MINISTRY OF HEALTH OF UKRAINE
Poltava State Medical University

Lecture for 4 cource of medical faculty:

CLINICAL FORMS OF TUBERCULOSIS:

Primary and secondary pulmonary tuberculosis

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Lecture plan

1. Definition of the concept of TB
2. 2. Clinical classification of TB
3. 3. Clinical forms of primary TB
4. Rynny period TB infection
5. Primary TB complex
6. TB intrathoracic lymph nodes-
7. TB non-localization – TB intoxication
8. Clinical forms of secondary TB
9. Milliary TB
10. Subacut dissemination TB
11. Chronic dissemination TB
12. TB pleurisy

TUBERCULOSIS is an infectious disease, the etiological factor of which is MBT, morphologically manifested by granulomatous, tuberculous and caseous-destructive changes in the affected organs and tissues.

Patogenetically distinguish 2 types of TB: primary and secondary

Primary tuberculosis is a clinical forms of TB that develop when MBT enters a previously uninfected organism.

Pathogenetic distinguish 4 phases:

Phase I - bacteremia (4-6 hours)

Phase II - immuno-morphological reactions (about 2 months)

Phase III - clinical and morphological changes

Phase IV - completion of the process (outcome): Regression and recovery or progression and development of chronic TB

Early period of TB infection

EARLY MANIFESTATIONS OF TB INFECTION:

1.1. THE TURN OF THE TEBERCULIN REACTIONS

1.2. LATENT MICROBISM

1.3. PARASPECIFIC REACTIONS

CLINICAL FORMS PRIMARY TB:

2. TUBERCULOSIS INTOXICATION

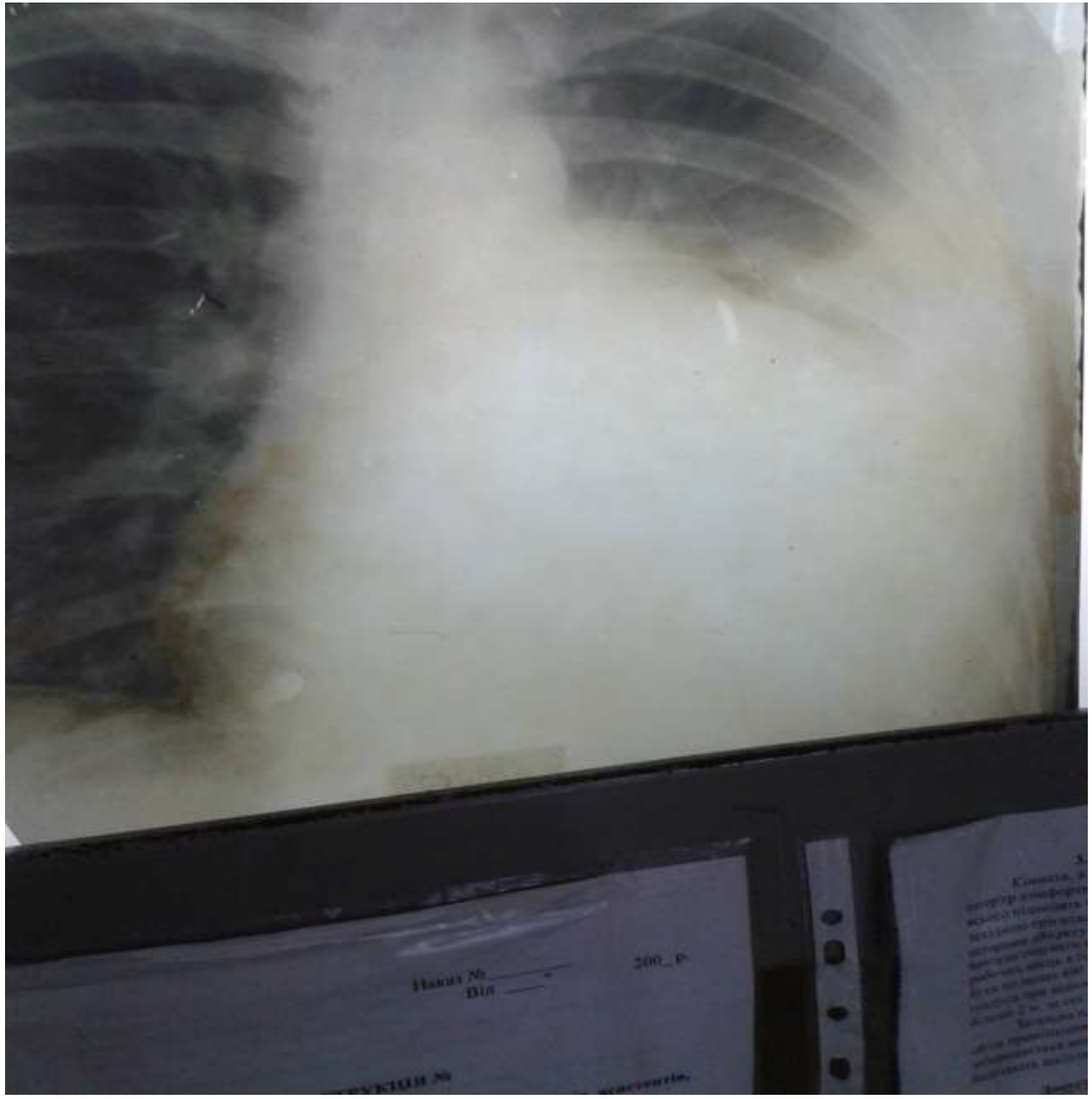
3. PRIMARY TB COMPLEX

4. TUBERCULOSIS OF INTRATHORACIC LYMPHATIC NODES

Latent microbism is a state of the body when MBT is found in tissues, organs, body fluids, in the absence of a pathological process in the body.
Such a situation is possible under conditions when infection occurs weakly virulent, with reduced pathogenicity of MBT, while the organism of an infected person maintains high resistance.
Under conditions of a decrease in the body's immunological defense, the state of latent microbiism can turn into a disease.

A latent infection is a condition when pathomorphological changes are found in the body, mainly in the lymph nodes, but there are no clinical manifestations of the disease. The state of latent infection develops under conditions of high resistance of the organism, when the macrophage system is able to block the MBT by encapsulating and organizing caseosis and its calcification. This condition occurs during the initial infection. These residual changes from primary infection may be a source of reactivation of endogenous infection later in life.

The turn of tuberculin tests is a change in previous negative tuberculin reactions to a positive one, as a result of MBT infection. This is how infection is detected at an early stage.
To do this, the Mantoux tuberculin test with 2 TU PPD is carried out in children annually, starting from 1 year of age and completed at the age of 14, after the last revaccination.
Paraspecific reactions: Conjunctivitis, keratoconjunctivitis, Serositis, polyserositis, rhinopharyngiti, Vasculitis, phlebitis. allergic dermatitis, erythema nodosum, Polyarthritis (Poncet's rheumatism). hepatitis, nephritis.

