

ЗАТВЕРДЖЕНО

на засіданні кафедри внутрішньої медицини №3

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МЕТОДИЧНІ ВКАЗІВКИ

для студентів англійською мовою

з дисципліни «Внутрішня медицина (в тому числі з ендокринологією)

студенти 4 курсу I, II, III медичних факультетів, V та VI факультетів по підготовці іноземних студентів

Плеврити

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Study subject "pleurisy."

1. Hours - 4

Aktualnist.U therapeutic hospitals pleural effusion 4,8- diagnosed in 10% of patients, and the main causes of pleural involvement in the pathological process is chronic circulatory failure (37.3%), bacterial (22.5%) and viral-bacterial (7, 5%), pneumonia, malignant neoplasm (15.1%), pulmonary embolism (11.3%).

Learning Objectives:

- teach students to recognize the major symptoms and syndromes pleurisy;
- acquaint students with physical methods of research at pleurisy;
- To introduce students to research methods that are used to diagnose pleurisy; indications and contraindications for their conduct; methods of their implementation; Diagnostic value of each of them;
- teach students to interpret the results of studies;
- teach students to prescribe treatment for pleurisy.

What the student should know?

- prevalence of pleurisy;
- etiological factors pleurisy;
- pathogenesis of pleurisy;
- main clinical syndromes of pleurisy;
- Physical symptoms of pleurisy;
- methods of physical examination of patients with pleurisy;
- diagnosis of pleurisy;
- diagnostic criteria for pleural effusion, indications and contraindications for pleural puncture;
- radiological diagnostic methods pleurisy;
- treatment of pleurisy.

What the student should be able to?

- o remove major clinical syndromes and physical pleurisy;
- o interpret results of biochemical and immunological studies;
- o interpret research results pleural effusion;
- o interpret radiological data and other instrumental methods of diagnosis with pleurisy;
- o prescribe treatment for patients with pleurisy.

The list of practical skills that students must master

- o external review of patient
- o examination of the chest;
- o percussion;
- o auscultation of the lungs.

CONTENTS THEME:

Pleurisy - a pleural inflammatory lesions to form on the surface of fibrin and / or accumulation of pleural effusion. Pleurisy is not an independent disease and is a pathological process that is complications of certain diseases of the lungs, and much less mediastinal chest wall, diaphragm or subdiaphragmatic of space.

Etiology and pathogenesis. Because pleurisy is a complication of a disease, especially lung, their etiology accepted conditionally assume the reason that led to the emergence of the underlying disease. For etiological signs of pleurisy divided into infectious (including infectious-allergic) and aseptychni. Neinfektsiyni pleurisy can occur in rheumatoid arthritis, cancer lung metastases, malignant lymphoma, myocardial infarction and syndrome Dreslera and in benign ovarian tumor with ascites and pleurisy (Meigs syndrome), mesothelioma, fungal lesions, hypothyroidism. Liquid noninflammatory nature (transudat) in the pleural cavity occurs during congestive heart failure, nephrotic syndrome and cirrhosis of the liver due to increased hydrostatic and / or decrease oncotic blood pressure. When infectious and allergic pleurisy observed flow from the source of infection in the area subplevralno lungs and pleura antigens (bacteria and toxins) and vysokopolimirnyh protein and protein-polysaccharide complexes are formed by the action of microbes damaging to tissue and changes in tissue metabolism. As a result, there is a large number of biologically active substances, which causes increase vascular permeability, formation damage effusion and complex vascular structures without the pleura - the tissue barrier. When purulent pleurisy in the pathogenesis outweighs the immediate impact of microbes. Pleurisy fungal nature occur primarily in patients with signs of immunodeficiency. At risk are people who take long-term immunosuppressive drugs, corticosteroids, and patients with chronic diseases that contribute to lower immunity (AIDS, diabetes, etc.).

Pleurisy may have the following reasons:

- 1) spread on pleura pathological process in the lung (pneumonia, pulmonary infarction);
- 2) penetration of the infectious agent or irritating substances into the pleural cavity (pancreatic effusion, amebic empyema, etc.);
- 3) transfer to the pleura to blood or lymph infectious, toxic agent or tumor cells (tuberculous, uremic pleurisy effusion in rheumatoid arthritis, systemic lupus erythematosus, pleural carcinomatosis);
- 4) Pleural injuries, particularly fractures of ribs;
- 5) rarely pleural effusion associated with medication.

Initially, pleura becomes edematous and congestive, followed by cellular infiltration on the surface of the pleura formed fibrinous exudate. He is able to dissolve or consolidate into fibrous tissue with the formation of pleural adhesions. Some diseases can run without significant exudation of fluid from inflamed pleura, then pleurisy is dry (fibrinous). But most pleural fluid formed as a result of penetration of the damaged vessel fluid containing many Plasma proteins.

