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ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
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Кафедра пропедевтики внутренних болезней
Department of Propaedeutics of Internal Diseases

BASIC CLINICAL SYNDROMES

Guidelines
for students of foreign (English) students of the 3rd year of medical university

Krasnodar 2020

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The guidelines are compiled in accordance with the Federal State Educational Standard of Higher Education (3+, 3 ++) and the normative documents of the Federal State Budgetary Educational Establishment of Higher Education KubSMU of the Ministry of Health of Russia for 3rd-year English-speaking students of a medical university for a deeper development of syndromic diagnosis skills and the formation of a diagnosis in the framework of practical classes and independent work of students on discipline propaedeutics of internal diseases, radiation diagnostics.

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Foreword

The purpose of the preparation of guidelines is to consolidate the knowledge of 3-year students about the basics of syndromic diagnosis in real clinical practice, thereby obtaining knowledge for the correct diagnosis and management of patients.

Federal state standards of higher education in the areas of preparation “General Medicine”, “Pediatrics” and “Medical and Preventive Medicine” require the development of professional competencies related to the diagnostic process. In this connection, in the work programs in the disciplines “Propaedeutics of internal diseases” (medical and preventive faculty), “Propaedeutics of internal diseases, radiation diagnostics” (pediatric, medical faculties), training is provided on the knowledge and ability to distinguish syndromes as the most important stage of the diagnostic process . This important academic work is necessary for:

repetition of the practical skills of examining a patient in all sections of the discipline, systematizing diagnostic knowledge and actions in a single process,

the ability to correctly, professionally correctly present the clinical results obtained in the document,

the ability to identify leading symptoms, form syndromes, make logical conclusions and conclusions,

obtaining the first experience in drawing up a plan of examination and treatment, the formulation of the diagnosis, and hence clinical thinking.

Therefore, the student must:

- know the main syndromes in the clinic of internal diseases;
- be able to draw up a research plan in the framework of the studied clinical syndromes and diseases;
- own the skills of examining the patient, reasoned formation and interpretation of the main syndromes;

This corresponds to the requirements for the formation of professional competencies “with the ability to determine the patient's main pathological conditions, symptoms, syndromes ...” (PC-6, General Medicine, Federal State Educational Standard of Health (3+).

The guidelines in their content correspond to the main sections of the lesson plan of students in the taught disciplines. Each of the sections consists of a block of “mandatory” syndromes for studying 3-year students and “optional” ones that expand the horizons of students' clinical knowledge. At the end of the chapters are presented tasks for self-monitoring that help the student correctly interpret the received diagnostic material.

The ability to isolate clinical syndromes is regarded as an important stage of preparation for the development of therapeutic disciplines not only in the propaedeutic module. This allows you to consolidate knowledge according to the scheme and plan of the patient’s examination, to repeat and understand the need to use certain practical manipulations, to comprehend the results obtained and thereby form leading syndromes and diagnosis. These guidelines are necessary for the formation of professional competencies of future doctors.

The guidelines are intended for English-speaking students of the 3rd year of the Faculty of Medicine and are designed to systematize and optimize knowledge on the basics of diagnosis in the clinic of internal diseases and an adequate interpretation of the received diagnostic information.

Introduction

Timely recognition of the disease is possible only through its signs, detected using a methodical examination of a sick person. This historically established system of examination of patients is a creative process of clinical thinking of every doctor. Its enormous practical value lies in the relative simplicity and logic, the maximum sparing of the psyche of the patient, the ability to reliably identify the initial changes in the functional activity of the sick body.

Nevertheless, students, doctors, especially young ones, sometimes overestimate the value of these additional examination methods, due to the erroneous idea of the unlimited diagnostic capabilities of modern technological advances in medical science. Underestimation of the importance of the basic methods of medical research and the existing shortage of relevant literature leads to the fact that some doctors end their careers without having mastered the basics of the art of healing. Others in their daily work make the same typical mistakes that impoverish the diagnostic value of the method, can cause iatrogenic and various disorders of medical deontology. One of these problems is errors in the clinical examination of patients and the isolation and interpretation of syndromes.

To the final etiological or nosological diagnosis of a specific disease in his patient, the doctor goes up the steps of recognizing symptoms and symptom complexes. Therefore, the allocation of clinical syndromes, including on the basis of laboratory and instrumental examination methods, is the most important task of the propaedeutic clinic and, in fact, this methodological manual.

Correctly treating the patient, preventing complications and relapses of the disease is possible only when the disease is correctly recognized, when the patient has been studied in detail. To recognize the disease, to recognize the patient in all his personality is possible only when he is examined systematically, methodically, comprehensively, carefully.

The proposed teaching aid, adapted to modern standards of the Federal State Educational Standard of Higher Education (3+, 3 ++), will help English-speaking students to better master the skills of distinguishing syndromes when examining a patient, which means that this motivates the use of this manual in the educational process and makes it relevant.

1. CONCEPTS OF SYMPTOMS AND SYNDROMES

During the study of the patient, one or other signs or symptoms of the disease can be identified (translated from Greek symptoma - case, sign).

Distinguish between objective and subjective symptoms.

Objective signs can be detected with the help of sensory organs (for example, changes in color, texture, shape and size of a part of the body), special equipment (ECG, radiography) or measured with special techniques.

Subjective signs are the sensations of the examined people about whom they talk (pain, nausea) or which can be guessed by their behavior, motor, clinical, vegetative-vascular reactions.

By diagnostic value, there are: pathognomonic, specific and nonspecific symptoms.

Pathognomonic symptoms occur only with any one disease. For example, vomiting pus with purulent gastritis, gouty cones (tofus) with gout. At the same time, diseases with pathognomonic symptoms are comparatively few, and not all patients with these diseases have pathognomonic symptoms. Therefore, an accurate diagnosis on one basis is difficult to establish.

Specific symptoms make it possible to suspect a lesion of one organ. For example, cough indicates damage to the respiratory system, jaundice - damage to the liver.

Nonspecific or general symptoms indicate that a person is sick, but does not allow a specific judgment on the nature of the disease. For example, chills, emaciation, leukocytosis. At the same time, the severity of general symptoms characterizes the severity of the disease and largely determines the prognosis.

The next step in the diagnostic process is a logical analysis of the symptoms and their grouping into syndromes.

SYNDROME (translated from Greek - joint running, confluence) is a set of symptoms combined by a common pathogenesis and characterizing a certain pathological condition of the body.

The basis of the development of the syndrome can be:

1) Structural changes in the body - for example, valvular heart disease (these are anatomical syndromes);

2) Functional changes - for example, arterial hypertension syndrome (these are functional syndromes);

3) Some pathological conditions of the whole organism - for example, fever, syndrome of an infectious-inflammatory process (these are common syndromes);

There are also simple and complex, large syndromes. Large syndromes are a complex of pathogenetically related symptoms and syndromes. For example, the syndrome of chronic renal failure (uremia) includes more than 10 syndromes, such as anemic, polyserositis, neurological, etc. All of them are determined (determined) by one mechanism - self-poisoning of the body by nitrogenous slags that are not excreted by the affected kidneys.

Eponymous symptoms and syndromes are also distinguished (signs that got their name from the proper names of researchers, who first described them, literary or mythological characters, etc.). We presented some of them in our methodological guide.

2. PULMONOLOGY

1. Syndrome of compaction of lung tissue (decrease in airiness)

REASONS: inflammatory infiltration (pneumonia, tuberculosis, non-infectious pneumonitis), pulmonary infarction, pneumosclerosis, carnification, tumors, parasitic cysts, etc.

SYMPTOMS (for lung tissue infiltration):

1) Shortness of breath of an inspiratory character.

2) Unilateral reduction (restriction) of the respiratory excursion of the chest;

3) Strengthening of voice trembling as a result of the best conduct of oscillatory movements of the densified lung tissue;

4) Shortening or complete dullness of percussion sound over the sealed portion of the lung, depending on the degree of compaction;

5) The appearance of bronchial breathing over the background of blunting with extensive compaction: (depending on the size of the compaction, the amount of normal alveolar tissue surrounding it, options for bronchovascular, weakened vesicular and unchanged vesicular breathing are possible).

For a clear bronchial breathing, two conditions are necessary:

- a sufficiently extensive surface focus of compaction;
- patency of the bronchus in the lesion.

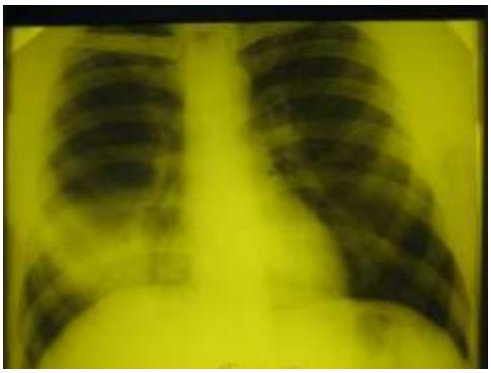
6) Strengthening bronchophony;

7) Radiological - dimming or lowering the transparency of the lung tissue.

8) Acute alveolar consolidation has 2 main characteristic ultrasonic features:

a) Tissue-like sign (tissue sign). Normally, lung tissue during ultrasound is not visible, only the echogenic pleural line with artifacts extending from it is visualized. In pneumonia, the inflamed and edematous tissue of the lung, rich in fluid, becomes visible by ultrasound. Ultrasound examinations of the lung have a tissue-like sign. At the same time, the visualized lung tissue ultrasonographically resembles liver tissue (ultrasound “hepatization” of lung tissue).

b) Shred sign (sign of uneven, torn border). The surface border of subpleural consolidation is the pleural line, most often represented by a flat line, while the deep (lower) border of consolidation is represented by an uneven ragged line. This ragged line (shred line) has a hyperechoic appearance, as it outlines the consolidation zone at the border with healthy aerated lung tissue.



Focal pneumonia

2. Syndrome of increased airiness of lung tissue (emphysema)

REASONS: It occurs in COPD, bronchial asthma; as a result of involutional changes; the outcome of many chronic lung diseases; emphysema
SYMPTOMS:
1) Dyspnea of an expiratory character, patients exhale with closed lips, puffing out their cheeks (puff - "pink puff");
2) Cyanosis, puffiness of the face ("blue swelling");
3) The chest is barrel-shaped;
4) The amplitude of the respiratory excursion of the lungs is reduced. Often, auxiliary muscles are involved in the act of breathing;
5) The weakening of voice trembling and increased resistance of the chest are palpated;
6) In comparative percussion - box sound;
7) With topographic percussion, the expansion of the boundaries of the lungs, both up and down, restriction of respiratory excursion of the lungs;
8) Difficulties in determining the percussion boundaries of the heart, reducing the zone of absolute dullness of the heart.
9) Tachycardia (in response to hypoxia);
10) During auscultation, weakened vesicular, so-called "cotton" breathing is heard. The nature of breathing changes depending on the disease leading to emphysema or a concomitant process;
11) Radiologically determined increased transparency of the pulmonary fields, decreased diaphragm mobility, low diaphragm position, horizontal position of the ribs;
12) A spirographic study reveals: a decrease in lung capacity (VC) and maximum pulmonary ventilation (MLV), as well as an increase in residual volume.

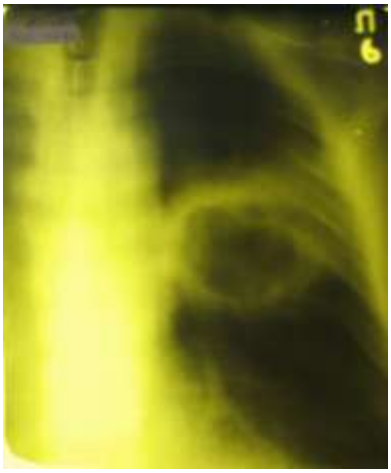
3. Broncho obstructive syndrome

7) REASONS: bronchial asthma, COPD, allergoses, systemic diseases of connective tissue, foreign bodies, bronchial tumors.
8) SYMPTOMS:
9) 1) expiratory dyspnea (difficulty and prolonged exhalation); with severe bronchial obstruction, expiratory dyspnea reaches a degree of suffocation. Choking that occurs as an attack is called asthma. At the end of an asthma attack, viscous viscous sputum usually coughs up.
10) 2) Unproductive, sometimes soundless cough;
11) 3) During an attack of suffocation, the chest is as if in a state of forced inspiration, the boundaries of the lungs expand, the intercostal spaces bulge. With a sufficiently long course of the disease, emphysema develops and the chest becomes barrel-shaped (see Syndrome of increased airiness of the lungs).
12) 4) With an attack of suffocation, patients occupy a forced position sitting with an emphasis on their hands. The respiratory muscles are included in the act of breathing;
13) 5) The symmetric restriction of respiratory excursions of both lungs is determined;
14) 6) Weakening of voice trembling;
15) 7) Boxed shade of percussion sound over all pulmonary fields;
16) 8) Auscultatory: weakened vesicular breathing with prolonged expiration, a large number of dry wheezing, buzzing wheezing. In extremely severe cases, respiratory sounds are not heard at all. A so-called “silent” or “dumb” lung develops;
17) 9) An X-ray examination reveals increased transparency of the pulmonary fields;При спирографическом исследовании уменьшается форсированная жизненная емкость легких (ФЖЕЛ) и снижается индекс Вотчала-Тиффно, объем форсированного выдоха за 1-ю секунду (ОФВ1).

18) With peak flowmetry, the forced expiratory flow rate decreases (peak expiratory flow rate, PSV).

4. Lung cavity syndrome

REASONS: The formation of a cavity in the lung is usually preceded by compaction of the lung tissue. Most often, this is inflammatory infiltration (abscesses, lung gangrene, staphylococcal destruction of the lungs, pneumonia, tuberculosis), tumor decay, pulmonary infarction.
SYMPTOMS:
1) Shortness of breath, often a productive cough, possibly hemoptysis;
2) Lag in the act of breathing of the affected half of the chest;
3) Strengthening of voice trembling and bronchophony;
4) Percussion: a blunt-tympanic sound is determined. With a large cavity located on the periphery, tympanic sound is observed;
5) Auscultatory: bronchial, and sometimes amphoric breathing, sonorous medium and large bubble rales are revealed.
It should be emphasized that all these signs are determined in the presence of a smooth-walled cavity of at least 4 cm in diameter, located close enough to the surface of the chest containing air, connecting to the bronchus and surrounded by a densified lung tissue. In the absence of these conditions, the cavity in the lung remains "dumb" and is detected only during x-ray examination.
6) X-ray (linear tomography, CT) signs of a cavity syndrome in the lung are limited enlightenment of a round or oval shape, usually against a background of blackout. A horizontal level of fluid in the cavity is characteristic if it communicates with the bronchus and contains exudate and air.



Linear tomography

5. The syndrome of fluid accumulation in the pleural cavity

1) REASONS: As a rule, a complication of another disease.
2) The causes of transudate are heart failure, kidney disease - nephrotic syndrome, hypo- and dysproteinemia.
3) The causes of exudate are inflammation of the pleura (pleurisy) of various etiologies (infectious exudate in pneumonia, abscess, tuberculosis; non-infectious exudate in malignant tumors, autoimmune diseases, uremia), wounds, trauma (hemothorax), chylous exudate (x).
4) SYMPTOMS:
5) 1) respiratory dyspnea;
6) 2) On examination - protrusion and limitation of mobility of the corresponding side, smoothing of intercostal spaces;

7) Palpation - increased resistance of intercostal spaces, weakening or absence of voice trembling;
8) Percussion - dullness or absolute dullness over a liquid; directly above its level - a blunt-tympanic sound; the appearance of a dull sound on the healthy side due to displacement of the mediastinal organs (with large effusions); downward hepatic dullness. (Damuaso Line, Rauchfus-Grocco and Garland Triangles).
9) Auscultatory - the presence of fluid suggests the absence or weakening of breathing and bronchophony, and above the fluid level in the Garland triangle - a bronchial shade of breathing (on the effusion side).
10) X-ray homogeneous dimming is determined in the lower part of the pulmonary field with a characteristic oblique upper border for exudate and a more horizontal upper border for transudate. In the latter case, the process is often two-way. There is a shift in the mediastinal organs to a healthy side.

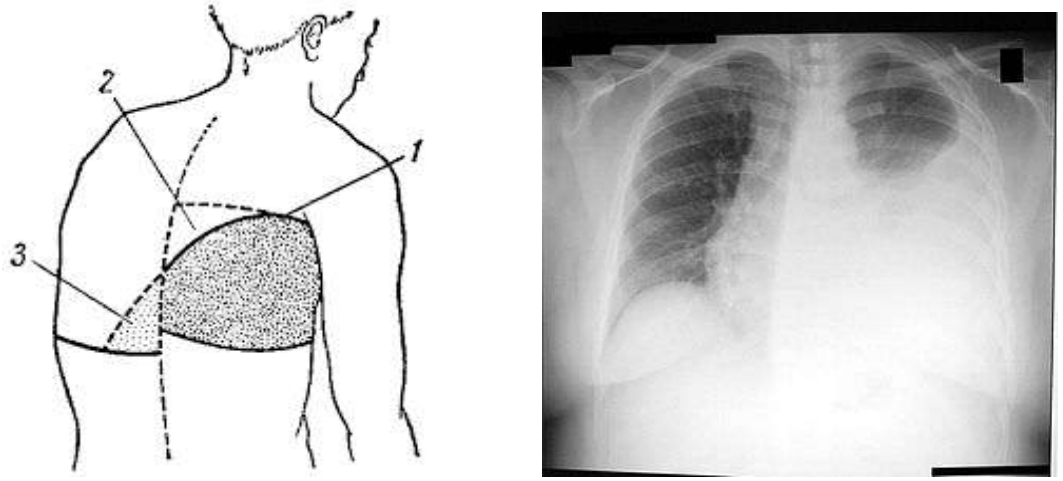


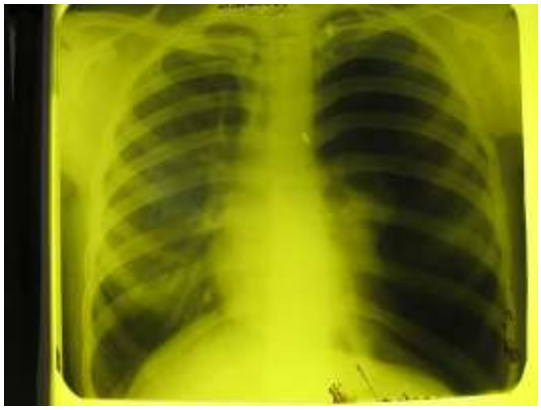
Fig. 1. The line of Damoiso-Ellis-Sokolov (1); The Garland Triangle (2) and the Rauchfus-Grocco Triangle (3) with exudative pleurisy.

Differential diagnostic signs of exudates and transudates.

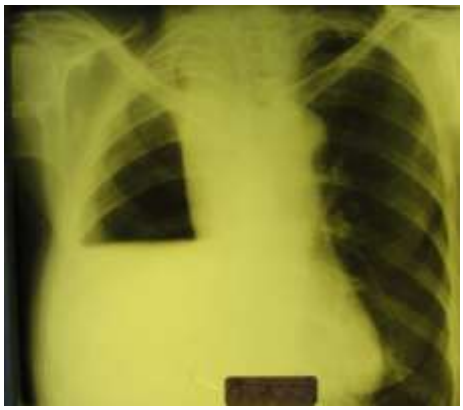
Type of effusion	Transudate	Exudate
Relative density	Usually below 1.015; rarely (with compression of large vessels by a tumor) - above 1.013-1.025	Not lower than 1.015; usually 1.018
Coagulation	-	+
Color and transparency	Almost transparent; lemon yellow or light yellow	Serous exudates in appearance do not differ from transudates; other types of exudates are
Rivalt's reaction	-	+
Содержание белка	<30 g / l, usually 5-25 g / l	> 30 g / l, usually 30-50 g / l, in purulent - up to 80 g / l
Cytological study	There are few cellular elements; common mesothelial cells, red blood cells, sometimes lymphocytes predominate; after repeated punctures sometimes - eosinophils	There are more cellular elements than in transudates. The number of cellular elements, their types and condition depend on the etiology and phase of the inflammatory, oncological processes

6. The syndrome of accumulation of air in the pleural cavity

REASONS: occurs when bronchi communicate with the pleural cavity (subpleural location of the tuberculous cavity, abscess), with chest injury, spontaneous, artificial pneumothorax, etc.
SYMPTOMS:
1) respiratory dyspnea;
2) On examination - protrusion and limitation of mobility of the corresponding side, smoothing of intercostal spaces;
3) If the air pressure in the pleural cavity is large, there is an increased resistance to intercostal spaces;
4) Voice jitter is weakened or absent;
5) With percussion: on the sore side - a loud tympanic tone, sometimes with a metallic tint. If the air pressure is high, the percussion tympanic tone may be blunted.
6) Auscultatory: breathing and bronchophony are weakened or absent (closed pneumothorax). If there is a message between the pleural cavity and the bronchus, amphoric breathing can be heard, bronchophony in this case is enhanced;
7) X-ray: a bright pulmonary field without pulmonary pattern, and closer to the root - the shadow of a compressed lung. With intense pneumothorax - displacement of the mediastinal organs to the healthy side;
8) With the simultaneous accumulation of liquid and air (Hydropneumothorax) in the pleural cavity, the horizontal upper limit of dullness corresponds to the level of the liquid. Dullness easily changes its boundary when changing the position of the patient's body. This border usually remains horizontal, with a loud tympanic sound above it. When succussion is determined by the noise of the splash (taking Hippocrates) in the chest.



Pneumothorax



Hydropneumothorax

7. Bronchiectasis Syndrome

REASONS: clinically manifests itself in the development of a chronic purulent process in altered dilated bronchi.

SYMPTOMS:

1) Cough with sputum (mucopurulent, sometimes three-layer), mainly in the morning (2/3 of daily sputum: "morning toilet of the bronchi"), hemoptysis. "Dry" bronchiectasis has no clinical manifestations, with the exception of hemoptysis;

2) Hard breathing, dry and wet rales are possible with a compact arrangement of bronchiectasis;

3) X-ray: amplification, “cellularity” of the pulmonary pattern (not always detected). The "gold standard" of the study is bronchography (contrasting of the bronchi with iodolipol), reveals the characteristic saccular and spherical extensions of the bronchi. Recently, computed tomography (CT) with contrast has been widely used.

Bronchography

8. Syndrome of lung atelectasis

Usually distinguished: obstructive, compression and distensional (functional) atelectases

I. REASONS: obstructive atelectasis (bronchus is blocked by a tumor, thick mucus or a foreign body):

SYMPTOMS:

1. chest lag in the act of breathing;
2. voice jitter is not detected;
3. blunting or tympanic percussion sound;
4. respiration and bronchophony are not determined;
5. X-ray: intercostal space narrowed, homogeneous darkening in the atelectasis and mixing of the mediastinum to the affected side (Goltsknecht-Jacobson symptom), high standing of the diaphragm.

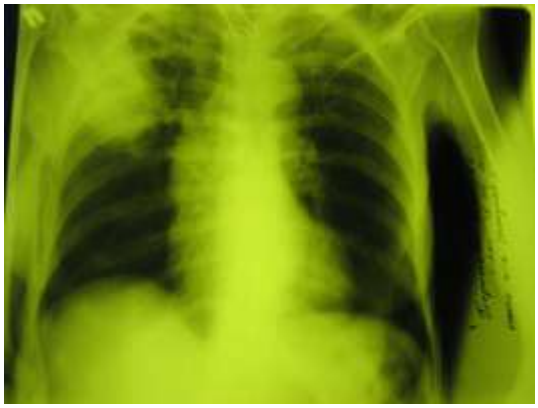
II. REASONS: compression atelectasis (the bronchus is free, the lung is squeezed by exudate, air, a large spleen through the diaphragm, etc.).

SYMPTOMS in the area of the dormant lung:

1. voice trembling enhanced;
2. blunt-tympanic percussion sound;
3. Weakened vesicular breathing, often with a bronchial tinge, crepitus is possible. Bronchophony is enhanced;
4. X-ray: increased pulmonary pattern or homogeneous darkening in the area of atelectasis.
5. The clinical picture of the disease that caused atelectasis (see syndromes of accumulation of air and fluid in the pleural cavity).

III. REASONS for distensible atelectasis (weakness of the respiratory movements, decreased tone of the respiratory muscles, when the pressure from the organs of the abdominal cavity, the lungs do not completely straighten and contract - tightening).

SYMPTOMS: the lower border of the lungs is 1-2 ribs above the norm, above the lower sections breathing is weakened by vesicular, crepitus and “rattling” rales, which often disappear after several deep breaths.



Obstructive atelectasis

9. Syndrome of dry pleurisy (pleuritis)

1. REASONS: more often a consequence of other diseases (pneumonia, tuberculosis, systemic diseases of the connective tissue, uremia, etc.).
2. SYMPTOMS:
3. 1. Pain in the chest, which intensifies with deep breathing and coughing;

4. Superficial breathing, limiting the mobility of one half of the chest. The patient lies on the affected side;
5. Percussion: limitation of the mobility of the lower border of the lung on the side of the lesion;
6. The noise of pleural friction during auscultation, sometimes confirmed by palpation;
7. With diaphragmatic pleurisy, pain radiates to the upper half of the abdomen or along the phrenic nerve to the neck. With apical pleurisy - pain during palpation of the trapezius muscles and pectoralis major muscles (Sternberg and Pottenger symptoms, respectively).
8. X-ray: on the side of the lesion, a high standing of the diaphragm, limitation of excursion of the lower edge with fluoroscopy, signs of a disease that caused pleurisy.

10. Respiratory failure syndrome

REASONS: is a complication of any severe pathological process or disease or a secondary lesion of the respiratory system.
Respiratory failure is a pathological condition of the body in which the normal gas composition of the blood is not maintained or is achieved due to the strain of compensatory-adaptive mechanisms leading to a decrease in the functional capabilities of the body.
SYMPTOMS:
1. The most constant and leading sign of respiratory failure is shortness of breath. The severity of dyspnea reflects the degree of respiratory failure.
According to the classification of A.K. Dembo, proposed back in 1954 and currently used, 3 degrees of respiratory failure are distinguished:
1 degree. Latent (asymptomatic) RF (shortness of breath with moderate and significant physical exertion, the gas composition of the blood at rest is not changed).
2 degree. Compensated RF (shortness of breath with slight physical exertion, at rest - hypoxemia, no hypercapnia, compensatory mechanisms are already at rest).
3 degree. Decompensated RF (shortness of breath at rest, hypoxemia and hypercapnia).

In the diagnosis of respiratory failure, Stange tests are widely used - breath holding at the height of inspiration and Gencha - holding the breath at the height of exhalation. The lower limits of the norms of these samples are 40 and 20 s.
2. Another mandatory and universal sign of respiratory failure is diffuse cyanosis.
3. With severe respiratory failure are possible: forced body position (for example, the position of orthopnea in an attack of bronchial asthma), erythrocytosis, tachycardia, a change in the gas composition of the blood (pulse oximetry).
4. Change in spirometric indicators.
Types of ventilation disorders
1. obstructive;
2. restrictive;
3. mixed.

Classification of respiratory failure by the state of blood gases

degree	P O_2, мм рт.ст.	$Sp0_2$, %
Normal level	>80	>95
I	60-79	90-94
II	40-59	75-89
III	<40	<75

11. Pulmonary heart failure (pulmonary heart)

t is divided into acute and chronic

Reflects the dependence of the development of right ventricular cardiac decompensation (pulmonary heart) in severe diseases of the bronchopulmonary system (Euler-Lillestrand reflex).

Chronic

Stage 1 - purely pulmonary (respiratory failure is observed, pulmonary hypertension is formed)

Stage 2 - pulmonary + compensated right ventricular heart failure (right ventricular hypertrophy develops against pulmonary hypertension)

Stage 3 - pulmonary + decompensated right ventricular heart failure (congestion in a large circle of blood circulation).

SYMPTOMS:

- Expansion of the boundaries of the relative dullness of the heart to the right
- accent 2 tones over the pulmonary trunk
- Signs of congestive right ventricular heart failure
- pulmonary hypertension according to ultrasound

12. Adult respiratory distress syndrome

Adult respiratory distress syndrome (RDSV) is an acute respiratory failure that occurs with acute lung injuries of various etiologies, with the obligatory development of non-cardiogenic pulmonary edema (interstitial, then alveolar). A synonym is shock lung.

Etiology: sepsis, shock, chest injuries, aspiration of water or stomach contents, pneumonia, inhalation of irritating and toxic substances, prolonged exposure to high altitude, venous fluid overload, severe metabolic disturbances, massive blood transfusions, autoimmune diseases.

RDSV develops after a latent period - a period of exposure to the etiological factor (about 24 hours). Etiological factors lead to the accumulation of active white blood cells and platelets in the pulmonary capillaries and interstitial lung tissue, the release of biologically active substances.

The acute phase. There is pulmonary edema, hypoventilation, microatelectases, impaired diffusion of oxygen and carbon dioxide. It ends with recovery or transition to the subacute phase.

The subacute phase is characterized by the presence of interstitial and bronchoalveolar inflammation.

The chronic phase is characterized by the development of interstitial fibrosis (already from the 2nd week of the disease).

The clinical picture.

1. Acute respiratory failure: severe shortness of breath, diffuse cyanosis, participation of auxiliary muscles in the act of breathing, tachycardia, hypoxia, hypercapnia.
2. Lowering blood pressure.
3. Симптомы интерстициального отека легких: снижение эластичности грудной клетки, притупление перкуторного звука, больше в задне - нижних отделах грудной клетки, жесткое дыхание, могут быть сухие хрипы.

4. With the appearance of alveolar pulmonary edema - moist rales, crepitus, cough with foamy pink sputum.
5. Syndrome of acute pulmonary heart and pulmonary hypertension (pressure in the pulmonary artery rises (> 30/15 mm Hg), but unlike cardiogenic pulmonary edema, the normal pressure is pulmonary wedge jamming (<15 mm)).
6. Multiple organ failure. Metabolic acidosis (pH <7.3).
7. X-ray - pronounced interstitial pulmonary edema, bilateral shadows of irregular cloud shape.

2.1. TEST TASKS
(Choose one or more correct answers)

. Indicate the most characteristic changes in the chest with the syndrome of fluid accumulation in the pleural cavity:

1) a decrease in half of the chest, its retraction and lag during breathing

2) an increase in half the chest, smoothing of the intercostal spaces, chest lag during breathing

3) the chest is not changed, the lag of half of the chest during breathing

4) an increase in the anteroposterior and transverse dimensions of the chest, retraction of the intercostal spaces in the lower lateral sections on both sides

2. Indicate the most characteristic changes in the chest with emphysema:

1) the shoulder girdle is raised

2) the front-rear size is equal to the lateral

3) the ribs are horizontal

4) intercostal spaces narrow

5) intercostal spaces wide

3. Indicate the most characteristic changes in percussion sound with dry pleurisy:

1) absolutely dull (femoral) or blunted sound

2) clear pulmonary sound

3) tympanic sound

5) box sound

4. Indicate the most characteristic changes in percussion sound during hydrothorax:

1) absolutely dull (femoral) or blunted sound:

2) clear pulmonary sound

3) tympanic sound

5) box sound

5. Indicate the most characteristic changes in percussion sound in case of pulmonary tissue compaction syndrome of inflammatory origin:

1) absolutely dull (femoral) or blunted sound

2) clear pulmonary sound

3) tympanic sound

4) box sound

6. Indicate the most characteristic changes in percussion sound with pneumothorax:

1) absolutely dull (femoral) or blunted sound
2) clear pulmonary sound
3) tympanic sound with a metallic tint
4) dullness with a tympanic hue;
5) box sound

7. What changes with topographic percussion of the lower edge of the lungs can be obtained with hydrothorax:

1) displacement of the lower edge down and limitation of its mobility
2) displacement of the lower edge up and limitation of its mobility:
3) only the shift of the bottom edge up
4) only lower edge offset down
5) only the restriction of the mobility of the lower edge

8. The clinical sign of respiratory failure syndrome is:

1) cough with purulent sputum
2) shortness of breath and cyanosis
3) an increase in ESR and leukocytosis

9. The spirographic sign of obstructive respiratory failure is:

1) decrease in VC
2) Tiffno index less than 70%
3) increase in residual volume

10. The spirographic sign of restrictive respiratory failure is:

1) decrease in VC
2) decrease in the Tiffno index
3) increase in FEV1

2.2. Situational Tasks

Task 1

Patient A., 23 years old, upon admission to the hospital complained of severe shortness of breath, fever, heaviness in the right side, general weakness.
She got sick acutely, a week ago. Initially, a small dry cough appeared, stitching pains in the right side during breathing, aggravated by deep inhalation, as well as coughing, sweating, headaches, body temperature increased to 37.7 ° C. I took aspirin on my own, without effect. Dyspnea joined and began to intensify, body temperature increased to 38.3 ° C. Stitching pains in the chest gave way to a feeling of heaviness in the right side.
During the examination, the doctor found moderate cyanosis, an increase in the volume of the right half of the chest with smoothness of the intercostal spaces, lag during breathing of the right half of the chest. The respiratory rate was 35 per minute. To the right below the angle of the scapula, voice trembling is not performed. With percussion, a blunt sound zone with an arcuate upper boundary is determined on the right, the upper point of which is along the rear axillary line. During auscultation over the area of dullness, breathing is not heard, above dullness is breathing with a bronchial tinge.