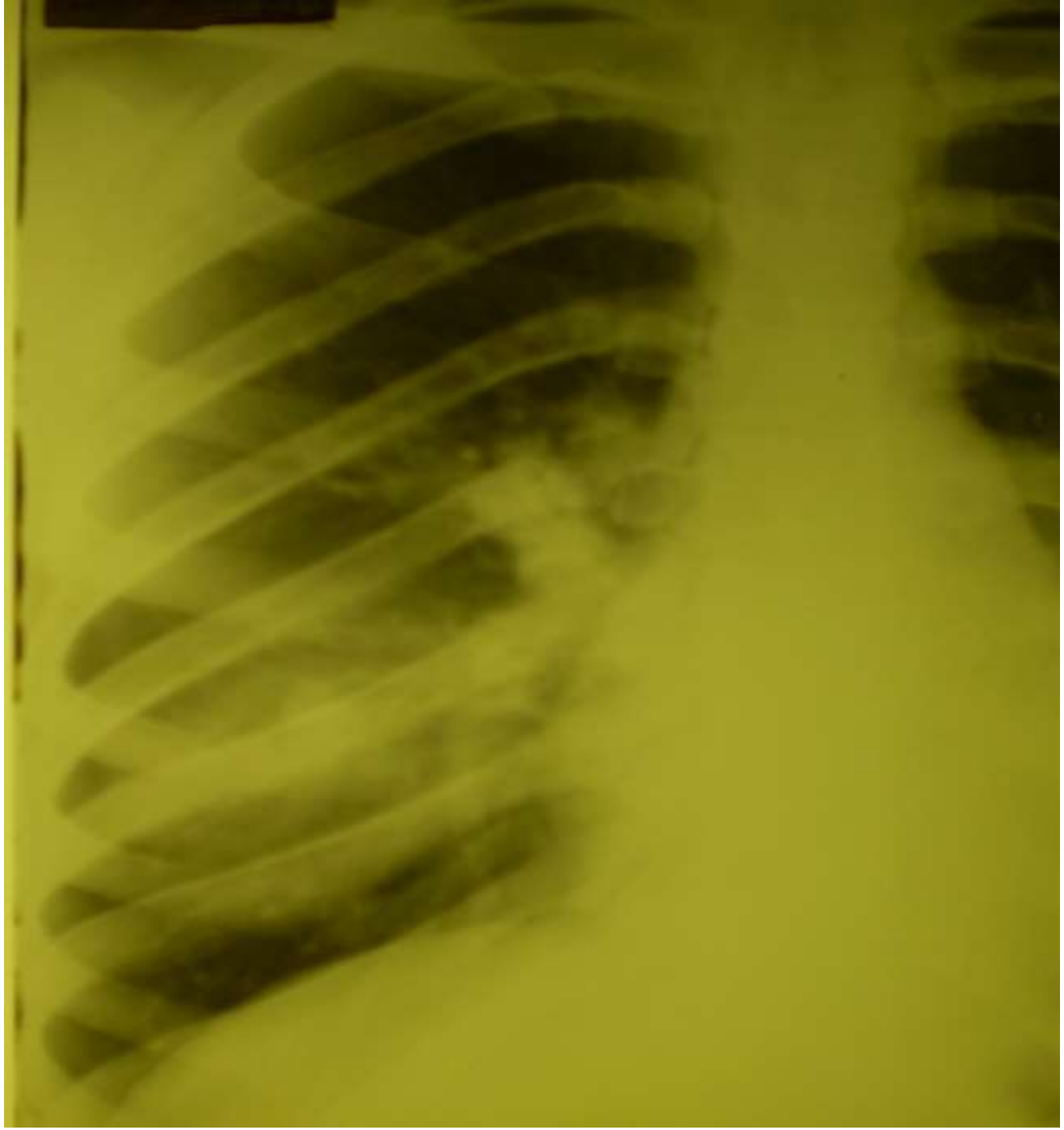


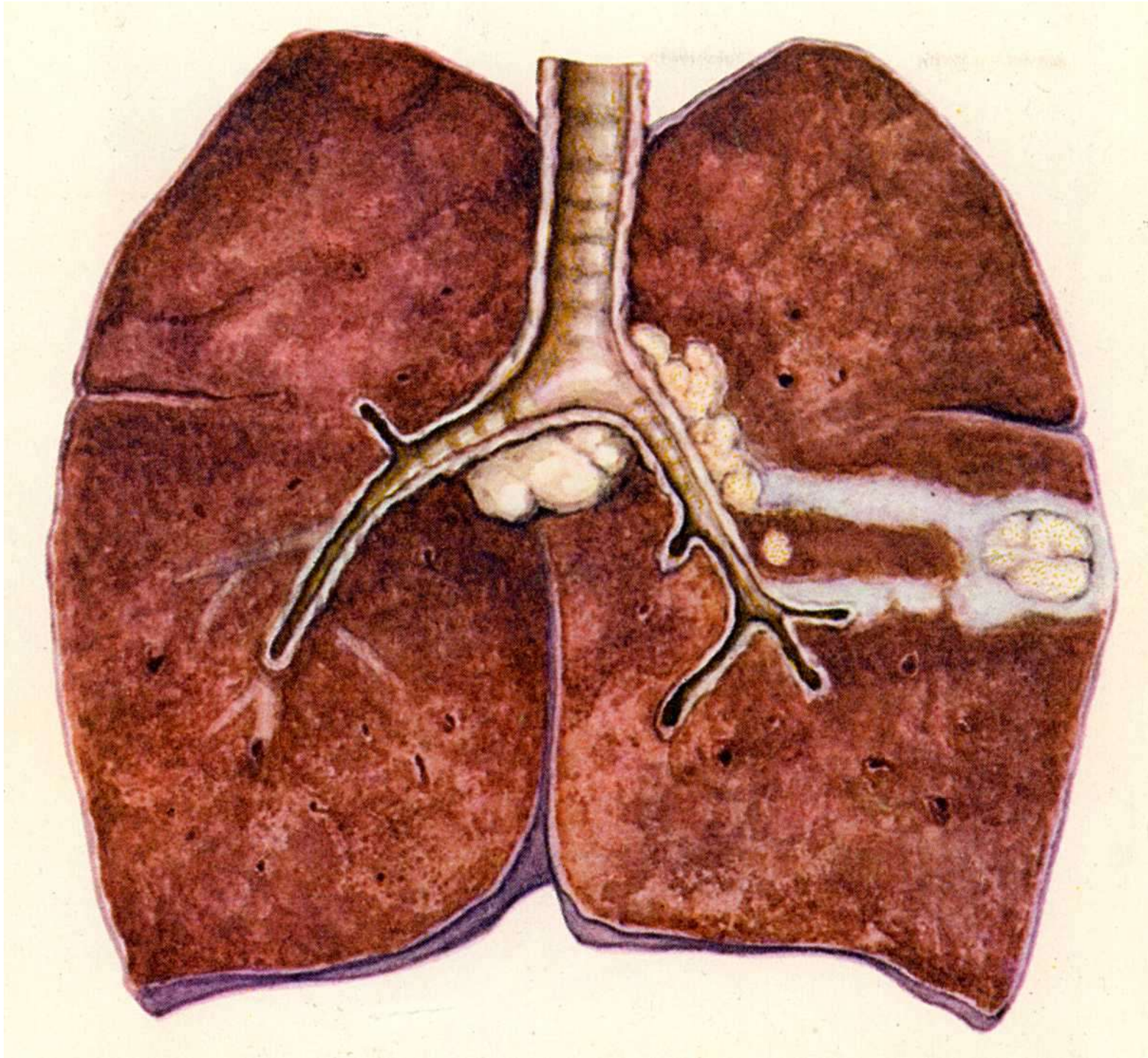
Primary tuberculosis complex (PTC) is a clinical form of primary tuberculosis characterized by primary affect (pulmonary component), lymphangitis (vascular component), and lymphadenitis. Downstream are distinguished: 1 - infiltration or pneumonic,
2 - resorption or bipolarity,
3 - sealing and
4 phase - calcification With the aerogenic route of infection, PTC most often develops in the lung tissue (Strukov - 95%). In this case, cortical sections, well-ventilated segments, are most often affected. The process begins with the alveoli (alveolitis), then goes to the bronchi (bronchiolitis), acinus, lobule, even the whole lobe.