Sometimes fibrozuvannya pleural calcification and even her there without acute pleurisy, such as asbestosis or pleural calcification in idiopathic.

Classification.

It is generally accepted classification pleurisy at present does not exist. It should again be emphasized that pleurisy is usually not an independent disease. First of all, the origin of pleural effusion divided into inflammatory, tumor and stagnant. Inflammatory pleurisy can be divided into:

- 1) infection - bacterial, fungal, viral, etc;
- 2) parasitic - amebiasis, echinococcosis, parahonimoz etc.
- 3) fermentogeic - pancreatogenic;
- 4) allergic and autoimmune - exogenous allergic alveolitis, Dressler's syndrome, drug allergy;
- 5) in rheumatic diseases - systemic lupus erythematosus, rheumatism, rheumatoid arthritis etc.
- 6) traumatic.

Clinical picture. Usually for pleurisy of inflammatory aetiology are origin characteristic - sudden onset, and for tumor or stagnation - slow gradual increase in symptoms.

The clinical picture of pleurisy has three main syndromes syndrome dry (fibrinous) pleurisy, vypotnoy syndrome (liquid exudate, purulent) pleurisy syndrome, purulent pleurisy (empyema). These symptoms can occur in isolation or move one to another.

Manifestations of dry pleurisy complement the main features in the lungs (such as pneumonia) or to the fore. In the latter case, the general condition suffers slightly. Patients complain pronounced deruchyy-piercing pain, mainly in the lateral region of the chest on the affected side, aggravated breathing, coughing and torso in the opposite direction. Irritation back and peripherals divisions diaphragmatic pleura can cause pain that extends to the lower part of the chest wall or abdomen with simulated abdominal pathology. Defeat central diaphragmatic pleura causes pain that iradiyuye shoulders and neck. Dry cough, increased respiratory rate. Sometimes present hiccups and painful swallowing. History fuzzy, often associated with the "common cold."

In exudative (vypotnoy) pleurisy patients with the overall malaise noted a feeling of heaviness, fullness and simultaneously compress on the affected side of the chest, sometimes a dry cough. The accumulation of large amounts of liquids lets you know about yourself wheezing with some difficulty exhaling, accelerated heartbeat. Occasionally there can be signs of acute pulmonary heart. When present an effusion, pain usually subsides.

Physical examination. Dry pleurisy, chest on the affected side behind the act of breathing. Percussion changes in the absence of lung lesions are not present. Auscultation on the affected side slightly weakened vesicular breathing (due to shallow breathing due to pain) and pleural friction noise. Pleural friction noise be heard not always and only in the first 24-48 hours after the onset of pain. Noise can be gentle, barely audible, crackling imitate, but can be loud, crackling, creaking. Noise Synchronous breathing be heard during inspiration and expiration. Noises that listen with pleurisy in okolosertseviy area - pleural, pericardial friction - can be associated with a heartbeat, so the act of breathing. Voice tremor and bronhofoniya not changed.

Pleural effusion, the patient is forced into position on the affected side. Appears on the background of pale cyanosis of the face, neck veins may swell, intercostal spaces on the affected side of the chest with its asymmetrical increase over the affected area. Voice tremor weakened or absent, or weakened breath sounds disappear. The massive fluid reduces lung capacity, causing

shortness of breath or increases. At the patient's condition may affect the shift of the mediastinum to the healthy side (with a couple of pneumonic pleurisy) or the affected side (with effusion, combined with atelectasis or pneumofibrosis). Percussion location in the lower liquid - massive blunting of parabolic upper level, the top of which is on the back axillary line. On the back is gently lowered to the spine, and ahead - down to the midclavicular line. Thus on the chest are two rectangular triangles: Harlyand and Hrokko-Rauhfus. Harlyands legs of the triangle is a line of spine and perpendikulyar, dropped from the top line to the liquid level of the spine, and the hypotenuse is the line-Damuazo Sokolov. Blunt-tympanic sound is determined as a result of compression atelectasis.

Triangle Hrokko-Rauhfus revealed the presence of a large amount of fluid and his legs have a line of spine, gentle edge light on the healthy side, and the hypotenuse is the line continuation Damuazo on the healthy side. Dull percussion sound - due to shift of the mediastinum to the healthy side.

In the area of fluid vesicular breathing weakened or absent, in the triangle Harlyanda - with bronchial shade, in the triangle Hrokko-Rauhfusa - weakened vesicular.

Additional methods.

1. Hemography. Moderate leukocytosis, ESR pryshkorena slightly in mild forms, while cancerous pleurisy or pleural empyema changes in the blood can be significant: pronounced neutrophilic leukocytosis, anemia, high ESR performance.

