

TOPIC OF THE PRACTICAL LESSON № 2:

Features of clinical examination of a patient with tuberculosis. Radiological diagnosing of tuberculosis. Methods of X-ray examination in the clinic tuberculosis. Radiological syndromes of tuberculosis.

Actuality of theme. Tuberculosis is one of the most pressing public health problems in the country. Physicians of various backgrounds need knowledge to recognize this disease to prevent the spread of tuberculosis and unify approaches to providing phthisiopulmonary care to patients.

The purpose of the lesson: to teach students the methods of clinical examination of patients with pulmonary tuberculosis and the correct interpretation of the data; elements of deontology in communication with patients; to develop skills of recognition of clinical and radiological forms of pulmonary tuberculosis in accordance with the modern classification.

The student must know:

- the clinical signs of tuberculosis;
- the X-ray image of the chest in different projections is normal;
- the concept of "focus", "infiltrate", "cavity", "fibrosis", their radiological features,
- the radiological syndromes of tuberculosis;
- the clinical forms of pulmonary tuberculosis in the radiological image;
- the indicators of peripheral blood in normal and inflammatory processes.

The student must be able to:

- collect patient complaints, medical history and life;
- identify people at increased risk of tuberculosis;
- examine the patient and identify the main symptoms of the disease;
- palpation, percussion and auscultation of the chest, interpret the results;
- identify and explain pathological changes on radiographs.

Interdisciplinary integration.

Subject	Know	Be able
Previous:		
Anatomy	The anatomy of the respiratory system	
Physiology	The physiology of the respiratory system.	
Pathological physiology	The pathophysiology of diseases of the respiratory system.	
Propaedeutics internal	The methodology of the	To make objective

diseases	objective examination of the patient.	examination of the patient, evaluate the results obtained.
Radiology	X-ray features chest organs are normal and in pathology, the radiological syndromes.	To detect the radiological changes in the lungs.
The following:		
Internal medicine	The clinical manifestations and radiological picture of the respiratory diseases.	To do differential diagnostics lung diseases.
Intra-subject integration:	The clinical manifestations, radiological picture of different shapes tuberculosis.	To differentiate clinical forms of tuberculosis.

Content of the lesson topic:

Methods of clinical examination of the patient.

Questioning. The variety of manifestations of pulmonary tuberculosis in depending on the stage and spread of the process. Clinical symptoms of the disease: a) associated with intoxication syndrome (fever, weakness, reduced efficiency, sweating, loss of appetite, loss body weight, sleep disturbances, irritability); b) local manifestations of the disease, associated with lung damage (cough, sputum production, hemoptysis, chest pain, shortness of breath).

Anamnesis. The onset of the disease. Diseases transferred in the past ("Flu", recurrent pneumonia, concomitant diseases). Value contact with persons allocating MBT. Working and living conditions of the patient. Smoking, alcohol, drug addiction. Results and date preliminary fluorographic examination (in adults), information about BCG vaccination and the results of tuberculin testing (in children).

Objective survey data. Review. General condition. Provisions in bed. Body temperature. Consciousness, skin, visible mucous membranes. Subcutaneous fat. Edema. Peripheral lymph nodes. Head, neck, condition of the thyroid gland. Chest: shape, symmetry, uniformity of participation in the act of breathing. Palpation data (pain, tremor). Topographic and comparative data chest percussion. Auscultation: strength and nature of breathing, wheezing, crepitation, their localization, bronchophonia. Cardiovascular system. Apical push. Epigastric pulsation. Borders of the heart. Data auscultation. AT. Pulse.

Diseases of other organs that are accompanied by relevant clinical symptoms.

X-ray examination. Methods of X-ray examination patients with respiratory tuberculosis. X-ray -, tomo -, fluorography, radioscopy. X-ray image of normal breast organs cells in different projections. X-ray image of partial and segmental structure of the lungs. Clinical forms of pulmonary tuberculosis in X-ray image. Analysis of radiographs, tomograms, fluorogram.

Computed tomography, bronchography, indications for their use, diagnostic value.

Blood test. Diagnostic value of changes of elements peripheral blood and ESR in different forms and phases of tuberculosis process.

Plan and organizational structure of the lesson:

Preparatory stage (10-20% of working time): organization of classes, goal setting, control of the initial level of knowledge.

The main stage (60-90% of working time): the formation of professional skills and skills. Students independently and under the supervision of the teacher carry out supervision of the patient, collect the anamnesis, master the skills of the objective review, describe and interpret radiographs, substantiate clinical diagnosis.