The primary affect at first is a non-specific pneumonia, which is quickly replaced by a specific one with the development of cheesy necrosis. PTC can be asymptomatic and ends with spontaneous healing with the formation of Gon's foci. Simon's foci are screenings on the tops of the lungs with a complicated course of PTC. More often, an acute onset (pneumonic phase) is characteristic of PTC: increase in body temperature up to 38°-39°C; lack of appetite; weakness; sweating; cough; drowsiness.

Objectively: micropolyadenia - these are enlarged cervical, submandibular, occipital, supra-, subclavian and other groups of lymph nodes) they are densely elastic, painless, mobile;rarely there may be paraspeial reactions (erythema nodosum, phlyctenular conjunctivitis, Poncet's rheumatism, influenza masks, etc.);percussion - shortening, dullness;auscultatory - weakened breathing, wet (medium, fine bubbling rales); tachycardia, systolic murmur;hepatolienal syndrome.
Laboratory: moderate leukocytosis; moderate shift of the leukocyte formula to the left; lymphocytosis, followed by lymphopenia; monocytosis;ESR 20-30 mm per hour.MBT is practically not found in sputum, but may be during decay

Tuberculin diagnostics: the turn of tuberculin tests, there may be a hyperergic Mantoux test with 2 TU.
X-ray diagnostics: an infiltrative shadow of low or medium intensity, without clear contours, associated with the root, is located more often in the upper and middle parts of the lung fields.





Allocate x-ray 4 stages:
I st. - infiltration or pneumonic (homogeneous shadow of low intensity, almost no different from nonspecific inflammation)
II st. - resorption or bipolarity (infiltration resolves and primary affect and lymphadenitis remain)
III st. – seals
IV st. - petrification (calcification - characterized by the deposition of calcium salts in caseous foci) with the formation of foci of Gon”s. Such changes are observed 1-1,5 years after specific treatment.

With treatment comes recovery. Rarely, there may be a complication with the formation of caverns, lymphogenous seeding.
Treatment: 4 anti-TB drugs (isoniazid + rifampicin + ethambutol and pyrazinamide).
And supplement with desensitizing, immunocorrecting, symptomatic agents and vitamin therapy

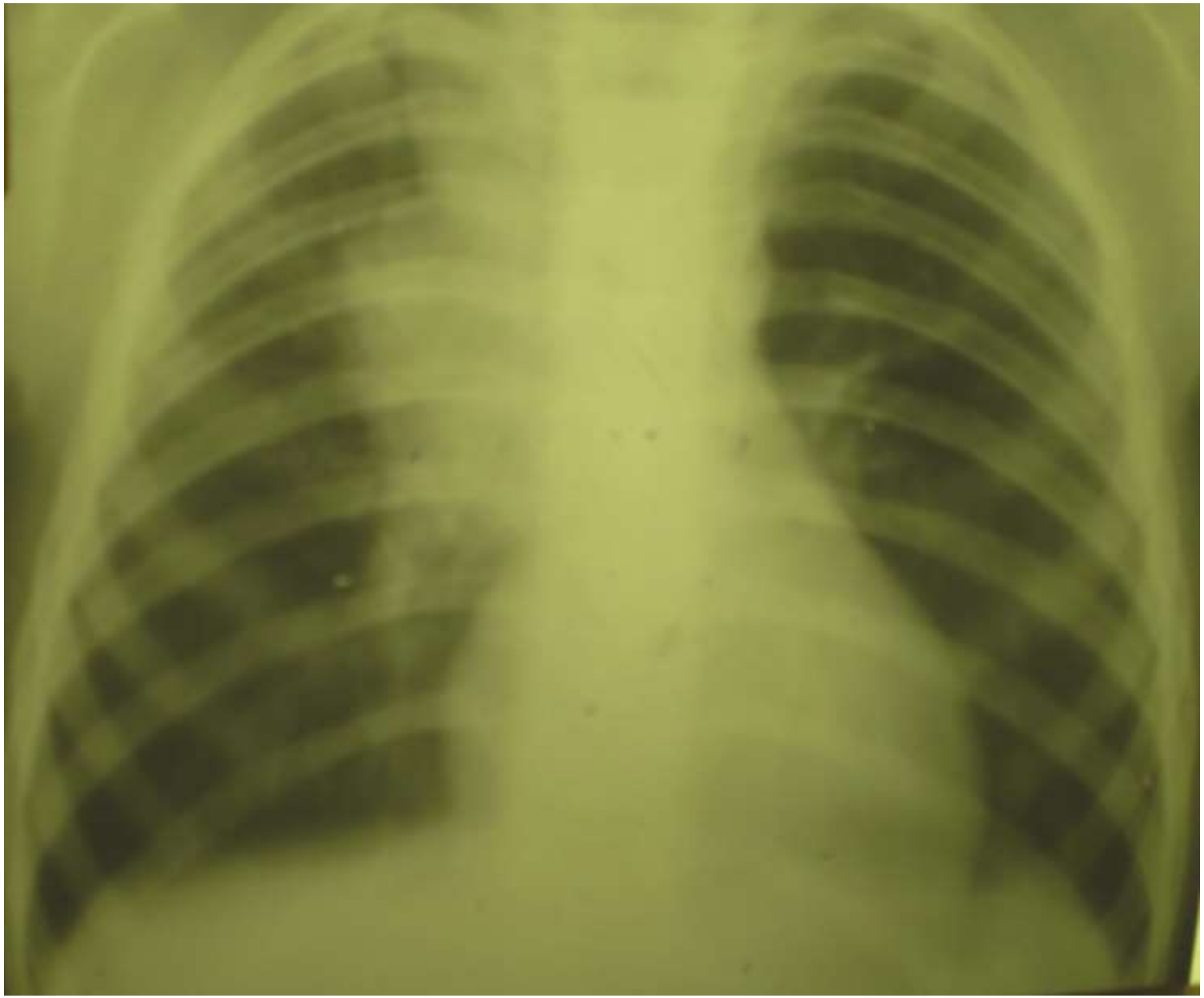
TB Bronchoadenitis is a clinical form of primary tuberculosis that affects the intrathoracic lymph nodes. The following groups of lymph nodes are distinguished (according to Sukennikov V.A.): paratracheal; tracheobronchial; bifurcation bronchopulmonary Bronchoadenitis is 75-80% in the structure of primary forms of tuberculosis. After infection of the body, MBT circulate in the blood for some time (bacteriemia), while the pathogen becomes lymphotropic, MBT settles in various parts of the lymphatic system, where specific inflammation can develop.