2. Biochemical krovi.Zmenshuyetsya amount of albumin and the amount of alpha-1 and alpha-2-globulin increases, is high performance and activity of fibrinogen protease inhibitors.

3. Radiography of the chest. Radiographs of the chest does not play a significant role in the diagnosis of dry pleurisy, pleural lesions because makes no shadows, there can be only potovschannya pleura. However, chest radiography is an important method of detecting pleural fluid. In the absence of adhesions between the parietal and visceral pleura pleural fluid is placed in the lower chest. A flexible rod pulmonary effusion top edge has the shape of a parabola (line Damuazo). The minimum amount of liquid that can be detected in the patient upright is 300-500 ml, but careful examination of the change of the patient's body can detect even a small amount of liquid: 10-15 ml. Fusion between the parietal and visceral pleura often lead to atypical localization of pleural fluid.

4. Computed tomography is an extremely important method for the assessment of lung parenchyma in patients with lesions of the pleura. In place of encysted pleural effusion may be lung abscess, pneumonia and dimming, caused by bronchogenic cancer.

5. Ultrasound investigation determined not only by the amount of effusion, but in terms of echogenicity may be differentiated serous or purulent exudate. Ultrasound can increase diagnostic accuracy limited sinus, basal, interparticle, and plaschepodibnyh encysted effusion. The combination of ultrasound imaging methods to determine not only the prevalence and location of effusion, but the accompanying changes in the lungs and other internal organs.

6. Pleural puncture includes to mandatory minimum diagnostic. Pleural thoracentesis allows fluid to confirm the presence and determine its characteristics. The appearance of pleural content has a certain diagnostic value. Hemorrhagic exudate observed in pulmonary embolism, trauma, tumors; Brown - at amebiasis; milk - at hilotoraksi; increased toughness characteristic of mezeteliomy; putrid smell - for empyema.

7. Bacteriological study of pleural vmistudaye maximum information with the infectious nature of pleurisy. In punctate examine protein, conduct tests or Lukerini Rivalta.8.Mikroskopic research Gram stained sediment pleural ridynyvazhlyve in all cases where it festering. With the addition of bacteria sometimes can not detect fungi and actinomycetes. Increase in the number of

neutrophils in the cytological punctate study may indicate a festering, multi atypical cells - tumor on his character.

In pneumonia, complicated course which parapnevmonichnym pleurisy, empyema may occur. Empiyemu should be suspected even with purulent exudate in appearance if the neutrophil count is higher than $1 \times 10^{11} / L$ in Gram stained smears are bacteria (more anaerobes), and pH <7.2. Empyema occurs also in the pleural cavity contamination in the breakout lung abscess. The process can be complicated bronhoplevralnoyu fistulas, which sometimes occurs when the break through pleural lung tissue in the bronchi. Empyema is also the result of penetrating injury, thoracotomy, spreading infection of the liver or subdiaphragmatic abscess, or due to rupture of internal organs. Breakthrough purulent focus is on strong cough. At the break of lung destruction in free pleural cavity occurs pneumoempyema total, and if pleural cavity obliterated part (in the destruction or elsewhere), it is limited. If on the basis of physical and X-ray there is the assumption of the development of empyema, should be diagnostic pleural puncture and aspiration of content.

Differential diahnosis spend with major diseases: pneumonia, tuberculosis, cancer patients and others. If the X-ray examination of the lungs after the evacuation of liquids and other data of the previous studies are not sufficient for diagnosis, it is guided by the nature of punctate. When purulent pleurisy the pathogen must install because it affects not only diagnosis but also the appointment of antibacterial therapy. In hloznomu effusion, if there are no indications of surgery and trauma, it most likely will be the nature of the tumor process. Upon detection of serous effusion dyfdiahnostyky will depend on the clinical trial punctate. Smear microscopy and took the pleural fluid of conduct for aerobic and anaerobic bacteria, Mycobacterium tuberculosis, fungi. Amylase in pleural fluid in excess of aktyanist blood testifies to pancreatitis or rupture of the esophagus. The content of pleural fluid glucose below $3.0 \text{ mmol} / L$ is characteristic of pneumonia, rheumatoid arthritis and tuberculosis. In other types of pleurisy glucose in the fluid is usually its content in blood serum. When glucose levels less than $2.2 \text{ mmol} / L$ in patients with pleurisy parapnevmonichnym is very high probability of formation of empyema. When pleural empyema in glucose content is usually absent. Immunological studies using ELISA or PCR can detect antigens and antibodies. When analyzing the cellular content is defined in transudate $1 \times 10^9 / L$ leukocytes and less. Neutrocytosis fluid indicates acute phase of inflammation or superinfection. Lymphocytosis characteristic of chronic inflammation.