1. What can be caused by the patient's chest pain?
2. The presence of what syndromes can be established in a patient based on complaints and data from an objective study?
3. What diseases can cause the patient's clinical picture?

Task 2

Patient M., 30 years old, went to the clinic with complaints of fever up to 37.7 ° C, cough with a moderate amount of light sputum, general weakness, sweating.
He fell ill 3 days ago when, after hypothermia, a runny nose, hoarseness, a feeling of soreness behind the sternum appeared, as well as a dry cough, which then became moist.
On examination, palpation and percussion of the chest, no changes were detected, however, upon auscultation, the doctor found harsh breathing, a significant amount of scattered dry (mainly bass) rales and a small amount of moist, inaudible, small bubbling rales.

1. What can be caused by the appearance of hard breathing in a patient?
2. What syndromes can be determined in a patient based on existing complaints and changes found?
3. For which disease is the clinical picture described most often observed?

Task 3

An ambulance doctor was called to the patient, 28 years old, for a sudden onset and lasting for several hours an attack of suffocation with difficulty exhaling, coughing with sputum that could hardly be separated. Repeated use of the inhaler (β-adrenostimulator berotek) gave only a temporary effect. Such attacks bother the patient for 5 years, sometimes provoked by the smell of gasoline, flowering plants. In childhood, she often suffered from colds, repeatedly suffered acute pneumonia.
On examination: the patient sits in bed, resting his hands on his knees, moderate cyanosis is determined. In the distance, noisy wheezing is heard. The face is puffy; neck veins swell. The auxiliary muscles are involved in the act of breathing. The chest is barrel-shaped, voice trembling is evenly weakened. Respiratory rate - 28 per minute. With percussion of the chest - a box sound, the downward movement of the lower boundaries of the lungs is determined. During auscultation, evenly weakened breathing with elongated exhalation, a large number of common dry wheezing, are heard.

1. What syndromes can be distinguished in a patient based on existing complaints and objective research data?
2. What disease can cause the indicated clinical picture?
3. What complication can develop in this patient?

Task 4

Patient L., 17 years old, came to the clinic with complaints of fever up to 37.7 ° C, sweating, a small dry cough, pain in the right side, aggravated by deep breathing and coughing, as well as when standing on the left side. Sick for 3 days.
At the age of 16, a turn of the Mangu test was detected.
On examination, a superficial nature of breathing was noted, a lag of the right half of the chest during breathing, some restriction of mobility of the lower edge of the right lung, a noise of friction of the pleura along the middle axillary line to the right were found.

1. What syndromes can be distinguished in the clinical picture of the disease?
2. What may be associated with increased pain when standing on the left side?
3. What disease can a patient possibly have?

Task 5

Patient J., 25 years old, called a doctor at home on the 2nd day of illness. Ill acutely. Against the background of complete health after hypothermia (went skiing), chills suddenly appeared, noted an increase in temperature to 39.5 ° C, stitching pains in the right side when breathing, headaches, dry cough, general weakness. He took aspirin, but the temperature continued to remain high. The next day, the cough intensified, and a “rusty” sputum appeared.
During the examination, a serious condition of the patient was found. It was noted: a blush on the cheeks (more on the right), herpetic eruptions on the lips. Respiratory rate - 35 per minute. There was a delay in breathing in the right half of the chest. To the right below the angle of the scapula, amplification of vocal trembling, the blunt-tympanic nature of percussion sound were determined, weakened vesicular breathing, increased bronchophony, crepitus were heard.

1. What syndromes can be identified on the basis of existing complaints and objective research?
2. What can be associated with crepitation in a patient?
3. The presence of a disease can be assumed in the patient?

Task 6

Patient K., 43 years old, rigger at a construction site, has been abusing alcohol for a long time, and does not eat well. Re-called the doctor to the house on the 10th day of illness. The disease was preceded by hypothermia on the background of alcohol intoxication. The day after that, the temperature rose to 37.8 ° C, a cough with a moderate amount of sputum, shortness of breath appeared. I went to the doctor. Suspected and then X-ray confirmed right-sided lower lobe pneumonia. The patient refused hospitalization. It was prescribed antibiotic treatment on an outpatient basis, which the patient took irregularly. No improvement was noted. Chills, cough, general weakness persisted. On the 10th day of the disease noted the release of a large amount (300 ml) of sputum "full mouth" with an unpleasant odor.
During the examination, a serious condition of the patient was found. The respiratory rate was 30 per minute. To the right in the subscapular region, a zone of increased voice trembling was identified. There, percussion was determined tympanic sound, and during auscultation, bronchial breathing and moist large-bubbling rales were heard.

1. What syndromes can be distinguished in a patient on the basis of the clinical picture and data from an objective study?
2. What disease can occur with the indicated clinical picture?
3. What complications can develop with this disease?

Task 7

Patient K., 62 years old, a driver by profession, underwent an annual preventive medical examination. When questioned, the doctor found that the patient smoked for 45 years at 20-25 cigarettes per day. For 30 years, he has been bothered by a cough with a small amount of sputum (several spitting during the day), which is allocated mainly in the morning when washing. Over the past 5-8 years, coughing has become unproductive, appears in the early morning hours and decreases only when 1-2 cigarettes are smoked. Dyspnea associated with physical exertion.
On examination, the doctor noted moderate cyanosis, a barrel-shaped chest. The respiratory rate was 24 per minute. The uniform attenuation of vocal trembling, the decrease in the maximum respiratory excursion of the chest, the box sound during percussion, the uniform attenuation of vesicular breathing (with an extended output), and a small number of scattered dry rales were determined.

1. What syndromes can be distinguished in a patient based on available data?
2. What do you expect to find with topographic percussion of the lungs?
3. What disease does the patient most likely have?

Task 8

The therapist was summoned to a surgical clinic for a consultation with patient N., 68 years old, operated on 5 days ago under general anesthesia (inhalation anesthesia) for an inguinal hernia. On the 2nd day after the operation, a cough appeared with the release of a small amount of mucous sputum. I tried to suppress the cough, as it was accompanied by increased pain in the surgical suture area, observed strict bed rest. On the 4th day, the temperature rose to 38.0 ° C, shortness of breath, sweating, general weakness joined, cough intensified, sputum became mucopurulent.
During the examination, the doctor found an increase in respiratory rate to 28 per minute, the lag of the left half of the chest, there was also an increase in vocal trembling, a section of blunting of percussion sound. During auscultation, harsh breathing was noted (in the blunting zone, bronchosicular breathing), sonorous, small bubbling rales were heard over the blunting zone.

1. What are the leading syndromes available to the patient.
2. What is the mechanism of formation of bronchovascular breathing?
3. What disease does the patient presumably have and what contributed to its occurrence?

Task 9

Patient K., 52 years old, complained of persistent cough with the release of a small amount of mucopurulent sputum, recent hemoptysis, shortness of breath during physical exertion, low-grade fever, sweating, decreased appetite, weight loss of 5 kg over the past 3 months, general weakness .
He works as an anesthetist. Smokes 20-25 cigarettes a day for more than 30 years. Coughing has been troubling for many years. Hemoptysis and fever appeared during the last month.
Upon examination, the doctor noted pallor of the skin. In the left axillary region, enlarged lymph nodes (the size of a walnut), dense-tuberous consistency, and inactive were determined. The left half of the chest is reduced in size, there is also a sharper retraction of the supraclavicular fossa. The left half of the chest lags somewhat when breathing. The respiratory rate is 24 per minute. In the suprascapular region on the left, blunting of percussion sound and a sharp weakening of vesicular breathing and voice tremor are determined.

1. What syndromes can be distinguished on the basis of available data?
2. What are the main diseases in which hemoptysis occurs.
3. What disease is the patient supposed to have?

Task 10

Patient Z., 56 years old, at the age of 5 suffered measles, complicated by severe pneumonia. Since that time, the cough with the release of mucopurulent sputum began to disturb. Deterioration of health was observed in the autumn-spring period, when the patient noted long periods of fever and increased coughing, and the amount of sputum increased to 50-100 ml per day. When standing, sputum disintegrated into 3 layers. Sometimes noted hemoptysis. Over time, dyspnea began to progress with physical exertion, general weakness. Over the past year, there were swelling on the face in the eyelids, as well as swelling of the legs.
On examination, a patient with asthenic constitution, low nutrition. The skin is pale, swelling under the eyes, pastes of the legs. Fingers have the form of "drum sticks", nails - in the form of "watch glasses". Respiratory rate - 24 per minute. When auscultation of the lungs - harsh breathing, scattered dry and wet small and medium bubbling rales. The liver protrudes from under the costal margin by 4 cm (along the midclavicular line), a densely elastic consistency. The lower pole of the spleen is clearly palpated. In a laboratory study, the serum albumin level was 25 g / l (N 40-50 g / l), the cholesterol content was 10.4 mmol / L (N 3.11-6.48 mmol / L). In urine tests, protein was found (daily loss of protein with urine - 14 g), hyaline and waxy cylinders, and renal epithelial cells.

1. What syndromes can be distinguished in a patient?
2. What disease does the patient suffer for many years?
3. What complication did the patient develop and how can it be confirmed?

Answers to the tasks

Task 1

1. The piercing nature of the pain, as well as their relationship with breathing and coughing indicate a pleural origin of pain. The accumulation of fluid in the pleural cavity, eliminating the contact of the pleural sheets, led to the disappearance of pain.
2. a) respiratory failure syndrome, b) fluid accumulation syndrome in the pleural cavity,
c) intoxication syndrome
3. a) acute right-sided pneumonia complicated by exudative pleurisy, b) tuberculosis

Task 2

1. The appearance of harsh breathing is most likely due to inflammatory swelling of the mucous membrane of the bronchi, with a heterogeneous change in their lumen.
2. a) intoxication, b) damage to the mucous membrane of the bronchi, accompanied by their swelling and exudation of liquid secretion into the lumen.
3. The described clinical picture is characteristic of acute catarrhal bronchitis, combining (as part of an acute respiratory disease) with acute rhinitis laryngitis and tracheitis.

Task 3

1. a) syndrome of bronchial obstruction, b) syndrome of increased airiness of the lung tissue,
   c) respiratory failure syndrome
2. The most likely seems to be the presence of a mixed form of bronchial asthma in a patient.
3. With the continuation of the asthma attack over 12 hours, its transition to asthmatic status is possible.

Task 4

1. a) syndrome of overlay on the pleura (dry pleurisy), b) intoxication syndrome
2. When the patient is on a healthy side, the mobility of the pleural sheets on the "sick" side increases, which causes increased pain.
3. Taking into account the young age of the patient, the presence of a bend of the Mantoux test, as well as the absence of other causes of pleural damage (acute pneumonia, pulmonary infarction, connective tissue disease, malignant neoplasms, pancreatitis, etc.), the tuberculous nature of dry pleurisy should be excluded first of all

Task 5

1. Based on the available data, the following syndromes can be distinguished:
a) intoxication syndrome, b) respiratory failure syndrome, c) pulmonary tissue compaction syndrome.
2. The presence of crepitus is due to the appearance in the lumen of the alveoli of a small amount of exudate, leading to the adhesion of the walls of the alveoli during exhalation and their disintegration during inhalation.
3. Based on the available data, it can be assumed that the patient has right-sided lower-lobe (croupous) pneumonia.

Task 6

1. The following syndromes can be distinguished:
a) intoxication syndrome, b) respiratory failure syndrome, c) lung cavity syndrome
2. You can think about the presence in the patient of an abscess (infectious destruction) of the lower lobe of the right lung.
3. One should be wary of the development of pulmonary hemorrhage in the patient, empyema of the pleura, pyopneumothorax, sepsis, as well as the occurrence of new abscesses in a healthy lung.

Task 7

1. The following symptoms can be distinguished:
a) respiratory syndrome, insufficiency, b) syndrome of bronchial obstruction, c) syndrome of increased airiness of lung tissue.
2. With topographic lung percussion, one can expect displacement of the upper and lower boundaries of the lungs (up and down, respectively), expansion of the Krenig fields, decrease in the mobility of the lower edges of the lungs.
3. The patient has chronic, obstructive bronchitis, pulmonary emphysema.

Task 8

1. a) respiratory failure syndrome, b) focal pulmonary tissue densification syndrome, c) intoxication syndrome
2. When the focus of compaction is located in the depth of the lung tissue, the inhalation may have the features of vesicular respiration, and on the exhalation - bronchial respiration.
3. The patient has left-sided focal pneumonia. Its occurrence was promoted by inhalation of an anesthetic irritating to the bronchi during anesthesia, as well as the patient's stay in bed in the postoperative period.

Task 9

1. a) pulmonary tissue compaction syndrome, b) intoxication syndrome, c) respiratory failure syndrome
2. The most common hemoptysis occurs in the following diseases:
a) tuberculosis, b) bronchiectasis, c) abscess and gangrene of the lungs, e) malignant tumors of the lungs, e) mitral stenosis.
3. Most likely, the patient has cancer of the left upper lobar bronchus.

Task 10

1. a) syndrome of damage to the mucous membrane of the bronchi, b) syndrome of respiratory failure, c) nephrotic syndrome.
2. The patient suffers from bronchiectasis.
3. Against the background of a long-standing purulent infection, the patient developed amyloidosis with damage to the kidneys, liver, and spleen. To confirm this diagnosis could be the study of biopsy samples of the mucous membrane of the rectum and gums.

3. CARDIOLOGY

1. Syndromes of coronary insufficiency

By coronary insufficiency is understood circulatory disorders in the coronary vessels, in which, under physiological conditions, about 5% of all blood discharged into the aorta flows.

In clinical practice, acute and chronic coronary insufficiency are distinguished. Acute coronary insufficiency occurs suddenly or within a few minutes. An important role in its origin is played, first of all, by disturbances in the functional state of the coronary arteries (spasm, dystonia), coronary artery thrombosis, as well as rapidly occurring relative coronary insufficiency.

Chronic coronary insufficiency develops gradually, has a progressive character, it is based on a variety of long-term, recurrent and progressive lesions of the coronary artery, leading to their persistent narrowing, or occlusion.

The most common cause of acute and chronic coronary insufficiency is atherosclerosis of the coronary arteries, less commonly other diseases: rheumatism, periarteritis nodosa, systemic lupus erythematosus, infectious endocarditis.

2. Angina pectoris syndrome (stenocardia)

This is a characteristic attack of pain behind the sternum caused by transient myocardial ischemia due to insufficiency of coronary circulation.

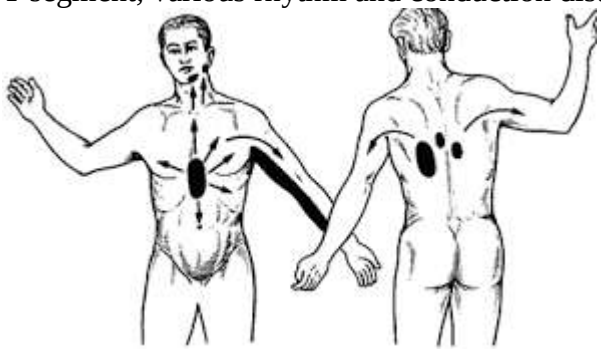
BASIC SYMPTOMS:

1. paroxysmal;
2. characteristic localization and irradiation of pain;
3. short duration of the attack (no more than 20-30 minutes);
4. relief of pain by taking nitroglycerin or stopping the load.

Pain behind the sternum or to the left of it of a different nature: burning, squeezing, compression, heaviness that occurs during physical exertion, under the influence of cold, wind, emotional stress, at rest.

Irradiation of pain: in the left shoulder, left arm, left half of the neck or upper abdomen. Duration of pain from a few seconds to 30 minutes (usually 2-10 minutes). The pain stops when physical activity is stopped, and nitrates are taken.

On the ECG, there may be no changes outside the seizures. During an attack of angina pectoris or tests with physical activity, flattening or inversion of the T wave, depression of the S-T segment, various rhythm and conduction disturbances are possible.



Localization and irradiation of pain in angina pectoris

Myocardial infarction is ischemic necrosis of the area of the heart muscle that occurs as a result of an acute discrepancy between the oxygen demand of the myocardium and its delivery through the coronary arteries.

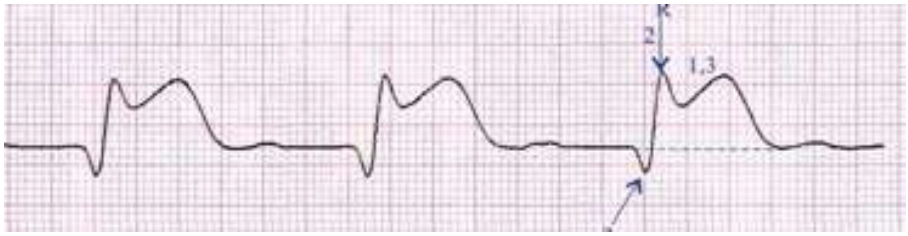
Depending on the characteristics of the symptoms, 6 main clinical options are distinguished:

1. painful or anginal (status anginosus);
2. asthmatic (status astmaticus);
3. abdominal (status abdominalis, gastralgicus);
4. arrhythmic;
5. cerebrovascular;
6. asymptomatic or low-symptom.

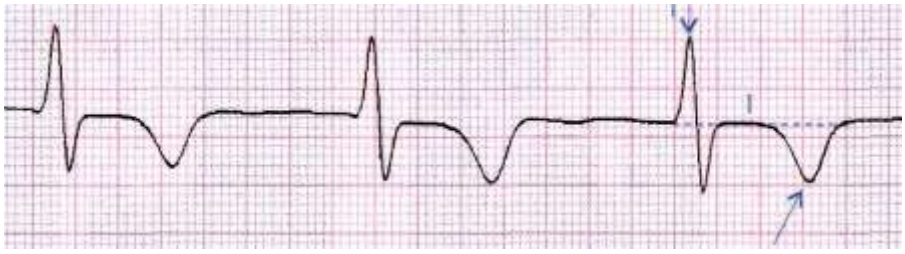
The most common pain variant of myocardial infarction, the main manifestation is pain.

Pain with I.M. in many ways resembles angina pectoris, but differs from it in greater strength, duration and lack of effect after taking nitroglycerin, is accompanied by changes in hemodynamics (drop in blood pressure up to the development of shock, development of arrhythmias, blockade, etc.).

ECG changes are characteristic: ST segment elevation (Pardi plateau), deep Q wave, negative T wave, decreased R wave amplitude.



ST elevation, deep Q wave, lower R wave amplitude.



Negative T wave

4. Myocardial damage syndrome

REASONS: myocardial infarction, myocarditis, cardiomyopathy, severe heart failure, other lesions of the mokard.

SYMPTOMS:

1. deafness of tones, weakening of I tone, gallop rhythm;
2. brady and tachycardia;
3. arrhythmias;
4. hypotension, “headless” arterial hypertension (a decrease in only systolic blood pressure, and diastolic remains high).
5. ECG changes characteristic of causative diseases.

5. Resorption-necrotic syndrome

REASON: myocardial infarction

SYMPTOMS:

1) fever

2) leukocytosis, a neutrophilic shift to the left (in the first 3-5 days) and aneosinophilia, an increase in ESR (from 5-7 days), that is, a characteristic symptom of myocardial infarction "cross" (a symptom of "scissors") between the number of leukocytes and ESR, which is usually observed at the end of the 1st - beginning of the 2nd week of the disease: leukocytosis begins to decrease, and ESR increases;

3) an increase in intracellular enzymes: aspartate aminotransferase, alanine aminotransferase (AST, ALT), creatine phosphokinase (CPK), lactate dehydrogenase (LDH) myocyte structural proteins (myoglobin, troponin)

4) the appearance of C - reactive protein

6. Post-infarction syndrome (Dressler's syndrome).

EASON: myocardial infarction (the result of immunopathological changes). This complication usually occurs at 2-6 weeks of myocardial infarction.

SYMPTOMS:

1) pericarditis

2) pleurisy (pneumonitis)

3) polyarthralgia up to polyarthritis (or monoarthritis)

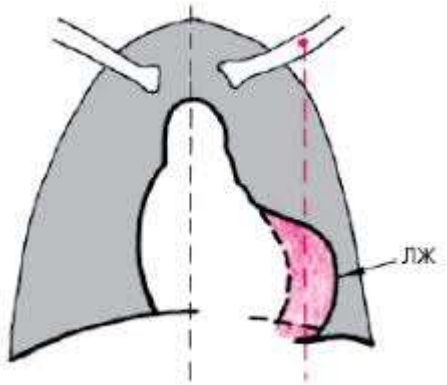
4) fever

5) leukocytosis, eosinophilia, increased ESR

7. Arterial hypertension Syndrome (AH)

1. CAUSES:
2. 1. Primary - hypertension (essential hypertension) develops as a result of primary dysfunction (neurosis) of higher vasodilating centers in the absence of a causal relationship with organic damage to any organs or systems.
3. 2. Secondary - symptomatic hypertension is a symptom of certain diseases or organ damage involved in the regulation of blood pressure. Symptomatic hypertension is divided into renal, endocrine, hemodynamic, neurogenic.
4. The nature of the increase in blood pressure distinguishes three forms of hypertension:
5. 1. systolic;
6. 2. diastolic;
7. 3. systolic-diastolic.
8. According to WHO criteria (1999), there are three degrees of blood pressure increase, depending on systolic (SBP) and diastolic (DBP):
9. 1st degree: increase in SBP to 140-159 mm. Hg and DBP up to 90-99 mm. Hg;
10. 2nd degree: GARDEN - 160-179 mm Hg, DBP - 100-109 mm Hg;
11. 3rd degree: GARDEN 180 mm Hg and above, DBP 110 mm. Hg and higher.
12. SUPPORT SYMPTOMS:
13. 1. increase in blood pressure above 140/90 mm. Hg;
14. 2. hypertrophy of the left ventricle;
15. 3. emphasis II tone on the aorta.
16. SYMPTOMS:
17. 1. headache, dizziness, fainting;
18. 2. nausea, vomiting;
19. 3. nosebleeds;

20. visual impairment, "flies" before the eyes;
21. frequent urination;
22. palpitations;
23. pain in the region of the heart (aching, stitching) and, sometimes, by the type of angina pectoris;
24. speech disorders, coordination of movements;
25. facial flushing or pallor;
26. throbbing of the jugular fossa, aa. carotis;
27. p. plenus, magnus, durus;
28. apical impulse is displaced to the left and down, strengthened, broadened, medium or high amplitude, resistant;
29. the borders of the heart are expanded to the left, the aortic configuration;
30. emphasis of II tone on the aorta, weakening of I tone at the apex;
31. Blood pressure above 140 / 90mm RT. st .;
32. on ECG signs of left ventricular hypertrophy
33. Echocardiography confirms the anatomical and hemodynamic changes associated with an increase in blood pressure;
17. fundus: hypertensive retinal angiopathy (narrowing of arteries, dilatation of veins).



The borders of the heart are extended to the left, the aortic configuration

8. Arterial hypotension syndrome

Lowering blood pressure in arteries - systolic below 100 mm Hg. Art., diastolic - below 60 mm RT. Art. Distinguish between physiological and pathological arterial hypotension. A decrease in blood pressure can be observed in individuals of asthenic type, especially in an upright position (orthostatic hypotension). How a pathological symptom can be observed with shock and collapse, as a manifestation of heart or vascular insufficiency - with infectious diseases, intoxications, some lesions of the central nervous system, anemia.

SYMPTOMS:
- weakness, lethargy;
- dizziness, fainting;
- headaches, tinnitus;
- visual impairment;
- sometimes, cold sweat;
- Blood pressure below 100/60 mm Hg
- pallor;
- palpitations, tachycardia;
- pulse of low voltage, filling.

9. Heart failure syndrome

FORMS:
a) acute left ventricular (left atrial);
b) acute right ventricular;
c) chronic left ventricular (left atrial);
d) chronic right ventricular;
e) total, chronic, stagnant.
CAUSES:
1) diseases that cause dystrophy, necrosis, sclerosis, inflammation and myocardial hypertrophy: heart defects, hypertension, myocarditis, thyrotoxicosis, coronary heart disease, cardiomyopathy, myocardial dystrophy, etc.
2) diseases affecting the heart from the outside: diseases of the lungs, pleura, pericardium, etc.
BASIC SYMPTOMS the severity of all manifestations depends on the severity of heart failure:
1. shortness of breath, often inspiratory. Sometimes as an equivalent - cough, hemoptysis;
2. tachycardia;
3. swelling, decreased urine output;
4. acrocyanosis, cyanosis.
With left ventricular and left atrial (with mitral stenosis) heart failure - congestion is noted in the pulmonary circulation (inspiratory dyspnea, cough, hemoptysis, moist rales, in the lower parts of the lungs, and sometimes over the entire surface of the lungs, pink foamy sputum, orthopedic. manifestations - cardiac asthma, alveolar pulmonary edema.
Right ventricular heart failure is a congestive phenomenon in a large circle of blood circulation: enlarged liver, swelling in the legs, ascites.

The symptom of Kussmaul is an increase in swelling of the cervical veins on inspiration.
Positive symptom of Plesha (hepatic-jugular test) - is characteristic of severe biventricular or right ventricular failure, is an indicator of venous stasis, high central venous pressure and volume overload. When the patient is calmly breathing for 10 s, the palm is pressed onto the enlarged liver, which causes an increase in central venous pressure by approximately 4-5 cm of water. Art. and increased swelling of the cervical veins. An abdominal-jugular test can be performed, with palm pressure being applied to the anterior abdominal wall in the umbilical region (the abdominal press should not be stressed). The result of the sample is evaluated in the same way as with the hepatic-jugular Plesha test.

The severity of chronic heart failure is regulated by the classification of N.D. Strazhesko - V.Kh. Vasilenko (1935).

Stage I: initial or hidden.

It appears only during physical exertion, there are no stagnant phenomena ..

1) signs of fatigue (shortness of breath, sweating, finger tremors, cyanosis of the tip of the nose and lips);
2) slow recovery of the patient's initial state (more than 10 minutes after exercise);
3) with percussion of the heart, its increase is detected;
4) with palpation of the pulse and auscultation of the heart, tachycardia, cardiac arrhythmias, the presence of noise are determined;
5) increased fatigue during physical exertion.

Stage II: severe or prolonged.

Circulatory failure, not only during exercise, but also at rest.

1) a persistent decrease in stroke and minute blood volume;
2) an increase in the volume of circulating blood;
3) increased venous pressure, venous congestion in both circles of blood circulation, a change in water-salt metabolism;

Period IIA: stagnation mainly in the small or large circle

1) shortness of breath;
2) acrocyanosis;
3) transient, not very pronounced swelling of the legs and feet;
4) the size of the heart is increased, tachycardia is observed, sometimes arrhythmia;
5) a slight increase in the liver. On palpation in the right hypochondrium, the liver is painful, protrudes from under the costal margin by 2-3 cm;
6) single wet rales in the lower parts of the lungs;
7) in X-ray photographs - strengthening of the pulmonary pattern and roots of a lung of a stagnant nature.

Period IIB: congestion in both circles of blood circulation;

1) shortness of breath at rest (patients occupy a sitting position);
2) significant acrocyanosis;
3) massive swelling of the legs and feet;
4) the development of atrial fibrillation, often a tachyarrhythmic form; heart sounds are deaf, heart sizes are increased;
5) the liver is large, dense with a rounded or pointed edge, painful on palpation, protrudes from the costal margin by 6-10 cm;
6) ascites;
7) moist rales in the lower parts of the lungs and compaction of the roots of the lungs;
8) less commonly, hydrothorax and hydropericardium;
9) oliguria, high density of urine;
10) significant congestion in the organs;
11) severe hemodynamic disturbances;

Stage III: final or dystrophic

1) all the signs of period II B
2) exhaustion of patients (cardiac cachexia);
3) the skin is pale, flabby, pigmentation and trophic changes in the skin and subcutaneous tissue of the legs, significant acrocyanosis;
4) anasarca;
5) significant changes and metabolic disorders, hemodynamics;
6) dense edema (ascites, hydrothorax, hydropericardium);

7) an increase in heart size - cardiomegaly;
8) heart sounds are weakened or deaf, the heart rate is often incorrect - tachycardia, atrial fibrillation;
9) cardiac fibrosis of the liver (the liver is dense, enlarged, the edge is pointed, slightly painful, protrudes from the hypochondrium by 8-10 cm;
10) nephroangiosclerosis;
11) severe dysfunction of the endocrine system and c.n.s;
12) patients occupy a forced position (sedentary or half-sitting) due to severe shortness of breath at rest.

Classification of CHF

CHF stages in Vasilenko-Strazhesko		Functional classes of heart failure New York Heart Association (NYHA)	
I st	The initial stage of the disease (heart damage). Hemodynamics is not broken. Latent heart failure Asymptomatic LV dysfunction.	I fc	There are no restrictions on physical activity, habitual physical activity is not accompanied by rapid fatigue, the appearance of shortness of breath or palpitations. The patient suffers an increased load, but it can be accompanied by shortness of breath and / or delayed recovery of strength.
IIA st	Clinically expressed stage of the disease (heart damage). Violation of hemodynamics in one of the circles of blood circulation, expressed moderately. Adaptive remodeling of the heart and blood vessels.	II fc	A slight restriction of physical activity: at rest, there are no symptoms, habitual physical activity is accompanied by fatigue, shortness of breath or palpitations.
IIБ st	Severe stage of the disease. Marked changes in hemodynamics in both circles of blood circulation. Disadaptive remodeling of the heart and blood vessels.	III fc	A noticeable limitation of physical activity: at rest, there are no symptoms, physical activity of lower intensity compared with the usual loads is accompanied by the appearance of symptoms.
III st	The final stage of heart damage. Marked changes in hemodynamics and severe (irreversible) changes in target organs (heart, lungs, blood vessels, brain, kidneys). The final stage of organ remodeling.	IV fc	The inability to perform any physical activity without the appearance of discomfort: the symptoms of HF are present at rest and intensify with minimal physical activity.

Classification Comments

Stage 0 CHF in the classification is absent, because in the absence of symptoms and heart damage, heart failure in a patient is simply not. Asymptomatic LV dysfunction already corresponds to the 1st stage of the disease or, according to the severity of symptoms, to 1st FC.

1. To determine the stage of heart failure, as it was in the classification of V.Kh. Vasilenko and ND Strazhesko, as well as to determine FC of heart failure, as is customary in the classification of the New York Heart Association (NYHA), special procedures and studies not required.

2. To objectify FC CHF, an application is given with the determination of the distance of a 6-minute walk.

Determining the distance of a 6-minute walk.

This method is widely used in the last 4-5 years in international practice and allows you to assess the patient's tolerance to physical activity, using minimal technical means. Its essence is that you need to measure what distance the patient is able to go within 6 minutes. This requires only a watch with a second hand and a tape measure. The easiest way is to pre-mark the hospital corridor and ask the patient to move along it for 6 minutes. Each FC of CHF corresponds to a certain 6-minute walk:

The severity of CHF:

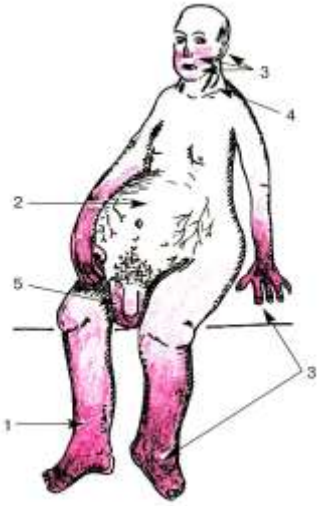
> 551 m - no heart failure

426-550 m - I FC

301-425 m - II FC

151-300 m - FC III

<150 m - IV FC



Total heart failure.

1 - significant swelling of the legs and lower back;

2 - ascites;

3 - severe acrocyanosis;

4 - swelling of the cervical veins;

5 - swelling of the scrotum and penis.

The patient occupies the position of orthopnea.

10. Cardiomegaly syndrome

Cardiomegaly (KMG) is a significant increase in heart size due to its hypertrophy and dilatation or accumulation of metabolic products, or the development of neoplastic processes.

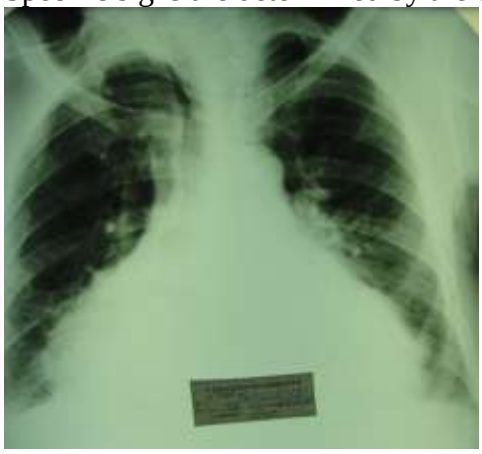
Causes:

1. Coronary heart disease:
a) atherosclerotic cardiosclerosis;
b) postinfarction cardiosclerosis;
c) aneurysm of the heart;
2. Heart defects:
a) acquired defects;
b) congenital malformations.
3. Arterial hypertension:
a) hypertension;
b) secondary hypertension.
4. Myocarditis.
5. Cardiomyopathies:
a) primary;
b) secondary.
6. The accumulation of fluid in the pericardial cavity, etc.