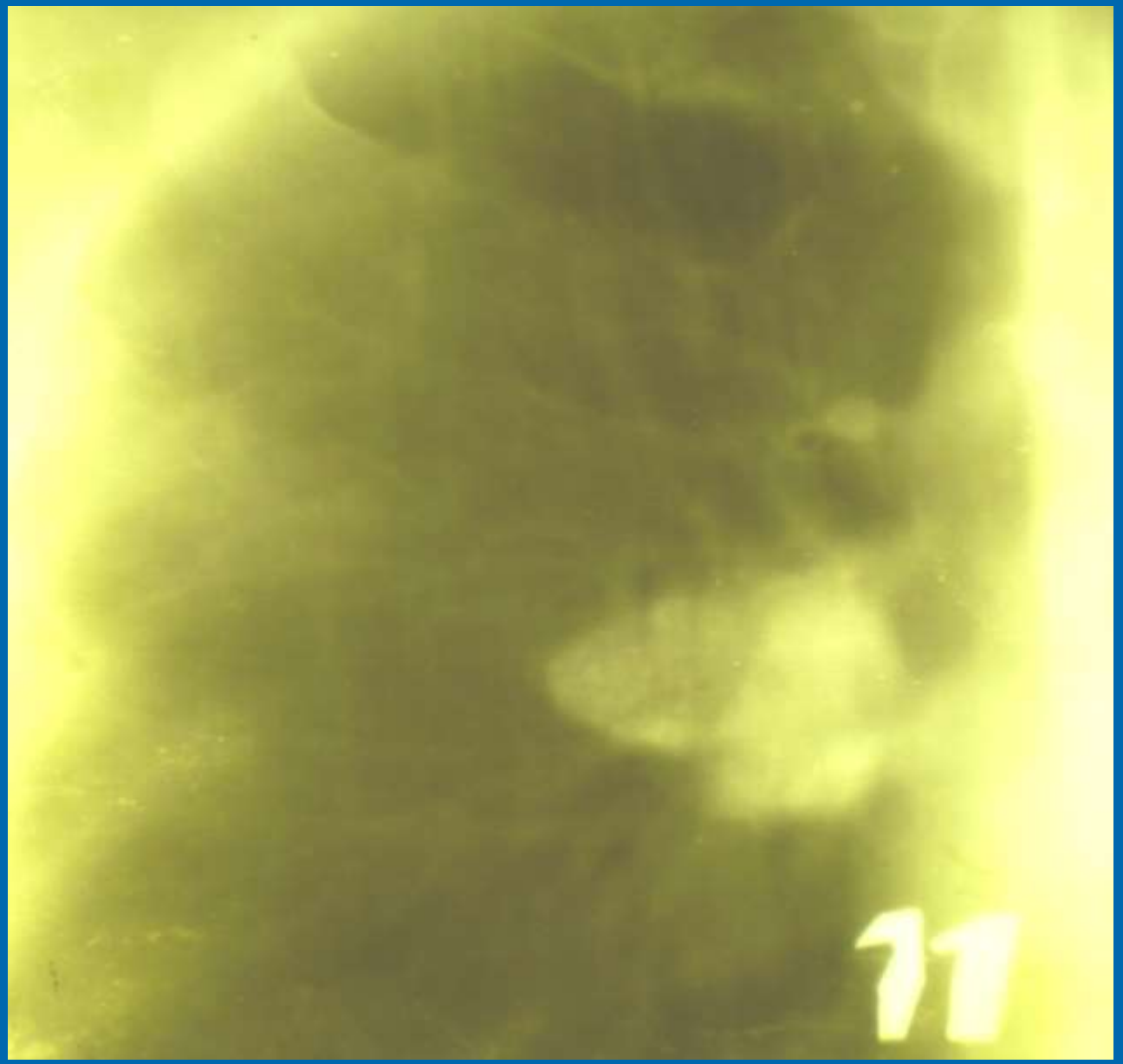
Based on pathological anatomical signs, the following forms are distinguished: infiltrative (perinodular inflammation dominates);
tumor-like or tumorous (enlarged lymph nodes, tuberculous focus within the capsule of the limousines).

Minor - TB lesion of the broncho-pulmonary group of lymph nodes. According to clinical and morphological features, there are:
hyperplastic form (changes are reversible, hyperplasia of lymphoid tissue);
caseous (lymph nodes represent caseoma);
indurative (growth of fibrous tissue, organization of caseous masses).

Onset: acute, t° 38-39°C, weakness, dry, unproductive cough (pertussis-like) to vomiting, irritability.Objectively:pallor;emaciation;microp olyadenia - damage to 5 or more groups of lymph nodes (soft, mobile, do not hurt);percussion - dullness is determined paravertebral in the interscapular region;auscultatory - at first there are no changes, later - dry rales are possible.Laboratory: moderate leukocytosisshift of the leukocyte formula to the left; ESR 20-30 mm per hour. MBT is detected during the formation of bronchial fistulas.

Tuberculin diagnostics: turn of tuberculin tests, there may be a hyperergic reaction to 2 TU of tuberculin.
X-ray: the root is expanded (more than 1.5 cm), compacted (with a unilateral process), changes can be unilateral or bilateral with asymmetry of the lesion. With a tumorous form, the contours of the root are clear, with an infiltrative form, the infiltration extends to the tissues adjacent to the root, the contours are uneven, fuzzy.