If the puncture of the pleural cavity to establish the cause of pleurisy can not perform recomenated biopsy of the pleura. In unclear cases for more pleural tissue using a small torakotomic access (open biopsy).

An important step in differential diagnosis of pleural effusion is to determine the nature of serous fluid, exudate or transudate, which significantly reduces the diagnostic search. Relative density transudate is less than 1,015, and protein content - less than $20.0 \text{ g} / dL$. while the relative density of more than 1,018 of fluid and protein content - more than $30.0 \text{ g} / dL$.

Transudate effusion of properties accumulated at zastoyiniy heart failure, the criteria of which is increasing the size of the heart, liver, ascites, edema of the lower extremities. Also characteristic is the presence of dyspnea and atrial fibrillation. Transudatu accumulation can occur in liver cirrhosis with portal hypertension (splenomegaly, ascites, varicose saphenous veins of the anterior abdominal wall veins of the esophagus, stomach, hemorrhoidal veins) and nephrotic syndrome (proteinuria, hypoproteinemia, hypercholesterolemia).

Meyhes syndrome (pleural effusion in patients with fibroids and other tumors of the ovary) is characterized by fluid.

Amoebic effusion usually occurs in the breakout through the diaphragm amebic liver abscess. This is followed by a sharp pain in the right upper quadrant, shortness of breath. Pleural effusion looks like "chocolate syrup", contains particles of liver parenchyma, neutrophils. Amoebas are determined infrequently, only 10%, but serodiagnosis helps establish an etiological diagnosis.

Echinococcal pleural lesions occur in the breakout echinococcal cysts of the liver, spleen, lungs into the pleural cavity. If the cyst flesh was rotting, it leads to a breakthrough empyema. Diagnostic significance of detection are fluid or pleural biopsy of parasite membranes echinococcal cysts, as well as positive results serodiagnosis.

The long course of the formation of massive pleural adhesions is characteristic of parahonimoz. Fluid containing many eosinophils. In 40% of patients with dry pleurisy parahonimoz observed that recurs. Diagnosis is based on parahonimozu detected in pleural fluid and sputum parasite eggs and on increasing antibody titers to antigens helminth.

In the case of metastatic lesions in punctate usually contains a mixture of lymphocytes and neutrophils as well as many mezetelialnyh cells. Liquid low relative density is determined echinococcal brush, which can be in the pleural cavity. The peculiarity of this fluid is a high content of succinic acid.

Transudate also observed in patients with myxedema, alimentary dystrophy, cachexia, hypovitaminosis C, B1.

Pleural effusion occurs in approximately 40% of patients with systemic lupus erythematosus, or drug-induced lupus. Characteristic is fever, a number of systemic manifestations of the disease, but rarely in isolation only affects the pleura. Pleural effusion is often bilateral. In such cases, pleural fluid is exudate with a predominance of neutrophils initially, and later - monocytes. Title complement to punctate low and antinuclear bodies - high, often LE-cells. The feature of lupus pleurisy is a high efficiency corticosteroid therapy. Pleural effusion in rheumatoid arthritis has a high propensity to chronic recurrent course. Although rheumatoid arthritis suffer more women effusion occurs more frequently in men. Fluids are serous, lymphocytic, with low glucose and high titer of rheumatoid factor. The effectiveness of corticosteroids are unstable. The diagnosis is important manifestations of the presence of other diseases (arthritis, vistserytiv). Pleural effusion rheumatism has a minimum number of specific features.

Tuberculous pleurisy rarely the only manifestation of tuberculosis, but it may be the first manifestation of the disease. Typically, tuberculous pleurisy combined with the presence of different forms of pulmonary tuberculosis, or bronhoadenitu primary sector. Identify three options tuberculous pleurisy, allergic, perifocal pleurisy and tuberculosis pleura. Allergic variant occurs in patients with primary tuberculosis and is characterized by acute onset of pain and fever, and fast, usually within a month, the positive dynamics of the process. In these patients, a positive tuberculin reaction, eosinophilia. Fluid usually lymphocytic, mycobacteria in the fluid are not detected. Perifocal effusion is resulting involving inflammation of the pleura in patients with pulmonary forms of tuberculosis. The disease usually has a long, recurrent nature

Morphological substrate pleural TB is tuberculosis granulomatous inflammation with caseous necrosis elements and pronounced exudative reaction that causes the accumulation of effusion. Fluid in these patients may be serous and purulent predominance of neutrophils and the presence of Mycobacterium tuberculosis. In all versions of tuberculous pleurisy great diagnostic importance is the detection of mycobacteria and their antigens or antibodies to them in the fluid, the presence of extra-pulmonary TB, obtaining specific results pleural biopsy.

