patient?
3. What examination is necessary in this case?
4. What changes in the general and biochemical blood tests characteristic of this disease can be detected?
5. Therapeutic tactics. Assign a comprehensive treatment at the inpatient and outpatient stages. Write out the recipes.
Answer standard:
1. Nonspecific aortic arteritis (Takayasu disease).
2. Age up to 40 years, weakening of the pulse on the brachial artery, the difference in blood pressure is more than 10 mm RT. Art., noise on the carotid arteries and on the abdominal aorta, changes during angiography.
3. OAK, OAM, LHC, for the purpose of differential diagnosis, it is necessary to conduct an immunological blood test (ANF, AT to DNA); angiography, ultrasound of vessels with dopplerography; consultation of an ophthalmologist and a vascular surgeon.
4. There may be normochromic anemia, thrombocytosis, an increase in ESR and CRP. Changes in the general and biochemical blood tests are nonspecific, reflect general inflammatory changes, and also depend on the prevailing organ damage.
5. Inpatient treatment can be started with pulse therapy for corticosteroids (with the goal of inducing remission), then transferred to oral administration. The dose is selected individually. The duration of suppressive therapy is at least 3-4 weeks, then when the stabilization of clinical and laboratory data, the dose is gradually reduced to a maintenance one. If necessary, cytostatics (methotrexate, azathioprine) can be prescribed. Vascular preparations for the treatment of vasospastic and ischemic syndromes (pentoxifylline, cavinton, etc.) are also prescribed. Perhaps the use of therapeutic plasmapheresis.

Task 2
Patient N., 78 years old, was admitted to the rheumatology department to clarify the diagnosis and correct the treatment regimen with complaints of intense pulsating headaches, mainly in the temporal areas, dizziness, a sharp decrease in hearing and visual acuity, general malaise, weakness, periodic increase in body temperature

to 37.2–37.5 ° C. He became ill about 3 months ago. He turned to a neurologist for help, where he was diagnosed with cerebrosclerosis, dyscirculatory encephalopathy. The treatment with vasodilating and nootropic drugs did not produce a tangible positive effect. Hearing and vision began to deteriorate, weakness and fever appeared. A general blood test revealed an increase in ESR to 55 mm / h. On examination: a patient of normal physique, undernutrition. The skin is the usual color. In the temples, swelling and pulsation of the temporal arteries are observed, with their palpation pain is noted. Body temperature - 37 ° C. Peripheral lymph nodes up to 0.5 cm, painless.Percussion over the lungs pulmonary sound.The vesicular breathing, in the lower sections - pneumoscleroticrales. The boundaries of the heart are not extended. The tones are muffled, arrhythmic, isolated extrasystoles. Heart rate - 68 beats / min; systolic murmur is observed at the apex, in the II intercostal space on the right and at the Botkin – Erb point. HELL on both hands - 160/80 mm RT. Art. The liver is not enlarged, the abdomen is soft, painless. Joints of the hands: in the area of the distal phalanges there are nodular growths.

The task:

1. Formulate a preliminary clinical diagnosis.
2. What are the diagnostic criteria for this disease in a patient?
3. Create an examination plan for this patient.
4. With which diseases is it necessary to differentiate this disease?
5. What changes can be detected in general and biochemical blood tests?
6. Therapeutic tactics. Assign a comprehensive treatment at the inpatient and outpatient stages. Write out the recipes.

Answer standard:

1. Giant cell temporal arteritis (Horton's disease). Concomitant diagnoses - IHD: cardiosclerosis. Extrasystole. Arterial hypertension degree 2, risk 4. CHF FC I (H 1).Emphysema, pneumosclerosis.DN 1.Primary polyosteoarthrosis, nodular form.
2. The development of the disease after 50 years, the appearance of severe atypical headaches; pain on palpation of the temporal arteries; ESR increase to 55 mm / h; muffled heart sounds, rhythm disturbance, increased blood pressure, pneumoscleroticrales in the lower parts of the lungs, Heberden nodules.
3. UAC, OAM, LHC (CRP); temporal artery biopsy; Ultrasound of brachiocephalic vessels.
4. The disease should be differentiated from RA, shoulder-shoulder periarthritis, inflammatory myopathies, malignant neoplasms, infections, hypothyroidism, Parkinson's disease, atherosclerotic vascular damage.
5. In the KLA - a marked increase in ESR, in the LHC - the concentration of CRP.
6. When establishing a diagnosis and excluding other diseases, the immediate administration of GCS (40-60 mg / day of prednisone until clinical and laboratory data are normalized with a gradual dose reduction until complete withdrawal.) The duration of therapy and dose are selected individually.