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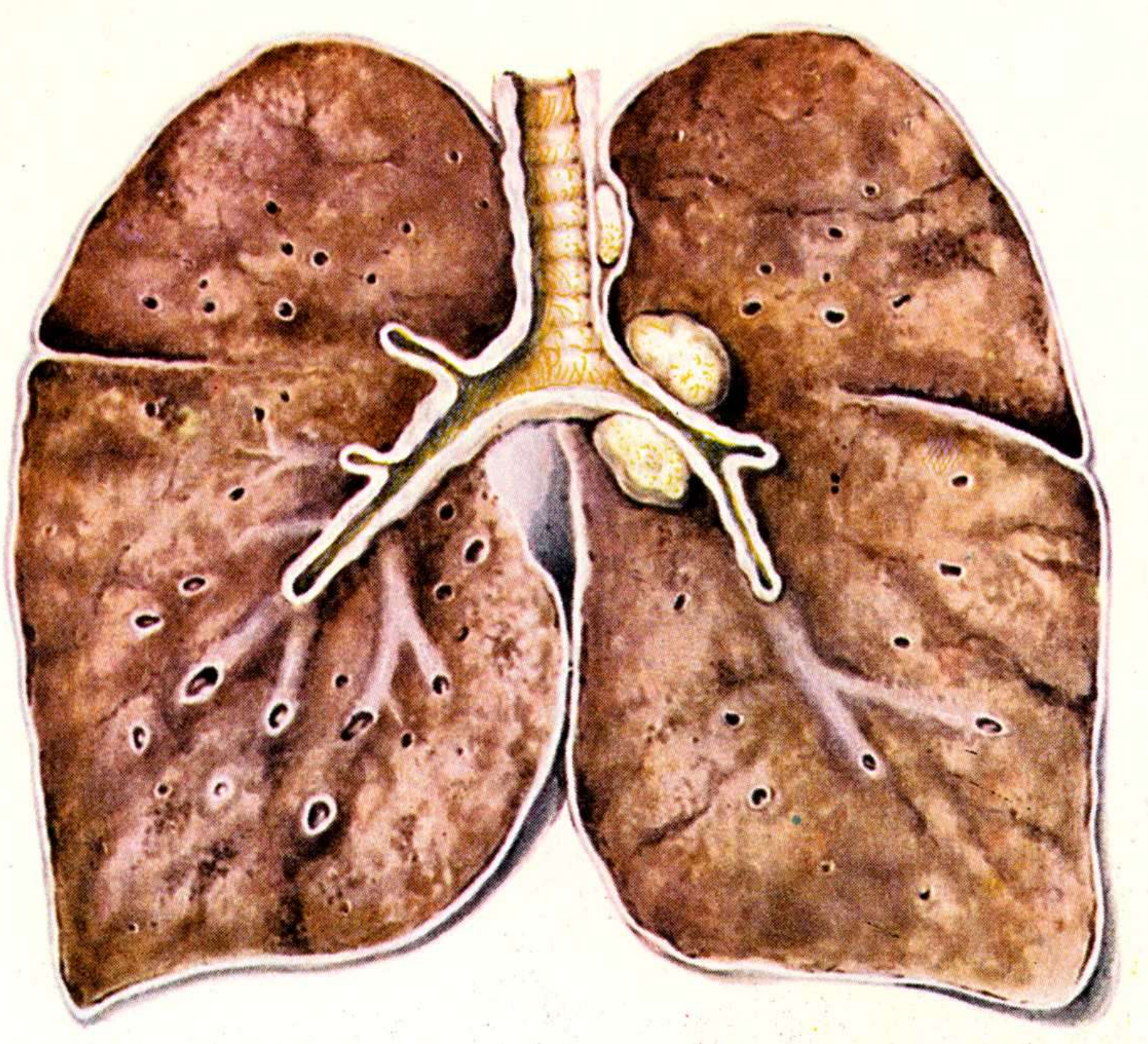
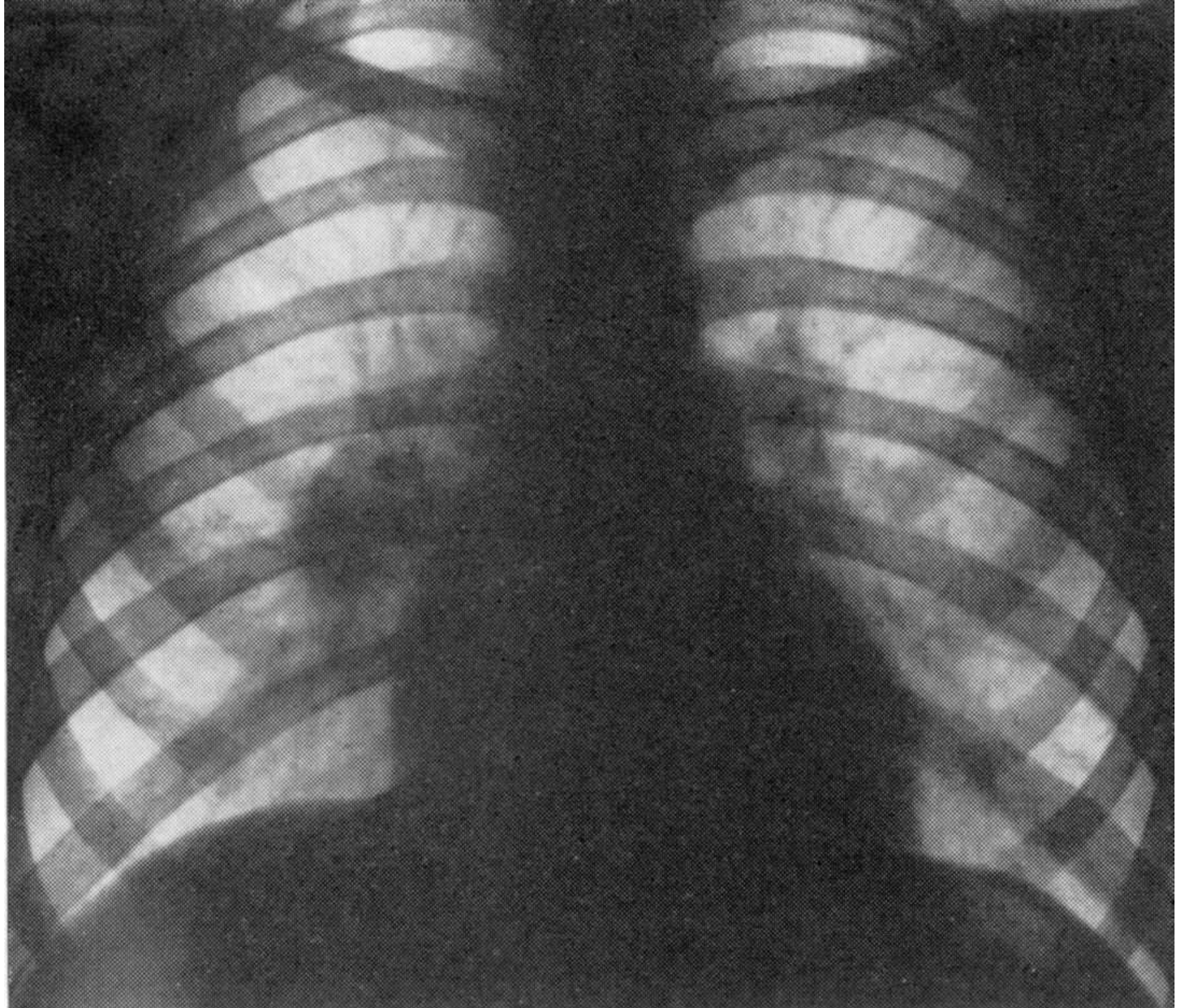




Phases (X-ray):
I st. - infiltrations:
II st. - resorption:
III st. - seals:
IV st. - calcifications.
Completion of the process:resorption (rarely); calcification (more often).
Complication: spread to the bronchi, to the pleura; atelectasis.
Treatment: 4 anti-TB drugs [HRZE] for 6-8 months.
Pathogenetic therapy (anti-inflammatory, desensitization, immunocorrection).