In determining haemorrhagic effusion often assumed tumor pleurisy and builds the appropriate diagnostic program; with tuberculous pleurisy detection of hemorrhagic fluid or when there is a massive defeat of the pleura, or at the most critical ways of expression of the disease intoxication. In the case of metastatic lesions in punctate usually contains a mixture of lymphocytes and neutrophils as well as many mezetelialnyh cells. FBS with biopsy for cytological and bacteriological studies in 85-90% of cases helps to clarify the diagnosis. Diagnostic feature of pleural carcinomatosis are the presence of malignant cells in Pap smears stained by pleural fluid. In the differential diagnosis of pleurisy and malignant tumors of the central role played confirmation of the diagnosis data bronholohichnoho, cytological, radiological and tomographic studies, computed tomography.

Complication. Complications of pleurisy divided into local (pulmonary) and common (extrapulmonary). By pulmonary complications include respiratory failure, atelectasis, pneumothorax, diaphragmatic hernia. Atelectasis is a frequent complication in patients in the postoperative period (no principled values which drive conducted surgery). By extrapulmonary complications, mainly resulting from empyema include renal amyloidosis and toxic nephropathy.

Pneumothorax - an acute condition characterized by the advent of air in the pleural cavity and lungs descending (collapse, compression atelectasis). There is a primary (idiomatic or spontaneous) and secondary (symptomatic) pneumothorax. Primary pneumothorax often caused by a rupture of emphysematous bubbles subpleural located mainly at the top of the lungs, limited adhesions in the pleural cavity, heart lung, pneumoconiosis, tumors of the lung and pleura. Pneumothorax also developing the breakout in the pleural cavity cavitation, abscess or cyst lung injury lung fragment edges.

Treatment .In treatment strategy should primarily direct the efforts on the treatment of the underlying disease.

When pneumonia is prescribed appropriate antibiotic therapy. Depending on the pathogen and its sensitivity to antibiotics prescribed penicillin, tsefolosporiny, Monobactam, aminohikozidy, macrolides, quinolones, nitrofurans, imidozoly and other means.

If effusion is tuberculosis etiology, produced specific anti-tuberculosis therapy.

When diagnosing systemic disease being treated fabric combination immunosuppressants (hlyukorotykyidamy and cytostatics).

Used with pleurisy any cause inflammatory and desensitizing agents.

In dry pleurisy and painful cough prescribe antitussive agents.

Evacuation of fluid via pleurocentesis has two objectives: to prevent the development of empyema and eliminate functional disorders associated with compression of vital organs. Simultaneously removed no more than 1.5 liters of fluids to prevent collapse. In exudative pleurisy infectious etiology After removal of fluid in the pleural cavity is administered antibacterials. With the development of purulent pleurisy patients threatened with death by intoxication, or sepsis, the transition to chronic - from amyloidosis or generalization of infection. In the untimely removal of fluid it possible rupture in the surrounding tissue and organs with the formation of fistulas. Thoracentesis often reduces shortness of breath, caused massive pleural effusion. Since the very rapid removal of several liters of fluid a possible cardiovascular collapse, every aspiration procedure should be limited in volume 1200-1500 ml. Thoracentesis may be complicated by pneumothorax puncture or visceral pleura ingress of air into the pleural cavity.

With the purpose of detoxification for patients with pleural effusion and empiyemu administered intravenously infusion Neogemodez, Ringer's solution, 5% glucose solution.

To correct protein deficiency is made transfusion 150 ml of 10% albumin solution 1 time in 2-3 days, 3-4, 200-400 ml of plasma svizhezamorozhenoyi native and 1 time in 2-3 days, 2-3, injected intramuscularly 1 ml retabolil 1 every 2 weeks, 2.3 injections.

When is protracted course, in fibrinous pleurisy prescribed immunomodulators (dekaris, T-aktivin, timalin and others).

In phase dispersal of the goal as the fastest destruction of fluid, pleural reduction spayek, appoint electrophoresis with calcium chloride, heparin, decimeter wave paraffin.

After a sharp attenuation effects shown vibratsiynny manual and chest massage, spa treatment.

Empyem treated with high doses of parenteral antibiotics and drainage. Among the preferred antibiotic III generation cephalosporins in combination with β -antistaphylococcal laktamazrezystent penicillin. Clindamycin administered in the presence of said treatment-resistant pneumococci or with anaerobic flora. Vancomycin is the drug provision, particularly in cases where the agent is methicillin-resistant *Staphylococcus aureus*. The choice and combination of antibiotics made taking into account the sensitivity of the pathogen. Thoracostomy begin as soon as possible, providing early smoothing lungs faster resorption of infiltration and prevents obliteration of the pleural cavity. In the initial stages only possible regular tight pleural puncture. In the presence of pus in the pleural cavity is a reasonable aspiration, flushing permanent drainage of pleural cavity (torakostomiya ultrasound). Drainage also ask if there are signs of rapid transformation parapnevmonichnoho purulent serous effusion (fluid acid reaction in particular). In CEPT intrapleuralno used fibrinolytic drugs (urokinase 100,000 units, 250,000 IU streptokinase). In case of ineffective use videotorakoskopicheskoye research pleural cavity and surgical treatment.