1. Theme 7: Gout

2. Purpose: To get acquainted with the syndromes of connective tissue diseases, to study the epidemiology, etiology and pathogenesis of gout, its clinical manifestations, differential diagnosis, complications and treatment of gout. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of gout.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery time: 7 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1

Patient A. Abramov, 42 years old, was admitted with complaints of the sudden onset of bouts of severe pain in the big toe, its swelling and redness, headache, fatigue, weakness, fever up to 38C. The deterioration is associated with the use of alcohol in the last 3 days. Objectively: The skin is moist, body temperature 38C ..The skin above the joint glistens, bluish-purple, hot. Joint movements are severely limited due to pain. Complete blood count: white blood cells 11.8x10 * 9 / l, ESR 36 mm / h Bioch. blood test: CRP +, uric acid 0.65 mmol / L, sialic acids 180 units.

The task:

1. What drug should be prescribed for a patient to reduce joint pain?
2. What NSAIDs should be prescribed to a patient for relief of acute pain?
3. What NSAIDs non-specifically inhibits both isoforms of COX and can it be prescribed to a patient for relief of pain?
4. What drug prescribed for the patient increases the risk of peptic ulcer?
5. What selective COX-2 inhibitor will contribute to the weakening of pain in a patient?

Task 2

Patient R., 45 years old, an entrepreneur, was admitted to the rheumatology department with complaints of swelling and sharp pain in the first toe of the right foot. He fell ill acutely 2 days ago: after visiting the sauna and a plentiful feast at night, a very severe pain appeared in the first toe of the right foot. The pain was perceived as unbearable even from the touch of a blanket. In the morning, the patient noticed swelling of the first toe of the right foot and a crimson coloration of the skin above it. Over the next day I could not even get to the toilet due to a sharp pain. Body temperature increased to 37.8 ° C, and therefore contacted the clinic at the place of residence. Hospitalized in the direction of the clinic.

From the anamnesis it is known that over the past 3 years, rises in blood pressure up to 160/100 mm Hg have been observed occasionally, I have not received permanent antihypertensive therapy.

Upon examination, the condition is satisfactory, the constitution is hypersthenic, increased nutrition. Height - 172 cm. Weight - 90 kg. In the lungs, vesicular breathing, no wheezing. BH - 18 per minute. Heart sounds are slightly muffled, the rhythm is correct. Heart rate - 84 per minute. HELL - 150/105 mm Hg The abdomen is round; increased in volume due to the excessive development of subcutaneous fat; soft, painless. The left lobe of the liver 1.5 cm protrudes from under the costal arch; the edge of the liver is soft, painless. The size of the liver according to Kurlov: 10 x 9 x 9.5 cm. The spleen is not enlarged. The area of the kidneys is not visually changed. The symptom of striking is negative on both sides. Physiological administration is normal. No peripheral edema. The thyroid gland is not enlarged. In neurological status, without features. Severe deformation of the first metatarsophalangeal joint of the right foot due to exudative phenomena; sharp pain on palpation of the joint (the patient withdraws the leg), flushing of the skin above it and an increase in local temperature, the range of motion in the first metatarsophalangeal joint on the right is sharply limited. Other joints during examination are not changed, their palpation is painless, movements in other joints are preserved in full. Subcutaneous and intradermal nodules are not detected.

Clinical blood test: Hb - 140 g / l; erythrocytes - 4.8x1012; leukocytes - 10.1x109, stab - 5%, segmented - 66%, lymphocytes - 20%, monocytes - 5%, eosinophils - 4%; platelets - 280x109; ESR - 32 mm / h.