Secondary tuberculosis is a clinical form of tuberculosis that occurs in conditions.exogenous superinfection (repeated entry into the body of virulent MBT) orreactivation of an endogenous infection (old tuberculosis foci in the lungs or in the lymph nodes)

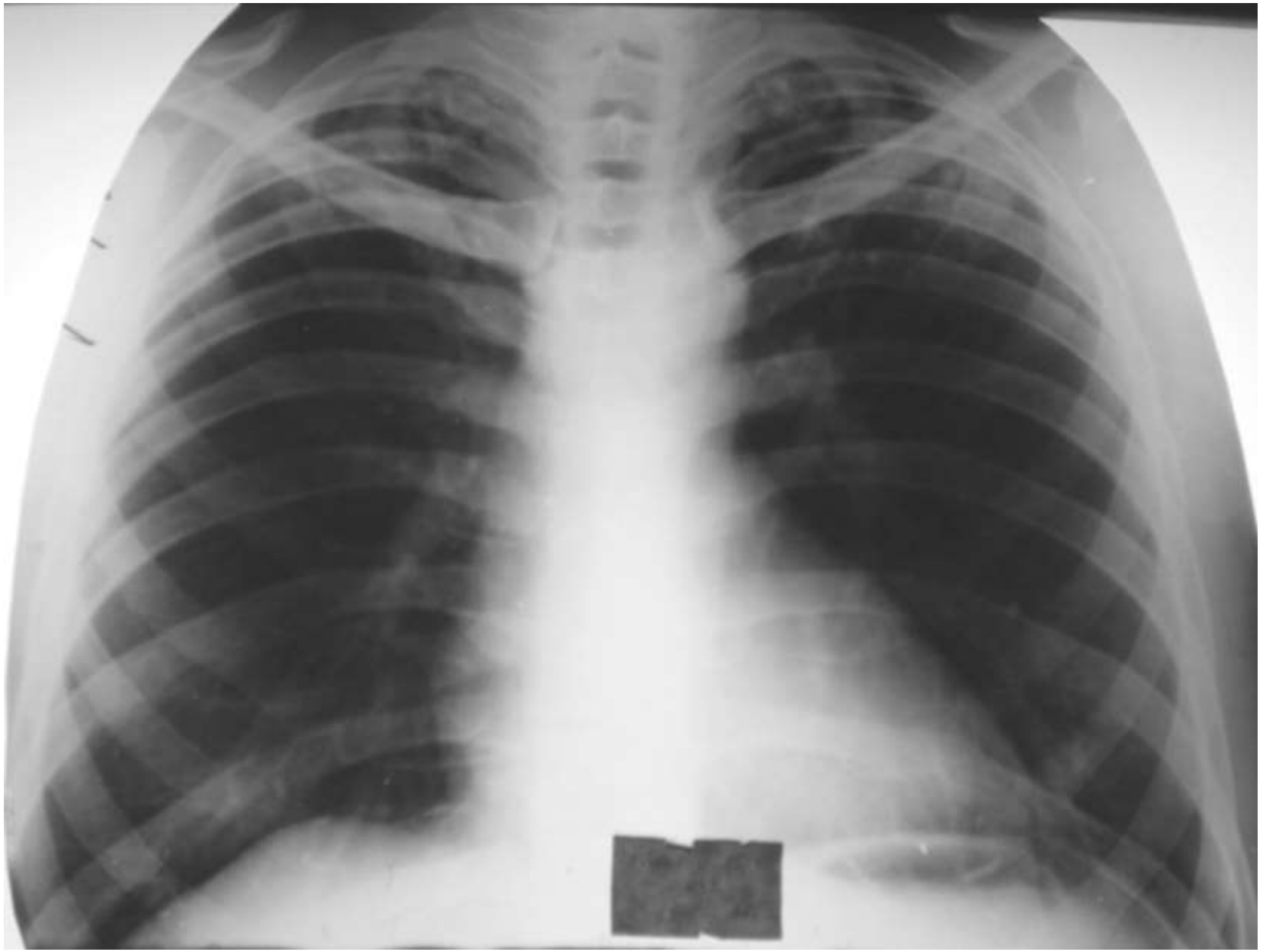
The cause of the occurrence is the formation of immunodeficiency

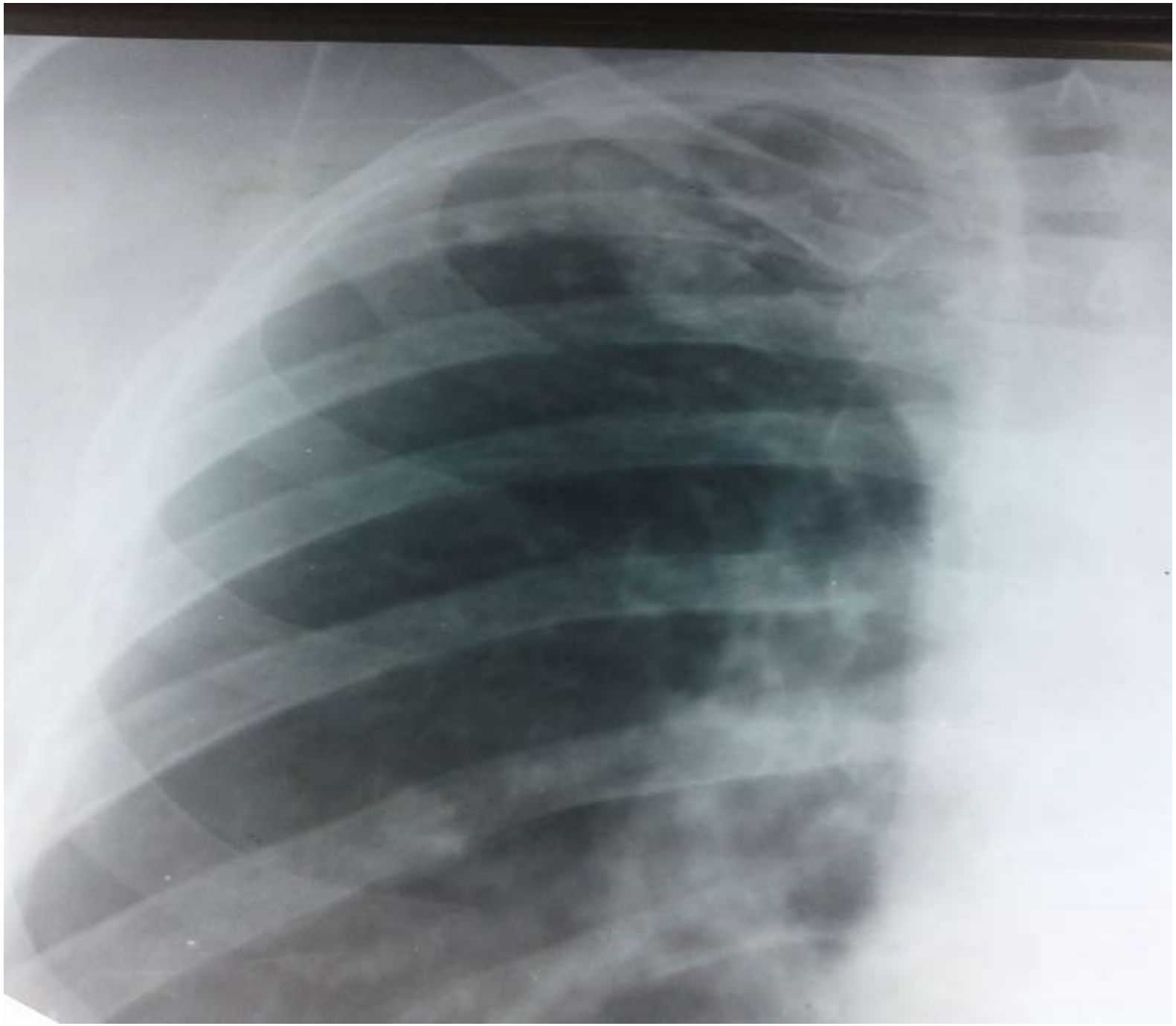
Risk factors for TB activation: Diseases – HIV/AIDS, diabetes mellitus, stomach ulcers, Treatment with immunosuppressants - glucocorticoids, cytostatics, radiation, Bad habits - alcoholism, drug addiction, Social - deprivation of liberty, migration, homelessness, poverty, Chronic lingering stress