One of the main problems in dealing with disorders of gas exchange is to restore patency of the upper airways. This exercise, particularly in patients unconscious, by mechanical removal of foreign bodies with two fingers, wrapped in cloth or gauze. More effective reorganization of the bronchial tree is achieved by suction. Sterile catheter is introduced into the airways to the required level, turn on the suction and slowly pull the catheter while performing rotational movements.

Effective measures to combat hypoxia of acute respiratory failure is moistened oxygen inhalation. In the lower nasal passages introduced dual thin catheters through which oxygen is passed. In cases of pronounced respiratory failure conduct artificial respiration.

It is particularly important when dealing with respiratory failure and development plevropulmonalnogo shock is easing pain. Significantly reduce pain drugs (pantopon, Promedolum, fentanyl) and narcotic analgesics (analgin, baralgin and others). They are especially effective in combination with antihistamines. An important factor in the development plevropulmonalnogo shock is severe blood loss. The main means of combating it is a complete infusion therapy. Timely recovery of deficit Volume of tsyrkulated blood, elimination of hypovolemia promote blood supply to the tissue and improve circulation. Fluid replacement should begin with the introduction of crystalloid solutions (laktasol, salt solutions, etc.), which are able to quickly eliminate the deficit fluid in the extravascular space. Then go to the infusion of colloidal solutions (polyglukin, reopolyglukine), which give pronounced offsetting effect.

Prevention. Prevention pleurisy is primarily on prevention, and timely and proper treatment of diseases that may be complicated by inflammation of the pleura. At the heart of purulent pleurisy prevention is early detection and evacuation of the pleural cavity blood congestion, air and fluid.

Control of initial level of knowledge

1. The most frequent etiological factor in the development of exudative pleurisy are:

- A. Tuberculosis.
- B. Diffuse disease of connective tissue.
- C. Chest trauma.
- D. Hemophilia.
- E. Diabetes.

2. The cause of pleurisy noninfectious etiologies are:

- A. Hemorrhagic vasculitis.
- B. Myxedema.
- C. Meigs syndrome.
- D. Primary tumors of the pleura.
- E. IHD.

3. The mechanism of pathogenesis in dry pleurisy not include:

- A. Contact way penetration.
- B. Lymphogenous infection.
- C. Hematogenous spread.
- D. The influence of allergens.
- E. Violation of the integrity of the pleural cavity.

4. What are the signs of pleurisy:

- A. Pressure pain in the precardiac area.
- B. Strengthening the voice trymtinnya.
- C. Lag chest on the affected side.
- D. Amforychne breathing.
- E. Dribnopuhyrchasti wet wheezing.

5. In which marked pleurisy pain:

- A. Apical.
- B. Intralobulyarnyy.

C. Diaphragmatic pleurisy.

D. Kostalnyy pleurisy.

6. Most feature zustrichayema pain of pleurisy:

A. Intermittent pain.

B. The pain continued.

S. Pain associated with coughing, breathing.

D. Pain bought nytrohlitserynu reception.

E. Bilsuprovodzhuyetsya of krovoharkotinyam.

7. Pain in dry pleurisy increases:

A. Lying position.

B. In a deep breath.

C. Slopes in the opposite direction.

D. In daytime.

E. By reducing fever.

8. The main distinguishing symptom of dry pleurisy are:

A. Cough.

B. How to pain with breathing.

C. Shortness of breath.

D. Pleural rub.

E. Pain trapezius muscle.

9. Charakteriatcs of pleural friction

A. Auscultated only inspiration.

B. Auscultated only at expiration.

C. Is reduced after coughing.

D. Auscultated distance.

E. Auscultated to inhale and exhale.

10. Verification of dry pleurisy diagnosis is based on:

A. Sputum.

- B. Radiography of the chest.
- C. Carefully collected history.
- D. Bronchography.
- E. Auscultation data.

Control of final level of knowledge

1. The clinical analysis of the patient's blood to pleurisy appears:

- A. Leukopenia, decreased ESR.
- B. Eozinofiliya.
- C. Eritrotsytoz.
- D. Leukocytosis, increased ESR.
- E. Neutropenia.

2. Pleurisy are characterized by the predominance lymphocytes in pleural effusion:

- A. Allergic pleurisy.
- B. Tuberculosis and malignant etiology.
- C. Pulmonary infarction.
- D. When pneumonia.
- E. In uremia.