Biochemical analysis of blood: glucose - 4.5 mmol / l, cholesterol - 6.8 mmol / l, creatinine - 78 mmol / l, urea - 7.2 mmol / l, uric acid - 540 mmol / l, total protein - 68 g / l, ALT - 84 units / liter, AST - 67 units / liter.

Urinalysis: relative density - 1016, protein and glucose are absent, white blood cells - 1-2 in the field of view.

X-ray of the feet: narrowing of the joint spaces, mainly the metatarsophalangeal joints on both sides.

The task:

1. Formulate a diagnosis.
2. What additional examination methods are necessary in this situation and what results do you expect to receive?
3. Based on what diagnostic criteria was the diagnosis made?
4. What are the most likely, in your opinion, factors that trigger the development of acute arthritis?

5. What are the associated diseases / conditions.
6. What is the tactics for further management of the patient?

Answer standard:

1. The main diagnosis: gout: acute gouty arthritis, hyperuricemia.
Concomitant diseases: arterial hypertension. Fatty hepatosis (?).Hypercholesterolemia.
2. The standard for the diagnosis and differential diagnosis of gout is polarization microscopy of synovial fluid. In this patient, it is possible to identify urate crystals in the synovial fluid, which, when polarized by microscopy, look like needle crystals with the effect of negative birefringence.
3. The diagnosis of gout is established on the basis of the following criteria: inflammation of the joint, which reached a maximum on the 1st day; monoarthritis; hyperemia of the skin over the affected joint; swelling and pain in the first metatarsophalangeal joint; unilateral lesion of the first metatarsophalangeal joint; hyperuricemia. The diagnosis was confirmed by examining synovial fluid where urate crystals were found.
4. Estimated trigger factor for the development of acute arthritis: stay in the sauna, followed by a plentiful feast (dietary errors, alcohol consumption).
5. Associated diseases / conditions: arterial hypertension, hypercholesterolemia, fatty hepatosis (?).
6. Management tactics: relief of acute gouty arthritis (NSAIDs), strict adherence to diet, recommended lifestyle, control of uric acid level.

Task 3

Patient S., 65 years old, was admitted to the therapeutic department with complaints of recurring dizziness, increased blood pressure up to 180/110 mm Hg, pain and swelling of small joints of the hands.
Considers herself a patient over the past 20 years, when rises in blood pressure up to 180-190 / 100-110 mm Hg began to be noted, accompanied by headache, dizziness and nausea. For the last 15 years, he has been constantly using hypotensive drugs, mainly diuretics (hypothiazide, and occasionally furosemide). In the last 4-5 years, pain in the small joints of the hands and knee joints has been disturbing; occasionally observed short-term swelling of the joints and redness of the skin above them. She took NSAIDs on her own (mainly, orthophene *), was not examined.
Upon examination, the condition is satisfactory, the constitution is normostenic, increased nutrition. Height - 164 cm. Weight - 82 kg. In the lungs, vesicular breathing, no wheezing. BH -18 per minute. Heart sounds are slightly muffled, the rhythm is correct. Heart rate - 84 per minute. HELL - 185/110 mm Hg The abdomen is slightly increased in volume (due to the excessive development of subcutaneous adipose tissue), and soft, painless on palpation. The edge of the liver does not protrude from under the costal arch. The size of the liver according to Kurlov: 10x8x7 cm. The spleen is not enlarged. The chair is normal. The area of the kidneys is not visually changed. The symptom of striking is negative on both sides. Urination is frequent up to 10-15 times a day, nocturia (3-4 times per night). Pastosity of the lower third of the legs and feet. The thyroid gland is not enlarged. Neurological status without features. Deformation of the 2nd, 3rd and 4th proximal interphalangeal joints of the left hand due to exudative and proliferative phenomena, pain on palpation of these joints, flushing of the skin above them and an increase in local temperature. Other joints during examination are not changed, their palpation is painless, the movements in the joints are fully preserved. The subcutaneous nodule with a diameter of about 0.5 cm on the extensor surface of the left elbow joint.
Clinical blood test: Hb -124 g / l; erythrocytes - 4.2x1012; leukocytes - 9.8x109, stab - 4%, segmented - 72%, lymphocytes - 18%, monocytes - 3%, eosinophils - 3%; platelets - 235x109; ESR - 28 mm / h.
Biochemical analysis of blood: glucose -5.2 mmol / l, cholesterol - 6.5 mmol / l, creatinine - 214 mmol / l, urea - 14.8 mmol / l, uric acid - 495 mmol / l, total protein - 60 g / l, ALT - 32 PIECES / l, AST - 37 PIECES / l.
Urinalysis: relative density - 1007, protein - 0.4 g / l, white blood cells - 4-5 in the field of view, glucose, red blood cells, no cylinders.
X-ray of the hands: narrowing of the joint spaces of the proximal and distal interphalangeal joints of the hands, as well as the knee joints. Erosion of a number of proximal interphalangeal joints of the hands, cystic enlightenment of bone tissue of a rounded shape with clear boundaries in the proximal phalanx of the hands.
The task:

1. Formulate a diagnosis.
2. What additional examination methods are necessary for the patient and what results do you expect to receive?
3. What are the pathomorphological changes in the tissue of the subcutaneous nodule?
4. What are the mechanisms of arthritis formation in this case?
5. What is the cause of kidney damage in this patient?
6. What is the tactics for further management of the patient?

Answer standard:

1. The main diagnosis: chronic tofus gout: chronic gouty arthritis, tofus, hyperuricemia.
Complications: chronic renal failure, grade I. Concomitant diseases: arterial hypertension.
2. To confirm the diagnosis, polarization microscopy of the contents of the tofuses is necessary. In this situation, it is possible to identify urate crystals in the tofus content, which, under polarization microscopy, look like needle crystals with the effect of negative birefringence. In addition, a study of kidney function is shown: urine analysis according to Zimnitsky (possibly a decrease in the concentration function of the kidneys), a Reberg test (decrease in excretory function of the kidneys).
3. The subcutaneous nodule is a tofus, which is a deposit of urate surrounded by granulomatous tissue, which contains giant multinucleated cells. Calcium deposits are sometimes possible.
4. The etiological factor is the use of thiazide diuretics, which reduce the renal excretion of urates and thereby increase the level of uric acid.
5. Kidney damage in this patient can be caused by both the deposition of uric acid crystals in the interstitial tissue with the development of interstitial gouty nephritis, a complication of which became chronic renal failure, and long-term, practically untreated arterial hypertension, contributing to the development of nephroangiosclerosis and chronic renal failure.
6. Patient management tactics: first, relief of acute gouty arthritis (NSAIDs, corticosteroids if there are contraindications), then the appointment of antihyperuricemic therapy (allopurinol under the guise of NSAIDs). Treatment of chronic renal failure, arterial hypertension without the use of diuretics, especially loop and thiazide; strict diet, uric acid control.

1. Topic 8: Milestone control №1
2. Purpose: The main goal is to check the level of assimilation of the next section of the subject.
3. Tasks:
Testing
Practical skills control
Filling in a mini - case history
4. Form of performance / evaluation:
Testing
Practical skills control
Filling in a mini - case history
5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.
6. Delivery time: 8 day
7. Literature: indicated in the syllabus.
8. Control (questions, tests, tasks, etc.):
Questions program for midterm control 1
Tasks of midterm control 1 (test tasks, tickets, and other forms indicated in syllabuses - in thematic plans and in the forms of conducting midterm control)

1. Topic 9: Thrombocytopenia
2. Purpose: To get acquainted with the syndromes in diseases of the blood forming organs, to study the epidemiology, etiology and pathogenesis of thrombocytopenia, their clinical manifestations, differential

diagnosis, complications and treatment of thrombocytopenia. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for the diagnosis of thrombocytopenia.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery time: 9 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task number 1

A 13-year-old boy was admitted to the hospital with a diagnosis of thrombocytopenic purpura, acquired heteroimmune form, severe. Within 7 months receives syndromic therapy. As a result, improvement came, but nosebleeds recur periodically, hemorrhage in the sclera of the eye appeared, severe thrombocytopenia, anemia remain.