All of these factors lead to immunodeficiency. Immunodeficiency is a trigger mechanism for the activation of tuberculosis. The pathoanatomical substrate of secondary tuberculosis is tuberculous tubercle, characterized by the presence of dry cheesy necrosis, Pirogov-Langans giant cells, MBT. With the progression of the process, lysis of the lung tissue may occur, and necrosis becomes more liquid, its discharge through the bronchi leads to the development of cavities, which, scarring, form fibrous changes. The involution of the tuberculous process rarely leads to complete resorption with the development of pneumofibrosis, more often caseous necrosis undergoes encapsulation and the development of fibrous tissue.

FOCAL TB

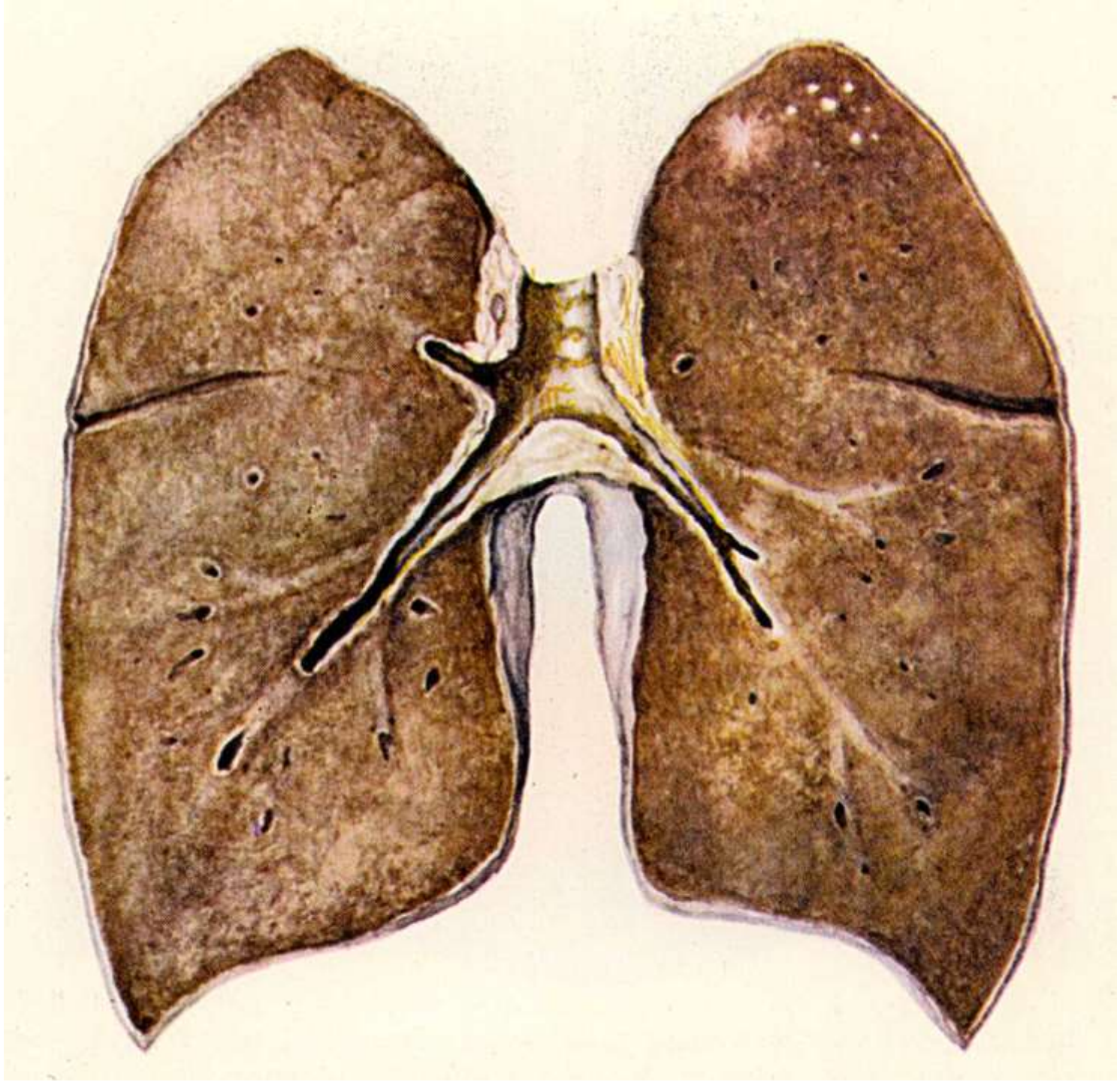
This form of secondary pulmonary tuberculosis, which is characterized by the presence of focal shadows (a shadow up to 1 cm in diameter) with a prevalence of no more than 1-2 segments. There are 2 clinical and radiological forms: soft - focal (initial form); fibrous-focal (ivory form, outcome).





Soft-focal

Complaints: absent - most often.Rare: subfebrile t body, weakness, irritability, slight fatigue. Objective data: the appearance of a healthy person. Perhaps an increase in peripheral lymph nodes (cervical, axillary). Percussion - a clear pulmonary sound, auscultatory - vesicular breathing. Very rarely, there may be dry wheezing, muscle tension over the affected area.Laboratory examination data: MBT is practically not found in sputum, only during decay. In general, a blood test often does not find pathological changes, perhaps: moderate lymphocytosis, slightly accelerated ESR.
X-ray: in 1-2 segments of the lungs, focal shadows are determined, not prone to fusion, of low or medium intensity, without clear contours, homogeneous structure or with an area of enlightenment.



Treatment: 4 antibiotics for 2 months (intensive phase) and then 2 antibiotics for 4 months (maintenance phase).
The frequency of occurrence is currently 10-15%, and in the 80s 50-60% of all forms of pulmonary tuberculosis.

Fibrous-focal pulmonary tuberculosis occurs as a result of the involutive development of the primary tuberculosis complex, soft-focal tuberculosis, disseminated, infiltrative tuberculosis, tuberculoma.