3. Mostly are blood cells in the pleural effusion is characterized by acute inflammation:

- A. Lymphocytes.
- B. Eosinophils.
- C. Neutrophils.
- D. Red blood cells.
- E. Monocytes.

4. X-ray study of the chest reliably visualize effusion, when not less than:

- A. 200 ml.
- B. 300 ml.

C. 400 ml.

D. 500 ml.

E. 100 ml.

5. Where are most likely to be at eksudativ pleurisy dull percussion sound:

A. Above the line Damuazo.

B. Garland Over triangle.

C. When Damuazo line.

D. Over triangle Rauhfusa-Hroko.

E. Over-European Truabe.

6. What diseases often carry out differential diagnosis of pleurisy:

A. Equity pneumonia.

B. Spontaneous pneumothorax.

C. Intercostal neuralgia.

D. Osteochondrosis.

E. Myositis.

7. Holding pleural puncture for health reasons if necessary:

A. IV fluid to the ribs.

B. Liquid V to the ribs.

C. Fluid VI to the ribs.

D. Fluid III to the ribs.

E. Fluid II to the ribs.

8. What is the most informative method of research in exudative pleurisy:

A. Tomography.

V. Spirometry.

C. Bronchography.

D. Bronchoscopy.

E. Radiography of the chest cavity.

9. The main principles of treatment of pleurisy include:

- A. Bronchodilator therapy.
- B. Antibacterial therapy.
- C. Mucolytics.
- D. Dezintoksikatsiyna therapy.
- E. Dehydration therapy.

10. What would be best to start treatment of exudative pleurisy:

- A. With the appointment of amoxicillin.
- B. With pleural puncture.
- C. With the appointment of gentamicin.
- D. With the appointment of aminocaproic acid.
- E. On Biseptol purpose.

Situational tasks.

1. Male 42 years old, complains of paroxysmal cough with sputum yellow-brown, pain in the right side, associated with deep breathing, sweating. Sick 6 days after hypothermia. OBJECTIVE: T 39.6 0C. BH - 26 per min., Pulse - 110 per min., Blood pressure - 110/70 mmHg Right in the lower lung - wet sounding dribnopuhyrchasti wheezing. Radiological findings: right at the bottom of the lungs - a massive infiltration of inhomogeneous areas enlightenment sine differentiated. What is the most likely complication developed in a patient?

- A. Fibrinous pleurisy
- B. Abscess formation
- C. Empyema
- D. Spontaneous pneumothorax
- E. Lung atelectasis

2. Male 28 years old, acutely ill two days ago when having headache, weakness, cough with a "rusty" sputum. OBJECTIVE: flushing of the face, BH - 36 per min. Above the lungs percussion - dull sound right below the angle of the blade, auscultation - bronchial breath. Heart rate - 98 per min., Blood pressure - 110/70 mmHg Body temperature - 38 0C. In a blood test: A - 17h109 / l, ESR - 32 mm / h. Radiological findings: homogeneous darkening in the lower part of the right lung. Which of these is most likely diagnosis?

- A. Pulmonary tuberculosis

- B. Bronchiectasis
- C. Acute bronchitis
- D. Pleural effusion
- E. Pneumonia

3. Patient V., 40, complains Ttila increase to 39.5 0C, cough with "rusty" sputum, shortness of breath, herpetic lesions on the lips. BH - 32 per min. Right under the shoulder blade strengthening voice trembling, there blunting percussion sound, against the background auscultation bronchial breath - crackling. Blood test: A - 14h109 / l, ESR - 35 mm / h. Your preliminary diagnosis?

- A. Pleural effusion
- B. Bronchiectasis
- S. Pulmonary tuberculosis
- D. Acute bronchitis
- E. Pneumonia

4. Patient A., 44 years, 4 days after surgery kystomy right ovary suddenly developed pain in the right half of the chest with a discharge sputum pink, fever up to 37.7 0C. An examination of the lungs revealed blunting of pulmonary sound in the lower right, listen in the same single wet wheezing. What is the most likely complication?

- A. Lung abscess
- B. Pneumonia
- C. Pulmonary infarction
- D. Pleural effusion
- E. Pneumothorax

5. Patient '35 suddenly appeared sharp pain in the right side of the chest. Quickly narosla shortness of breath. Objectively - pronounced acrocyanosis. The patient's condition heavy. Determined subcutaneous emphysema in the neck and upper chest. Above right lung box sound, no breath. HR - at 85-110 min., Pressure - 110/60 mm Hg. Art. What disease is most likely the patient?