The task:

1. The attending physician’s tactics?

Task number 2

A 6-year-old boy with heavy nosebleeds was delivered to the emergency room. The skin and mucous membranes are sharply pale. On the skin of the hands, trunk, legs without a certain localization, a polychrome, polymorphic hemorrhagic rash. There are no deviations from other systems and organs.

The task:

1.Predictive diagnosis?
2. Doctor's tactics?

Task number 3

In a 7-year-old child, after eating once, 4 oranges on the legs developed a small-pointed hemorrhagic rash, followed by bruises on the whole body. The day before he had ARVI, they did not go to the doctor, were not treated.

The task:

1.Predictive diagnosis?

1. Topic 10: Diseases of the pituitary gland.

2. Purpose: To get acquainted with the syndromes in pituitary diseases, to study the epidemiology, etiology and pathogenesis of pituitary diseases, its clinical manifestations, differential diagnosis, complications and treatment of pituitary diseases Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of diseases pituitary gland.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery: 10 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Задача № 1

Patient M. was born with normal weight from parents with normal height. At 6 months, he weighed 13.5 kg, at 9 years old, his height was 186 cm and weight - 80 kg. At 18, his height was 243 cm. The proportions of the body are normal, there is no coarsening of facial features, and has great physical strength.

Conclusion: Adenohypophysishyperfunction, gigantism.

The questions are:

1. List the hormones synthesized by the affected gland
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature

b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Target cells.

d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.

e. Main functions 3. Explain the mechanism of development of the described symptoms

Task 2

Patient S. 30 years old, height is 120 cm. Body proportions are typical for a 3-4 year old child. The skin is pale. The head is small, facial features are small with a children's ratio of the individual parts (relatively small sizes of the upper jaw and chin). Excessive deposition of fat on the chest and abdomen. The voice is high. There is no vegetation on the face and body. Psychophysical development is normal. Some infantility in behavior, a decrease in memory, are noted. The main exchange is within normal limits. There are deviations in the reproductive sphere (impaired sexual desire, inferior spermatogenesis).

Conclusion: Hypofunction of the adenohypophysis, dwarfism.

The questions are:

1. List the hormones synthesized by the affected gland.
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature

b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.

d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.

e. Main functions 3. Explain the mechanism of development of the described symptoms

Task 3

Patient R., 25 years old, was admitted to the clinic with complaints of low growth, poor severity of secondary sexual characteristics, and the absence of menstruation. From the age of 3 she began to lag behind in growth. An examination revealed: height 105 cm, proportional build, sagging skin, face with signs of aging. The genitals are infantile. The mammary glands are not developed. Intelligence saved. The main metabolism is reduced by 12%. Blood glucose level is 3.0 mmol / L. In the urine, the content of 17-ketosteroids is reduced, there are no estrogens and androgens.

Conclusion: Hypofunction of the adenohypophysis

The questions are:

1. List the hormones synthesized by the affected gland.
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature

b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.

d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.

e. Main functions

3. Explain the mechanism of development of the described symptoms

Task 4

A 40-year-old patient came to the clinic with complaints of severe headaches, general weakness, and a change in appearance (an increase in the nose, ears, hands, feet). Objectively: there is an increase in the superciliary arches, zygomatic bones and chin. The soft tissues of the face are hypertrophied, an increase in the tongue and interdental spaces. Hands and feet are enlarged.

Conclusion Adenohypophysis tumor. Acromegaly

The questions are:

1. List the hormones synthesized by the affected gland.
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature

b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.

d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.

e. Main functions 3. Explain the mechanism of development of the described symptoms

Task 5

Patient R., 25 years old, average height. The face is moon-shaped, the skin on it with a crimson hue. Excessive deposition of fat on the abdomen and hips. The bones are thin. Red streaks of tension on the skin of the abdomen and shoulders are noted. Blood pressure 160/90 mm RT. Art. Blood sugar 7.0 mmol / L. Radiological: Turkish saddle expanded.