SYMPTOMS:

a) rhythm and conduction disturbance;
b) physical data: expansion of borders, muffling or deafness of tones, weakening of 1 tone at the apex, manifestation of the protodiastolic or presystolic rhythm of the golop (3 and 4 tones), noise of relative mitral and tricuspid insufficiency (Rivero-Carvallo noise), less often - diastolic noise of functional mitraloo stenosis (Flint) and diastolic murmur of relative pulmonary insufficiency (Graham-Steel).

Specific signs are determined by the disease that led to KMG:



Total heart enlargement (cardiomegaly)

11. Syndrome of fluid accumulation in the pericardium (hydropericardium)

The reasons for the accumulation of exudate:

1. rheumatic heart disease
2. tuberculosis
3. acute leukemia
4. pleuropneumonia
5. renal failure (uremic pericarditis)
6. myocardial infarction
7. traumatic heart damage

The reasons for the accumulation of transudate:
1. heart failure

Complaints: intense, persistent and increasing shortness of breath. The patient takes a sitting position with an inclination forward or knee elbow, pressing against the pillow. There are pains in the region of the heart, which intensify with breathing, coughing, body movements and are not stopped by nitroglycerin.

Examination: cyanosis, swelling of the face and neck (Stokes collar), swelling of the cervical veins, especially on inhalation due to compression of the superior vena cava by pericardial effusion, swelling on the legs, enlargement and pain of the liver, ascites. Swelling in the region of the heart and smoothness of the intercostal spaces.
With a large amount of effusion in the pericardial cavity, the patient occupies a sitting position with the body tilted forward, with his forehead resting on a pillow (Breitman symptom).
In rare cases, the patient is in the position of "Muslim in prayer" (Girtz symptom - patients kneel and press their faces and shoulders to the pillow).
In some patients (especially often in men), it can be seen that the upper abdomen is not involved in breathing (Winter's symptom).
With percussion, there is a sudden transition from a clear sound over the lungs to a dull and "hip" sound in the region of the heart (Auerbruger symptom).

Palpation: the apical impulse is weakened and displaced inwards from the left border of relative cardiac dullness.

Percussion: the sound above the region of the heart is dull, in some cases it has a "wooden" shade. Absolute dullness of the heart usually coincides with relative dullness.

Auscultation: heart sounds are muffled or not heard, it is possible to listen to the noise of pericardial friction in the 3-4 intercostal space to the left of the sternum in the area of absolute cardiac dullness. The noise is scratching or scratching and is not carried out anywhere. He is better heard in an upright position or sitting, when the patient is tilted forward or when the head is thrown back. The pericardial friction noise is synchronized with heart contractions and usually has two amplifications - during systole and during diastole.

Radiological effusion in the pericardial cavity is characterized by a significant increase and change in the silhouette of the heart shadow. The waist of the heart is smoothed out and the shadow of the heart takes on a trapezoidal or triangular shape.
ECG: reduction of the voltage of the teeth, a change in the ST segment and the T wave in all standard leads.

12. Rhythm and conduction disturbances syndromes

REASONS: IHD (in particular, myocardial infarction, angina pectoris against the background of GB or atherosclerosis); myocarditis of various origins (rheumatic, post-influenza, infectious-allergic, toxic, etc.); heart defects (especially mitral stenosis); changes from the central and autonomic nervous system, changes in homeostasis (electrolyte imbalance, hyperthyroidism, etc.); overdose of certain drugs.

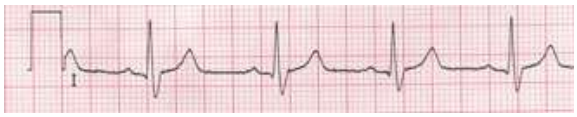
Arrhythmias: primary (atypical arrangement of the conduction pathways of the heart, the presence of additional pathways, a feature of the sensitivity of cells - pacemakers to adrenergic effect); secondary (complication of the underlying disease); and on pathogenesis - organic and functional.

I. Arrhythmias due to a violation of the automatism of the sinus node:

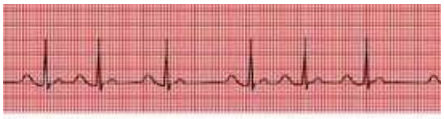
a) sinus tachycardia;

b) sinus bradycardia;

c) sinus arrhythmia (respiratory).



Sinus rhythm



Sinus arrhythmia

Sinus tachycardia. Symptoms

1) Increased heart rate from 90 to 120 (130) in 1 minute;
2) Strengthening the sound of heart sounds;
3) On the ECG: shortening of the R-R interval, the QRS complex does not change

Sinus bradycardia. Symptoms

1) a rare pulse (up to 50-40 per minute);
2) a possible weakening of the sonority of heart sounds;
3) on the ECG: an increase in the R-R interval; sometimes a mild increase in the P-Q interval; atrial and ventricular complexes are not changed.

Sinus arrhythmia (respiratory). Symptoms

1) increased heart rate and pulse on inspiration and contraction on exhalation (this defect is eliminated when holding the breath);
2) on the ECG: the duration of the R-R intervals varies moderately with normal duration and shape of the teeth.

Sick sinus syndrome:

Syndrome weakness syndrome can manifest itself in the form of one of the following forms:

a) latent form - there are no subjective sensations, it is clinically manifested only by bradycardia, on the ECG - a moderately pronounced sinus bradycardia;

b) manifest (hypodynamic) form - manifests itself as general weakness, dizziness, a feeling of fading in the region of the heart, passing out, speech impairment, paresis of the extremities, a rare pulse, on the ECG - sinus bradycardia, pronounced; in some patients, even attacks of Morgagni-Adams-Stokes are observed;

Short's syndrome (bradycardia-tachycardia syndrome) - is characterized by a repeated alternation of periods of severe bradycardia and tachycardia, due to the appearance of attacks of atrial fibrillation or flutter, supraventricular paroxysmal tachycardia; periodic appearance of sinoauricular blockade.

Arrhythmia due to disturbance of excitability:

a. extrasystole:
- supraventricular (atrial and atrioventricular);
ventricular (from the left or right ventricles),
- polytopic (from different parts of the heart),
- allorhythmia (bigeminia - every second extrasystole, trigeminia - every third, quadrigeminia - every fourth, etc.);

b. paroxysmal tachycardia (supraventricular or supraventricular and ventricular).

a) Extrasystole. Symptoms

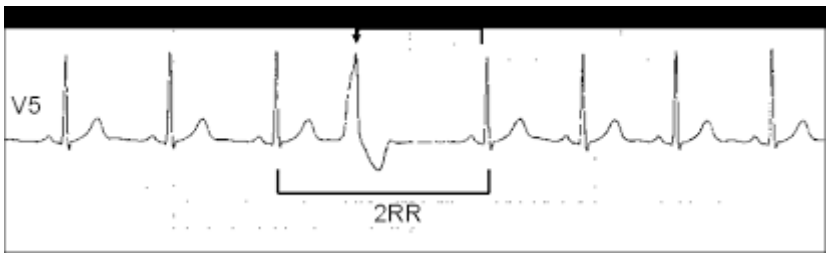
1) Complaints of palpitations, interruptions, sometimes, short-term “cardiac arrest”. Often patients do not feel extrasystoles.
2) 9) On palpation: the pulse is arrhythmic, corresponding to the time of appearance of the extrasystole.

3) 10) With auscultation, the premature appearance of an extrasystolic contraction of the heart, enhanced loud first tone of the extrasystole, the tones are arrhythmic.
4) 11) If extrasystole arises quickly after the usual contraction, then with an extrasystolic contraction, the aortic valve will not open, blood will not enter the aorta and then the pulse wave on the radial artery will not be detected (pulse loss).
5) 12) ECG is a common symptom: premature reduction in the distance R-R in front of the extrasystole is always less than that between normal contractions.
6) 13) ECG with supraventricular extrasystoles.

Atrial extrasystole: P wave - positive, PQ shortened, QRST unchanged. If the extrasystole comes from the upper part of the atrioventricular node, then the P wave is negative; the interval is shortened; the complex has the usual supraventricular form. If extrasystole comes from the middle part of the node, then the tooth P is absent; the QRST complex does not change. If the P wave is negative from the bottom of the node and is located after the QRS complex, the P-Q interval is absent; QRS complex of the usual form. In all cases, compensatory pauses are incomplete.

Supraventricular extrasystoles.

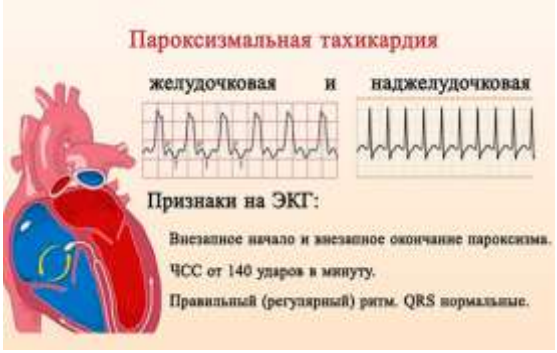
ECG for ventricular extrasystoles: P wave is absent; QRST is deformed, broadened, high amplitude; the T wave is directed back relative to the QRS; the S-T interval directly passes the tooth T. Complete compensatory pause.



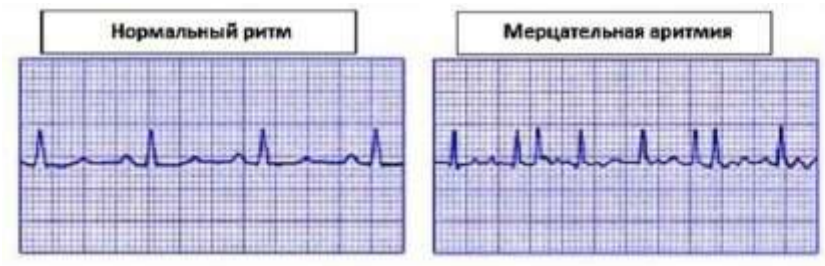
Ventricular extrasystole

b) Paroxysmal tachycardia.
Symptoms
1) sudden onset of a sharp heartbeat;
2) a feeling of tightness in the chest;
3) an unpleasant sensation (sometimes pain) in the region of the heart;
4) shortness of breath;
5) general weakness;
6) nausea and vomiting;

1) pallor of the skin;
2) cyanosis with a prolonged attack;
3) swelling and pulsation of the jugular veins with an increased rhythm of up to 180-200 beats per minute;
4) rhythmic pulse (usually more than 160 per minute), small filling;
5) blood pressure may decrease;
6) ECG: frequent rhythm (160 per minute and above); P wave can be registered or hidden in the QRS complex; the shape of the ventricular complex does not change (with the supraventricular form). But with the ventricular form, the QRS complex is deformed and broadened, there is no P wave.

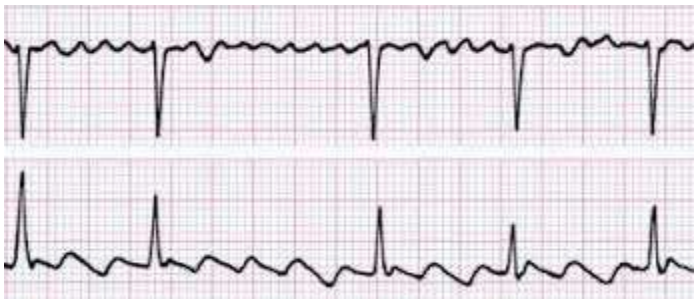


III. Flickering and fluttering:
a) atrial fibrillation;
b) atrial flutter;
c) flutter and flickering (fibrillation) of the ventricles.
a) Atrial fibrillation (atrial fibrillation): tachyarrhythmic, bradyarrhythmic, normosystolic.
1) irregularity in the sequence of heart contractions, complete arrhythmia "delirium of the heart";
2) a constant change in the sonority of tones due to the different duration of diastole and different filling of the ventricles (polyphony of tones). With tachyarrhythmias at the apex, polyphony of the 1st tone is heard;
3) the pulse is irregular, of different filling.
4) heart failure
5) ECG:
6) Mandatory signs - the absence of the P wave; all R-R intervals are different;
7) Optional features - f waves, different in amplitude R waves.



b) Atrial flutter (irregular and regular forms).
Symptoms
1) the number of pulses does not exceed 250-300 per min .;

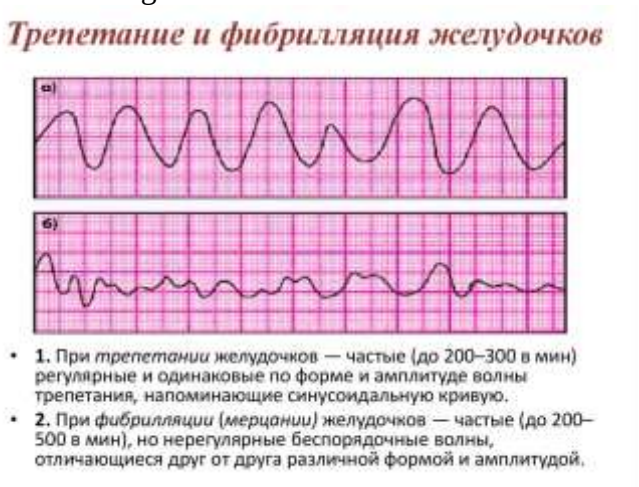
2) pulses through the atrioventricular node are conducted more rhythmically than with atrial fibrillation.
3) The clinically irregular form does not differ from atrial fibrillation. With a regular form, the pulse and heart rate are rhythmic.
4) ECG: Irregular shape - the same signs as with atrial fibrillation, but the f waves are of high amplitude - “saw teeth”.
5) The regular shape is distinguished by the same R-R intervals.



Atrial fibrillation (upper) and atrial flutter (lower)

c) ventricular flutter and fibrillation.
Symptoms

1. потеря сознания;
2. pallor of the skin;
3. pulse and blood pressure are not determined;
4. ECG: individual disordered deformed complexes, on which it is difficult to distinguish individual teeth.



IV. Conductivity disorders - blockade:

a) sinoauricular;

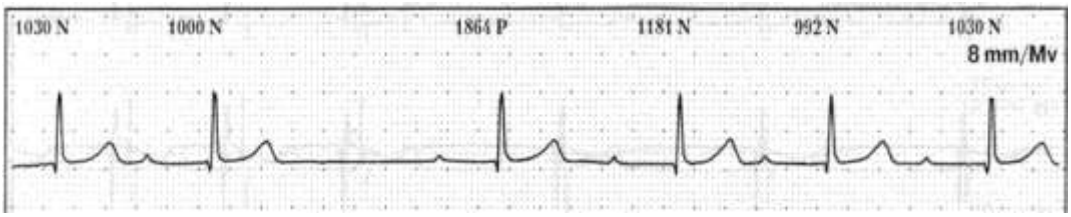
b) atrial;

c) atrioventricular I, II, III degree;

g) intraventricular.

a) sinoauricular block. Symptoms

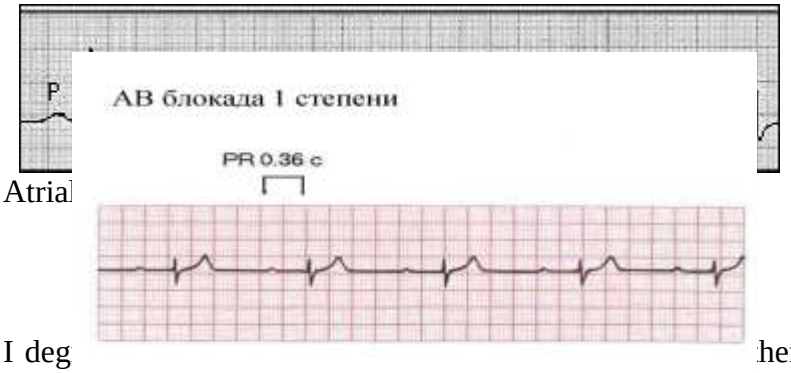
with auscultation of the heart and palpation of the pulse, periodic loss of heart beat and pulse beat is detected. On the ECG: against the background of the correct sinus rhythm, periodically, cardiac complex falls out (the P wave and QRS complex are not recorded), the duration of the diastole doubles.



Sinoauricular block

b) Atrial block. Symptoms

It is detected only electrocardiographically. ECG: there is a change in the P waves, they are deformed, their duration exceeds normal conductivity - up to 0.1 s.



Atrial

I deg hening the P-Q interval of more than 0.2 s;

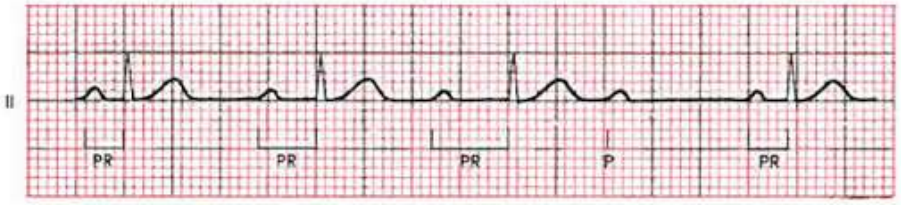
II degree: type 1 or Mobitz I in case of violation (deceleration) of atrioventricular conduction up to the complete blocking of the pulse.

1) a feeling of "freezing" or a stop in the work of the heart;

2) slight dizziness;

3) with auscultation and palpation of the pulse - periodic loss of heart beat and pulse beat;

4) ECG: gradual lengthening of the P-Q interval until the ventricular QRS complex falls out (Samoilov-Wenckebach periods).



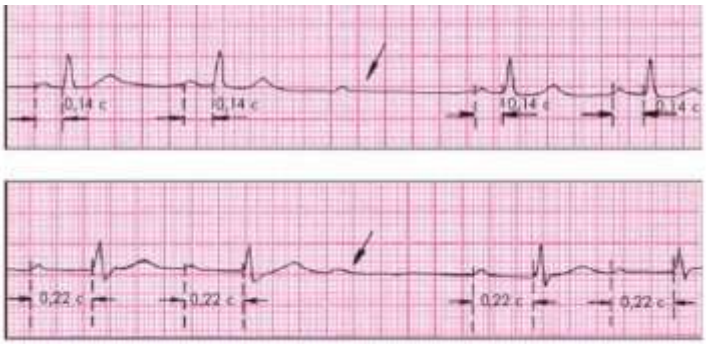
II degree: type 1 or Mobitz I

Type 2 or Mobitz II is characterized by a constant duration of the P-Q interval with periodic loss of the QRST complex.

"Fading", "interruptions", "stop" in the work of the heart;

1) dizziness, darkening in the eyes, short-term loss of consciousness;

2) heart contractions and pulse are rare, arrhythmic.



Type 2 or Mobitz II

AV blocks of the II degree 2: 1 are also secreted when every second ventricular contraction falls out, while the pulse remains rhythmic.

III degree of blockade (complete transverse blockade of the heart). The atrium contracts under the guidance of the sinus node, and the ventricles - atrioventricular, independent of each other.

1) a rare rhythmic pulse, large in size, heart rate - 30-45 in 1 min. ;

2) increased heart size due to diastolic overflow with its blood;

3) heart sounds are muffled, but loud I tone can be periodically determined (“cannon tone” of Strazhesko);

4) Morgagni-Edems-Stokes syndrome, caused by a violation of the regional blood circulation of various organs, primarily Ts.N.S. as a result of the loss of not one, but several contractions of the heart in a row:

• sudden loss of consciousness, the patient falls; with a duration of fainting of 15-20 seconds. general muscle cramps (epileptiform) occur;

• deep breathing, pallor of the skin;

ECG: P wave without communication with QRST, correct P wave alternation, correct Q-T alternation (R-R are equal to each other, but R-R is longer than R-P).

III degree of blockade

г) Внутрижелудочковая блокада. Симптомы:

При аускультации сердца расщепление или раздвоение тонов, обусловленное асинхронизмом в деятельности желудочков.

Выделяют: Полную и неполную блокады правой и левой ножек, левой передней и левой задней ножек пучка Гиса.

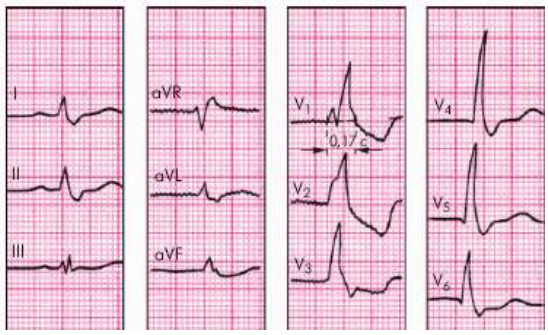
ПРИЧИНЫ, Врожденные нарушения проводимости и приобретенные, вследствие заболеваний сердца.

Признакиполных блока ножек:

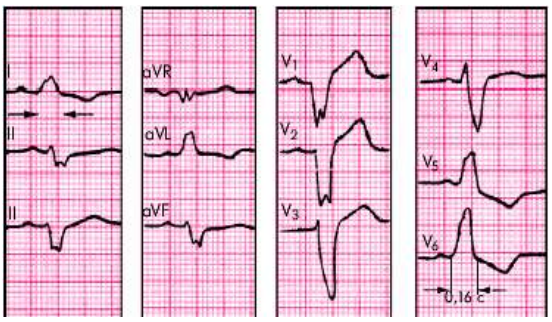
- расширение комплекса QRS более 0,11 сек., дискордантность зубца Т и комплекса QRS

При блокаде правой ножки в отведениях V1,V2 R высокий (R, RSr типы) и зубец Т отрицательный.

При блокаде левой ножки в отведениях V1,V2 преобладает QS и зубец Т положительный



Блокада правой ножки (R тип)



Блокада левой ножки

Generalized heart rhythm and conduction disorder syndrome

REASONS: any diseases and dysfunction of the heart; reflex effects on cardiac conduction and automatism.

GENERAL SYMPTOMS:

1) complaints of palpitations, interruptions in the work of the heart, a feeling of "freezing", "stopping" of the heart, sometimes followed by a strong blow (with extrasystole);

2) irregular heartbeat, tachycardia, bradycardia;

3) pulse deficiency (most characteristic for atrial fibrillation);

4) irregularity of tones during auscultation, polyphony of I tone at the apex (atrial fibrillation), “cannon” tone of Strazhesko (complete atrioventricular block), premature contraction of the heart with a characteristic loud I tone, periodic loss of tones (with blockade);

5) heart rhythm disturbance, especially paroxysmal, can provoke acute coronary, cardiac or vascular insufficiency, or aggravate chronic forms thereof;

6) the type of arrhythmia or blockade can be finally verified using an ECG.

13. Syndromes of valvular heart disease.

Valvular heart defects are acquired, less often congenital morphological changes in the valvular apparatus, leading to a violation of its function and hemodynamics.

Two periods in the clinical course of heart defects:

- compensation period (without the development of heart failure)
- decompensation period (with the development of heart failure)

Mitral valve insufficiency

With mitral valve insufficiency, the function of the valve apparatus is impaired, which is characterized by incomplete closure of the valves of the bicuspid valve during systole and the absence of a period of closed valves.

REASONS: rheumatic endocarditis (in 75% of cases), infectious endocarditis, atherosclerosis, trauma, systemic diseases of the connective tissue, myocardial infarction with rupture of the papillary muscles, congenital splitting of the mitral valve cusps, relative mitral valve insufficiency (with aortic defects, arterial hypertension, myocarditis myocardial dystrophy, cardiosclerosis, subaortic muscle stenosis), mitral valve prolapse.

1. Complaints: There are no complaints at the compensation stage. In the decompensated phase - shortness of breath, palpitations, interruptions and pain in the heart, with congestion in the lungs - coughing, hemoptysis.

2. Palpation - apical impulse is displaced to the left, spilled;

3. Percussion - an increase in the boundaries of relative dullness to the left, and in the case of a sharp increase in the left atrium - and up. During decompensation (Kitaev’s reflex) - expansion to the right;

4. During auscultation, weakening of the I tone, systolic murmur at the apex, decreasing a different timbre, is brought to the left axillary region or to the second and third intercostal space to the left of the sternum, takes more than ½ systole, amplifies in the exhalation phase and on the left side, a moderately pronounced accent II tone on the pulmonary artery (Kitaev's reflex);

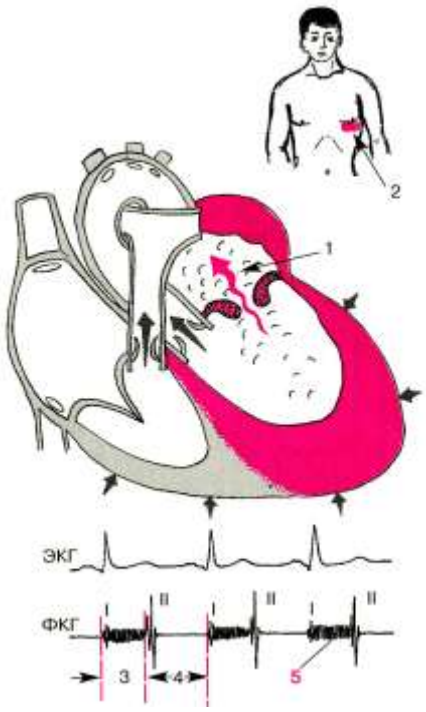
5. ECG: signs of left atrial hypertrophy (“P mitrale”) and left ventricle, during decompensation (Kitaev’s reflex) - right ventricular hypertrophy;

6. FCG: confirms auscultation data;

7. X-ray: an increase in the left departments of the heart (ventricle and atrium), the heart acquires a mitral configuration, the displacement of the contrasted esophagus along an arc of large radius (in the left lateral projection). During decompensation (Kitaev’s reflex) - expansion to the right;

8. Echocardiography: expansion of the cavities of the left ventricle and left atrium, multidirectional movement of the cusps of the mitral valve, their thickening and lack of closure in systole, pulmonary hypertension;

9. Doppler echocardiography: a turbulent flow of blood into the left atrium according to the degree of regurgitation.



Mitral insufficiency (hemodynamics)

Mitral stenosis

- narrowing of the left atrioventricular foramen.

REASONS: most often - acute rheumatic fever (rheumatic endocarditis); rarely - systemic diseases of the connective tissue (rheumatoid arthritis, systemic lupus erythematosus), mitral valve calcification.

Complaints: There are no complaints during the compensation period.

During decompensation: shortness of breath, hemoptysis, palpitations, interruptions and pain in the heart, with severe decompensation - swelling on the legs, pain in the right hypochondrium, an increase in the abdomen;

Ortner's symptom - a sharp increase in the left atrium can cause a violation of swallowing (compression of the esophagus) and hoarseness in connection with compression of the recurrent nerve.

1. Examination: acrocyanosis, cyanotic blush in the form of a “butterfly” (“mitral” face), poor physical development, infantilism, “heart hump”.

2. Palpation: positive cardiac impulse, diastolic trembling ("cat purr") at the apex.

3. Percussion: the boundaries of relative and absolute dullness are shifted up and to the right (due to hypertrophy of the left atrium and right ventricle);

4. Auscultation: Amplification of the I tone at the apex (“clapping” I tone), “mitral click” or tone of opening the mitral valve. The combination of “clapping” I tone, II tone and tone of opening of the mitral valve creates a peculiar melody of a three-membered rhythm - “quail rhythm”. Based on the heart, emphasis and bifurcation of the II tone on the pulmonary artery. At the apex, diastolic noise is heard locally, without irradiation, sometimes with a presystolic amplification. On the pulmonary artery, you can listen to diastolic murmur (Graham-Steel noise);

5. The pulse is small, often the pulse is different - on the left radial artery is weaker than on the right (Popov's symptom), arrhythmia is possible (usually, atrial fibrillation);

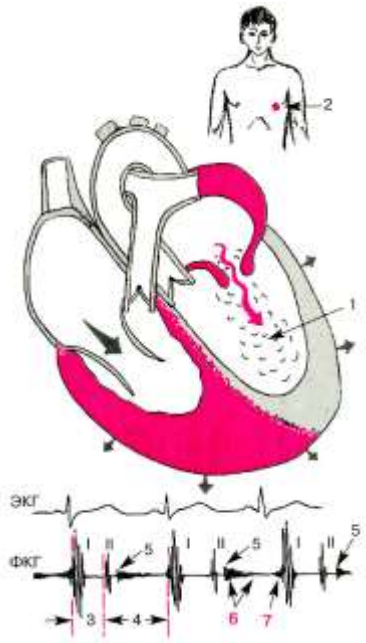
6. HELL - a downward trend;

7. ECG: signs of left ventricular hypertrophy (“P mitrale”) and right ventricle, atrial fibrillation (a specific symptom for mitral stenosis);

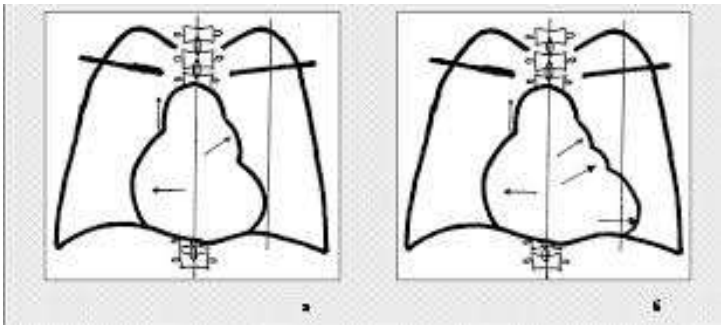
8. FCG: confirms the signs of auscultation;

9. X-ray - “mitral configuration” of the heart: flatness of the waist, an increase in the left atrium, determined by the deviation of the esophagus contrasted with barium in the left lateral projection (along an arc of small radius), hypertrophy of the right ventricle, often the bulge of the pulmonary artery arch;

10. Echocardiography: unidirectional movement of the anterior and posterior cusps of the mitral valve forward, the rate of early diastolic closure of the anterior cusp and the amplitude of its movement is reduced, thickening of the valve, expansion of the cavity of the right ventricle and left atrium, reduction of the diameter of the mitral orifice.



Mitral stenosis, hemodynamics



Mitral configuration of the heart:

mitral stenosis (a),

mitral insufficiency (b)

Stenosis of the aortic orifice

REASONS: rheumatic endocarditis, infectious endocarditis, aortic atherosclerosis, congenital aortic stenosis, syphilis.

SIGNS:

1. Complaints: there are no complaints in the compensation stage.

With decompensation - weakness, dizziness, fainting, heart pain, angina pectoris;

2. Inspection - pallor of the skin, visible mucous membranes, increased apical impulse;

3. Palpation: the apical impulse is displaced to the left, diffuse, resistant, high, "raising", systolic trembling ("cat purr") in the second intercostal space to the right of the sternum - palpation analogue of systolic murmur;

4. Percussion - an increase in the left border of relative dullness, an expansion of vascular dullness in the second intercostal space to the right (post-stenotic expansion of the ascending aorta);

5. Auscultation: I tone at the apex is weakened, II tone at the aorta is weakened, gross systolic murmur on the aorta (maximum point), which is carried out on the carotid arteries and in the interscapular region, often above the entire surface of the heart, is better heard in a horizontal position on the exhale;

6. Pulse slow (pulsus parvus), rare (pulsus rarus), small (pulsus tardus), systolic and pulse blood pressure decreased;

7. ECG: signs of severe left ventricular hypertrophy;

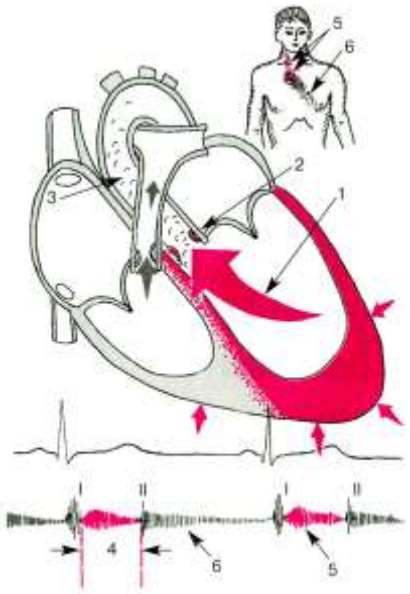
8. FCG: consistent with auscultatory picture;

9. Echocardiography: reducing the amplitude of systolic opening, thickening, limiting the mobility of the valves of the aortic valve. Hypertrophy of the left ventricular myocardium, a decrease in the area of the aortic opening, dilatation of the ascending aorta (post-stenotic expansion) are clearly visible;

10. X-ray: "aortic" configuration of the heart due to concentric hypertrophy of the left ventricle. Often you can see calcification of the aortic valve, expansion of the initial part of the aorta;

11. Doppler echocardiography: a significant increase in the maximum velocity of blood flow through the mouth of the aorta.

12. With mitralization of the defect (the development of relative mitral valve insufficiency due to dilatation of the left ventricle and expansion of the mitral orifice), it is possible to expand the borders of the heart to the right, due to hypertrophy of the right ventricle of the heart.



Aortic stenosis (hemodynamics).