The final stage (10-20% of working time): level control and correction professional skills and abilities, summarizing, homework.

Materials of methodical providing of employment.

Test control.

1. A 35-year-old patient is being treated at the TB dispensary for infiltrative tuberculosis of the upper left lung (lobe) in the decay phase. Physical examination revealed no changes. How should a patient breathe properly to increase the informativeness of the auscultation method?

- A. Breathe often.
- B. Breathe deeply.
- C. Strongly cough.
- D. Lightly cough and take a deep breath.
- E. Breathe with open mouth.

2. In a patient with pulmonary tuberculosis, mid-bladder rales are heard under the left shoulder blade. What do such changes indicate?

- A. Focal changes in lung tissue.
- B. Bronchitis.
- C. The presence of decay cavities.
- D. Spontaneous pneumothorax.
- E. Atelectasis.

3. When is sweating more common in tuberculosis?

- A. With physical exertion.
- B. With psycho-emotional stress.

- C. At night.
- D. When overheated.
- E. In the afternoon.

4. What is the history of pulmonary tuberculosis?

- A. Ill acutely three days ago, now the condition has improved somewhat.
- B. Considers himself ill for several months.
- C. Considers himself ill "all his life", repeatedly examined without result.
- D. Feeling worse every fourth day.
- E. Annually notes the deterioration of feelings with the reduction of daylight.

5. Which of the diseases in the anamnesis increases the risk of tuberculosis?

- A. Ischemic heart disease.
- B. Pneumonia.
- C. Diabetes mellitus.
- D. Deforming arthrosis.
- E. Chronic tonsillitis.

6. In a 20-year-old patient, a fluorographic examination in the apical-posterior segment of the left lung revealed an area of low intensity darkening with indistinct contours up to 1 cm in diameter. To which radiological syndrome does the detected education belong?

- A. Syndrome of clarification.
- B. Spherical shadow syndrome.
- C. Focal shadow syndrome.
- D. Syndrome of altered pulmonary pattern.
- E. Dissemination syndrome.

7. What method is most often used to detect destruction in lung tissue?

- A. Review radiography.
- B. Tomography.
- C. Aiming radiography.
- D. Radioscopy.
- E. Bronchography.

8. What is the most common segmental localization of secondary forms of pulmonary tuberculosis?

- A. I, II, III segments.
- B. II, III, IV segments.

C. III, V, VI segments.

D. I, II, VI segments.

E. II, III, X segments.

9. A 24-year-old patient was admitted to the TB dispensary with complaints of weakness, sweating, loss of appetite, cough and sputum. The patient underwent a review radiograph, which shows a ring-shaped shadow in the S6 of the left lung. What changes in the lung tissue corresponds to this nature of the shadow?

A. The hearth.

B. Infiltrate.

C. Fibrosis.

D. Disintegration of lung tissue.

E. Accumulation of exudate.

10. A 35-year-old patient complains of shortness of breath, heaviness in the right side, fever up to 39⁰C. The review radiograph revealed a homogeneous intense darkening from the level of the IV rib to the diaphragm with an oblique upper limit. What disease do such radiological changes correspond to?

A. Pneumonia.

B. Cancer.

C. Eosinophilic infiltrate.

D. Exudative pleurisy.

E. Dry pleurisy.

Approximate map for the organization of independent work of students with educational literature:

Educational tasks	Instructions for the task	Answer
<p>Examine: Examination methods patients with respiratory disease</p>	<p>The ways and methods the detection of tuberculosis. Population categories with increased risk of disease tuberculosis. Complaints, medical history, course, epidemiological anamnesis, transferred diseases, working and living conditions. Physical examination methods: palpation, percussion and auscultation</p>	
<p>Tuberculosis clinic</p>	<p>Name the clinical signs caused intoxication syndrome, local manifestations of the disease associated with respiratory lesions.</p>	

Radiological signs clinical forms tuberculosis	The methods of X-ray examination patients with respiratory tuberculosis and intrathoracic lymph nodes. X-ray, tomo-, fluorography, computed tomography, radioscopy. Radiological syndromes: lesions of the root of the lungs, dissemination, infiltration, spherical shadow, cavity, fibrosis. Clinical forms of pulmonary tuberculosis in radiology image. The concept of “focus”, “infiltrate”, “cavity”, “fibrosis”, them radiological signs. Population groups subject to mandatory annual fluorographic examination.	
Blood test	Diagnostic value of quantity changes shaped peripheral elements blood and ESR in different forms and phases tuberculosis.	

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