Conclusion: Itsenko-Cushing's disease**.**

The questions are:

1. What is the impairment of the function of which gland may be suspected in a patient.
2. List the hormones synthesized by the affected gland.
3. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature

b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Target cells.

d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.

e. Main functions

4. Explain the mechanism of development of the described symptoms

1. Topic 11: Pheochromocytoma

2. Purpose: To get acquainted with the syndromes of endocrine diseases, to study the epidemiology, etiology and pathogenesis of pheochromocytoma, its clinical manifestations, differential diagnosis, complications and treatment of pheochromocytoma. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for the diagnosis of pheochromocytoma.

3. Tasks:

1.Select literature on the topic of the lesson.

2. Make a presentation and visual material.

3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery: 11 days

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1

Patient F. was taken to the hospital by an ambulance crew with a diagnosis of "hypertensive crisis." HELL - 180/120 mm RT. Art., myocardial hypertrophy, tachycardia, weakening of memory and intelligence, blood glucose - 6.5 mmol / l. A history of sudden crises with a rise in blood pressure to 200/140 mm RT. Art., the

appearance of tachycardia, sweating, sudden excitement.When nuclear magnetic resonance imaging of the lumbar region revealed an increase in the size of the left adrenal gland, the presence of a rounded formation in the medulla of the gland.

Conclusion: Pheochromocytoma of the left adrenal gland.

The questions are:

1. What dysfunction of which gland can be suspected in a patient
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature
b. Transport mechanism
in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.
d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.
e. Main functions

3. Explain the mechanism of development of the described symptoms

Task 2

A 36-year-old patient M. complained of episodes of severe headache, flickering "flies" and the appearance of a "net" in front of his eyes; flushing of the face; excessive sweating; dizziness, palpitations and pain in the region of the heart, a sense of fear when he performs heavy physical work or during psycho-emotional overstrain. At rest: HELL - 136/85 mm RT. Art., pulse - 80 beats.in min, the data of blood and urine tests unchanged. During physical activity: blood pressure - 230/165 mm RT. Art., pulse - 188 beats. in minutes; in a blood test - glucose 7.5 mmol / l; in the analysis of urine collected after this episode of exercise, the level of catecholamines and their metabolites is increased. To clarify the diagnosis, nuclear magnetic resonance imaging of the lumbar region was performed, which revealed a significant increase in the size of the right adrenal gland.

Conclusion: Pheochromocytoma

The questions are:

1. What is the impairment of the function of which gland may be suspected in a patient. List the hormones synthesized by the affected gland.
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature
b. Transport mechanism
in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.
d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.
e. Main functions

3. Explain the mechanism of development of the described symptoms

Task 3

A 36-year-old woman was admitted to the department for urgent reasons with complaints of a feeling of anxiety and fear of death, the appearance of heaviness in her head, and a feeling of "creeping goosebumps" on her body. Such deterioration occurs suddenly, 1-2 times a month for the last 2 years. The doctor on examination of the patient noted acrocyanosis (cyanosis of the skin), sweating, shortness of breath, tachycardia. HELL was 240/120. Temperature increased to 39. Frequent urination, dry mouth were noted. Lab.data: blood glucose 13 mmol / l, OAC - leukocytosis (increase in the number of leukocytes to 12.0 * 109 / l), OAM - leukocyturia (the presence of leukocytes in the urine), glucosuria (the presence of glucose in the urine), IUD (vanilla lindicacid) 25 mg in a 3-hour serving of urine (N - 1.4 mg / day).

Conclusion Pheochromocytoma.Sympathoadrenal crisis.

The questions are:

1. What is the violation of the function of which gland can be suspected in the patient. List the hormones synthesized by the affected gland.
2. Indicate which hormones produced by this gland are responsible for the appearance of these symptoms.

a. Which class are chemical by nature
b. Transport mechanism

in. Type of receptor, post-receptor mechanisms of biological effects.Cellular targets.
d. The mechanism of regulation of the synthesis and secretion of the hormone. Ways of its degradation.
e. Main functions
3. Explain the mechanism of development of the described symptoms