Aortic valve insufficiency

REASONS: acute rheumatic fever (rheumatic endocarditis), infectious endocarditis, syphilis, diffuse connective tissue diseases, trauma, atherosclerosis.

SIGNS: There are no complaints during the compensation period.

1. Complaints of headache, dizziness, tendency to fainting, sensation of tremors and pain in the heart area of angina pectoris;

2. Examination - pallor of the skin and mucous membranes, increased pulsation of the carotid arteries ("carotid dance"), synchronization with the pulse of the carotid arteries, shaking of the head (Musse symptom), pseudocapillary pulse (Quincke symptom), narrowing of the pupil during systole, expansion - with diastole (symptom of Landolfi);

Muller's symptom is the rhythmic pulsation and expansion of the tongue and tonsils.

3. Palpation - spilled, resistant, rising, domed apical impulse in the VI - VII intercostal space, shifted to the left and down, sometimes, pulsation in the II intercostal space on the right;

4. Percussion: an increase in the boundaries of relative dullness to the left, an increase in the width of the vascular bundle in the second intercostal space;

5. Auscultation: I tone at the apex is weakened, II tone on the aorta is weakened with rheumatic defect, with syphilitic and atherosclerotic defect II is sonorous (sometimes with a metallic tinge). A rough diastolic murmur is heard over the aorta, which is conducted to the Botkin-Erb point and amplified in the upright position of the patient. Flint's presystolic murmur is possible at the apex (due to relative mitral stenosis). Rarely, on the femoral artery is the double tone of Traube and when pressed with a stethoscope is the double noise of Vinogradov-Durozier.

6. The pulse is fast, high, large, jumping, rapid (P. celer, altus, magnus, salviens, frequencies);

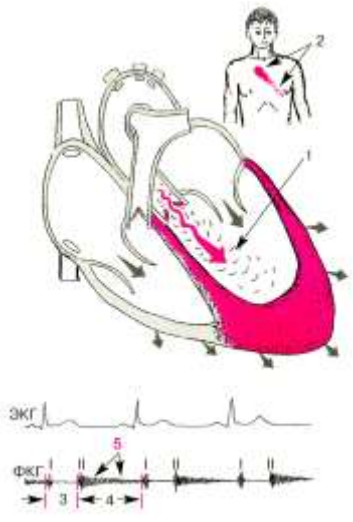
7. Blood pressure: systolic - increased, diastolic - decreased, pulse - increased.

8. ECG: signs of hypertrophy and overload of the left ventricle and relative coronary insufficiency;

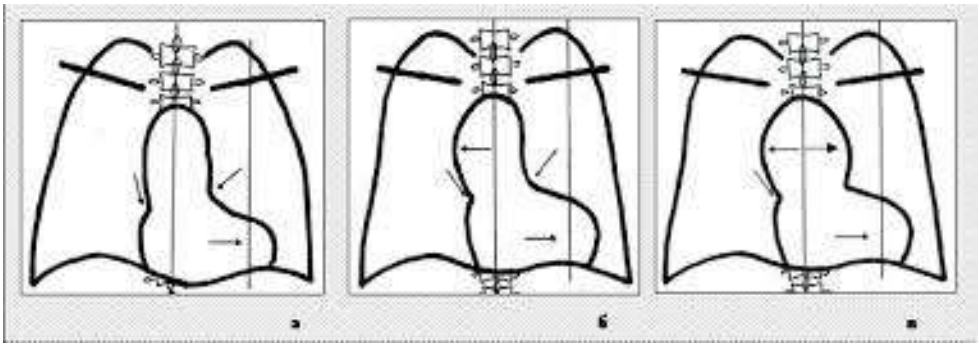
9. FCG: confirms auscultation data;

10. X-ray: dilatation and hypertrophy of the left ventricle, aortic configuration of the heart with an emphasized waist, expansion of the aorta in both directions;

11. Echocardiography: a change in the valve cusps, bacterial vegetation on the valve with infectious endocarditis, dilatation of the left ventricle, hyperkinesis of its walls, vibration of the anterior cusp of the mitral valve during the diastole.



Aortic valve insufficiency (hemodynamics).



Aortic heart configuration:

Aortic stenosis (a, b);

Aortic insufficiency (c)

14. Mitral valve prolapse

Swelling, protrusion of one or both cusps of the mitral valve into the cavity of the left atrium during ventricular systole.

CAUSES:

1) primary (congenital) is associated with microsomal degeneration of the fibrillar structures of the valves and / or tendon chords, often combined with defects in connective tissue structures (Marfan syndrome, flat feet, hernias, curvature of the spine, etc .;

2) secondary: develops against the background of heart lesions in coronary heart disease, hypertrophic cardiomyopathy, carditis of another etiology;

1. Complaints of pain in the region of the heart, especially during excitement, are not associated with physical exertion, are not removed by nitroglycerin, are inconsistent, heart failure, palpitations;

2. Auscultation: at the apex, a systolic click or late systolic murmur (or a combination of both) is determined. They increase vertically and decrease horizontally.

3. ECG: reduction or inversion of T waves, a slight decrease in the S-T segment in II, III, less often in V5 and V6 leads;

4. FCG: late systolic murmur, late systolic click;

5. Echocardiography: deflection of one, sometimes both cusps of the mitral valve in the late phase of systole into the cavity of the left atrium;

6. Doppler echocardiography: mitral regurgitation;

15. Syndrome of hypertension of the pulmonary circulation

CAUSES:

a) primary - 0.2% of all cases, etiology is unknown

b) secondary - mitral heart defects, left ventricular heart failure, some congenital heart defects with blood discharge from left to right, pulmonary thromboembolism, acute and chronic lung diseases, hypoventilation, high-altitude hypoxia, Ayers syndrome (A. Ayezza) (pulmonary sclerosis) .

SYMPTOMS:

1) shortness of breath, passing into suffocation (BH□20□)

2) cyanosis (acrocyanosis or diffuse)

3) cough (dry or with sputum)
4) hemoptysis
5) dizziness and fainting
6) pain in the heart due to hypertrophy of the myocardium
7) angiospasm (e.g. Raynaud's syndrome)
8) possible tachycardia (heart rate □ 80□)
9) signs of right ventricular failure (see the corresponding section)
10) hypertrophy of the right ventricle (percussion, ECG, ECHO)
11) emphasis II tone over the pulmonary artery
12) wheezing (dry and wet), crepitus in the lungs
13) on the ECG - "P" - high, expanded in II and III leads, hypertrophy of the right ventricle and left atrium
14) on the phonocardiogram - emphasis and splitting of II tone on the pulmonary artery
15) R - graph of the lungs: root compaction, thickening of the vascular pattern, cloud-like shadows, a small effusion in the pleural cavities, an increase in the right ventricle of the heart
16) VC is reduced
17) ECHOCG: increased pressure in the pulmonary artery, its dilatation, hypertrophy of the right heart.

16. The syndrome of acute vascular insufficiency

A. syncope (syncope) - a short-term, mild form of acute arterial hypotension
REASONS: acute cerebral anemia due to a mental or reflex effect on the circulatory regulation system. There are vasovagal syncope, orthostatic, sinocarotid, psychogenic, symptomatic.
STAGES:
- forerunners
- impaired consciousness
- recovery period
SYMPTOMS:
1) weakness
2) dizziness
3) ringing in the ears,
4) short-term visual impairment (veil, darkening, "flies" before the eyes)
5) pallor of the skin and mucous membranes
6) instability of the pulse, respiration and blood pressure (tachycardia, filamentous pulse, drop in blood pressure)
7) hyperhidrosis
8) decrease in muscle tone
9) short-term impaired consciousness
10) pupils dilated, slow response to light
11) patient may fall
12) short-term convulsions of a tonic, less often clonic nature
B. COLLAPSA Severe form of vascular insufficiency (a more pronounced and prolonged drop in vascular tone, leading to a violation of the vital functions of the body).
REASONS: infectious, toxic, hemorrhagic, hypoxic, orthostatic, cardiogenic, hypovolemic, sympatho-vagotonic, paralytic collapses.
SYMPTOMS:
1) consciousness is often preserved, patient indifference to the environment, lethargy, adynamia
2) dizziness

3) visual impairment, dilated pupils
4) tinnitus
5) thirst
6) chills at low body temperature
7) pointed features
8) sharp pallor with acrocyanosis
9) cold sweat
10) cold limbs
11) the pulse is frequent, small
12) venous pressure and blood pressure sharply reduced, cervical veins collapsed
13) heart sounds are deaf, arrhythmias, embryocardia are possible
14) shallow breathing (rapid or slow)
15) shock development is possible

Shock (from the English shock - shock, shock) is an integral pathological process that develops in response to extreme stimuli and is accompanied by a progressive violation of the vital functions of the nervous system, blood circulation, respiration, metabolism and some other functions. This is a failure of the compensatory reactions of the body in response to damage.
The clinical picture depends on the type of shock (cardiogenic, anaphylactic, infectious-toxic, post-traumatic, hypovolemic), which develops against the background of progressive vascular insufficiency.

3.1 TEST TASKS
(Choose one or more correct answers)

1. Pulsation of the carotid arteries ("dance carotid") is observed when
1) stenosis of the mouth of the aorta
2) aortic valve insufficiency

2. With increasing pressure in the pulmonary artery will be observed
1) attenuation of II tone on the pulmonary artery
2) emphasis II tone on the pulmonary artery
3) emphasis and II tone on the aorta

3. The emphasis of the II tone on the aorta is
1) II tone on the aorta is louder than I tone
2) II tone on the aorta is louder than II tone on the pulmonary artery

4. Indicate the most characteristic signs of arterial pulse in atrial fibrillation.
1) a sharp weakening or lack of pulsation on one radial artery
2) a sharp decrease in the pulse value on both radial arteries
3) the number of pulse waves in the radial artery is greater than the number of heart contractions
4) the number of pulse waves in the radial artery is less than the number of heart contractions

5. The main method for identifying endocardial syndrome
1) ECG
2) FCG

3) ECHO-KS

6. For stenosis of the mitral valve is characteristic
1) the rhythm of the "quail"
2) protodiastolic gallop rhythm

7. What defect is the symptom of Alfred de Musset
1) aortic stenosis
2) aortic insufficiency
3) mitral stenosis
4) mitral insufficiency

8. When auscultation in a patient with mitral valve insufficiency is detected
1) attenuation of the second tone and systolic murmur on the aorta
2) attenuation of the first tone and systolic murmur at the apex
3) clapping first tone, diastolic murmur at the apex
4) attenuation of the second tone and diastolic murmur on the aorta

9 Symptom characteristic of the appearance of a patient with stenosis of the aortic orifice
1) diffuse cyanosis of the skin
2) acrocyanosis
3) pallor of the skin
4) symptom of Musssi
5) Carotid dance

10. How to change the pulse pressure with stenosis of the mouth of the aorta
1) does not change
2) increases
3) more often decreases

Tasks for the section “Cardiovascular system”

Task 1

Patient S., 62 years old, complained of pressing pains behind the sternum and in the region of the heart that arise after psycho-emotional and physical exertion, radiating to the left arm, shoulder blade, accompanied by a sense of fear of death, stopping at rest or when taking nitroglycerin after 2 minutes.
From the medical history of the disease, it is known that an increase in blood pressure is noted over 15 years (maximum figures are 200 and 120 mmHg, adapted to 130 and 80 mmHg). For the last 2 years after psychoemotional and physical overloads, pressing pains behind the sternum occur, stopping with nitroglycerin after 2-5 minutes. From the anamnesis it is known that the patient smokes for 20 years at 18-20 cigarettes per day.
When examining a patient of increased nutrition. For centuries, xanthelasma. Percussion borders of the heart are shifted to the left. The cardiac sounds at the apex are weakened, the emphasis is II tone above the aorta. HELL 180 and 100 mmHg, heart rate-78ud. in minutes

1. Manifestations of what syndromes can be noted in a patient?
2. What are the risk factors for developing coronary heart disease in this particular case?

Task 2

Patient M., 54 years old, was taken by an emergency medical team to the intensive care unit complaining of intolerable burning pains behind the sternum, accompanied by severe weakness, cold sweat, and a feeling of lack of air. Taking nitroglycerin did not stop the pain.
Today, after physical work (lifting weights), for the first time in my life, intolerable stinging, burning pains behind the sternum appeared, radiating to the interscapular space accompanied by a sharp weakness, cold sweat. The pain was not stopped by taking 3 tablets of nitroglycerin. The total duration of the attack is 1 hour.
On examination: the patient is sitting. The skin is pale, cyanotic, covered with large drops of sweat. Bubbling breathing with the release of copious frothy pink sputum. Weakened vesicular breathing, a large number of moist, various-sized, sonic rales are heard over the lungs. Chd-26 in a minute. Heart sounds are sharply weakened, the protodiastolic gallop rhythm is heard. AD-95 and 50 mmHg Heart rate-110 per minute. The pulse on the peripheral arteries is small, filiform.
On the ECG - in leads V1-6, I and AVL, a complex of type QS, ST segment elevation of more than 5 mm (trough-shaped), negative coronary tooth T.

1. What syndromes can be distinguished on the basis of this clinical picture?
2. What disease can be thought of on the basis of this clinical picture?

Task 3

Patient V., 65 years old, came to the clinic with complaints of bursting pain in the epigastric region, accompanied by nausea, vomiting once ..
He became acutely ill: after work (associated with significant physical exertion) there were pains in the epigastric region, nausea. At night, the intensity of pain in the epigastrium intensified, they radiated beyond the sternum, into the left shoulder blade, were accompanied by nausea, vomiting once, cold sweat, fear of death. After the use of narcotic analgesics by the ambulance team, the pain practically disappeared.
On examination, the state of moderate severity. The skin is pale, high humidity. Vesicular breathing over the lungs, wheezing is not heard. Heart sounds are weakened, a gallop rhythm is heard at the top. Heart rate-115 per min. HELL 105 and 70 mm Hg The abdomen is painless on palpation. There are no symptoms of peritoneum.
On the ECG, a pathological Q wave in lead III, AVF, ST segment elevation in II, III, AVF leads.

1. What is the leading syndrome in this clinical picture?
2. What localization of myocardial damage can we talk about in this case?

Task 4

Patient M., 36 years old, was admitted with complaints of shortness of breath with small physical exertion, cough with sputum mucus, swelling of the legs, heaviness in the right hypochondrium.
In childhood, there was an episode of prolonged fever with swelling of the knee and ankle joints. It was treated on an outpatient basis, and subsequently was not observed by doctors.

During the examination: in the lungs, on both sides in the lower sections, moist, sonic, finely bubbling rales. The pulse is 100 beats per minute, rhythmic. With auscultation of the heart - at the apex of I, the tone is weakened, systolic murmur of a diminishing nature, conducted in the left axillary region, emphasis of II tone on the pulmonary artery. The enlarged liver is palpated. Pastosity of the legs.

1. Symptoms of which valvular heart disease are present in this patient? Justify.
2. What data can be obtained by palpation and percussion of the heart?
3. What clinical syndromes can be distinguished?

Task 5

Patient D. was admitted to the clinic with complaints of severe general weakness, fatigue, shortness of breath, fever up to 39 ° C, chilling, profuse sweating.
Sick for a month. From the age of 14 he suffers from rheumatic mitral heart disease. On examination: the skin and visible mucous membranes are pale with a yellowish-gray tint ("coffee with milk"). On the conjunctiva and transitional folds of the eyelids of hemorrhage (Lukin-Liebmann symptom), a positive symptom of Rumpel-Leede-Konchalovsky. Fingers look like drum sticks. With auscultation of the heart: at the apex of I, the tone is weakened, systolic murmur conducted in the left axillary region; in the 2nd intercostal space to the right of the sternum, a weakening of the II tone; at the point of Botkin-Erba there is a soft blowing diastolic murmur of a decreasing character. When examining the abdomen, an increase in the spleen is determined.

1. What valvular lesions of the heart is evidenced by an auscultatory picture?
2. What data can be obtained during palpation and percussion of the heart region with detected defects?
3. What clinical syndromes can be distinguished?
4. What disease are these syndromes characteristic of?

Task 6

Patient S., 36 years old, was admitted to the hospital with complaints of shortness of breath during physical exertion, nightly attacks of suffocation, dizziness.
He does not remember the diseases transferred in childhood. Dyspnea, dizziness during physical exertion worries for a year, in the last month attacks of inspiratory suffocation joined.
On examination: the skin is pale, "dance carotid", a symptom of Musset, a symptom of Quincke. In the 6th intercostal space along the anterior axillary line, a reinforced "dome-shaped" apical impulse is palpated on the left. During auscultation, the I tone at the apex is weakened, above the aorta the weakening of the II tone, protodiastolic murmur in the II intercostal space and at the point of Botkin-Erba.

1. Symptoms of what heart damage does this patient have?
2. What does the symptoms identified during the examination mean and what are their causes?
3. What kind of pulse and blood pressure can be expected in this patient?

Task 7

Big R., 28 years old, was admitted to the clinic for examination with complaints of rapid fatigue, shortness of breath, discomfort in the heart during physical exertion, dizziness.
In childhood - private tonsillitis, tonsillectomy at 10 years old.
On examination: the skin is pale. During auscultation of the heart - weakening of the I tone at the apex, weakening of the II tone above the aorta, a rough systolic murmur, of increasing-decreasing nature, in the second intercostal space to the right of the sternum, carried out on the carotid arteries. Pulse - 64 beats. in minutes, blood pressure - 95 and 60 mm Hg

1. What valve damage to the heart can be thought of, given the auscultation of symptoms?
2. What data can be obtained by palpation and percussion of the heart region with this defect?
3. Describe the features of the pulse with this defect.

Task 8

Patient V., 21 years old, was admitted to the hospital with complaints of shortness of breath with small physical exertion, hemoptysis.
In childhood - frequent sore throats, at the age of 7 after the next sore throat large joints swelled and hurt. Shortness of breath has been bothering for the past 6 months, gradually intensifying, a month ago hemoptysis first appeared.
On examination: moderate lip cyanosis, no peripheral edema. The number of respiratory movements at rest is 24 per minute, in the lower parts of the lungs are moist, inexplicable, small-bubbling rales. The apical impulse is not visible and not palpable. In the apex region, diastolic trembling is determined. The boundaries of the relative dullness of the heart: the right - 2 cm outwards from the right edge of the sternum, the left - 1.5 cm inwards from the left midclavicular line, the upper - the second intercostal space. Pulsus differens, worse left.

1. What valve damage to the heart can you think of? Justify.
2. What should be the auscultatory picture of the heart with this defect?
3. What is the cause of Pulsus differens?
4. What symptoms indicate the presence of congestion in the pulmonary circulation?

Task 9

Patient A., 32 years old, was admitted with complaints of shortness of breath at the slightest physical exertion, swelling of the legs, feet, heaviness in the right hypochondrium, an increase in the volume of the abdomen.
In childhood - frequent sore throats, at 12 years old, mitral heart disease was diagnosed. From 16 years old, shortness of breath worries, from 28 years old - swelling of the legs appeared in the evening, heaviness in the right hypochondrium. Repeatedly treated in a hospital. Over the past 4 months, there has been an increase in shortness of breath, swelling, the appearance of dull pain in the right hypochondrium, an increase in the volume of the abdomen.
On examination: serious condition. Orthopnea position. Acrocyanosis, “facies mutrale”, swelling and pulsation of the veins of the neck, swelling of the feet, legs. The number of breaths is 26 per minute. In the lower parts of the lungs moist finely bubbly inaccurate rales are heard. During auscultation of the heart - at the top of I the tone is loud, “clapping”, the tone of the opening of the mitral valve followed by diastolic murmur, the emphasis of the 2nd tone on the pulmonary artery, systolic murmur at the base of the xiphoid process, amplified by inspiration (Rivero-Corvallo symptom). The abdomen is enlarged in volume, an enlarged liver, ascites are determined.

1. What syndromes can be distinguished?

Task 10

Patient A., aged 16, was admitted to the clinic with complaints of shortness of breath, palpitations, febrile temperature, pain in large joints, and pains disappearing in some joints and appear in others. She became ill acutely after suffering a sore throat 2 weeks ago.
On examination: moderate condition. The skin is of high humidity. On the skin of the chest and abdomen - rashes in the form of pale pink rings, painless, not rising above the skin. The right knee and left shoulder joints are swollen, the skin above them is hot and touch, hyperemic, active and passive movements in them are sharply limited. With percussion of the heart - the shift of the boundaries of the relative dullness of the heart to the left by 1.5 cm outwards from lin. Mediaclavicularis sin. With auscultation of the heart, weakening of the I tone and soft systolic murmur at the apex are noted, the number of heart contractions is 110 per minute. The pulse is rhythmic, weak filling. HELL - 100 and 60 mm Hg
In blood tests: leukocytes - 15 x 109 l, ESR - 42 mm / hour, positive C-reactive protein, anti-O-streptolysin titers more than 500 units (normal - less than 250 units). ECG - sinus rhythm, PQ-0, 24 sec

1. What organs are affected by the symptoms identified?
2. What disease can be thought of on the basis of the identified symptoms? Justify.
3. How can one explain the appearance of soft systolic murmur at the apex?

Answers to the tasks to the section "The cardiovascular system"

Task 1

1. The patient has signs of angina pectoris (angina pectoris) and arterial hypertension syndrome.

2. Arterial hypertension, smoking. Given the excess body weight, the presence of xanthelasm, it is also necessary to study the lipid spectrum of the blood.

Task 2

1. Syndrome of acute coronary insufficiency, syndrome of acute left ventricular failure (pulmonary edema).

2. You can think about the presence of a common anterior myocardial infarction.

Task 3

1. In this case, the leading syndrome is the syndrome of acute coronary insufficiency

2. This patient has a myocardial infarction of the posterior wall of the left ventricle.

Task 4

1. Mitral valve insufficiency: weakening of the I tone at the apex, systolic murmur of a decreasing nature, conducted in the left axillary region.

2. Spilled reinforced apical impulse, displacement of the borders of the relative dullness of the heart up and to the left, mitral configuration of the heart.

3. a) Right ventricular failure syndrome (enlarged liver, swelling of the legs).
b) Syndrome of left ventricular failure (shortness of breath, cough with sputum mucosa, moist, sonorous rales in the lungs)
Task 5

1. Mitral and aortic valve insufficiency.

2. On palpation - reinforced spilled apical impulse, shifted to the left and down. With percussion, the shift of the boundaries of the relative dullness of the heart up, left and down.

3. a) Inflammation syndrome
b) hemorrhagic

4. Infectious endocarditis.

Task 6

1. Symptoms of aortic valve insufficiency.

2. Pulsation of the carotid arteries, rhythmic shaking of the head, pseudocapillary pulse - due to high systolic and low diastolic blood pressure (high pulse pressure)

3. The pulse is high, fast and large (altus, celler, magnus). High systolic blood pressure, low diastolic blood pressure, large pulse blood pressure.

Task 7

1. Stenosis of the mouth of the aorta.

2. Systolic trembling in the second intercostal space to the right of the sternum; high, reinforced, diffuse apical impulse, shifted to the left. With percussion, a shift of the left border of the relative dullness of the heart to the left; aortic configuration of the heart.

3. The pulse is small, slow, rare (parvus, tardus, rarus)

Task 8

1. Stenosis of the left atrioventricular orifice: diastolic tremor at the apex of the heart, shift of the borders of the relative dullness of the heart up and to the right, pulsus differens.

2. At the top there is a loud “popping” I tone, an additional tone for opening the mitral valve, “quail rhythm”, diastolic murmur with presystolic amplification; accent II tone over the pulmonary artery.

3. Significant increase in left atrium leading to compression a. subsclavia sin.

4. Shortness of breath (tachypnea), moist sonorous rales in the lungs, hemoptysis.

Task 9

1. a) Syndrome of left ventricular failure (dyspnea, tachypnea, orthopnea, moist sonorous rales in the lungs).

2. The syndrome of right ventricular failure (acrocyanosis, swelling and throbbing of the veins of the neck, edema, hepatomegaly, ascites).

Task 10

1. a) Joint damage (arthralgia, joint changes during examination)
b) Heart damage (weakening of the I tone, systolic murmur, atrioventricular block I degree)

2. Rheumatic polyarthritis, rheumatic heart disease:

a) The onset of the disease 2 weeks after a streptococcal infection;
b) Ring-shaped erythema;
c) Typical damage to large joints and “volatility” of arthralgia;
d) Rheumatic heart disease - tachycardia, weakening of I tone, systolic murmur at the apex, atrioventricular block of I degree;
f) Blood tests - lecocytosis, accelerated ESR, positive CRP, increased titers of anti-O-streptolysin.

3. The development of relative mitral valve insufficiency.

4. GASTROENTEROLOGY

4.1. SYNDROMES FOR DISEASES OF THE ESOPHAGUS, STOMACH AND GUT

1. Dysphagia Syndrome

Violation of the passage of food through the esophagus: from the oropharynx to the upper esophagus (oropharyngeal dysphagia), transport of the food lump through the esophagus (esophageal dysphagia)

SYMPTOMS:

1. Difficulty in the passage of solid or liquid food

1. Regurgitation, often at night (symptom of a wet pillow).

2. Vomiting without previous nausea, unchanged, undigested food, without impurities of gastric juice (the result of secondary expansion of the esophagus).

3. Drooling.

4. Bad breath.

5. Pain, feeling of fullness along the esophagus, behind the sternum.

Distinguish:

A) functional (paroxysmal)

B) organic (constant, progressive) dysphagia

Functional Dysphagia:

REASONS for functional dysphagia:

Damage to the swallowing center, vagus and glossopharyngeal nerve, tongue paralysis, oropharyngeal anesthesia, decreased salivation, damage to the muscles of the pharynx and esophagus, cardiac achalasia in the early stages.

SYMPTOMS:

• transient nature of violations

• connection with psychoemotional factors

• often provoked by excitement, hasty food

• sensation of a “lump in the throat" or behind the sternum

2. the passage of solid and liquid food is equally difficult, sometimes, liquid food is more difficult than dense

3. general condition changes little

5. eliminated by sedatives and antispasmodics.

Organic Dysphagia:

REASONS for Organic Dysphagia:

Inflammatory diseases and strictures of the esophagus, tumors, diverticulums of the esophagus, cardia achalasia in the later stages.

SYMPTOMS:

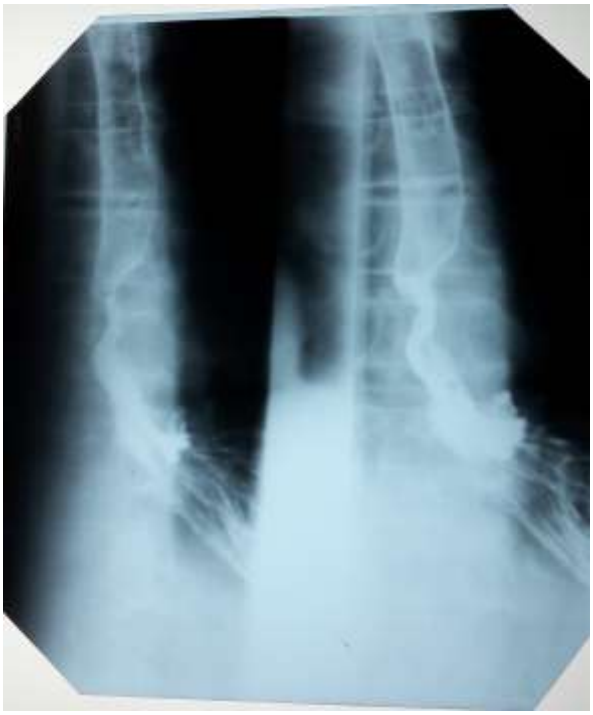
1. the constant and progressive nature of violations.

2. The difficulty of passing first only solid, and then gruel and liquid foods.

3. general condition:

a) with cicatricial narrowing of the esophagus (burn, esophagitis, achalasia of the cardia) changes little or slowly.

b) with cancer of the esophagus rapidly worsens



Organic esophageal stenosis

2. Gastroduodenal pain syndrome

CAUSES:
Diseases of the stomach and duodenum. More often with peptic ulcer, chronic gastritis, duodenitis.

SYMPTOMS:
Epigastric pain. Often there is a seasonality of exacerbation: in spring and autumn.
Early pain: occur a few minutes later or within the first hour after eating. Sometimes, there is a fear of eating (cytophobia). Characterize the defeat of the cardial and fundal sections of the stomach.
Late pains: occur 1.5 to 2 hours after eating, on an empty stomach, at night, often accompanied by hypersecretion. Characterize the defeat of the pyloric stomach and duodenum.
The pain is stopped by eating, antacids, antisecretory drugs.
At the height of the pain, there may be vomiting, which brings relief.
Percussion tenderness is a symptom of Mendel. This symptom is detected by abrupt percussion with a finger bent at right angles to the symmetrical sections of the epigastric region. Accordingly, the localization of ulcers with such percussion sometimes appears local, limited soreness, soreness is more pronounced on inspiration. Mendel's symptom usually indicates that the ulcer is not limited to the mucous membrane, but is localized within the walls of the stomach or duodenum with the development of perivisceritis.

3. Gastric hypersecretion syndrome

REASONS: Duodenal ulcer, chronic gastritis with hypersecretion, Zollinger-Ellison syndrome, chronic pancreatitis.
SYMPTOMS:
1. Heartburn, belching, vomiting, acidic, appetite maintained or increased, spastic constipation.
2. The possibility of pain in the pyloroduodenal zone, often later.

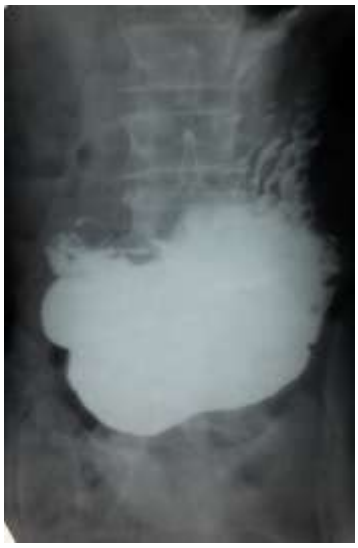
3. Radiologically in the pyloroduodenal department: functional (spasm), organic ("ulcerative niche", deformation, perigastritis, periduodenitis).
4. Laboratory data - gastric secretion: hypersecretion of hydrochloric acid and (or) pepsin (in the inter-digestive period or in response to stimulation).
5. Daily PH-metry allows you to verify the diagnosis.

4. Gastric hyposecretion syndrome

REASONS: Cancer of the stomach, chronic gastritis with decreased secretory function of the stomach, involutional changes.
SYMPTOMS:
1. A feeling of heaviness in the epigastric region, sometimes aching, dull pains, nausea after eating, belching rotten, appetite reduced, tendency to diarrhea (urges to "bottom" immediately after eating) without pain, flatulence.
2. Radiologically - compacted folds of the gastric mucosa.
3. EFGDS - signs of chronic gastritis, atrophy of the fundus glands of an early degree.
4. Laboratory - reduced amount of hydrochloric acid and pepsin. PH-metrics even in response to maximum stimulation with histamine, up to achlorhydria (absence of hydrochloric acid) and achilia (absence of hydrochloric acid and pepsin).
5. Blood - possible anemia of B-12 folate deficiency.
6. Feces decorated or mushy, dark brown, a lot of undigested muscle fibers, undigested fiber, a little starch.

5. Syndrome of gastric evacuation

REASONS: peptic ulcer of the duodenum, complicated by pyloric stenosis, tumor of the pyloric stomach and head of the pancreas.
SYMPTOMS:
1. Constant or paroxysmal pains (pylorospasms) in the epigastric region, aggravated by evening and at the height of digestion, sour belching, with the smell of "rotten eggs", profuse vomiting with the remnants of food eaten "the day before" and not bringing relief, constipation, alternating diarrhea.
2. With decompensated stenosis, the patient is depleted, sometimes peristalsis and antiperistalsis of the stomach are visible in the epigastrium. With severe stenosis, there is a large curvature of the stomach below the navel; late splashing noise is often determined - a positive symptom of Vasilenko.
3. Radiological - the evacuation of the contrast mass from the stomach to the duodenum is slow, but quickly occurs after exposure to atropine, (compensated stenosis), does not change after pharmacological treatment with decompensated stenosis, gastric tetany syndrome (chlorohydropenic) develops.
4. EFGDS - narrowing of the output section of the stomach
5. An increase in the remainder of an empty stomach (more than 200 ml)



Pyloric stenosis (enlarged stomach in the pelvis)

6. Functional dyspepsia syndrome:

Functional dyspepsia is a complex of complaints, including pain and burning sensation in the epigastric region, a feeling of fullness in the epigastrium after eating and early saturation, which have been observed in the patient for the past 3 months (with their total duration of at least 6 months) and which cannot be attributed to organic diseases.

Clinical options for functional dyspepsia:

a) epigastric pain syndrome (formerly known as the ulcer-like variant);
b) postprandial distress syndrome (formerly known as the dyskinetic variant);
c) dyspepsia associated with H. pylori infection;
d) dyspepsia after suffering toxicoinfection.

The diagnosis of functional dyspepsia is a dynamic diagnosis or diagnosis of exclusion, which can only be made after a thorough laboratory and instrumental examination of the patient.