- A. Spontaneous pneumothorax
- B. Myocardial infarction
- S. Pulmonary infarction
- D. Pneumonia

E. Pleural effusion

6. Patient A., 38 years old, complained of shortness of breath, feeling of compression in the right half of the chest, the temperature rose to 38.7 0C, cough with small amounts of mucous-purulent sputum. Ill more than a week. Complaints connects with hypothermia. On examination: easy acrocyanosis lips, rhythmic pulse, 90 per min, blood pressure 140/85 mmHg The right half of the chest behind the act of breathing. Percussion - right below the angle of the blade dullness is heard from below to the top. In this section respiration sharply weakened absent. What is the most likely diagnosis?

A. Bronchiectasis

B. Right-nyzhnochastkova pleuropneumonia

C. Atelectasis of the right lung

D. Sided pleural effusion

E. Abscess right lung

7. Patient P., 46 years, of unidentified provisionally diagnosed by clinical and radiographic parameters recommended pleural puncture. As a result of a puncture obtained 1000 ml of liquid that has the properties: transparent, ratio. density - 1010, protein content - 1%, Rivalta test - negative, ER. - 2-3 in p / a. For what disease is characterized by the data?

A. Lung Cancer

B. Pleural effusion

C. Pleural Mesothelioma

D. Pulmonary tuberculosis

E. Heart Failure

8. The patient A. observed against the background of fever, dry cough, shortness of breath increases. Most of the time lying on one side. Auscultation and percussion data allowed suspected pleural effusion. What method of research confirm the diagnosis?

A. Tomography

B. Spirometry

C. Bronchography

D. Bronchoscopy

E. Radiography of the chest cavity

9. Male 29 years old, complained of cough with "rusty" sputum, chest pain when breathing, increased body temperature to 39 0C. Acutely ill after overcooling. OBJECTIVE: BH - 30 per

min, heart rate - 92 per min, blood pressure - 130/80 mmHg In the case of lung edges down 4 enhanced voice trembling, blunting percussion sound, bronchial breathing. What would be best to start treatment?

- A. Amoxicillin
- B. Pleurocentesis
- C. Gentamicin
- D. Aminocaproic acid
- E. Biseptol

10. Male 40 years, complains of severe pain in the left side of the chest, shortness of breath, which increases with any movement. Ill suddenly after considerable physical exertion. The examination: moderate cyanosis of the face, left side of the chest behind the act of breathing. Percussion: left - tympanitis, no breathing. BH - 24 per min. On radiographs visible line visceral pleura. Outside of it lung picture available. What is the most likely diagnosis?

- A. The left-sided pneumonia
- B. Pulmonary embolism
- C. Myocardial infarction
- D. Spontaneous pneumothorax
- E. Left-hand pleural effusion

Control questions.

1. Define pleurisy.
2. Etiology and pathogenesis of pleurisy.
3. The main causes of pleurisy.
4. Classification pleurisy.
5. Clinical manifestations of dry pleurisy.
6. Clinical manifestations of exudative pleurisy.
7. Physical data with pleurisy.
8. Dodatvovi methods with pleurisy.
9. Indications and contraindications for pleural puncture, methods of its implementation.
10. Name the characteristics of fluid and transudatu.

11. Differential diagnosis of pleurisy.
12. Complications of pleurisy.
13. Treatment of pleurisy.
14. Prevention of pleurisy.

Practical tasks.

1. To provide curation of patients with pleurisy.
2. Assess the patient's condition and results of physical examination.
3. Fill minutes Supervision patient with pleurisy.
4. Writing or interpreting received laboratory studies.
5. Give or interpreting received instrumental methods.
6. Treatment.
7. Prescription for the treatment of pleurisy.
8. Assign rehabilitation and preventive measures.

Answers on tests

Basic knowledge

- | | |
|------|------|
| 1. A | 6. C |
| 2. Д | 7. B |
| 3. Д | 8. Д |
| 4. C | 9. € |
| 5. C | 10 € |

The final level of knowledge

- | | | | |
|----|---|----|---|
| 1. | Д | 6. | А |
| 2. | В | 7. | Є |
| 3. | С | 8. | Є |
| 4. | Д | 9. | В |
| 5. | С | 10 | А |

Case for cottages

1.	В	6.	Д
2.	Є	7.	Є
3.	Є	8.	Є
4.	С	9.	А
5.	А	10	Д

RECOMMENDED BOOKS:

1. Clinical Pulmonology - 2016 (The Clinical Medicine Series Book 19).-343h.
2. Pulmonary Disorders [Sect. 5, Merck manual] 2010.-123p.
3. Pulmonary Pathophysiology : The Essentials by (author) [John B. West](#) 2012
.-208 pages.
4. Davidson's Principles and Practice of Medicine 22nd Edition .-Walker, Brian R., FRSE.-2014.-1312p.

Website of the department: <http://www.vnmed3.kharkiv.ua/>,

Методичні вказівки склали: доц. Котовщикова Н.Н.
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Завідувач кафедри
внутрішньої медицини №3
д.м.н. проф..

Журавльова Л.В.