1. Topic 12: Metabolic Syndrome (MS)
2. Purpose: To get acquainted with the syndromes in MS, to study the epidemiology, etiology and pathogenesis of MS, its clinical manifestations, differential diagnosis, complications and treatment of MS. Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of MS.
3. Tasks:
1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.
4. Implementation / Evaluation Form: Presentation
SIW verification is carried out during the **SIWT**.
5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.
6. Delivery: 12 day
7. Literature: indicated in the syllabus.
8. Control (questions, tests, tasks, etc.).
Task 1.
When conducting a questionnaire, the patient answered in the negative about heredity in GB, indicated osteochondrosis of the cervical spine about the past diseases, and chose the answer according to the amount of motor activity - the optimal level. Blood cholesterol does not know. Supplements food constantly, weight 100 kg, height 175, waist 105cm.
What risk factors can be discussed, and what information should be obtained additionally?
Answerstandard:
Risk factors: metabolic syndrome, BMI of more than 25, addition of food. Additional information is needed: the content of total cholesterol in the blood and fractions; the presence of stress factors.
Task 2.
A fifth-year student at a liberal arts university complained of fatigue, poor sleep, and learning difficulties. From the anamnesis: in the 1st year I was engaged in weightlifting, I did not participate in competitions because of the increase in blood pressure 140 \ 90 mm RT. Art. On the dispensary was not a member, took independently periodically band. During his studies he gained 8 kg in weight. Heredity is burdened by maternal GB. Objectively: Increased nutrition, mouth 180 cm, weight 92 kg, waist 98 cm. HELL 135 \ 85 mm RT. Art. Pulse 78 per minute.Other organs and systems without features.BH of blood - OHS-6.2 mmol \ l, sugar 5.5 mmol \ l.
Answer standard:
1. Burdened heredity for GB, BMI, metabolic syndrome, physical inactivity. 2. Diet with the restriction of animal fats, carbohydrates, table salt, morning hygienic gymnastics for 15 minutes. daily, wiping with water at room temperature, dosed walking in the morning and evening for 20 minutes-1 month, swimming in the pool for 30 minutes. 3. The volume of weekly physical activity is at least 4 hours. Cyclic aerobic exercise, walking at an average pace, relaxation exercises are shown. 4. Contraindicated exercises with heavy shells, straining, holding your breath, a long bend forward

1. Topic 13: Nonspecific aorto-arteritis (Takayasu's disease).
2. Purpose: To get acquainted with the syndromes in NAA, to study the epidemiology, etiology and pathogenesis of NAA, its clinical manifestations, differential diagnosis, complications and treatment of NAA.

Mastering the algorithm for making a preliminary diagnosis, drawing up a plan for further examination with the participation of other specialists for making a diagnosis of NAA.

3. Tasks:

1.Select literature on the topic of the lesson.
2. Make a presentation and visual material.
3. Compose 4-5 test tasks / 1-2 situational tasks on the topic of the lesson.

4. Implementation / Evaluation Form: Presentation

SIW verification is carried out during the **SIWT**.

5. Criteria for the implementation of the SIW (requirements for the assignment): indicated in the syllabus.

6. Delivery: 12 day

7. Literature: indicated in the syllabus.

8. Control (questions, tests, tasks, etc.).

Task 1.

Patient K., nurse, 39 years old. She was admitted to the department of rheumatology with complaints of severe weakness, fever up to 37.2–37.5 °C daily, no chills, dizziness, headaches, sometimes there are discomfort in the heart area, pain in the joints. He considers himself ill for about a year, when by chance, after doing aerobics at the end of a workout, she could not feel the pulse in her right arm. She had a consultation with a surgeon, after which she was sent for examination to the regional center, where ultrasound of the vessels with Dopplerography revealed a narrowing of the carotid arteries more on the left by 80%. She was referred for treatment to the Department of Angiosurgery. An operation was performed: shunting of the left carotid artery. After the operation, she began to feel much worse: all the above complaints appeared, pronounced inflammatory changes in the CBC (an increase in ESR up to 60 mm/h). On examination: the condition is satisfactory, the physique is normal. The skin is clean, without rashes. Keloid scars on the neck on the left, Horner's symptom on the left. Percussion over the lungs pulmonary sound, auscultatory - vesicular breathing. The borders of the heart are not expanded. Heart sounds are rhythmic, slightly muffled. BP on the right arm - 180/120 mm Hg. Art., on the left - can not be measured. The pulse on the right hand is 72 bpm, on the left hand it is not possible to feel it. On auscultation, a coarse systolic murmur is heard on the carotid arteries on both sides and a soft blowing murmur on the abdominal aorta. The abdomen is soft, sensitive to palpation in the epigastric region. Stool and diuresis without features. The joints are not externally changed, without signs of inflammation, movement in full.