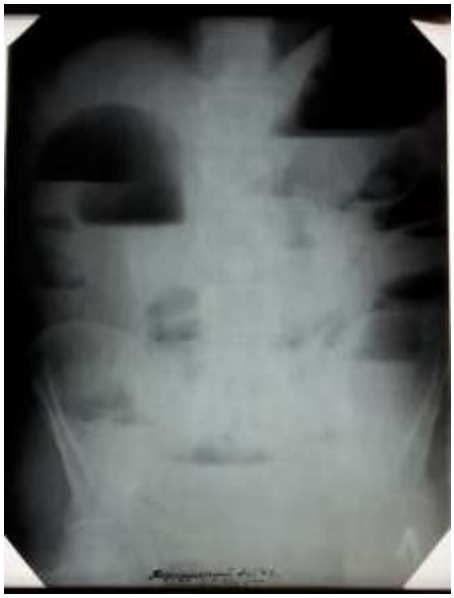
7. Bleeding syndrome from the upper gastrointestinal tract (esophageal, gastro-duodenal)
REASONS: ulcers of the stomach, duodenum, esophagus, tumors of various localization, erosive gastritis, duodenitis, varicose veins of the esophagus, ruptures of the mucous membrane of the gastroesophageal junction (Mallory-Weiss syndrome), diverticulum, and other diseases.
Distinguish between hidden and massive bleeding
SYMPTOMS of occult bleeding:
1. Persistent weakness, drowsiness, dizziness
2. "Causeless" anemia that does not require emergency care
SYMPTOMS of massive bleeding:
1. Symptoms of acute vascular insufficiency - fainting, tinnitus, dizziness, weakness, pallor of the skin and mucous membranes, cold sweat, tachycardia, filamentous pulse, drop in blood pressure, shortness of breath (manifestations of posthemorrhagic anemia).
2. Vomiting with blood (esophageal or heavy stomach bleeding), "coffee grounds" (with stomach bleeding).
3. Melena - liquid, mushy, unformed, black tarry stool (with blood loss of more than 80-100 ml).
4. Perhaps the development of hemorrhagic shock (with the loss of more than 1500 ml of blood).
5. The disappearance or reduction of pain in the epigastrium during bleeding with gastric ulcer or duodenal ulcer.
1. A positive reaction of Gregersen (feces for occult blood).
2. General blood test: a gradual decrease in the level of Er., HB, Htc.
3. Endoscopic confirmation of bleeding.

8. Bleeding syndrome from the lower gastrointestinal tract
REASONS: hemorrhoids, anal fissures, diverticula, polyps, intestinal tumors, inflammatory bowel diseases, ulcerative colitis, ischemic bowel lesions, helminth infections.
SYMPTOMS:
1. Common symptoms of posthemorrhagic anemia
2. Changes in feces:
Scarlet Blood - Rectum
Scarlet blood veins - sigmoid colon
Dark red blood evenly mixed with feces - proximal colon
Melena is a small intestine.
3. Complete blood count: a gradual decrease in the level of Er., HB, Htc.
4. Endoscopic confirmation of bleeding.

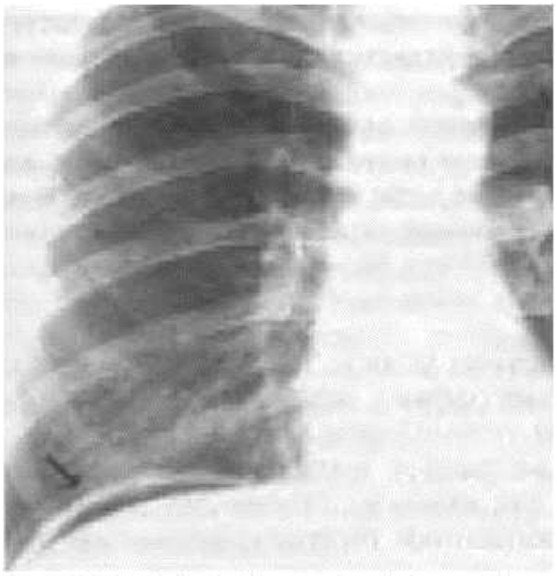
9. The syndrome of "acute abdomen"
A collective term that clinically describes a catastrophe in the abdominal cavity with the subsequent development of peritonitis.

REASONS: appendicitis, cholecystitis, pancreatitis, perforated gastric and duodenal ulcers, bowel obstruction, ischemic necrosis of the intestine.
1. Complaints: abdominal pain: dagger with perforated ulcer, dull constant with inflammation, cramping with obstruction; nausea and vomiting that does not relieve the condition; bloating and lack of feces, non-passage of gases with peritonitis and bowel obstruction;
2. Examination: dry tongue, flat stomach, indifferent in the act of breathing, forced position on the back with legs raised to the stomach, flatulence with peristalsis waves in case of obstruction;

3. Palpation: muscle tension of the abdominal wall over the lesion, a positive symptom of Shchetkin-Blumberg over the site of inflammation, swollen bowel loops with obstruction - flatulence;
4. Percussion: local pain over the affected organ during tingling, cystic symptoms with cholecystitis, disappearance of hepatic dullness after perforation of the ulcer (Jaubert symptom - tympanitis over the liver area. This is due to the accumulation of gas (exiting the stomach) under the right dome of the diaphragm during perforation of the stomach ulcer and Duodenum, which is confirmed by fluoroscopy and radiography of the abdominal cavity);
5. Auscultation: the number of intestinal noises is reduced or there is none with peritonitis, the number of noises with obstruction is increased;
6. Laparoscopy confirms the diagnosis;
7. X-ray: a panoramic picture of the abdomen - air (gas) above the liver (perforated stomach ulcer or duodenum), Kloiber's cup with bowel obstruction;
8. Ultrasound: pathology of the biliary tract, pathology of the pancreas, inflammatory changes in the appendix;
9. Blood: leukocytosis with a shift to the left, anemia, high levels of amylase with pancreatitis.



Kloiber bowls



Air below the diaphragm (perforation)

10. Dyspeptic syndrome (indigestion)

REASONS: gastritis, gastric and duodenal ulcer, cholecystitis, biliary dyskinesia, gallstone disease, pancreatitis, hepatitis, cirrhosis of the liver, colitis, enteritis, tumors of the gastrointestinal tract, pancreas, dysbacteriosis, etc. It arises as a result of a violation of gastric and intestinal digestion, a disorder of the motor-evacuation function of the gastrointestinal tract, dysbiosis, etc.

SIGNS:

1. impaired appetite;

2. Bad taste in the mouth;

3. Belching - throwing the contents of the stomach into the oral cavity (which is associated with insufficiency of the sphincter of the cardia). When the gaseous contents of the stomach get in, they speak of “belching with air”, if it contains food particles - “belching with food”, and with the formation of organic acids as a result of fermentation - “belching with rancid oil”.

4. Heartburn - severe burning behind the sternum, which is associated with the ingestion of the contents of the stomach into the esophagus as a result of insufficiency of the cardiac sphincter;

5. Nausea - occurs more often with diseases with reduced secretory function of the stomach, and is also associated with the intake of certain foods (fats);

6. Vomiting - associated with increased tone of the vagus nerve, which is accompanied by severe secretory and motor disorders of the gastrointestinal tract. Its nature, the content of vomit and its quantity are of diagnostic value;

7. Constipation occurs as a result of reflex dyskinesia of the intestine, due to an increase in the tone of the vagus nerve, nutritional features, restriction of motor activity, medications, hypersecretion;

8. Diarrhea - is the result of a decrease in the acid-forming function of the stomach, pancreatic disease, a consequence of secondary vitamin deficiency, motor, inflammatory and functional intestinal diseases.

9. Flatulence - increased flatulence in the intestines.

Dyspepsia, depending on the prevalence of dysfunction of a particular digestive organ, is schematically divided into clinical forms - gastric, intestinal, pancreatic and liver.

Gastric dyspepsia.

Symptom complex, including symptoms: a feeling of fullness, heaviness in the epigastrium, belching, heartburn, nausea, vomiting. Possible mechanisms: secretory insufficiency [function, impaired motility of the upper gastrointestinal tract.

Intestinal dyspepsia:

maldigestion - a violation of digestion in the small intestine;

malabsorption - malabsorption.

The symptom complex including symptoms: flatulence, rumbling and abdominal pain, constipation, diarrhea (see. Fermentative dyspepsia, putrefied dyspepsia). It is a sign of inflammation of the intestinal wall, impaired intestinal motility, insufficiency of a number of enzymes: enterokinase, sucrase, phosphatase, etc. It occurs in diseases of the intestine.

Fermentative dyspepsia (in violation of the digestion of carbohydrates).

Symptom complex, including symptoms: severe flatulence, cramping pains, diarrhea, worsening after a meal rich in carbohydrates, characteristic changes in the coprogram. A type of intestinal dyspepsia. It is observed with prolonged adherence to a carbohydrate diet.

Putrid dyspepsia (in violation of protein digestion).

Symptom complex, including symptoms: moderate flatulence, persistent abdominal pain, diarrhea, alternating with constipation, worsening after eating a protein-rich meal, characteristic changes in the coprogram. A type of intestinal dyspepsia. It is observed with prolonged adherence to a protein diet.

Malabsorption syndrome

REASONS: primary (hereditary deficiency of individual digestive enzymes)
Secondary (due to dysfunction and diseases of the stomach, intestines, digestive organs, endocrine and other systems, exposure to toxic, medicinal substances)

Symptom complex that develops due to lack of absorption of many food ingredients (proteins, carbohydrates, vitamins, trace elements). Symptoms: diarrhea, weight loss, up to cachexia,

hypoproteinemic edema, creatorrhea, steatorrhea, amylorrhea, neuritis, hair loss. Syndromes: asthenic, polyhypovitaminosis, anemic.

11. Irritable bowel syndrome:

Functional disorders of the intestine, not associated with organic diseases.
Causes:
• Frequent stressful situations
• Excessive bacterial growth
• Poor nutrition
• Alcohol abuse
• Intestinal infections
Clinical options.
• Spastic-colitic option
• With a predominance of diarrhea
• With a predominance of constipation

The main clinical signs:
1 Abdominal pain - localized near the navel or lower abdomen. They have various intensities, from slightly aching to very pronounced intestinal colic. As a rule, pain decreases or disappears after defecation or exhaustion of gases. An important hallmark is the absence of pain and other symptoms at night.
2 Violation of the stool is expressed in the appearance of diarrhea or constipation. Diarrhea often occurs suddenly after eating, sometimes in the morning. Characteristic is the absence of polyfecalia (the amount of feces is less than 200 g per day, with constipation it resembles sheep). Feces often contain mucus. Many patients have a feeling of incomplete bowel movement after defecation.
3. Flatulence - one of the characteristic signs, usually intensifies in the evening. As a rule, bloating increases before defecation and decreases after it. Quite often, flatulence is local in nature.
Laboratory and instrumental studies:
- Coprogram: a large number of mucus or mucous membranes and tapes in which eosinophils are sometimes found under microscopy.
- Endoscopic - no changes are detected.
- An X-ray examination may reveal signs of dyskinesia asymmetric and uneven contractions of the colon, the alternation of spastically reduced and enlarged sections of the intestine.

2. Pain abdominal syndrome:

The following types of abdominal pain are distinguished:
• spastic;
• due to flatulence;
• mesenteric;
• due to ganglionitis;
• rectal colic;
• mixed character.

Intestinal colic - due to spasm or distension of the small or large intestine, are paroxysmal in nature, and localized over the site of spasm.

Pain due to flatulence - usually of a constant nature, is associated with bloating of the intestine with gases, and decreases after exhaustion of gases and bowel movements.

Mesenteric pain is caused by the development of non-specific mesadenitis. These pains are permanent, not associated with food, do not stop with anticholinergics, antispasmodics, do not disappear after defecation and exhaustion of gases. The pains are located along the mesentery of the small intestine.

Pain due to ganglionitis. In chronic enteritis, the involvement of the ganglia of the autonomic nervous system in the pathological process is possible. In this case, the pains have a peculiar burning character, they are constant, do not decrease after defecation and gas discharge, as well as after the use of antispasmodics.

Rectal colic, or the so-called tenesmus - they are manifested by frequent and painful urges to defecate with a feeling of convulsive contraction of the intestine and sphincter. Defecation does not occur, sometimes lumps of mucus (rectal spitting) are secreted.

Mixed pains are caused by a combination of causes that cause abdominal pain. Most often, this is a combination of spastic pain and pain caused by flatulence.

13. Asthenoneurotic syndrome:

With a prolonged course of chronic colitis, asthenoneurotic syndrome develops. Patients complain of weakness, fatigue, headache, decreased performance, irritability, excessive sweating, and poor sleep.

4.2 SYNDROMES FOR DISEASES OF THE LIVER AND BILITARY WAYS

1. Biliary colic syndrome

REASONS: cholelithiasis, biliary dyskinesia.

SYMPTOMS:

• Paroxysmal pain in the right hypochondrium - severe, colicky for a few minutes to 2-6 hours, often radiating to the right hypochondrium, to the right shoulder blade, shoulder, lumbar region, neck. It occurs 3-4 hours after a plentiful meal (fried, fatty, spicy foods), physical influences, "shaking rides", etc.

• Nausea and vomiting (with duodenal contents mixed with bile), bitterness in the mouth.

• The patient is very anxious: rushing about in bed, looking for a comfortable position, not finding him; fever is possible.

• Enlarged, painful gall bladder. Skin hypersthesia and pain symptoms of the projection point of the gallbladder, epigastric region, phrenicus - symptom, etc. The abdomen is soft, with peritoneal irritation - tension of the anterior abdominal wall in the right hypochondrium. There may be signs of subhepatic jaundice.

"Bubble" symptoms reveal the interest of the gallbladder in the pathological process. The gallbladder point (Kera point) corresponds to the projection of such on the surface of the abdomen, located at the intersection of the outer edge of the right rectus abdominis muscle with the right costal arch.

• Mackenzie symptom - hypersensitivity of the skin in the right hypochondrium;

• Zakharyin's symptom; pain when pressed or beaten at the point of the gallbladder;

• symptom of Musse-Georgievsky (soreness between the legs of the right m. Sternocleidomastoideus) - a right-sided phrenicus-symptom;

• Obraztsova-Murphy symptom - pain at the height of inspiration during palpation of the gallbladder zone - “the breath is interrupted by pain”. It is carried out in a prone position and sitting. In this case, a grimace of pain may appear on the patient's face;

• Kera symptom - pain in the right hypochondrium in the gallbladder area on inspiration;

• Vasilenko’s symptom - the occurrence of pain when applying abrupt strokes with the fingertips on the inspiration below the right costal arch;

• Ortner-Grekov symptom - the appearance of pain when the right rib arch is striking with the edge of the palm of the hand (the pain appears due to shaking of the inflamed gall bladder);

• Zakharyin-Ged skin hypertension zones - extensive zones of severe soreness and hypersensitivity at the lower angle of the right scapula and in the region of 9-11 intercostal spaces.

2. Subhepatic jaundice (mechanical)

REASONS: obstruction of the hepatic and common bile duct from the inside (stones, tumor, parasites), tumors of the large duodenal nipple, pancreas, gall bladder, cyst and chronic inflammation of the pancreas, lymphogranulomatosis, postoperative narrowing of the common bile duct, atresia of the bile duct.

SYMPTOMS:

1. The pain in the right hypochondrium is often colicky, itchy, intense jaundice, neurosthenic complaints - general weakness, fatigue, irritability, headache, insomnia, sometimes progressive worsening and intense jaundice with a greenish skin tone.

2. The liver is painless, enlarged, significantly densified, the gall bladder is sometimes enlarged (cm Courvoisier-Terrier), often pain at the point of its projection. Bradycardia The spleen is not enlarged.

3. Urine - dark, with bright yellow foam, bilirubinuria, lack of urobilin.

4. Feces discolored (acholic) - grayish-white, clay, no stercobilin.

5. Blood - hyperbilirubinemia, mainly associated (direct) bilirubin. An increase in the activity of alkaline phosphatase (ALP), gamma-glutamyltranspeptidase (GGT), an increase in the content of bile acids, copper, cholesterol, and transaminases are usually negative for 4-8 weeks.

6. X-ray or ultrasound examination - signs of gallstone disease, cancer of the head of the pancreas, cancer of the Vater's nipple.

Symptom of Courvoisier-Terrier - a large and painless gall bladder is palpated, which is due to the complete closure of the common bile duct (usually tumor origin) and the accumulation of bile in the bladder.

3. Hepatic jaundice (parenchymal)

REASONS: acute and chronic hepatitis, infectious mononucleosis, drug and alcoholic liver lesions, cirrhosis, hepatocellular cancer.

SYMPTOMS:

1. Dull pain in the right hypochondrium, jaundice, unstable skin itching, general weakness. The skin is saffron yellow with a reddish tint, the liver is enlarged, tightened, often slightly painful, sometimes normal or reduced. Bradycardia

2. Blood - hyperbilirubinemia, often due to both direct and indirect fractions of bilirubin, a decrease in prothrombin, an increase in the activity of transaminases (ALT, AST).

3. Urine - dark, beer-colored, bilirubinuria, urobilinuria

4. Feces - not changed or moderately discolored, the release of stercobilin is reduced.

5. Instrumental techniques confirm liver damage.

4. Suprahepatic jaundice (hemolytic)

REASONS: congenital or acquired independent diseases (microspherocytic hereditary anemia, neonatal erythroblastosis, acute post-transfusion anemia), or a symptom of a number of diseases (croupous pneumonia, subacute septic endocarditis, Addison-Birmer disease, malaria, lung infarction, malignant tumors, some, or a consequence of toxic and drug damage (arsenic, hydrogen sulfide, phosphorus, sulfonamides).

SYMPTOMS:

1. General weakness, decreased appetite.

2. Jaundice without itching with a lemon-yellow tint and pallor of the skin.

3. The liver is slightly enlarged, painless.

4. The spleen is enlarged.

5. In the blood, moderate hyperbilirubinemia, mainly due to free (indirect) bilirubin. Signs of hemolytic anemia. Coombs test is positive.

6. The indicators ALT, AST are not changed.

7. In the urine there is no bilirubin, but there is an increased amount of urobilin.

8. The feces are dark, the content of stercobilin is increased.

6. Cholestatic syndrome

- stagnation and violation of the secretion of bile into the duodenum with the accumulation of its components in the liver and blood.

Allocate intrahepatic and extrahepatic cholestasis.

CAUSES of extrahepatic cholestasis:

1. Stones of the main extrahepatic and main intrahepatic ducts;
2. Damage to the head of the pancreas (tumor, pancreatitis, cyst, abscess);
3. Stenosis and tumor of the large duodenal papilla;
4. Inflammation, tumors and strictures of the extrahepatic bile ducts;
5. Parasitic infections (opisthorchiasis, fascioliasis, ascariasis, clonorchosis, echinococcosis);
6. Enlarged lymph nodes in the gates of the liver;
7. Tumor and duodenal diverticulum.

REASONS for intrahepatic cholestasis:

1. acute and chronic hepatitis;
2. Cirrhosis of the liver (especially primary biliary cirrhosis);
3. Liver tumors, sarcoidosis, tuberculosis, lymphogranulomatosis, cholangitis, pregnant cholestasis, drug cholestasis.

SYMPTOMS:

1. Itching, pigmentation and scratching of the skin;
2. Jaundice, enlarged liver;
3. Xanthomas, xanthelasms;
4. With prolonged cholestasis - there may be visual disturbances in the dark, bleeding, bone pain (due to malabsorption of fat-soluble vitamins A, E, D, K);
5. An increase in serum bilirubin (mainly associated), the activity of alkaline phosphatase, gamma-glutamine transferase, leucine aminopeptidase, the level of bile acids, cholesterol and its fractions, copper;
6. A sharp decrease or disappearance of urobilin in the urine.

7. Hepatolienal syndrome

REASONS: acute and chronic hepatitis and cirrhosis, acute and chronic leukemia, sepsis, collagenoses, pathology of the liver vessels, infectious diseases (malaria, leptospirosis).

SYMPTOMS:

1. Clinical and instrumental signs of hepatosplenomegaly.
2. The detection of enlarged liver and spleen allows you to clinically differentiate the diseases associated with this syndrome. Often, it is accompanied by hypersplenism syndromes and liver damage.

8. Hypersplenism syndrome

Hypersplenism is an increase in spleen function.

REASONS: diseases that occur with portal hypertension, hepatitis and cirrhosis of the liver, accumulation diseases, granulomatosis with enlarged spleen (sarcoidosis, lymphogranulomatosis), diffuse connective tissue diseases, parasitic lesions of the spleen.

SIGNS:

1. anemia;
2. leukopenia;
3. thrombocytopenia.

9. Portal hypertension

This is an increase in pressure in the portal vein pool, associated with the presence of an obstruction to the outflow of blood.

REASONS of portal hypertension:

I - prehepatic (subhepatic) portal hypertension:

1. Thrombosis or occlusion of the portal vein by a tumor or lymph nodes.

2. Increased portal venous blood flow: arteriovenous fistula, splenomegaly, not associated with liver disease, portal vein cavernomatosis;

II Intrahepatic portal hypertension:

1. Cirrhosis of the liver, cirrhosis, less commonly veno-occlusive disease, sarcoidosis, schistosis

III Posthepatic (suprahepatic) portal hypertension:

1. Hepatic vein thrombosis (Budd-Chiari syndrome), membranous obstruction of the inferior vena cava, constrictive pericarditis, liver fibrosis in congestive heart failure, tumor compression of the inferior vena cava and hepatic veins;

SYMPTOMS:

Supporting symptoms:

- ascites
- Varicose veins in the system of portocaval anastomoses (cardial sections of the esophagus and stomach, superficial veins of the abdomen, hemorrhoidal veins)
- Esophageal, hemorrhoidal bleeding
- Increased pressure in the portal vein and its expansion (instrumental signs)

1. Complaints. Decreased appetite, nausea, flatulence, signs of dyspepsia, decreased diuresis. Flatulence often precedes the appearance of ascites. Sometimes, bloody vomiting, stool with blood.

2. Objectively: clinical signs of ascites (enlarged swollen abdomen, navel protrusion, expansion of the saphenous veins of the abdominal wall - the “jellyfish head”, frog stomach, positive symptom of fluctuations, dull percussion sound) often emaciation to cachexia, peripheral edema (edematous ascites may occur) syndrome due to hypo- and dysproteinemia, secondary hyperaldosteronemia).

3. Sometimes (with the development of collaterals through the umbilical veins), venous noise occurs on the anterior abdominal wall. Noise is especially pronounced in the umbilical region with cirrhosis of the liver in combination with non-closure of the umbilical vein (Crewellier-Baumgarten syndrome).

4. Blood: dysproteinemia (less often a decrease in the total amount of protein), a decrease in albumin, sometimes positive sedimentary reactions.

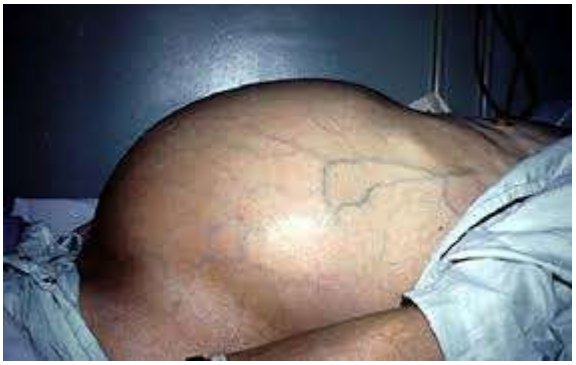
5. Urine - often oliguria.

6. EFGDS - determined by varicose veins of the lower esophagus and the entrance of the stomach, rectum.

7. Ultrasound - detected fluid in the abdominal cavity, increased venous pressure in the portal vein and its expansion.

Ascites fluid:

	Transudate	Exudate
Specific gravity	lower 1015	above 1018
Protein	lower 30,0 г/л	above 30,0 г/л
Rivalta Test	-	+



Ascites, expansion of superficial veins of the abdomen (head of Medusa).

10. Hepatic failure syndrome

This is a pathological condition accompanied by a violation of the basic functions of the liver (absorption-excretory, metabolic and synthetic).

CAUSES:

1. acute diseases and lesions of the liver (acute hepatitis, leptospirosis, alcoholic, toxic and drug hepatitis.
2. chronic liver disease (chronic hepatitis and cirrhosis of the liver, hemochromatosis, Wilson-Konovalov's disease, etc.)
3. malignant tumors of the liver.

Allocate:

a) small liver failure or hepatosuppressive syndrome (hepatodepression), in which various violations of the liver function develop, but without the development of encephalopathy.

b) large liver failure (hepatathy, hepatic encephalopathy, hepatocerebral syndrome) - severe liver failure, which is accompanied by hepatic encephalopathy with the subsequent development of coma.

Signs of hepatic encephalopathy:

1. Decreased intelligence, slowing thinking, excitability and euphoria, which are replaced by depression, drowsiness, auditory and visual hallucinations, memory lapses.
2. Sometimes tonic cramps, twitching of various muscle groups, a symptom of "clapping tremor".
3. Tendon and pupillary reflexes are reduced, pathological neurological reflexes appear (Babinsky, Gordon, Rossolimo, etc.).
4. General weakness, lack of appetite, weight loss.
5. Hepatic breath.
6. Jaundice intensifies, the size of the liver decreases (especially in acute liver pathology).
7. The phenomena of hemorrhagic diathesis are growing.
8. Ascites, swelling.
9. The body temperature is increased (in the terminal stage - reduced).
10. Increased serum ammonia levels.
11. A hepatic coma develops.

Signs:

1. consciousness is completely lost, do not respond to light;
2. Kussmaul breathing, subsequently - Cheyne-Stokes, Biota;
3. the stiff neck muscles and limb muscles;
4. pathological reflexes of Babinsky, Gordon, Zhukovsky, in some cases grasping and proboscis;
5. Blood pressure is reduced, tachycardia, deafness of heart sounds;

6. Jaundice is pronounced, the size of the liver is reduced;
7. Anuria;
8. Hemorrhagic syndrome is expressed (skin hemorrhages, nose, stomach, intestinal, uterine bleeding);
9. In the blood: leukocytosis, azotemia, bilirubinemia, lower potassium, cholesterol, lower previously increased activity of ALT, AST, LDH, cholinesterase;
10. Lowered body temperature;
11. ECG - hypersynchronous delta waves dominate.

12. Cytolysis syndrome (cytolytic syndrome)

Nonspecific reaction of liver cells to the action of damaging factors (destruction of liver cells). It is based on a change in the permeability of cell membranes and their organs. This leads to the release of the constituent parts of the cells into the intercellular space and into the blood - and the entry of sodium and water into the cell.

REASONS: acute and chronic hepatitis and cirrhosis of various origins, swollen and tumor metastases in the liver, shock of any nature, starvation.

SYMPTOMS:

1. Biochemical parameters: increased activity of ALT, AST, aldolase, iron, bilirubin in blood serum, decreased blood coagulation factors, albumin, cholinesterase activity;
2. Signs of hepatic cell failure;
3. Asthenovegetative syndrome;
4. Dyspeptic syndrome;
5. Hepatic jaundice syndrome;
6. Syndrome of endocrine disorders: gynecomastia, decreased libido, testicular atrophy, impaired hair growth;
7. Skin disorders;
8. Neuropsychic manifestations;
9. Hemorrhagic diathesis.

13. Mesenchymal inflammatory syndrome

Mesenchymal inflammatory syndrome is a consequence of sensitization of immunocompetent cells and activation of the reticuloendotemial system in response to antigenic stimulation, is a complex biological response of an adaptive nature, aimed at eliminating the corresponding pathogenic effects.

REASONS: acute and active chronic liver diseases, connective tissue diseases, sepsis.

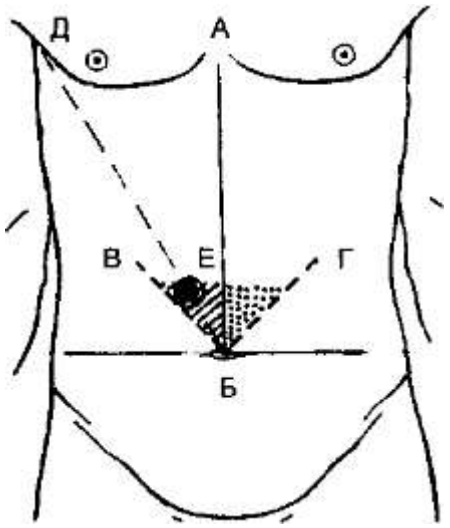
SYMPTOMS:

1. Pain in the upper abdomen, right hypochondrium;
2. An increase in the liver, jaundice;
3. Splenomegaly;
4. fever;
5. Leukocytosis (or leukopenia), eosinophilia, accelerated ESR;
6. Increase in the level of □2 - and gamma globulins in blood serum;
7. Change in protein-sedimentary samples (thymol, sublimate, etc.);
8. Increased levels of IgG, IgM, IgA, the appearance of nonspecific antibodies to DNA, mitochondria, smooth muscle fibers;
9. Polyarthralgia, vasculitis of the skin, kidneys, lungs.

4.3 SYNDROMES IN PREVENTION OF THE Pancreas

1. Pancreatic pain syndrome

CAUSES:
1. sprain of the pancreatic capsule
2. increased pressure in the ducts (obstruction and stenosis)
3. irritation of the parietal sheet of the peritoneum covering the pancreas.
SYMPTOMS:
1. Pain in the epigastric region, radiating to the left hypochondrium, to the back, to the interscapular space, to the left shoulder blade, less often to the right hypochondrium / as with biliary colic /:
- constant without rhythm, without typical dependencies
- accompanied by nausea and vomiting in acute pancreatitis / necrosis /:
- often accompanied by collapse, can cause shock, lasts continuously for several days with chronic pancreatitis:
- moderate pain for several hours with pancreatic cancer:
- constant, progressive, forcing the patient to take a relieving position with an inclined anteriorly with cancer of the head of the pancreas:
- Often subhepatic jaundice syndrome.
On palpation of the abdomen, the following painful zones and points are determined:
• Shoffar zone - the area of projection of the head of the pancreas.
• Hubergrits-Skulsky zone - similar to the Shoffar zone, but located on the left. Soreness in this zone is characteristic for the localization of inflammation in the body area of the pancreas;
• Desjardins point - located 5-6 cm above the navel along the line connecting the navel to the right armpit.
Soreness at this point is characteristic for the localization of inflammation in the head of the pancreas;
• Hubergritsa (Kacha) point - similar to Desjardins point, but located on the left. Soreness at this point is observed with inflammation of the tail of the pancreas;
• Mayo-Robson point - located on the border of the outer and middle third of the line connecting the navel and the middle of the left costal arch. Soreness at this point is characteristic for inflammation of the tail of the pancreas;
• region of the rib-vertebral angle on the left - with inflammation of the body and tail of the pancreas.
• left-side phrenicus symptom - pain when pressed between the legs of the sternocleidomastoid muscle at the attachment to the medial edge of the clavicle**.**



1. The insufficiency of exocrine pancreatic function

CAUSES:
1. Acute and chronic pancreatitis.
2. Tumors of the pancreas.
2. Cystic fibrosis.
SYMPTOMS:
1. Fatty, fetid diarrhea. Oily stool with a yellowish, shiny hue, "poorly washed away, bloating, rumbling, intestinal colic. Progressive weight loss (untreated patients).
2. Laboratory data - a large amount of light putrefactive feces with a high content of fat (steatorrhea) and undigested intestinal fibers (creatorrhea), starch (amylorrhea).
3. Decrease in the level of pancreatic enzymes in the duodenal contents.

4. Syndrome of pancreatic incretory function.

It develops due to the endocrine function of the pancreas.
REASONS: diseases of the pancreas, tumor, autoimmune processes leading to dysfunction of tissues and cells producing hormonal substances.
In the islets of Langerhans (mainly in the tail) there are several types of cells producing hormones: alpha cells - glucagon; betta cells - insulin; Sigma cells - somatostatin. In addition, cells producing substances that affect the functioning of the gastrointestinal tract: vasoactive intestinal peptide, gastrointestinal peptide, gastrin, etc.
SYMPTOMS are caused by a violation of the production of certain hormones.

Most often, a violation of carbohydrate metabolism, up to the development of diabetes.

5. The syndrome of gastric pancreatic dyspepsia:

Combined (pathogenetically related) with pancreatic exocrine insufficiency syndrome. It is quite characteristic for CP, especially often expressed with exacerbation or severe course of the disease. Dyspeptic syndrome is manifested by increased salivation, belching of air or eaten food, nausea, vomiting, loss of appetite, aversion to fatty foods, bloating. Patients often experience nausea. It can be constant and painful, can be associated with the intake or nature of food. Fearing nausea, patients significantly reduce food intake or even refuse to eat. Along with nausea, some patients experience vomiting, which usually does not bring relief.

In the acute phase, patients complain of decreased appetite. A significant decrease in appetite, up to an aversion to food, is noted in severe cases of the disease.

Some symptoms of pancreatic damage:

• Nidner's symptom - with palpation with the whole palm, pulsation of the aorta in the left hypochondrium is well defined due to the pressure on it of the pancreas.