1. Formulate a preliminary clinical diagnosis.
2. What are the diagnostic criteria for this disease in this patient?
3. What examination should be carried out in this case?
4. What changes in the general and biochemical blood tests, characteristic for this disease, can be detected?
5. Medical tactics. Assign complex treatment at the inpatient and outpatient stages.

Answers to the task:

1. Nonspecific aorto-arteritis (Takayasu's disease).
2. Age up to 40 years, weakening of the pulse on the brachial artery, the difference in blood pressure is more than 10 mm Hg. Art., noise on the carotid arteries and on the abdominal aorta, changes in angiography.
3. UAC, OAM, BAC, for the purpose of differential diagnosis, it is necessary to conduct an immunological blood test (ANF, AT to DNA); angiography, ultrasound of vessels with dopplerography; consultation with an ophthalmologist and vascular surgeon.
4. There may be normochromic anemia, thrombocytosis, an increase in ESR and CRP. Changes in the general and biochemical blood tests are nonspecific, reflect general inflammatory changes, and also depend on the predominant organ damage.
5. Treatment in a hospital can be started with GCS pulse therapy (in order to induce remission), then transferred to oral administration. The dose is selected individually. The duration of suppressive therapy is at

least 3-4 weeks, then, with the stabilization of clinical and laboratory data, the dose is gradually reduced to maintenance. If necessary, cytostatics (methotrexate, azathioprine) can be prescribed. Vascular drugs are also prescribed for the treatment of vasospastic and ischemic syndromes (pentoxifylline, cavinton, etc.). It is possible to use therapeutic plasmapheresis.

Task 2.

A 13-year-old girl went to the doctor with complaints of weakness, subfebrile temperature with periodic febrile rises for 2.5 months. For the last three weeks, he has been suffering from muscle pain, headaches, blurred vision. In the absence of catarrhal phenomena, identified foci of infection, within 2 months, an increase in ESR to 45-58 mm/hour is maintained (the analysis was repeated).

On examination, the skin is pale pink, on the legs there are two hyperemic infiltrative slightly painful elements 1.5x1.0 cm and 2.0x2.5 cm. BP on the right arm is 150/90 mm Hg, on the left arm - 110/70 mm Hg, the pulse on the left radial artery is significantly weakened, it is difficult to determine. Above the carotid arteries, more on the left, a coarse vascular murmur is heard. There is no shortness of breath. Vesicular breathing in the lungs, no wheezing. The boundaries of relative cardiac dullness are within the age norm, heart sounds are loud, rhythmic, heart rate is 94 per minute. The abdomen is soft, painless, systolic vascular murmur is heard 2 cm above the umbilicus along the abdominal part of the aorta.

Complete blood count: Hb - 114 g/l; erythrocytes - 3.9 x 1012 / l, leukocytes - 10.2 x 109 / l, p / i - 5%, s / i - 72%, eosinophils - 3%, lymphocytes - 15%, monocytes - 5%; ESR - 56 mm / hour.

Biochemical analysis of blood: increased level of C-reactive protein up to 12 mg/l, dysproteinemia due to increased α2- and γ-fractions of globulins.

Urinalysis: leukocytes 1 - 3 in p / sp, erythrocytes 8 - 12 in p / sp.

Daily urinalysis: protein 0.234 g/l.

Bacteriuria: negative.

ECHO-KG: morphometric parameters of the heart are normal, the valves are intact, there are no data for heart disease.

Questions:

1. Make a diagnosis according to the classification. Indicate the phase of the disease and the localization of the lesion.

Answers to the task:

Nonspecific aortoarteritis (Takayasu's disease), V (mixed) type (damage to the ascending section, aortic arch and its branches, renal arteries), acute phase.