• Voskresensky symptom - lack of pulsation of the abdominal aorta. This simit is unfavorable, as it indicates a significant increase in the pancreas, which "covers" the aorta.

In many patients, a positive sign of the Grotto is determined - atrophy of the pancreas fatty tissue in the area of the projection of the pancreas on the anterior abdominal wall.

There may be a symptom of “red droplets” (Tuzhilin's symptom) - the presence of red spots on the skin of the abdomen, chest, back, as well as a brownish coloration of the skin over the pancreas.

• Fitz symptom - “bulging” of the epigastrium due to duodenostenosis.

• Edelmann syndrome - cachexia, follicular hyperkeratosis, thinning of the skin, its diffuse grayish pigmentation, paralysis of the eye muscles, vestibular disorders, polyneuritis, mental changes.

• Barthelheimer's syndrome - pigmentation of the skin over the pancreas.

4.4. TEST TASKS
(Choose one or more correct answers)

1. Mendel’s symptom is most characteristic of

1) inflammation (irritation) of the peritoneum

2) perivisceritis of the stomach with gastric ulcer

3) acute inflammation of the gallbladder

2. Identification of pain around the navel indicates a lesion

1) small intestine

2) rectum

3) sigmoid colon

4) transverse colon

3. How abdominal auscultation data will change with enteritis

1) normal intestinal motility

2) sharply enhanced (violent) intestinal motility

3) weakening of intestinal motility

4) lack of intestinal motility

5) vascular murmur

4. The syndrome of endocrine dysfunction is characterized by the presence of

1) impaired carbohydrate tolerance

2) diabetes

3) pancreatitis

5. In typical cases, soreness in the Shoffar zone indicates

1) damage to the body of the stomach

2) damage to the pyloric part of the stomach

3) damage to the duodenum

4) damage to the duodenum and / or pyloric part of the stomach

5) damage to the pyloric part of the stomach, duodenum and / or pancreas head

6. Pancreatic dyspepsia is characterized

1) nausea

2) vomiting brings relief

3) vomiting that does not bring relief

4) flatulence

7. What is characteristic of the Courvoisier-Terrier symptom?

1) an enlarged, painless, flexible and mobile gall bladder in a patient with obstructive jaundice

2) enlarged, painless, elastic gall bladder, no jaundice

3) obstructive jaundice, the gall bladder is not enlarged, palpation is painful

4) parenchymal jaundice, the gall bladder is not enlarged, palpation is painful

8. A positive symptom of Obraztsov-Murphy occurs with:

1) pancreatitis

2) gastritis

3) cholecystitis

4) hepatitis

9. The indicators of cytolytic syndrome in liver diseases include an increase in the level of:

1) AsAT, AlAT

2) LDH, KFK

3) alkaline phosphatase, GGTP

10. For hepatocellular jaundice the most characteristic:

1) increasing the level of indirect bilirubin only

2) an increase in the level of direct bilirubin only

3) an increase in both fractions of bilirubin

4.5. Situational tasks for the section "Gastroenterology"

Task 1

Patient M., 29 years old. She got sick acutely, a week ago. Concerning: cramping pains in the lower left abdomen, decreasing after bowel movement, tenesmus. Stool up to 10 times a day with the release of a small amount of feces of liquid or gruel-like consistency mixed with mucus and blood. Notes weight loss, fever.
Objectively: the condition is satisfactory. Temperature - 37.6 ° C. Skin turgor reduced. Pulse - 100 beats per minute. HELL - 90 and 50 mm RT. Art. The abdomen on palpation is soft, there is pain and spastic contractions mainly of the left parts of the colon.
Coprological examination: feces: unformed, liquid, dark brown, a large amount of mucus, a positive reaction to blood, stercobilin - positive, muscle fibers that retained striation - +, lost striation - +, connective tissue - st., Neutral fat - exc., Fatty acids - exc., Soap - +, fiber digestible - +++, fiber non-digestible - +, starch intracellular - ++, extracellular - +, iodophilic flora - ++, white blood cells - 15-20 in n / a sp, red blood cells - 10-15 in s / sp, in the mucus of a cylindrical epithet tions.

1. What syndromes can be distinguished in a patient?
2. What additional laboratory and instrumental studies should be carried out to clarify the etiology of the disease?

Task 2

The local doctor of the clinic is called to a 32-year-old patient who complains of the appearance of a liquid, watery, plentiful stool, greenish-yellow in color up to 5-6 times a day; noisy rumbling and a feeling of “transfusion” in the abdomen, followed by loosening of the stool; unpleasant sensations, a feeling of pressure and unsharp, pulling pains around the navel, not associated with eating.
Sick for 3 days. There was nausea, there was vomiting several times, after 3-4 hours the temperature rose to 37.5 ° C. Soon there was rumbling in the abdomen, loose stools, and general weakness began to build up.
Objectively: a state of moderate severity. Temperature 37.3 ° C. The patient is dynamic. The skin is pale, dry. The abdomen is moderately swollen, participates in the act of breathing. A loud rumbling is heard in the distance. With percussion over the entire surface of the abdomen, a tympanic sound. On palpation: the abdomen is slightly tense, moderately painful in all departments, especially in the umbilical region. Symptom Shchetkina-Blumberg negative.
Analysis of feces: feces unformed, liquid, yellow, slightly alkaline reaction (pH = 7.5), reaction to blood with benzidine - posit, stekobilin - posz, muscle fibers that retained striation - ++, lost striation - +, soaps - +++, fat detritus, intracellular starch - +, extracellular - ++, digestible fiber - +, indigestible - +++, white blood cells - 10-15 in n / a (changed), red blood cells - 5-6 in n / sp

1. What syndromes can be distinguished in a patient?

Task 3

Patient M., 50 years old, called an ambulance doctor at home. At night, after eating fatty foods on the eve, painful cramping pains suddenly appeared in the right hypochondrium, radiating to the right shoulder blade, right shoulder; there was nausea, vomiting repeatedly with an admixture of bile, which did not bring pain relief. Similar attacks began to occur in the patient over the past 2 years, as a rule, after errors in the diet, stopped by the use of antispasmodics.
On examination: a patient with increased nutrition. Groans and rushes about in bed. With superficial palpation of the abdomen in the area of the projection of the gallbladder.

1. What syndrome can be distinguished in a patient based on the data obtained?
2. What instrumental studies should be carried out to confirm the diagnosis?

Task 4

Patient L., 48 years old, came to the clinic with complaints of cutting pains in the right hypochondrium, radiating to the right shoulder, under the right shoulder blade. Concerned about nausea and repeated vomiting of bile, chills, sweating, fever up to 38.3 ° C. On the eve of the patient ate fried pork.
On examination: moderate condition. Pulse 120 in min. With superficial palpation, painlessness and muscle tension in the gallbladder are noted. The positive symptoms of Murphy, Ortner, Zakharyin, Vasilenko and Shchetkin-Blumberg in this area are determined.
Blood test: leukocytosis (16x109), ESR - 45 mm / hour

1. What syndromes can be distinguished in a patient based on the data obtained?
2. What disease should I think about?
3. What clinical syndromes can be distinguished?

Task 5

Patient A., 40 years old, complains of a feeling of fullness in the epigastrium after eating a small amount of food, belching with the smell of rotten eggs, nausea after eating, sometimes vomiting food eaten the day before.
From the anamnesis: considers himself ill for 12 years, when "hungry" epigastric pains began to bother, decreasing after eating or artificially induced vomiting and intensifying at night. It was mainly treated on an outpatient basis with antacid drugs. Exacerbations almost annually (mainly in spring). During remission, no complaints. Last year, the nature of the disease has changed: gradually growing sensations of heaviness and overflow in the epigastrium after eating and belching with a "rotten egg" appeared. The patient began to lose weight.
On examination: the patient is pale. The subcutaneous fat layer is poorly developed. The tongue is covered with a thick white coating. The Traube space is not defined. On palpation in the epigastrium, slight pain is noted, the symptom of Vasilenko (late splashing noise to the right of the midline) is positive.

1. What syndromes can be distinguished in a patient based on available data?
2. What disease and its complication is most likely in this patient?

Task 6

Within 2 weeks, patient S., 36 years old, underwent an outpatient treatment with a diagnosis of exacerbation of chronic gastritis. Worried about epigastric pain that occurs 1.5-2 hours after eating, night pain, as well as constipation. When conducting pH-metry, the pH of the gastric contents is 1.4 (hyperacid state). On the 15th day, the patient had repeatedly vomited the color of "coffee grounds", there was a sharp weakness, dizziness, palpitations, the next day - loose stools of black color. The patient was immediately hospitalized in the clinic.
Upon admission to the clinic, a moderate condition. The skin and visible mucous membranes are pale, cold to the touch. Pulse - 130 beats per minute, rhythmic, weak filling and tension. HELL - 90 and 60 mm Hg The abdomen on palpation is soft, painful in the epigastrium. Symptoms of peritoneal irritation are negative.
In the blood test: red blood cells 3.9 × 1012, hemoglobin - 110 g / l, hematocrit - 25% (normal - 40-54%), color index - 0.84 ESR - 18 mm / hour.

1. What syndromes can be detected in this patient?
2. What is the disease in this patient?

Task 7

Patient B., 57 years old, was admitted to the hospital with complaints of constant dull, aching pain in the epigastric region, aggravated after eating, especially plentiful. Pain decreases after vomiting of food eaten; a feeling of rapid satiety, a feeling of heaviness and overflow in the epigastrium; nausea, lack of appetite, aversion to meat food; general weakness, decreased performance, loss of interest in the environment.
From the anamnesis: for 15 years suffers from chronic anacid gastritis. The complaints described above appeared the last 2-3 months. The patient lost 6 kg during this time.
Upon admission: satisfactory condition. Body weight is reduced. The skin is pale with an earthy tint. Skin turgor reduced. To the left in the supraclavicular region, a dense, painless lymph node (virchovsky) is palpated. When examining the abdomen, a slight bulging in the epigastric region is revealed more on the left. On palpation of the abdomen, diffuse moderate soreness and local muscle protection in the epigastrium are noted. The liver and spleen are not palpable.

When radiography of the stomach: filling defect with uneven contours along the lesser curvature, stiffness of the stomach wall along the lesser curvature with the transition to greater curvature.

1. What syndromes can be distinguished in this patient?
2. What disease can be thought of, given the combination of these syndromes?
3 What additional research is needed to clarify the diagnosis?

Task 8

Patient A., 57 years old, went to the doctor with complaints of severe skin itching, worse at night, after taking a bath, when the body comes in contact with clothing.
From the anamnesis it is known that skin itching has bothered the patient for the past 2 years. At the onset of the disease, itching occurred in the area of the palms and feet, mainly at night, had a progressive character, over the past month acquired a generalized character, became more intense.
On examination: The skin is swarthy, with traces of calculations on the legs, arms and back. The sclera and frenum of the tongue are icteric. For centuries, xanthelasma. When examining the abdomen, an enlarged liver is palpated. Its lower edge protrudes from the costal arch by 3 cm along the right midclavicular line, smooth, smooth, dense, rounded, painless to the touch. The spleen is not enlarged.
In blood tests, a 4-fold increase in alkaline phosphatase, 7-fold increase in gamma-glutamyltranspeptidase, 3-fold increase in serum cholesterol, 1,5-fold increase in total bilirubin, mainly due to the direct fraction. In the analysis of feces, the reaction to sterkobilin is positive. In the study of urine: urobilinoids are above normal, bile pigments are positive. An ultrasound revealed hepatomegaly, diffuse changes in the liver, bile duct is not expanded, intrahepatic bile ducts are not visualized.

1. What are the main (clinical and laboratory) syndromes in a patient?
2. What causes skin itching in this syndrome?

Task 9

Patient M., 52 years old, was admitted to the hospital with complaints of an increase in the volume of the abdomen, a feeling of heaviness in the right hypochondrium, loss of appetite, general weakness, weight loss (he lost 8 kg over the past six months).

From the anamnesis it is known that a patient by profession is a locksmith, lives alone, eats irregularly, has been drinking alcohol (the average dose of ethanol is 45 g) over the past 20 years six months ago, a sensation of bloating appeared, weakness, and the abdomen sharply increased in size.
On examination: a moderate state, euphoric, emotionally labile, criticism is reduced, the rhythm of sleep and wakefulness (sleepiness during the day and sleeplessness at night) is disturbed. The skin and visible mucous membranes with a jaundice, on the skin of the shoulder girdle “vascular asterisks”; palmar erythema. Body weight is reduced. Hypotrophy of the muscles of the limbs. Gynecomastia The abdomen is sharply increased in size due to flatulence and free fluid. The shortening of sound in the lateral regions, shifted by a change in body position. The liver protrudes from the edge of the costal arch by 7 cm along the right mid-clavicular line. The edge of the liver to the touch is smooth, smooth, pointed, dense, painless. The spleen is enlarged: the lower pole 5 cm protrudes from under the left costal arch, dense consistency.

1. What syndromes can be distinguished in the clinical picture of the disease?
2. For what disease are these syndromes characteristic?
3. What is the most likely etiology of the disease?

Task 10

Patient M., 55 years old, was admitted to the hospital with complaints of an increase in the size of the abdomen, dull aching pains in the right hypochondrium, worse after eating and physical exertion; sharp weakness, decreased performance and appetite; weight loss of 3 kg in the last month; nausea, a feeling of heaviness in the epigastrium, flatulence, a tendency to diarrhea, especially after eating fatty foods; subfibrillar temperature; nosebleeds.
From the anamnesis it is known that at the age of 25 he suffered from serum hepatitis, about which he was in an infectious diseases hospital. Deterioration of health notes over the past month.
On examination: moderate condition. The skin and visible mucous membranes are subicteric. On the skin of the shoulder girdle - "spider veins", there is palmar erythema; on the extremities, multiple subcutaneous hematomas. The lips are bright, shiny, the tongue is raspberry colored, "varnished". Gynecomastia Body weight is reduced. The abdomen is increased in volume due to ascites. There is a "caput Medusae" on the skin of the abdomen. The liver protrudes from under the costal arch by 3 cm along the right midclavicular line. Its edge is smooth, dense, rounded, sensitive to palpation. The spleen is enlarged, dense, painless.
Clinical blood test: erythritol - 3.1x1012, hemoglobin - 9.0 g%, color chart - 0.87, white blood cells - 3.0x109, platelets - 80x1010, ESR - 50 mm / hour.
Blood biochemistry: ALT - 85 units, AST - 45 units (normal 20-40), total bilirubin - 3.5 mg% (direct - 32.0 mg%, indirect - 1.5 mg%), cholinesterase, serum albumin and prothrombin the index is reduced, gamma globulin is increased.

1. List the main clinical and laboratory syndromes in this patient.
2. What disease can be thought of in this case?

Task 11

Patient U., 60 years old, was admitted to the hospital with complaints of moderate intensity aching pain, not associated with food, in the epigastric region and right hypochondrium; Intense jaundice weight loss of 10 kg in recent months; weakness.
FROM an anamnesis: Considers himself ill the last six months, when there were pains in the epigastrium and right hypochondrium, he began to lose weight. 2 weeks ago jaundice appeared, which gradually progressed. He drew attention to the darkening of urine, discoloration of feces.
On examination: Intense jaundice with a greenish tint of the skin, sclera ikteretic. On palpation of the abdomen, pain is absent. Positive symptom of Courvoisier-Terrier.
In a blood test: total bilirubin is increased 15 times due to the direct fraction.
Urinalysis: "beer color", bile pigments - sharply positive, urodilinoids - negative.

1. What syndromes can be distinguished on the basis of this clinical picture?
2. What is the most likely cause of the leading syndrome in this patient?

Task 12

Patient G., 45 years old, turned to the clinic with complaints of bouts of intense pain in the right hypochondrium. Attacks first appeared this year after eating, accompanied by nausea, vomiting of bile, and passed after 5-6 hours. The last attack lasted longer than usual (about a day), accompanied by the appearance of icteric staining of the skin and sclera, darkening of urine and discoloration of feces. The attack stopped 2 days before going to the clinic.
On examination: The skin is pale pink in color. Sclera is subicteric. On palpation of the abdomen, moderate pain at the point of projection of the gallbladder, positive symptoms of Ortner, Vasilenko.

1. What syndromes can be distinguished on the basis of the presented clinical picture?
2. What disease could cause the appearance of syndromes?

Task 13

Patient G., 35 years old, presents an emergency doctor with complaints of intense “dagger” pain in the epigastric region.
From the anamnesis: about 10 years periodically, more often in spring and autumn, aching pains in the epigastric region disturb. It was treated on an outpatient basis with a diagnosis of chronic gastritis with antacid drugs. The last exacerbation began a few days ago. I did not contact the doctors. Suddenly, about 2 hours ago, “dagger” pain appeared in the epigastrium. Relatives called an ambulance.
On examination: the patient is pale, lies on his back with his knees pressed to his stomach. The skin is moist, cold. The tongue is dry, coated with a white coating. Pulse - 115 rpm, weak filling and tension. Hell - 90 and 50 mmHg The abdomen is round, does not participate in the act of breathing. On palpation, the abdomen is “board-shaped” (pronounced muscle tension of the anterior abdominal wall), severe pain on palpation in the epigastrium, there is also a positive symptom of Shchetkin-Blumberg.

1. What syndrome can be distinguished in a patient?
2. What could have caused the development of this syndrome and for what disease?

Task 14

Patient B., 55 years old, was admitted to the therapeutic department complaining of progressive weight loss over the past 5 years by 15 kg, loose loose stool with leftovers of undigested food and droplets of fat 3-4 times a day, bloating.
From 40 years, over five years, the patient had attacks of intense pain in the abdomen, accompanied by vomiting, over time, the intensity of the pain began to fade, the last 4 years the pain does not bother at all. From the age of 20 he regularly takes alcohol in large quantities.
On examination: low power. The skin is dry, turgor is reduced.
Coprological examination: feces of a grayish-yellow color, unformed, soft heterogeneous consistency, reaction to sterkobilin - positive, muscle fibers that retained striation - ++, lost striation - +++, neutral fat - +++, fatty acids - +, soap - +, extracellular starch - +++.

1. Select the leading clinical laboratory syndrome in this patient
2. The development of what disease can be assumed in the patient?
3. Indicate the main research methods that are necessary to confirm the diagnosis.

Answers to the tasks to the section "Gastroenterology"

Task 1
1. Exudative colonic diarrhea syndrome, Inflammatory syndrome, Coprologic inflammatory syndrome
2. Sigmoidoscopy, Colonoscopy, Irrigoscopy, Clinical analysis of blood.

Task 2
1. Intestinal secretory diarrhea syndrome, Malabsorption syndrome (depletion, diarrhea, steatorrhea, represented by fat detritus, creatorrhea, amylorrhea, adynamia), Digestive insufficiency syndrome (dyspeptic symptoms - nausea, vomiting, rumbling in the stomach, diarrhea, amoebritis, cremation) , Inflammatory syndrome (clinical and coprological).

Task 3
1. Biliary colic syndrome.
2. Ultrasound examination, cholecystography, iv cholegraphy.

Task 4
1. Biliary colic syndrome, Inflammatory syndrome, Local peritonitis syndrome

2. Gallstone disease, acute calculous cholecystitis.

Task 5
1. The syndrome of gastric dyspepsia, a syndrome of impaired gastric evacuation function.
2. Peptic ulcer of the duodenum, complicated by pyloric stenosis.

Task 6
1. Gastrointestinal bleeding syndrome, Anemic syndrome.
2. Peptic ulcer of the duodenum.

Task 7
1. Syndrome of gastric dyspepsia, Syndrome of impaired gastric evacuation function, Intoxication syndrome
2. You should think about a malignant tumor of the body of the stomach
3. It is necessary to carry out esophagostroduodenoscopy with a biopsy.

Task 8
1. Cholestasis Syndrome, Hepatic Hyperbilirubinemia Syndrome
2. An increase in blood levels of bile acids, irritating the nerve endings in the skin.

Task 9
1. Portal hypertension syndrome, Hepatolienal syndrome, Chronic hepatic failure syndrome with the development of hepatic encephalopathy
2. The listed syndromes are characteristic for cirrhosis of the liver
3. Taking into account the history of the most probable alcohol etiology of the disease

Task 10
1. Chronic liver failure syndrome (clinically and laboratory), Portal hypertension syndrome, Hepatolienal syndrome with hypersplenism, Hepatic hyperbilirubinemia syndrome, Hemorrhagic syndrome, Cytolysis syndrome (laboratory), Mesenchymal inflammation syndrome
2. You can think of liver cirrhosis of viral etiology

Task 11
1. Subhepatic hyperbilirubinemia syndrome, pain, intoxication syndrome
2. You can think of a tumor in the head of the pancreas.

Task 12
1. Biliary colic syndrome, Subhepatic jaundice syndrome
2. Gallstone disease

Task 13
1. Acute stomach syndrome
2. Probably, the patient had a perforation of the ulcer with the development of peritonitis.

Task 14
1. Syndrome of exocrine pancreatic insufficiency, pain syndrome, intestinal dyspepsia syndrome
2. Probably the patient has chronic pancreatitis of alcoholic etiology
3. Ultrasound, computed tomography, study of enzymes in blood serum and urine.

5. NEPHROLOGY

1. Renal colic syndrome

REASONS: acute violation of the outflow of urine due to obstruction of the upper urinary tract with a calculus, a blood clot, mucus or pus, a conglomerate of urine salts, caseous masses, rejected by necrotic papillae, as a result of an inflection, spasm of the ureter or spasm of the renal pelvis.

SYMPTOMS:

1. Acute, paroxysmal pain in the lower back, abdomen with irradiation down the ureters to the genitals. Duration from several minutes to several days. The attack is provoked by shaking riding, long walking, other physical exertion, the use of alcoholic beverages, diuretics.
2. Reflex nausea, vomiting of food eaten, gastric juice.
3. bloating.
4. Violation of urination: pollakiuria, stranguria.
5. An increase in body temperature with chills.
6. The patient is agitated, rushing about in bed and cannot find a position relieving pain.
7. Hyperemia of the face and skin.
8. On palpation, soreness of the entire abdomen and lower back is more on the side of the lesion. A positive symptom of striking.
9. Soreness in the ureteric points on the affected side.
10. Symptom Tofilo - in the supine position, the patient bends the leg in the hip joint and presses the hip to the stomach, in the presence of pyelonephritis pain in the lumbar region intensifies, especially if you take a deep breath.
11. Sometimes, the amount of peristaltic noise decreases.
12. Relief after a warm bath, the introduction of antispasmodics.
13. After an attack in the urine, pyuria, macro-, microhematuria, salt crystals are possible.

2. Urinary Syndrome

REASONS: almost all diseases of the kidneys, urinary tract, prostate.

This is a clinical and laboratory concept characterized by qualitative and quantitative changes in the composition of urine.

It is realized in the form of changes in color, transparency, proteinuria, hematuria, leukocyturia, cylindruria, the presence of salts, mucus, bacteria.

Urinary syndrome is the most important and most permanent, and sometimes the only sign of damage to the kidneys and urinary tract.

Urinary syndrome is individual and the ratio of the symptoms of its components depends on the disease.

For example: macrohematuria in acute glomerulonephritis, pyuria (leukocyturia) in pyelonephritis.

3. Disorder of urinary excretion and formation

REASONS: Most diseases of the kidneys and urinary tract.

The essence of the syndrome in its name. Clinically, he realizes himself individually for various diseases in the form of:

- Anuria - excretion of less than 50 ml of urine per day
- oliguria - less than 500 ml
- polyuria - more than 2 l
- nocturia - the prevalence of nocturnal diuresis over daytime
- pollakiuria - frequent urination more than 6 times a day

- stranguria - painful urination in small portions, drops
- Ischuria - urinary retention in the bladder
- dysuria - the common name for all violations

4. Nephrotic syndrome

REASONS: secondary immune-inflammatory damage to the kidneys themselves, (chronic glomerulonephritis) arising from most diseases of the kidneys, especially of an immune nature, as well as under the influence of many chemical and toxic factors, renal vein thrombosis, heart failure, diabetic nephrosclerosis, and renal transplant rejection.

SYMPTOMS: Clinical - laboratory complex.

1. Severe renal edema and, as a result, a decrease in diuresis.
2. Hypo- and dysproteinemia
3. Hyperlipidemia, hypercholesterolemia
4. Hyperproteinuria (≥3.5 g protein / 1.75 m2 per day).

In the absence of edema and the presence of other signs, we can talk about the so-called "headless" nephrotic syndrome.

5. Acute nephritic syndrome (acute glomerulonephritis)

REASONS: violation of glomerular filtration due to an infectious allergic process, damage to the basement membrane of glomerular capillaries with the development of syndromes of arterial hypertension, edematous and urinary.

SYMPTOMS.

Complaints: swelling on the face, lower limbs, headache, dizziness, noise in the head, shortness of breath, discoloration of the urine (in the form of "meat slop"), a decrease in the daily amount of urine.

Examination: pale edematous face, swelling on the legs.

Palpation: apical impulse displaced to the left, strengthened, high, diffuse; the pulse is firm, intense.

Percussion: displacement of the left border of the relative dullness of the heart to the left.

Auscultation: accent II tone in the second intercostal space on the right.

Blood pressure: increased, especially diastolic.

ECG: signs of left ventricular overload.

Blood test: hypoproteinemia, dysproteinemia (an increase in the content of α2 - and γ - globulins), azotemia.

Urinalysis: oliguria, color of "meat slops", hyperstenuria, hematuria, cylindruria, cells of the renal epithelium.

Reberg test: reduced glomerular filtration.

6. Chronic nephritic syndrome (chronic glomerulonephritis)

CAUSES.

Chronic nephritic syndrome accompanies diseases of various etiologies, characterized by diffuse sclerosis of the glomeruli of the kidneys and leading to chronic renal failure.

Chronic nephritic syndrome usually develops against the background of focal or segmental sclerosis of the kidney, membranous or membranous - proliferative glomerulonephritis.

SYMPTOMS.

1. Complaints: often patients have subjective complaints at the beginning of the development of the syndrome. In more severe cases, signs of uremia can be detected - nausea, vomiting, shortness of breath, itchy skin, increased fatigue.

2. Laboratory and instrumental manifestations: proteinuria, cylindruria, hematuria and arterial hypertension. In the general analysis of urine in patients, proteinuria, hematuria, erythrocyte and hyaline cylinders are detected. In the blood there is an increase in the level of urea and creatinine, anemia, signs of metabolic acidosis, hyperphosphatemia.

Diagnosis is by biopsy.

7. Edema syndrome (renal edema)

REASONS: hydremia, increased capillary permeability, hypoproteinemia, hyperaldosteronemia, increased hydrophilicity of tissues.

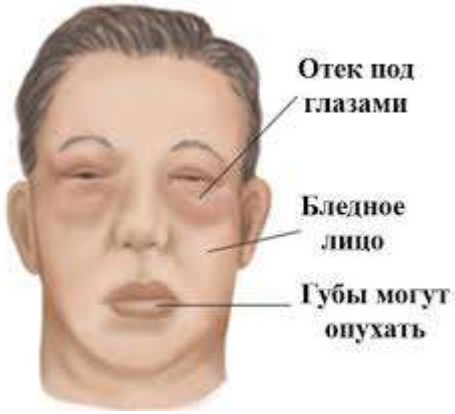
SYMPTOMS:

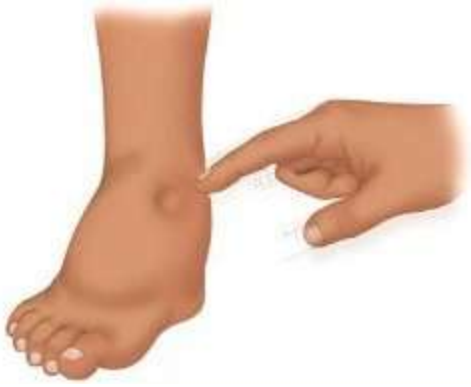
1. The speed of occurrence: first, hidden edema (McClure-Aldrich test), and after a few hours, days - obvious.

2. Edema first appears on the eyelids and face (Facies nephritica round, puffy, swollen face and eyelids, narrow eye slits), then on the abdominal wall and lower back, on the extremities. Up to the anasarca.

3. The swelling is pale, the skin is smooth, shiny.

4. Swelling is soft, like dough, easily displaceable.





8. Hypertension Syndrome

CAUSES:

1. the actual renal arterial hypertension (most kidney diseases),

2. Vasorenal arterial hypertension is the result of narrowing of the renal arteries. It is considered in the framework of symptomatic arterial hypertension.

SYMPTOMS: see cardiology section

9. Renal eclampsia syndrome

REASONS: acute, chronic glomerulonephritis, last months of pregnancy, 1 day after birth. In fact, this is a variant of acute cerebrovascular accident due to increased arterial, intracranial pressure, and cerebral edema.

SYMPTOMS:

1. Harbingers: headache, dizziness, nausea, apathy, insomnia, blurred vision, high blood pressure - 240 / 130,300 / 160 mm. Hg. Art.

2. An attack occurs suddenly
- loss of consciousness
- cramps in the limbs
- rolling eyes
- biting the tongue: pink foam from the mouth
- cyanosis of the face
- shortness of breath
- involuntary urination, defecation
- coma
- post-attack sleep
3. The duration of the attack is 1-30 minutes
4. After the attack, transient:
- blindness (anaurosis)
- dumbness or speech disorder
- memory loss (amnesia)
5. Complications:
- stroke
- pulmonary edema
- stillbirth in 13 -19% of women in labor after eclampsia
- death in 5 - 9% of pregnant women

10. Acute renal failure (ARF)

CAUSES:
1. Prerenal - a sharp decrease in blood pressure (shock, cardiac tamponade, vascular dilatation in sepsis, anaphylaxis, blood loss, dehydration).
2. Renal - ischemic or toxic nephronecrosis, glomerulonephritis, tubular disorders.
3. Postrenal - blockage or compression of the urinary tract, congenital anomalies.
4. Arenal - absence or removal of the kidneys.
Most often, acute renal failure is observed in patients due to hemocirculatory disorders (75%) and poisoning with nephrotoxic poisons (15%). Impaired renal blood flow and a drop in glomerular filtration are the most important mechanisms of acute renal failure.
SYMPTOMS:
Stage 1 - hours duration - up to 2 days. Signs of the underlying disease leading to acute renal failure are expressed.
2 stage. Oligo-anuric, up to 2 weeks
- anuria, oliguria
- back pain
- azotemia
- anemia
- symptoms of uremia: lethargy, drowsiness, up to coma, muscle twitching, noisy breathing, the smell of urine, signs of gastritis, pericarditis, pleurisy, etc.
- skin is pale, dry
bloating
- hyperkalemia, leading to muscle paralysis, up to cardiac arrest
- death or transition to stage 3.
3 stage. Polyuric, about 20 days
- urine - more than 1800 ml / day
- loss of electrolytes, including hypokalemia
- protein dystrophy

- vitamin deficiency
- signs of uremia disappear
- hypoproteinemia

4 stage. Recovery - 3-4 months - up to a year
- slow protein replenishment restoration of damaged kidney structures at the micro level

11. Chronic renal failure

REASONS: kidney disease with outcome in nephrosclerosis, arterial hypertension, diabetic nephrosclerosis.

SYMPTOMS:

1st stage. Initial, latent, latent
- there may be no complaints
- signs of underlying disease
- possible hypoisostenuria (urine density -1012-1017)
- glomerular filtration (CF = 20% -50%), water reabsorption is changed little
- creatinine up to 0.2-0.25 mmol / l

2 stage. Azotemic
- weakness, asthenia, disability
- headache
- cough
- arterial hypertension
- dyspeptic disorders: loss of appetite, discomfort in the epigastric region, unpleasant taste and dry mouth, nausea, vomiting, hiccups, heartburn, diarrhea, stomatitis, smell of urine
- polyuria, nocturia
- skin is pale, dry, sometimes itchy
- periodically muscle twitching
- CF up to 5-20%
- creatinine up to 0.7 mmol / l
- hypoisostenuria (density 1009-1012), nocturia, polyuria

Stage 3 Terminal (uremia).
- Signs of a uremic lesion of the gastrointestinal tract (gastritis, enterocolitis) nausea, vomiting with blood, diarrhea with blood, abdominal pain, sometimes mimicking an acute abdomen, the phenomenon of stomatitis
- signs of damage to the respiratory system: (bronchitis, cough, asthma attacks, pleural friction noise, exudate, hoarseness)
- Signs of encephalopathy (drowsiness during the day, insomnia at night, lethargy, including coma, headaches, blurred vision, retinopathy)
- joint pain, up to secondary gout,
- dermatitis: dryness, itching of the skin, traces of scratching, the skin is covered with uremic “dust”
- hemorrhagic diathesis (bleeding from the nose, gums, gastrointestinal bleeding)
- anemia
- hypostenuria
- creatinine greater than 0.7 mmol / l
- CF less than 5%
- hyperkalemia greater than 5.0 μmol / l
- hypocalcemia less than 2.12 μmol / l
- decrease in diuresis, up to anuria
- arterial hypertension

- heart failure
metabolic acidosis

Chronic kidney disease (CKD) - damage to the kidneys or a decrease in their function for 3 months or more. This collective term, which can also be used as a separate diagnosis, was proposed by the US National Kidney Fund in 2002 and has become widespread. The introduction of this terminology is accompanied by a new classification into 5 stages, which differ in tactics of patient management and the risk of developing terminal renal failure and cardiovascular complications.

Classification of chronic kidney disease using GFR and ACR categories

GFR and ACR categories and risk of adverse outcomes			ACR categories (mg/mmol), description and range		
			<3 Normal to mildly increased	3–30 Moderately increased	>30 Severely increased
			A1	A2	A3
GFR categories (ml/min/1.73m²), description and range	≥90 Normal and high	G1	No CKD in the absence of markers of kidney damage		
	60–89 Mild reduction related to normal range for a young adult	G2			
	45–59 Mild–moderate reduction	G3a[1]			
	30–44 Moderate–severe reduction	G3b			
	15–29 Severe reduction	G4			
	<15 Kidney failure	G5			

Increasing risk

Increasing risk

[1] Consider using eGFRcystatinC for people with CKD G3aA1 (see recommendations 1.1.14 and 1.1.15)

Abbreviations: ACR, albumin:creatinine ratio; CKD, chronic kidney disease; GFR, glomerular filtration rate

Adapted with permission from Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group (2013) KDIGO 2012 clinical practice guideline for the evaluation and management of chronic kidney disease. Kidney International (Suppl. 3): 1–150

5.1. TEST TASKS

(Choose one or more correct answers)

1. The most reliable sign of chronic renal failure is
1) arterial hypertension
2) hyperkalemia
3) increased blood creatinine
4) oliguria
5) anemia

2. What is the change in urine suspected of chronic renal failure
1) high specific gravity
2) massive proteinuria.
3) isohypostenuria
4) anuria
5) pallakiuria

3. Frequent urination, more than 6 times a day is called
1) oliguria
2) nocturia
3) pollakiuria
4) dysuria
5) anuria

4. The allocation of more than 2 liters of urine per day is called
1) oliguria
2) polyuria
3) dysuria
4) pallakiuria
5) ishuria

5. What sample can detect a decrease in glomerular filtration rate
1) Nechiporenko
2) Zimnitsky
3) Reberga-Tareeva
4) Addis-Kakovsky
5) Amburge

6. Painful urination is
1) pollakiuria
2) stranguria
3) ishuria
4) anuria
5) polyuria

7. In the formation of edematous syndrome with nephrotic syndrome, mechanisms prevail
1) violation of vascular permeability
2) system activation: aldosterone-ADH
3) decrease in plasma oncotic pressure
4) a sharp decrease in renal filtration (retention edema)

5) a sharp increase in hydrostatic pressure in the venous channel of blood circulation

8. From the symptoms below, select those that are most common for nephritic syndrome:
1) arterial hypertension
2) edematous syndrome
3) hematuria
4) hyaline and granular cylinders
5) hyperlipidemia

9. The main sign of nephrotic syndrome is
1) leukocyturia
2) proteinuria
3) hematuria
4) cylindruria
5) bacteriuria

10. The concept of urinary syndrome includes
1) proteinuria, edema, cylindruria
2) proteinuria, leukocyturia, hematuria
3) proteinuria, glucosuria, ketonuria

5.2 Situational tasks for the section "Nephrology"

Task 1

Patient M., 60 years old, was admitted to the hospital with complaints of intolerable pain in the left lumbar region with radiation to the inguinal region along the inner surface of the thigh. The patient cannot find a place for pain. Pain is accompanied by nausea, vomiting, bloating, and frequent painful urination.
Similar attacks in the patient were repeated more than once, and the patient noticed that their occurrence was associated with prolonged “shaking" riding in vehicles.
On examination: the abdomen is soft, painless. Sharply positive symptom of Pasternatsky on the right.
Urinalysis: relative density - 1,020, yellow, cloudy, alkaline reaction, protein - absent, transitional epithelium in large quantities, leukocytes - 3-7 in the field of view, red blood cells - 15-20 in the field of view, cylinders absent, oxalates in large quantities .

1. What clinical syndrome can be distinguished in a patient?
2. What are the urinary symptoms in this case?
3. What disease should the patient think about?
4. What additional studies should be carried out by the patient?

Task 2

Patient M., 37 years old, was admitted to the clinic with complaints of common persistent edema.
For 8 years, he suffers from chronic glomerulonephritis with rare exacerbations, usually manifested by edema. The last exacerbation began 2 weeks ago: he woke up in the morning and barely opened his eyes due to edema, then the edema quickly spread throughout the body.

On examination: the face is pale, pasty, the eyelids are swollen, the eye slits are narrowed. Edema of the upper and lower extremities, lower back. Edema is soft, mobile. Heart sounds are weakened, the rhythm is correct. Pulse 88 beats per minute, blood pressure - 130 and 80 mm Hg The abdomen is soft, painless. The kidneys are not palpable. Pasternatsky's symptom is negative on both sides. 400 ml of urine were excreted per day.
Urinalysis: amount 70 ml, relative density 1.028, transparency incomplete, protein 6 g / l, white blood cells 1-3 in the field of view, red blood cells 0-1 in the field of view, hyaline cylinders 6-8 in the field of view , granular - 2-4 in the field of view, waxy - 4-6 in the field of view, mucus and bacteria in small quantities.

1. What is the leading syndrome in this patient?
2. What research is needed to confirm this syndrome, and what symptoms can be identified in this case?

Task 3

Patient S., 27 years old, 2 weeks ago suffered a sore throat. Sore throats, fever up to 40 ° C were noted. I did not go to the doctors, I was treated myself, on the third day I went to work. Currently, edema under the eyes, more pronounced in the morning, headache, dull pain in the lumbar region, severe weakness, oliguria (excretes up to 500 ml of urine per day) is disturbing.
On examination: pallor and puffiness of the face, swelling of the lower extremities. During auscultation of the heart, I tone at the apex weakened the accent of II tone above the aorta, the heart rate was correct. Pulse - 50 beats per minute, intense. HELL - 170 and 100 mm Hg 450 ml of urine were released per day.
Urinalysis: amount of 65 ml, relative density - 1,025, color - type of "meat slops", protein - 2.5 g / l, tubule epithelium cells - 1-2 in the field of view, red blood cells - 5-70 in the field of view, white blood cells - 1-3 in the field of view, hyaline cylinders - 3-5 in the field of view, granular - 2-4 in the field of view, a lot of mucus, bacteria - a small amount.

1. What are the urinary symptoms of this patient?
2. What clinical syndromes can be distinguished in this case?
3. What large clinical syndrome can be formulated on the basis of the data obtained?

Answers to the tasks to the section "Nephrology"

Task 1

1. Renal colic syndrome
2. Leukocyturia, microhematuria, oxalaturia.
3. Urolithiasis
4. Ultrasound examination of the abdominal organs, survey radiography of the kidneys, intravenous urography.

Task 2

1. Nephrotic syndrome.

2. Determine the daily proteinuria, the level of total protein (hypoproteinemia) and albumin (hypoalbuminemia) in the blood serum, as well as to detect hyperlipidemia, the content of cholesterol and triglycerides in the blood.

Task 3

1. Microhematuria, proteinuria, cylindruria.
2. Edema, hypertension, oliguria, urinary syndrome.
3. Acute nephritic syndrome**.**

6. ENDOCRINOLOGY

1. Syndrome of hypothyroidism:

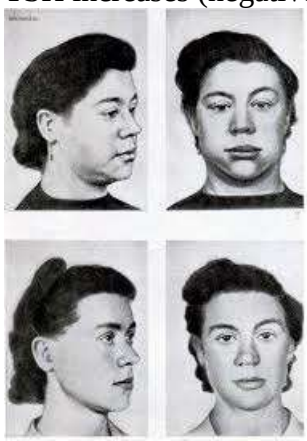
REASONS: The disease is caused by a decrease or complete loss of thyroid function. Severe hypothyroidism is called myxedema. There are primary hypothyroidism caused by direct damage to the thyroid gland and secondary, developing as a result of insufficient production of thyrotropin or thyroliberin. The most common causes of hypothyroidism are autoimmune thyroiditis (autoimmune destruction of the thyroid gland) and thyroidectomy (postoperative hypothyroidism). Iodine deficiency in our country exists in most regions, but it is never the cause of hypothyroidism.

SYMPTOMS:

1. Damage to the nervous system: lethargy, drowsiness, lethargy, memory loss, speech slowdown, adynamia.
2. Cardiovascular system: bradycardia, dull heart sounds, decreased voltage of ECG teeth, decreased blood pressure, sometimes increased blood pressure (mainly diastolic), myocardial damage (myocardial dystrophy).
3. Damage to the skin and mucous membranes: the skin is dry, cold, dense (not folded), peeling off; hyperkeratosis of the palms, brittle nails, hair loss. The face is swimming, mask-like, the eye slits are narrow. Swelling of the lips, eyelids, cheeks, neck. When pressed on the edematous tissue, there is no fossa. Speech becomes slow, voice is low (due to the thickening of the vocal cords). The tongue is edematous. Violation of the gastrointestinal tract, constipation, belching, etc.
3. Edema in serous cavities (usually hydropericardium, hydrothorax)

Hertog's symptom is hair loss on the eyebrows, especially on the lateral side.

1. Laboratory data: hypercholesterolemia, normochromic anemia, decreased basal metabolism, hypoglycemia, decreased levels of thyroid hormones (T3 and T4). With primary hypothyroidism, TSH increases (negative feedback principle), with secondary TSH decreases.



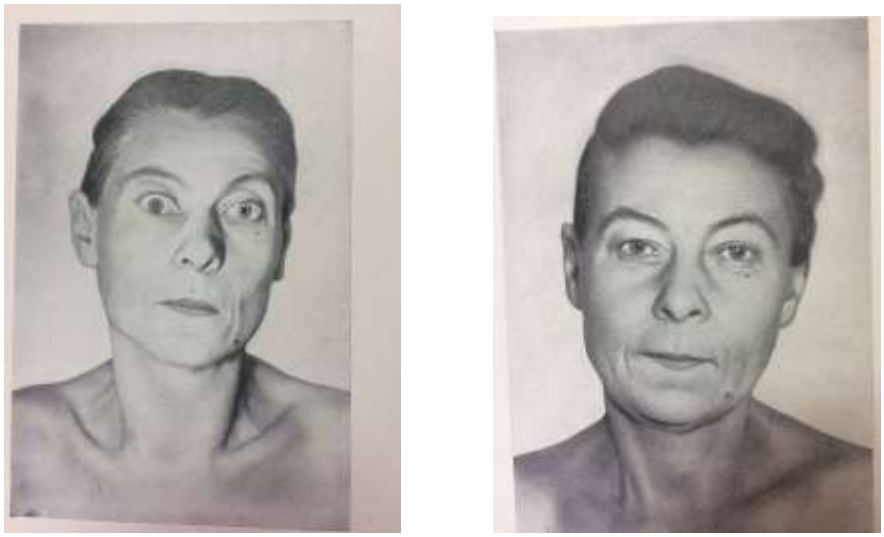
Hypothyroidism, before and after treatment.

2. Thyrotoxicosis syndrome (hyperthyroidism):

Thyrotoxicosis is an increase in the level of T3 and T4 in the blood and their toxic effect on the body. The term hyperthyroidism is often used as a synonym for thyrotoxicosis. However, it should be remembered that thyrotoxicosis (i.e., an excess of thyroid hormones) is not always associated with an increase in the functional activity of the thyroid gland.

REASONS for thyrotoxicosis: 1. Thyrotoxicosis associated with increase in the functional activity of the thyroid gland occurs with diffuse toxic goiter (Graves-Bazedov disease) or nodular toxic goiter;

2. Thyrotoxicosis, not associated with increase in the functional activity of the thyroid gland occurs with destruction of the thyroid gland. The destruction of the thyroid gland leads to the release of accumulated hormones (destructive thyrotoxicosis). At the same time, the functional activity of the gland is not increased. This is observed with thyroiditis (subacute thyroiditis, autoimmune thyroiditis); destructive thyrotoxicosis is always short-term and is not treated with thyreostatics. Also, thyrotoxicosis without hyperthyroidism is observed with an overdose of L-thyroxine (in this case, on the contrary, there is hypothyroidism that is treated with L-thyroxine).
SYMPTOMS:
1. Damage to the nervous system: nervousness, irritability, fussiness, tearfulness, sleep disturbance, memory loss, tremor of fingers and the whole body.
Symptom Marie - a small symmetrical tremor of the fingers of extended arms, as well as a "symptom of a telegraph pole" - a pronounced trembling of the patient, which is felt by the doctor upon palpation of the patient's chest.
2. Eye symptoms:
Gref's symptom: when the vision fixes an object that slowly falls down, a section of the sclera is exposed between the upper eyelid and the edge of the iris.
Kocher's symptom is the same when moving an item from bottom to top.
The symptom of Dalrymple is the same when fixing the object with vision in a horizontal plane, another interpretation of this symptom is wide open eye slits
Rosenbach's symptom is tremor of the eyelids with closed eyes.
Symptom of Geoffrey - inability to form folds on the forehead, when looking up;
Shtelvag symptom - a rare blink.
The symptom of Moebius is the eyeball moving outward when the gaze fixes an object brought to the nose bridge; indicates weak convergence due to changes in t. rectos internus.
The symptom of Stasinsky or the "red cross" - manifests itself in the form of an injection of vascular sclera. The departure of the injected vessels up, down, to the right, to the left of the iris gives the impression of a red cross in the center of which the pupil is located.
Symptom Elineka - pigmentation of the eyelids.
Symptom Kraus - increased eye gloss.
Lagophthalmus - the inability to close your eyes for centuries, which in severe cases causes ulceration of the cornea and sclera with subsequent infection.
3. Cardiovascular system: tachycardia, cardiac arrhythmias (extrasystole, atrial fibrillation), systolic hypertension, development of heart failure.
4. Gastrointestinal tract lesion: increased appetite, increased motility and gastric secretion, diarrhea, weight loss, toxic hepatitis.
5. Catabolic disorders: symptoms associated with increased metabolism: fever, sweating, feeling hot.
6. The defeat of other endocrine glands (hypogonadism, adrenal insufficiency, impaired carbohydrate metabolism).
7. Laboratory data: hypocholesterolemia, increase in basal metabolic rate. T3 and T4 increase, TSH decreases according to the principle of negative feedback.



Thyrotoxicosis, before and after treatment.

3. The syndrome of insulin deficiency:

REASONS: absolute for type 1 diabetes (insufficiency of insulin secretion, a decrease in blood insulin due to the death of 100% beta cells) or relative for type 2 diabetes (defects in the receptor apparatus of insulin-dependent tissues - insulin resistance, normal or high insulin levels in the blood) , violation of insulin secretion by beta cells of the pancreas.

SYMPTOMS: "Large" - polydipsia, polyphagy, polyuria, weight loss, hyperglycemia, glucosuria, ketoacidosis. Weight loss and ketoacidosis are observed with absolute and pronounced relative insulin deficiency. Overweight and polyphagy are characteristic of insulin resistance.

"Small" - weakness, skin itching, especially in the perineum and genital area, furunculosis, tendency to infectious diseases, frequent lesions of the oral mucosa, periodontal disease, visual impairment, gastrointestinal function, large fetus, decreased body temperature.

Typical complications of diabetes.

Systemic damage to the whole organism in connection with a violation of carbohydrate and other types of metabolism and develops against their background:

- poleneuropathy
- macroangiopathies
- microangiopathies

Diabetic coma.

1. Ketoacidotic
2. Hyperosmolar
3. Lactic acid (lactocidemic)
4. Hypoglycemic

6.1. TEST TASKS
(Choose one or more correct answers)

1. What is not typical for thyrotoxicosis?
1) exophthalmos;
2) bradycardia;
3) fussiness;
4) hand tremor;
5) sweating.

2. What symptom is not characteristic of hypothyroidism?
1) weight loss;
2) dry skin;
3) slowing down speech;
4) hair loss.

3. What is not typical for type 1 diabetes?
1) development at a young age;
2) development in old age;
3) development in childhood.

4. What is typical for type 2 diabetes?
1) development at a young age;
2) development in old age;
3) development in childhood.

5. For what disease is bronze color of the skin characteristic?
1) diabetes mellitus;
2) addison's disease;
3) hypothyroidism;
4) acromegaly.

6. The symptom of Dalrymple is:
1. Expansion of the palpebral fissure when fixing the gaze (surprised look)
2. A strip of sclera when looking down between the upper eyelid and the iris
3. A strip of sclera when looking up between the upper eyelid and the iris
4. Small tremor of drooping or slightly closed eyelids

7. The symptom of Gref is:
1. Expansion of the palpebral fissure when fixing the gaze (surprised look)
2. A strip of sclera when looking down between the upper eyelid and the iris
3. A strip of sclera when looking up between the upper eyelid and the iris
4. Small tremor of drooping or slightly closed eyelids

8. The symptom of Kocher is:
1. Expansion of the palpebral fissure when fixing the gaze (surprised look)
2. A strip of sclera when looking up between the lower eyelid and the iris

3. A strip of sclera when looking up between the upper eyelid and the iris
4. Small tremor of drooping or slightly closed eyelids

9. Symptom of Moebius:
1. Expansion of the palpebral fissure when fixing the gaze (surprised look)
2. A strip of sclera when looking down between the upper eyelid and the iris
3. A strip of sclera when looking up between the upper eyelid and the iris
4. Violation of convergence

10. Rosenbach's symptom is:
1. Expansion of the palpebral fissure when fixing the gaze (surprised look)
2. A strip of sclera when looking down between the upper eyelid and the iris
3. A strip of sclera when looking up between the upper eyelid and the iris
4. Small tremor of drooping or slightly closed eyelids

11. What does not apply to the clinical signs of diffuse toxic goiter:
1. Tachycardia
2. Exophthalmos
3. Constipation
4. Weight Loss
5. Increase in body temperature

12. Signs of hypothyroidism include:
1. Tachycardia
2. Exophthalmos
3. Constipation
4. Weight Loss
5. Increase in body temperature

13. What does not apply to the clinical signs of thyrotoxic crisis:
1. Hyperthermia up to 38-40C
2. Dry skin
3. Vomiting, diarrhea
4. Mental and motor anxiety

14. What does not apply to the characteristic complaints of patients with hypothyroidism:
1. Drowsiness
2. Chilliness
3. Diarrhea
3. Decrease in memory
5. Dry skin

15. What concerns characteristic complaints of patients with hypothyroidism:
1. Drowsiness
2. hair loss
3. Diarrhea
4. Insomnia
5. Weight Loss

16. What relates to characteristic complaints of patients with hypothyroidism:
1. Coarsening of the voice
2. Constipation
3. The increase in body temperature
4. Insomnia
5. Weight Loss

17. Clinical signs not characteristic of hypothyroid coma:
1. Arterial hypotension
2. Hypothermia
3. Diarrhea
4. Severe bradycardia
5. Oliguria, anuria

18. Hypoglycemic coma is characterized by all of the following, except:
1. The rapid development of coma
2. Slow development of coma
3. Tonic and clonic seizures
4. Tachycardia

19. Ketoacidotic coma is characterized by all of the following, except:
1. The rapid development of coma
2. Dehydration
3. Smell of acetone in exhaled air
4. The breath of Kussmaul

20. Autoimmune is diabetes:
1.1 types
2.2 types
3. Gestational diabetes

21. Insulin resistance plays a role in the development of:
1. Type 1 diabetes

2. Type 2 diabetes

22. Treatment of type 1 diabetes:
1. Diet and regular exercise
2. Oral hypoglycemic drugs
3. Insulin therapy
4. All of the above

23. Treatment of type 2 diabetes:
1. Diet and regular exercise
2. Oral hypoglycemic drugs
3. Insulin therapy
4. All of the above

24. In diabetes mellitus, the following plasma glucose values are detected during the oral glucose tolerance test:
1. Fasting ≥ 7.0 mmol / L
2. Fasting ≥6.1 <7 mmol / L
3. After 2 hours ≥11.1 mmol / L
4. After 2 hours ≥ 7.8 <11.1 mmol / L

25. In case of impaired glucose tolerance, the following plasma glucose values are detected during the oral glucose tolerance test:
1. Fasting ≥7.0 mmol / L
2. Fasting <7 mmol / L
3. After 2 hours ≥11.1 mmol / L
4. After 2 hours ≥ 7.8 <11.1 mmol / L

6.2 Situational tasks for the section "Endocrinology"

Task 1

Patient M., 29 years old, came to the clinic with complaints of thickening of the neck, palpitations, increased irritability, tearfulness, sleep disturbance, general sweating, trembling of the fingers, weight loss of 6 kg over the past six months, despite increased appetite. The above symptoms appeared a year ago after returning from the south. On examination: some fussiness, hasty speech pays attention. The skin is moist, hot to the touch. When examining the neck, its thickening is revealed. Symptoms of Shtelvag, Grefe - positive. Severe exophthalmos. During auscultation of the heart I, the tone at the apex is loud, there is also a gentle systolic murmur. The heart rate is 110 per min., The heart rate is incorrect: atrial fibrillation, there is no pulse deficiency.

1. What syndromes can be distinguished on the basis of this clinical picture?
2. The presence of a disease can be assumed based on available data?

Task 2

Patient L., 55 years old, was admitted to the hospital with complaints of dry mouth, thirst, skin itching, general weakness, excretes more than 2 liters of urine per day.

The above symptoms appeared 2 months ago.

On examination, it is noteworthy that the patient is of increased nutrition. The skin is dry scaly, severe rubeosis, pustular rashes.

In the study of blood tests: hemoglobin 120 mg%, red blood cells - 4.5 x 1012 / l,
white blood cells - 6.0 x 109 l, ESR - 18 mm / h, glucose -12 mmol / l (240 mg%).
Urinalysis: quantity - 450 ml, relative density - 1,030, protein - not available,
leukocytes - 2-4 in n / a, glucose - 0.8 g / l, ketone bodies - are absent.

1. What disease are we talking about in this task, and what clinical symptoms are most significant for diagnosis?
2. What laboratory symptoms confirm the preliminary diagnosis?

Task 3

A 25-year-old patient was delivered to the hospital ward with complaints of severe weakness, lethargy, thirst, epigastric pain, and vomiting. Deterioration after acute respiratory illness.

Objectively: inhibited, lethargic, smell of acetone from the mouth, dry skin, tongue coated with a dirty brown coating. Pulse - 100 per minute, blood pressure - 100/60 mm RT. Art. Palpation of the abdomen is painful in the epigastric region, there are no symptoms of peritoneal irritation.

1. Highlight syndromes
2. What diagnosis can be suspected?

Task 4

Patient R., 26 years old, has been suffering from diabetes since 16 years. Receives insulin therapy. After intense physical activity in the morning at 11.00 a weakness, hand tremor, sweating, restlessness, inability to concentrate appeared. The patient tried to overcome the condition by eating himself, but lost consciousness. A few minutes later came to his senses. An ambulance was called.

1. What condition did the patient develop?
2. The plan of medical measures.

Task 5

Patient., 46 years old, complains of hair loss, weakness, drowsiness, swelling of the face and limbs, coarsening of the voice, weight gain, constipation.

An objective examination of the face puffy, amymic. The speech is slow, "languid". The skin is dry, peeling. The thyroid gland is palpated, not enlarged. Eye symptoms are negative. Heart rate 55 per minute. HELL 100/80 mm Hg

1. What syndrome do you suggest?
2. What is the most probable reason for it?

Answers to the tasks to the section "Endocrinology"

Task 1

1. Thyrotoxicosis syndrome with the formation of thyrotoxic cardiomyopathy and ophthalmopathy.
2. Diffuse toxic goiter.

Task 2

1. Diabetes in favor of which they say: polydipsia, polyuria, skin itching and skin changes
2. Hyperglycemia, glucosuria.

Task 3

1. Insulin deficiency syndrome
2. Type 1 diabetes. Diabetic ketoacidosis

Task 4

1. Hypoglycemic condition
2. Severe hypoglycemia, characterized by impaired consciousness, requires intravenous administration of 20-100 ml of a 40% glucose solution. Alternative 1 ml glucagon solution s / c or / m

Task 5

3. Hypothyroidism syndrome

4. The most common cause of hypothyroidism is autoimmune thyroiditis.

7. HEMATOLOGY

1. Anemic syndrome

REASONS: anemia of any genesis, including anemia with hemoblastosis
Symptoms common to any anemia:
- muscle weakness, reduced ability to work
- dizziness, "flies" before the eyes
- fainting
- shortness of breath and palpitations when walking
(decreased exercise tolerance)
- pallor (alabaster with blood loss, greenish with iron deficiency (chlorosis), slightly icteric with B-12, folio-deficient anemia, with a lemon-yellow tint with hemolytic anemia) of the skin and sclera, mucous membranes.
- tachycardia, systolic functional noise above the apex, pulmonary trunk. Veins: the noise of the top on vv.juqularis, etc.
- a decrease in the content of red blood cells, hemoglobin, reticulocytes, the appearance of altered forms of red blood cells (micro-, macrocytes, poikilocytes, hypo-hyperchromia, etc.).

2. Sideropenic syndrome (iron deficiency)

REASONS: repeated blood loss, insufficient intake of iron with food, malabsorption, increased consumption, redistribution, hemoglobinopathies.
SYMPTOMS:
- complaints of difficulty swallowing dry and solid foods (sideropenic dysphagia), pain and burning of the tongue, impaired taste and appetite (the need to eat chalk, clay, coal, earth, minced meat), a perversion of smell (addiction to the smell of kerosene, acetone, etc.)
fetid rhinitis
- trophic changes in the skin, mucous membranes, hair and nails: the skin is dry, slightly peeling, tans poorly, the hair is split off, it turns gray early and falls out, the nails flatten, lose their luster, have transverse striation, they break easily, spoon-like deformations of nails (koilonychia) form, ulcerations and cracks appear in the corners of the mouth, angular stomatitis, pain and burning in the tongue (glossitis)
- urinary incontinence with coughing, laughing
erythrocyte hypochromia, microcytosis
- decreases the level of serum iron and the total iron binding capacity of the plasma (normal 30.6 - 84.6 mmol / l) and increases the latent iron binding capacity (normal 16 - 44 μmol / l)

3. Iron deficiency anemia

CAUSES.
1. Inadequate intake of iron with food (strict diet, lack of fruits, meat).
2. Violation of iron absorption in the intestines and stomach (gastritis, enterocolitis).
3. Increased consumption, redistribution of iron (children, girl, pregnant, lactating women, severe inflammatory processes)).
4. Repeated blood loss: nasal, gastric, rectal, renal, pulmonary, uterine bleeding, in closed cavities and tissues.
5. Iron is not absorbed by red blood cells (hemoglobinopathies).
Symptoms
The main syndromes:
- anemic
- sideropenic.
- Blood:

- Red blood cells: less than normal. Micro, poikilo, aniso, schizocytes.
- HB is below normal, a decrease in the number of reticulocytes.
- Red blood cell hypochromia - color indicator (MCH) - below normal,
- The content of serum iron, ferritin is reduced to less than 30 μg / l, the percentage of transferrin saturation with iron is less than 25%.
- Bone marrow:
- Sideroblasts <20%

4. B-12, folic deficiency anemia

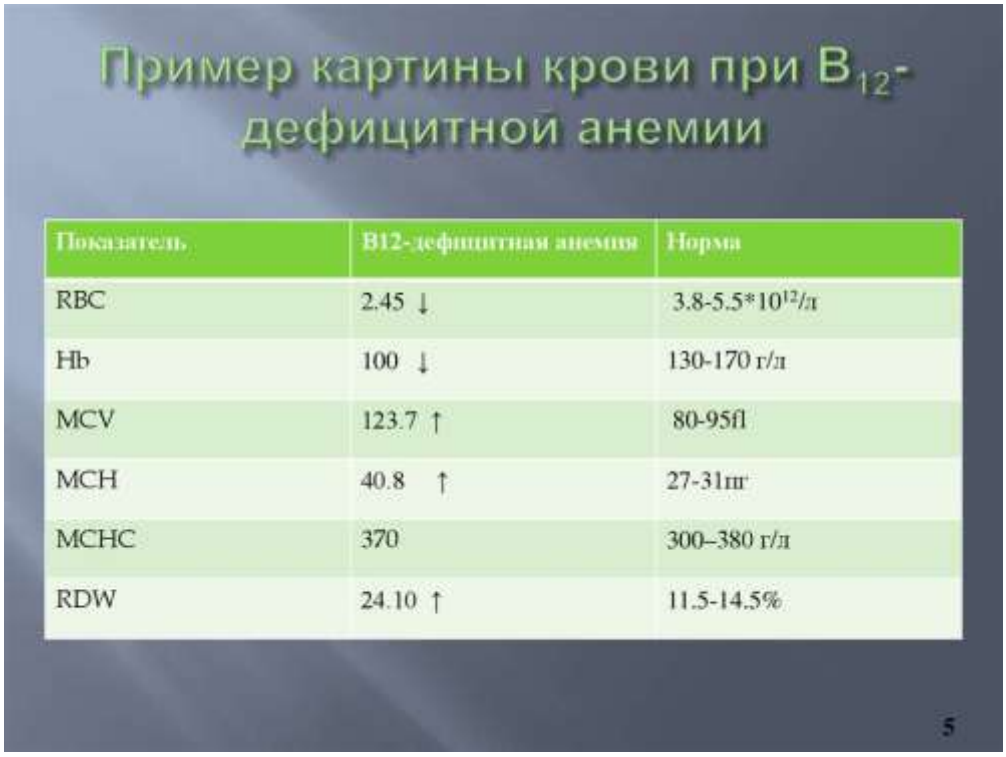
CAUSES.
- malnutrition (lack of B-12)
- atrophic gastritis, gasterectomy
- enteritis, enterectomy (B-12, F.K. is not absorbed)
- increased consumption of B-12 and F.K. (pregnancy)
- inferiority of erythroblasts (do not digest B-12, F.K.)

Symptoms

Leading syndromes:
- anemic;
- neurological - only with B-12 dependent anemia (gait unsteadiness, muscle weakness, pleurisy, polyneuropathy, due to the development of funicular myelosis;
- damage to the gastrointestinal tract - atrophic, inflammatory processes, resection of the stomach, small intestine, glossitis (papillae are erased, the surface is smooth, bright pink - “varnish”, “raspberry” tongue), hepatomegaly, splenomegaly.

Blood.
- Red blood cells. Macrocytosis, megaloblasts, aniso- and poikilocytosis.
- Nv. below normal, decreased reticulocyte count.
- Hyperchromia of red blood cells - reduced color index (MCH).
- Polysegmentation of neutrophil nuclei.
- Jolie Taurus, Kebot rings (the remains of the nucleus in red blood cells).
- Indirect bilirubin over 34 μmol / L
- Raw iron> normal. The content of Vit B-12 and folic acid is reduced.

Bone marrow.
- Megaloblasts.



5. Hemolytic anemia

CAUSES.
- Congenital inferiority of red blood cells
- Exposure to anti-erythrocyte antibodies
- Poisoning with hemolytic poisons

Types of hemolysis: intravascular, extravascular.

SYMPTOMS.

Leading syndromes:
- anemic,
- hemolytic jaundice.
- Complaints: chills, fever, jaundice, nosebleeds, hematuria, hemorrhagic rash, weakness, dyspepsia, shortness of breath.
- Splenomegaly
- Hepatomegaly

Blood.
- Red blood cells and HB. Lowered.
- Poikilocytosis, anisocytosis.
- Normochromic red blood cells - normal color index (MCH).
- reticulocytosis.
- Positive Coombs test (intravascular hemolysis)

Bone marrow.
- pro-erythronormoblasts 40-60%

Urine: a lot of urobilin

Kal: a lot of stercobilin

6. Hemorrhagic syndrome

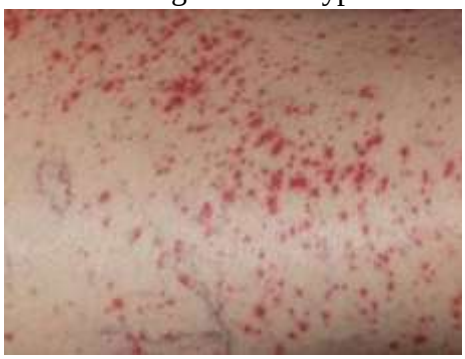
REASONS: various disorders of hemostasis and vascular permeability of hereditary or acquired origin, vasculitis.

SYMPTOMS:

- bruises, bruising
- petechial rash on the skin and mucous membranes
- hemoptysis
- bleeding from the nose, gums, stomach, intestines, urinary and genital tracts, etc.
- positive tests of the tourniquet, pinch, Konchalovsky-Rumpel-Leed, etc.

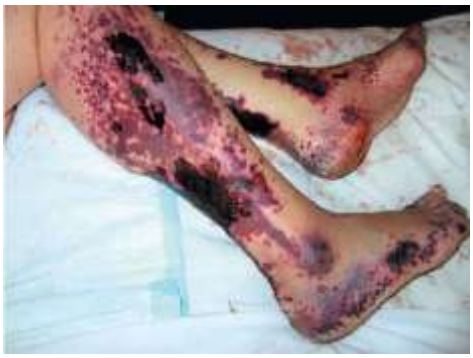
The clinical manifestations of hemorrhagic diathesis are characterized by the five most common types of bleeding (Barkagan Z.S., 1975,1980):

1. Hematoma type
2. Petechial-spotted (bruise) type
3. Mixed (bruise-hematoma) type
4. Vasculitis-purple type
5. Angiomatous type



Vasculitis purple type

(Hemorrhagic vasculitis).



Petechial spotted (bruise) type

7. Inflammatory syndrome

REASONS: the development of infectious complications, especially against the background of hemoblastoses

SYMPTOMS:

fever

- sore throats
- abscesses
- glossitis, stomatitis
- picture of sepsis
- any foci of infection
- corresponding changes in laboratory inflammatory activity (ESR, CRP, seromucoid, etc.)

8. Hyperplastic syndrome

CAUSES. Leukemic tissue infiltration.

Symptoms

A painless enlargement of the lymph nodes, liver and spleen, tonsils (they increase significantly, become loose, can make breathing difficult).

A marked increase in the lymph nodes in the mediastinum is possible, which can lead to compression of the superior vena cava and impaired outflow of blood into the right atrium (superior vena cava syndrome with the main clinical manifestations - shortness of breath, cyanosis, swelling of the neck, swelling of the cervical veins).
Gingival hyperplasia and the development of severe ulcerative necrotic stomatitis are also characteristic, with ulcerative necrotic lesions of the tonsils, oral mucosa that extends to the pharynx and esophagus.
Ossalgia - soreness when bruising the bones due to the development of subperiosteal leukemic infiltrates.
Leukemia infiltrates appear on the skin in the form of leukemids - common reddish-bluish papule-shaped plaques.
Severe manifestations of hyperplastic syndrome are also severe painful testicular infiltration and damage to the nervous system - neuroleukemia.

9. Neurological syndrome

REASONS: megaloblastic, iron deficiency anemia, hemoblastosis
SYMPTOMS:
- paresthesia, ataxia, polyneuritis
- encephalopathy (strokes, paralysis, headaches)
- perversions of taste (geophagy), smell (with iron deficiency anemia)
- picture of funicular myelosis (with megaloblastic anemia)

10. Immunodeficiency syndrome

CAUSES. With hemoblastosis, an immunodeficiency state develops, characterized by a sharp violation of cellular and humoral immunity, the phagocytic function of leukocytes, and a decrease in complement activity.
SYMPTOMS
Various infectious and inflammatory processes, which, as a rule, take a severe course, often develop a septic state. Infectious and inflammatory diseases, primarily severe pneumonia, often lead to the death of patients.
However, it should be noted that fever can be a manifestation of leukemia, a transfusion reaction, spleen infarction, thrombophlebitis, which requires differential diagnosis with infectious and inflammatory diseases.

11. Leukemia syndrome (hemoblastosis)

11.1 Acute Leukemia Syndrome

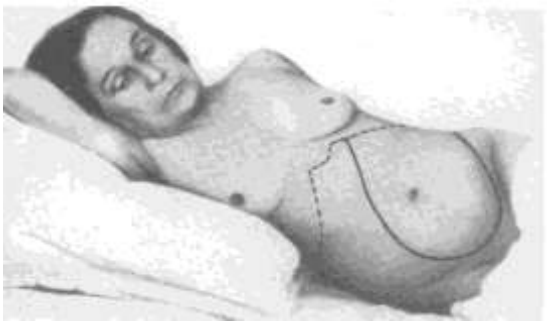
CAUSES. Acute leukemia: myeloblastic, monoblastic, erythromyelosis, megakaryoblastic, lymphoblastic, undifferentiated, etc.
SYMPTOMS.
Leading syndromes: acute onset: often in the debut necrotic tonsillitis, stomatitis, fever.
- anemic,
- hemorrhagic,
- immunodeficiency and inflammatory (septic conditions may develop),
- intoxication (weakness, sweating, fever),
- hyperplastic,
- ossalgia, arthralgia,
- laboratory changes. UAC: cytopenia (leukopenia, thrombocytopenia, anemia) or leukocytosis, characterized by a leukemic failure (hiatus leucemicus) - the absence of intermediate forms

between blasts and mature cells, i.e. no promyelocytes, myelocytes, metamyelocytes (young) cells. Accelerated ESR, increased CRP and LDH. A myelogram is the predominance of blast cells.

11.2 Chronic myeloproliferative syndrome

CAUSES. Chronic myeloid leukemia, true polycythemia, myelofibrosis.
SYMPTOMS (for chronic lmieloleukemia).
Leading syndromes: slow, gradual development.
- anemic,
- hemorrhagic,
- immunodeficiency and inflammatory (septic conditions may develop),
- intoxication (weakness, sweating, fever),
- ossalgia, arthralgia,
- hyperplastic:
a) splenomegaly and, less commonly, enlarged liver;
b) ossalgia, soreness and sensitivity when striking the bones;
c) a relatively rare enlargement of the lymph nodes.

- laboratory changes. KLA: leukocytosis, hyperleukocytosis, all transitional forms of cellular elements: promyelocytes, myelocytes, metamyelocytes, stab and segmented neutrophils. There is no "leukemic failure." Eosinophilic-basophilic association. Accelerated ESR, increased CRP and LDH. Myelogram - single blast cells. In the blood and bone marrow is the Philadelphia chromosome.



11.3 Chronic lymphoproliferative syndrome

CAUSES. Chronic lymphocytic leukemia, malignant lymphomas.
SYMPTOMS for chronic lymphocytic leukemia).
Leading syndromes: slow, gradual development, more often after the age of 40 years.
- anemic,
- hemorrhagic,
- immunodeficiency and inflammatory (septic conditions may develop),
- intoxication (weakness, sweating, fever),
- ossalgia, arthralgia,
- hyperplastic: a) predominant enlargement of the lymph nodes (painless, testo-elastic consistency, not soldered together, mobile);
b) the absence or moderate increase in the spleen and liver;
c) frequent skin lesions (skin infiltrates, eczema, psoriasis, herpes zoster, etc.).
- laboratory changes. KLA: leukocytosis, hyperleukocytosis mainly due to mature lymphocytes, sometimes single lymphoblasts and prolymphoblasts, Botkin-Gumprecht shadow, anemia,

thrombocytopenia, suppression of other sprouts. Accelerated ESR, increased CRP and LDH. Myelogram - lymphocytes (up to 90%), lymphoblasts (up to 10%), Botkin – Gumprecht shadow (up to 10-20%). Lymph node biopsy.


Lymphadenopathy

2. Disseminated intravascular coagulation syndrome (DIC)

Disseminated intravascular coagulation is a complex pathological syndrome, which includes massive blood coagulation, leading to blockage of microcirculation by loose masses of fibrin and cell aggregates in vital organs (lungs, kidneys, liver, adrenal glands, etc.) with the development of their dysfunction.

REASONS (etiology):

- septic (especially caused by gram-negative microorganisms);
- all types of shock (septic, cardiogenic, burn, hemorrhagic, etc.);
- malignant neoplasms (leukemia, tumors of the lungs, stomach, etc.);
- injuries (bone fractures, crash syndrome);
- obstetric pathology (premature detachment of the placenta and its presentation, embolism with amniotic fluid, severe atony of the uterus, eclampsia);
- acute intravascular hemolysis;
- immune (immunocomplex) diseases.

Stage of ICE syndrome:

I. hypercoagulation;
II. normal coagulation;
III. hypocoagulation;
IV. the outcome.

SYMPTOMS: clinical manifestations are associated with ischemic (thrombotic) and hemorrhagic injuries of organs and tissues that have a well-developed microcirculatory network (lungs, kidneys, adrenal glands, gastrointestinal tract, liver, spleen, skin, mucous membranes) and are characterized by their dysfunction and bleeding of various degrees.

One of the most common, albeit optional manifestations of this syndrome is bleeding, which is observed on average in 55-T5% of patients.

Diagnosis of ICE syndrome:

1. Vascular-platelet hemostasis. Sample pinch, tourniquet, cuff test, platelet count, platelet factor determination (TF4);
2. Coagulation hemostasis:

- coagulation time;
- activated partial (partial) thromboplastin time (APTT);
- determination of prothrombin time;
- determination of thrombin clotting time;

- determination of fibrinogen concentration.
3. Physiological anticoagulants:
- determination of the activity of AT III (antithrombin III).
4. Fibrinolysis;
5. Methods for detecting markers of intravascular coagulation and fibrinolysis.
Paracoagulation tests:
ethanol test;
-protamine sulfate test;
- determination of RFMC (soluble fibrinmonomeric complexes);
- determination of PFD (fibrin degradation products).

7.1 TEST TASKS
(Choose one or more correct answers)

1. Manifestations of sideropenic syndrome are all signs, except
1) angular stomatitis
2) glossitis
3) dryness and hair loss
4) esophagitis
5) splenomegaly

2. Indicate the clinical manifestations of sideropenic syndrome
1) angular stomatitis
2) jaundice
3) splenomegaly
4) taste perversion
5) coilonychia

3. For the diagnosis of B12 - deficiency anemia, it is enough to identify
1) hyperchromic, hyporegenerative, macrocytic anemia
2) hyperchromic, hyporegenerative, macrocytic anemia and atrophic gastritis
3) hyperchromic, hyporegenerative, macrocytic anemia with the presence of Jolly bodies and Kebot rings in red blood cells
4) hyperchromic, hyporegenerative, macrocytic anemia and megaloblastic type of hematopoiesis

4. Petechiae are:
1) capillary expansion
2) deposition of hemosiderin in subcutaneous fat
3) extensive hematomas
4) hemorrhagic spots on the skin of a rounded shape with a diameter of 1-2 mm
5) hemorrhagic spots of irregular shape with a diameter of 3-4 mm

5. The type of bleeding characteristic of thrombocytopenia
1) hematoma;
2) petechial-spotted (microcirculatory, bruised);
3) mixed microcirculatory-hematoma (bruise-hematoma);
4) vasculitis purple;
5) angiomatous.

6. The diagnosis of leukemia is obvious in the presence of
1) anemia;
2) ulcerative necrotic lesions;
3) an increase in lymph nodes;
4) blastemia in the peripheral blood;
5) hemorrhages

Tasks for the Hematology Section

Task 1

Patient K., 56 years old, was admitted to the clinic with complaints of: general weakness, dizziness, palpitations, shortness of breath during physical exertion, tinnitus, decreased appetite, dysphagia when eating dry, solid food (Plummer-Winson syndrome). She also began to notice hair loss and increased fragility of nails. Perversions of taste appeared (desire to eat chalk, tooth powder, raw minced meat).
The above complaints appeared during the last 6 months, in the past I didn't get sick, menopause from 54 years, menses were plentiful for 6-7 days.
On examination: the skin and visible mucous membranes are pale, seizures in the corners of the mouth, dry, flaky skin. Spoon-shaped nails, clumsy with transverse striation (koilonychia). Smoothness of the papillae of the tongue is noted. The first tone at the apex is weakened, a gentle systolic murmur is heard there, pulse - 100 beats. in min., on the jugular vein on the right is heard the "top sound", blood pressure 110 and 60 mm Hg From other organs and systems without pathology.
Clinical blood test: Red blood cells - 2.3 x 1012 / l, Hb - 38 g / l, color index. - 0.7, white blood cells - 5.0 x 109 / l, reticulocytes - 4%. ESR - 10 mm / hour. Severe red blood cell hypochromia, anisocytosis (microcytosis), poikilocytosis.

1. What clinical and laboratory syndromes are there in the patient?
2. What research is needed to clarify the diagnosis and the causes of the disease?

Task 2

Patient S., 69 years old, was admitted to the hospital with complaints of: severe weakness, fatigue, shortness of breath when walking, palpitations, dizziness, burning tongue, decreased appetite, diarrhea, pain and numbness in the lower extremities, muscle weakness ("cotton legs"), low-grade fever.
Sick for about 2 years, at first I did not pay attention to weakness and fatigue, then there was muscle weakness, pain and numbness in the lower extremities, in connection with which I went to the doctor and was hospitalized.
Objectively: a satisfactory condition, excess nutrition. The skin is pale with an icteric shade, sclera subicteric. Heart sounds are weakened, a quiet, systolic murmur is heard at the apex, on the jugular vein on the right is a "top sound", pulse -107 per minute, rhythmic, soft. The tongue is moist, bright red in color, smooth - "lacquered" (due to the pronounced smoothing of the papillae), there are isolated aphthae on the mucous membrane of the cheeks. The lower edge of the liver is palpated, protruding 2.0 cm from under the edge of the costal arch. The spleen is not palpable. When striking the sternum, ribs and tibia, the patient feels soreness.
Clinical blood test: erythrocytes - 2.1 x 102 / l, Hb - 48 g / l, color index - 1.4, reticulocytes - no, platelets - 95 x 109 / l, white blood cells - 3.0 x 109 / l, ESR - 35 mm / hour. Hyperchromia of red blood cells, pronounced anisocytosis (macrocytes, megalocytes), poikilocytosis, found Jolly bodies, Kebot rings, polysegmentation of neutrophils.

1. What pathology should the patient think about?
2. What research is needed to clarify the diagnosis and etiology of the disease?

Task 3

Patient A., 19 years old, went to the doctor with complaints of: sore throat when swallowing, fever up to 39 ° C with chills, profuse night sweats, bleeding gums, nosebleeds, severe weakness, bone pain.
He fell ill acutely a week ago.
Objectively: a state of moderate severity. The skin and mucous membranes are pale, the skin is wet to the touch, on the skin of the trunk, forearms and hips there are multiple subcutaneous hemorrhages. Symptoms of a "tourniquet"

and “pinch” are positive. The submandibular, cervical, axillary and inguinal lymph nodes are palpable, pea-sized, painless, not soldered together and with skin, soft-elastic consistency, the skin above them is not changed. Bad putrefactive breath. The pharynx is hyperemic, ulcerative necrotic changes in the mucous membrane are visible on the tonsils and posterior wall of the pharynx. Gums loose, bleed easily when touched with a spatula. The painless edge of the liver is palpated, protruding 3.0 cm from the costal arch, the edge is even and soft. With percussion, the length of the spleen is 12 cm, the diameter is 8 cm. The spleen is not palpable. Rattling along the flat and tubular bones is painful.
Clinical blood test: red blood cells - 2.8 x 1012 / l, Hb - 70 g / l, color index - 0.9, platelets - 65 x 109 / l, white blood cells - 100 x 109 / l, myeloblasts - 75% , stab - 3%, segmented - 22%, eosinophils - no, basophils - no, ESR - 56 mm / hour.

1. What syndromes can be distinguished in a patient?
2. What disease can a patient think of?
3. What research is necessary for the patient to confirm the diagnosis?

Task 4

Patient B., 61 years old, was admitted to the clinic with complaints of: general weakness, fatigue, swelling in the neck and axillary areas, increased sweating, low-grade fever.
Over the past 5 years, during preventive medical examinations, attention has been paid to an increase in the number of lymphocytes in the blood up to 40-50% with a normal number of leukocytes. The patient notes that during this period he became ill with colds more often, they last longer and harder. In the last 6 months, the above complaints appeared, in connection with which he was hospitalized.
Objectively: the condition is satisfactory. Reduced nutrition. The skin is pale. Cervical, axillary and inguinal lymph nodes the size of a bean to walnut, mobile, not soldered together, elastic-test consistency, painless, skin integument above them is not changed. The liver protrudes from under the edge of the costal arch by 2.0 cm, the edge is smooth, of a dense consistency, painless. The length of the spleen is 11 cm, the diameter is 7 cm, the edge of a dense, smooth, painless spleen is palpated.
Clinical blood test: red blood cells - 3.7 x 1012 / l, Hb - 90 g / l, color index - 0.95, white blood cells - 35 x 109 / l stab - 1%, segmented - 15%, eosinophils - 1%, lymphocytes - 80%, monocytes - 3%, ESR -35 mm / hour.

1. What syndromes can be distinguished in a patient according to a survey?
2. What research will clarify the diagnosis?
3. The presence of a symptom characteristic of this disease in a morphological study of peripheral blood?

Task 5

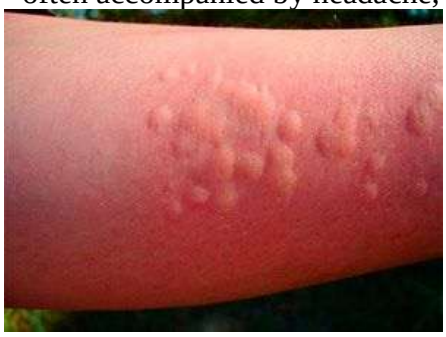
Patient D., 52 years old, upon admission to the clinic complained of: severe general weakness, heaviness in the left hypochondrium, fever from 37.8 to 38.5 ° C with heavy sweats, and “aches” in the bones.
Over the past 4 months, she had twice had a sore throat and acute respiratory illness. It was treated on an outpatient basis without significant improvement in general condition.
Objectively: a state of moderate severity. Temperature - 38.0 ° C. Reduced nutrition. The skin and visible mucous membranes are pale, on the skin of the forearms and hips there are many small bruises. Bad breath. When examining the oral cavity - the phenomenon of stomatitis and gingivitis. Axillary and inguinal lymph nodes the size of a pea, soft, mobile, painless. There is an asymmetry of the abdomen due to bulging in the left hypochondrium. The lower edge of the liver protrudes 4.0 cm from under the edge of the costal arch, smooth, painless. Percussion length of spleen - 16 cm, diameter - 10 cm, palpation of the spleen protrudes from the edge of the costal arch by 6 cm, smooth, dense, painless. Pressing and tapping on the flat and tubular bones is painful.
Clinical blood test: red blood cells - 2.5 x 1012 / l, Hb - 60 g / l, color index - 0.85, white blood cells - 200 x 109 / l, myeloblasts - 6%, promyelocytes - 4%, myelocytes - 20%, metamyelocytes - 21%, stab - 13%, segmented - 11%, eosinophils - 6.5%, basophils - 4.5%, lymphocytes - 10%, monocytes - 3%, ESR - 50 mm / hour.

1. What syndromes should be distinguished in a patient?
2. What research is needed to clarify the diagnosis?

8. RHEUMATOLOGY AND ALLERGOLOGY

1. Urticaria syndrome

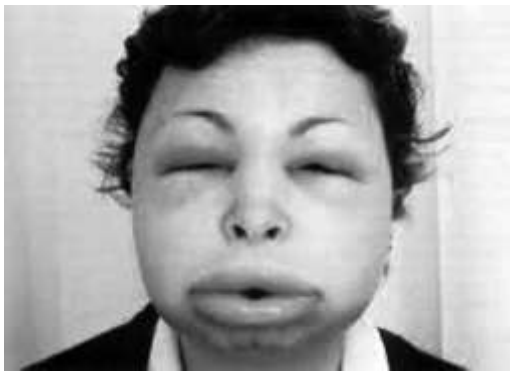
REASONS: one form of allergic reactions
SYMPTOMS:
- sudden appearance and disappearance of blisters on the skin, accompanied by skin itching
- sometimes, individual blisters merge (giant urticaria)
- when rash of blisters on the mucous membranes occurs: cough, stridor breathing, diarrhea, abdominal pain, arthralgia
- often accompanied by headache, fever, a feeling of general malaise.



urticaria

2. Quincke's angioedema

REASONS: one form of an allergic reaction
SYMPTOMS:
- develops sharply, sometimes after a few seconds from the onset of the action of the allergen in the form of a passing edema of the skin of the subcutaneous tissue and mucous membranes
- localized more often on the face (lips, cheeks, around the eyes)
- dangerous swelling of the larynx (asphyxia), mucous membranes of the gastrointestinal tract (picture of an acute abdomen)
- sizes are different, but rarely larger than the human palm
- Duration from several minutes to hours.



Quincke's edema

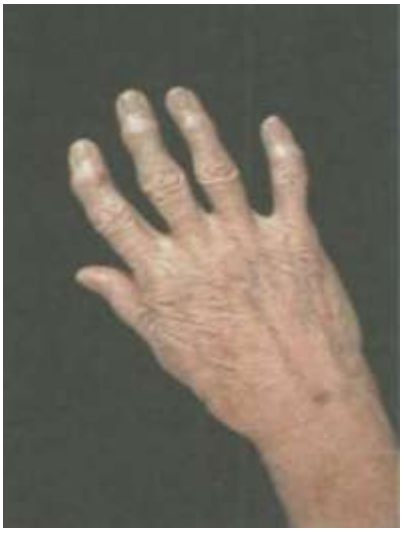
3. Anaphylactic shock

REASONS: the most severe form of allergic reaction of immediate type
SYMPTOMS:
1. forms:
- extremely difficult (development speed - seconds, minutes)
- heavy (minutes)
- moderate (minutes, hours) (cardiac, cerebral, asthmatic, abdominal moderate)

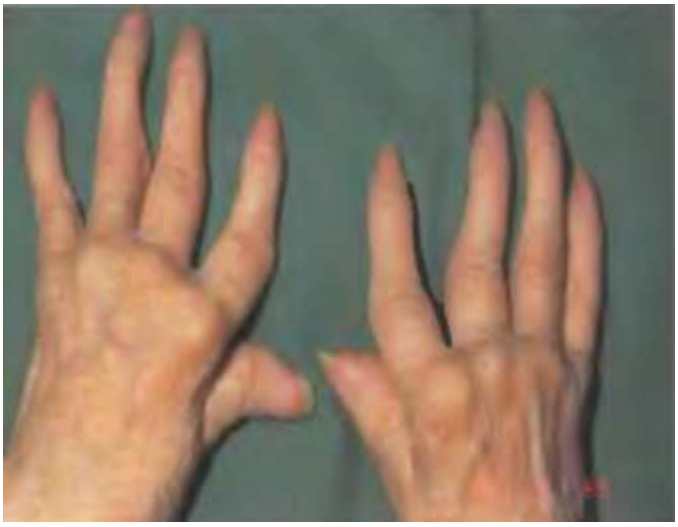
2. phases: erectile and torpid (secrete only moderate in shock)
3. first signs:
- dizziness, headache,
- a sense of fear, anxiety,
- cold sweat,
- shortness of breath
- chest tightness, fever,
- coughing fit
- abdominal pain, diarrhea,
- vomiting
- cramps
4. may be accompanied by other signs of anaphylaxis:
- urticaria,
- Quincke's edema,
- bronchospasm,
- dermatitis
5. blood pressure, anuria progressively decreases, the picture of shock itself develops.

4. Joint syndrome

REASONS: inflammatory and degenerative diseases of the joints, synoviomas, arthropathy in metabolic disorders.
SYMPTOMS:
1. pain
2. swelling (configuration)
3. deformation
4. increase in local temperature
5. restriction of movement in the joint
6. local hyperemia or other color changes.
Features:
1. Feature of pain in inflammatory joint diseases:
inflammatory rhythm of pain - pain intensifies in the second half of the night and in the morning, accompanied by morning stiffness, possibly improving as a result of movement in the joints.
2. Feature of pain in degenerative joint diseases (deforming osteoarthrosis):
the mechanical rhythm of pain - a clear connection with physical activity, pain intensifies in the evening after a hard day, in the first half of the night, unloading the joints gives relief.
Starting difficulties, pain when moving in the joints, passing through a short time (several minutes) - indicate the development of secondary synovitis with degenerative lesions of the joints.



Deforming arthrosis



Rheumatoid arthritis (walrus fins)

(Heberden Nodules)

8.1 TEST TASKS
(Choose one or more correct answers)

1. The inflammatory nature of joint pain indicates
1) joint deformation, joint crunch
2) swelling of the joint, flushing of the skin

2. Signs characteristic of arthrosis
1) mechanical pain, crunch in the joint
2) increased skin temperature over the joints, swelling of the joints

3. In rheumatoid arthritis, joints are most affected.
1) ulnar
2) vertebrates
3) proximal interphalangeal and joints of the hands
4) knee

4. Heberden's nodules is
1) manifestation of deforming osteoarthrosis
2) the phenomenon accompanying rheumatoid arthritis
3) the manifestation of a special reaction of the body with bronchitis and bronchiectasis

5. Laboratory indicators inherent in osteoarthritis
1) anemia
2) leukocytosis
3) leukopenia
4) normal blood counts
5) thrombocytopenia

8.2. Clinical tasks for the section allergies, rheumatology

TASK № 1

Patient D., 26 years old, was taken to the emergency department of the BSMP in an unconscious state. Forty minutes ago, in the clinic, the patient was injected with penicillin (500,000 units) intramuscularly, 15 minutes after this, the patient felt a sharp weakness, lost consciousness. Objectively: the skin is pale, hyperhidrosis. Respiration is frequent, shallow, BH - 23 per minute, heart sounds are muffled, tachycardia, heart rate - 110 per minute, filamentous pulse, blood pressure - 60/40 mm RT. Art.

Additional research methods:

General blood analysis. Er.- 4.2 x 1012, Hb-130 g / l, color index - 1.0, White blood cells -9.3 x 109, E -18, P - 3, S.- 50, L - 23, M - 6 , ESR - 18 mm / h.

General urine analysis. Yellow color. The reaction is acidic, Ud. density is 1023. Transparency is incomplete. Protein - no. Epit. cells - one. Lake - 0 - 1-3 in p / sp, Er. 1 - 0 in p / sp

Blood glucose - 5.3 mmol / L.

Questions.

1. Highlight clinical syndromes.
2. Formulate a preliminary diagnosis.
3. Provide emergency care.

TASK № 2

The ambulance arrived on call to a patient of 18 years old, the patient is in a soporous state. From a survey of relatives it was established that a wasp bitten a girl 40 minutes ago. Objectively: a serious condition, severe swelling of the face and neck, the skin is hyperemic, tense, shiny. The breath is noisy, stridorous. The pulse is filiform, palpated only on the carotid arteries, 98 per minute, blood pressure - 40/0 mm Hg The abdomen is painful on palpation.

Questions.

1. Highlight clinical syndromes.
2. Formulate a preliminary diagnosis
3. Provide emergency care.

9. The meaning of eponymous terms and syndromes in clinical medicine

From the history of medicine it is known that the profession of a doctor in various threads is associated with art, literature and other branches of human activity. This is confirmed by the frequent combination of medical and literary activities (F. Rabelais, F. Schiller, A. Kronin, A.P. Chekhov, V.V. Veresaev, M.A. Bulgakov, etc.). Introduction to clinical practice of clinical terms with the names of writers, poets, their literary characters, mythological heroes, etc. testifies to the broad outlook of doctors. Unfortunately, practical doctors are not familiar with eponymous clinical symptoms and syndromes. We will analyze only a small group of such terms in order to arouse interest in this issue among students, doctors of various specialties.

A number of medical terms bears the names of writers, artists, philosophers. The most famous among therapists is the symptom of Musset, named for the French poet Alfred Musset (1810 - 1858), who suffered from aortic valve insufficiency, which was accompanied by a shake of the head in the rhythm of heart contractions. Van Gogh's syndrome, which, suffering from a mental disorder, performed an amputation of the ear. The syndrome itself is a psychopathological symptom complex in which patients with an imaginary disease operate on their own or persistently require surgery from doctors.

In psychiatry, such terms as masochism are widely known - after the Austrian prose writer of the late 19th century Sacher-Masoch, whose works describe in detail sexual perversion with causing physical pain to a partner; sadism - associated with the name of the 18th century French writer Marquis de Sade; Safism - named after the ancient Greek poetess Safo, who lived on the island of Lesbos, identified with female homosexuality.

Stendhal's Syndrome (Henri Marie Beil, 1783 - 1842) characterizes impressionable natures, who, when “sorting out” positive emotions, may experience loss of consciousness or even a shock state, which happened with Stendhal, who admires the artistic creations of painters in Florence.

The syndromes associated with the names of literary heroes are interesting. So, Pickwick’s syndrome is named after one of the heroes of the novel by C. Dickens, Notes of the Pickwick Club, a servant of Joe, who had hypoventilation of the lungs against the background of obesity, a sudden irresistible desire to fall asleep, shallow breathing, hypertension, shortness of breath. Munchhausen syndrome, in which patients usually present case histories with traits of implausibility and drama. Since 1955, Todd introduced into medical practice the syndrome “Alice in Wonderland” (named after the heroine of the same book by the English writer L. Carroll, 1832–1898), which is characterized by depersonalization, derealization (with a distorted idea of space and time), and visual illusions, split personality. Since 1921, the term “bovarism” was introduced, meaning a mixture of dreams and reality, dreamy distraction.

A large group of clinical terms associated with the names of the characters of legends, myths. So, the symptom of Buddha is a sign of weakness of the peripheral or central motor nerve, which imitates the classic pose of this person - God. Among radiologists, a concept such as two-faced Janus syndrome is used - by the name of the god of the ancient Romans (patron of doors, entry and exit, all principles). Janus syndrome is manifested by a clinical and radiological picture of unilateral lung ventilation disorders. Psychoanalysts consider the Oedipus complex ("family romance") as the sexual attraction of the child to their parents (the hero of ancient Greek mythology Oedipus married his mother). Such concepts are known as gambrinism - a pathological addiction to beer (Gambrinus - the legendary Flemish king, beer lover and patron of brewing), narcissism - sexual narcissism (the mythological young man Narcissus, who fell in love with his reflection in water), Othello syndrome - delirium of jealousy.

We hope that even this small part of the eponymous terms will expand the clinical horizons of students and doctors.

Questions for self-control in all sections.

1. What is the nature of impaired pulmonary ventilation in bronchospastic syndrome?
2. What are the main pathogenetic mechanisms of an asthma attack?
3. What are the main clinical symptoms of acute pulmonary hypertension.
4. What are the features of cough with lesions of large and small bronchi?
5. Describe all the options for changes in the auscultatory picture in bronchospastic syndrome.
6. What is the nature of ventilation disorders in lobar infiltrative compaction of the lung tissue?
7. What are characterized by "pleural" pain?
8. In what cases is mixed breathing heard in the syndrome of infiltrative compaction of the lungs?
9. What is distelectasis?
10. In which direction are the mediastinal organs displaced during obstructive atelectasis, a syndrome of accumulation of fluid and air in the pleural cavity?
11. What results of a physical examination can be obtained in a patient with compression atelectasis due to fluid accumulation in the pleural cavity?
12. What is the position of a patient with lung cavity syndrome to improve sputum discharge and why?
13. What diseases most often lead to the development of emphysema?
14. How much fluid in the pleural cavity can be detected by physical examination of the patient?
15. What is chylothorax, hydrothorax, hemothorax?
16. On which side do patients with fluid syndrome in the pleural cavity prefer to lie?
17. Describe the indications and methodology of pleural puncture.
18. What are the causes and main clinical symptoms of spontaneous pneumothorax.
19. What are the criteria for assessing the severity of respiratory failure.
20. List the main complaints of cardiological patients, explain the mechanism of their occurrence.
21. What is the peculiarity of the history of life of patients with coronary heart disease and hypertension.
22. What changes detected during cardiac percussion are most characteristic of the mitral configuration of the heart?
23. What changes during examination are typical for patients with severe hypertrophy and dilatation of the left ventricle?
24. What is the difference between esophageal vomiting and gastric vomiting?
25. What features of the general examination can be detected in patients with diseases of the esophagus?
26. Explain the dyspeptic complaints of patients with peptic ulcer 12 p.k.
27. What are the distinctive features of the clinical manifestations of ulcers depending on localization.
28. What syndromes develop due to a violation of evacuation from the stomach.
29. What does the concept of "intestinal dyspepsia" include?
30. What syndromes develop due to malabsorption in the small intestine?
31. What are the coprological syndromes of intestinal dyspepsia?
32. What pain symptoms appear with frequent relapses of diseases of the gallbladder, with persistent and prolonged course.
33. Hepatic cell failure syndrome. Tell us what the essence, the main indicators of liver cell failure are.
34. Syndrome of portal hypertension: definition, clinical signs.
35. Hepatic encephalopathy and hepatic coma. What is the essence of the syndromes, the main clinical signs.

36. Syndrome of cytolysis. What is the essence of the syndrome and laboratory symptoms.
37. What instrumental studies are used for liver diseases.
38. Urinary and nephrotic syndromes and their diagnostic value.
39. Chronic renal failure syndrome.
40. The main methods of researching the blood system.
41. Anemic syndrome.
42. Hemorrhagic syndrome.
43. Research methods of the thyroid gland, hyperthyroidism syndrome.
44. Research methods of the thyroid gland, hypothyroidism syndrome.
45. Insulin deficiency syndrome
46. Symptomatology and diagnostic methods for anemic syndrome
47. Symptomatology and diagnostic methods for hemorrhagic syndrome
48. Symptomatology and diagnostic methods for myeloproliferative syndrome.
49. Symptomatology and diagnostic methods for lymphoproliferative syndrome.
50. Symptomatology and diagnostic methods for anemia.
51. Symptomatology and diagnostic methods for hemorrhagic syndrome, types of bleeding.
52. Symptomatology and diagnostic methods for leukemia.
53. Symptoms of the joint syndrome, especially in inflammatory and degenerative joint diseases.
54. Symptoms of acute allergies (urticaria, Quincke's edema, anaphylactic shock).

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