Complaints are usually absent, but rarely there may be a cough, weakness, sometimes hemoptysis.Objectively: no pathological changes are found, but sometimes dry rales are heard.Laboratory data: there are no pathological changes in the general blood test, no MBT in sputum.X-ray: focal shadow one or more homogeneous structures of medium or high intensity, not prone to fusion, with clear contours, possibly irregular in shape, localized in segments I, II, VI. The activity of fibro-focal tuberculosis is determined by Koch's test with 20-50 TU. Depending on the activity of the process, complex therapy or anti-relapse treatment is carried out.

Disseminated TB is a clinical form of secondary, possibly primary, TB that is characterized by an extensive lesion involving pathological process in 3 or more lung segments

Disseminated TB of the lungs is a clinical form of primary or secondary TB that occurs as a result of lympho-hematogenous or bronchogenic spread of MBT in the body and is characterized by bilateral, numerous suppurative and infiltrative lesions of more than two segments of the lungs with overwhelming localization in the upper and cortical parts of the lungs.In the structure of clinical forms of TV, it is over 40%.

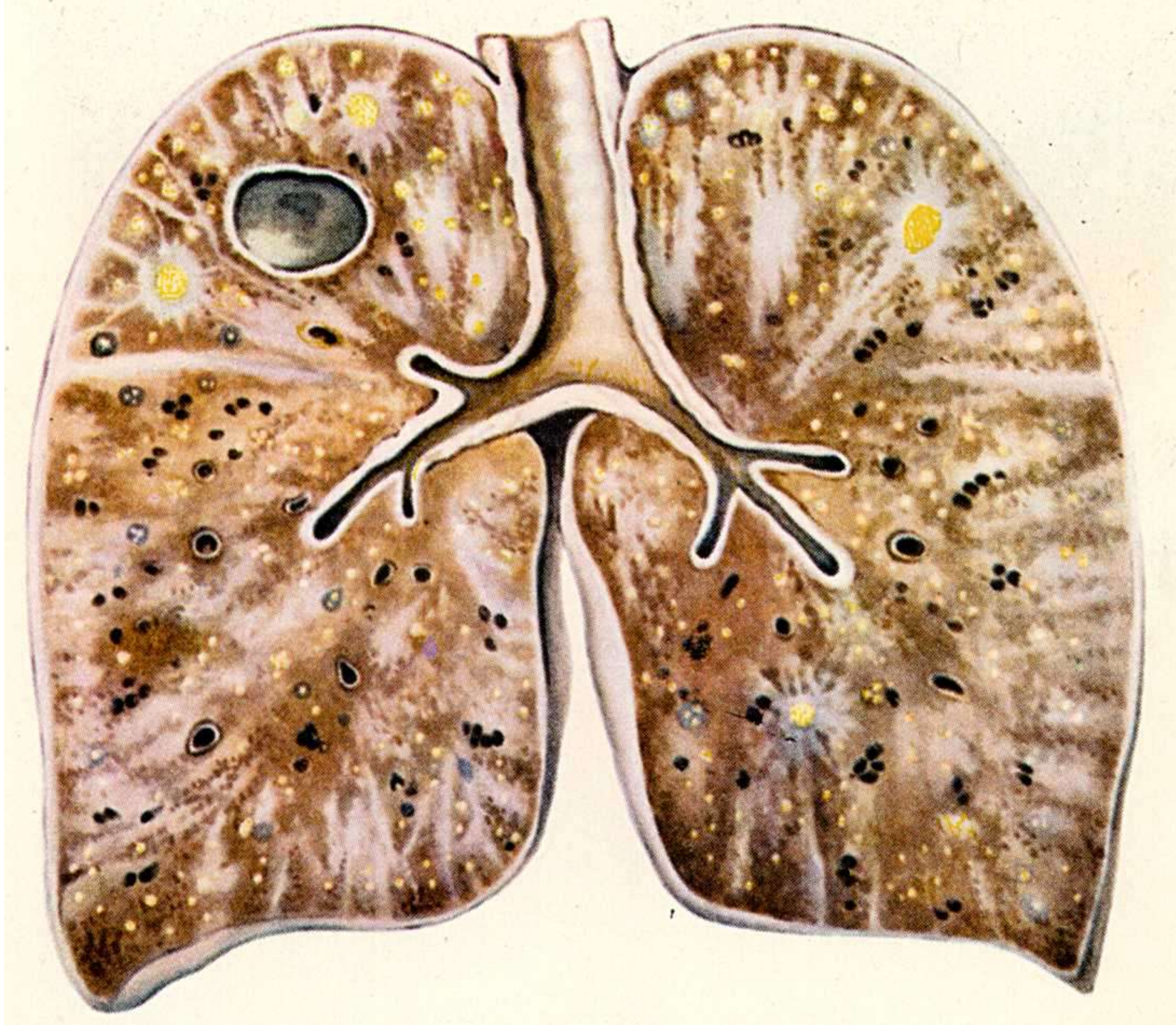
For the occurrence of disseminated TB of the lungs, the following conditions are necessary:- the presence of a source of infection;- a general decrease in the reactivity of the body and suppression of anti-tuberculosis immunity, which leads to a breakthrough of the infection into the vascular bed (bacteremia);- a corresponding change in the reactivity of the lung tissue with the development of local sensitization, allergization of the walls of blood vessels and their fibrinous swelling.The clinical course is divided into acute (miliary), subacute and chronic dissemination of lung TB. According to the clinical classification (ISC X revision, in 2003), consistent with the WHO statistical classification, miliary TB is placed in a separate nosological form.

Milliary tuberculosis is a clinical form of primary or secondary TB, which is characterized by hematogenous spread of MBT in the body with the formation of the same type of monomorphic millet-like lesions of various organs and tissues. This form is rare in our time, occurs in a weakened body, in senile people, occasionally in women during pregnancy or after childbirth, sometimes as a complication of primary TB in children who live in the family of a patient with a bacterioviding agent in conditions of massive infection.Pathomorphology. In the lungs, multiple foci the size of a millet grain (milae - millet) are formed. Hence the name of this form - miliary TB. The appearance of foci is preceded by damage to the capillaries of the lungs, which leads to an increase in its permeability. In the wall of small vessels, interstitium and alveolar septa, small TB lesions 1–2 mm in size are formed. They occur within a short time and therefore are monomorphic: all foci are predominantly exudative or productive in nature, rarely necrotic. The impression of the interstitium of the lungs with edema of biological membranes and capillary toxicosis cause significant functional disorders of the respiratory system. With miliary TB, the infection also enters the systemic circulation, and similar foci form in other organs - the liver, spleen, and kidneys. Its drift into the brain and its membranes is possible, then it develops – TB meningoencephalitis.

Depending on the overwhelming localization of lesions and clinical manifestations, there are: Landuzi typhobacillosis (septic), pulmonary, typhoid and meningeal forms of miliary TB. Common features of these forms are persistent bacteremia, hematogenous generalization of infection in the body and reduced immunity.

Typhobacillus Landuzi is a fast-acting tuberculous sepsis that occurs in children. It begins acutely with an increase in body temperature to 39-40 ° C, accompanied by fever, light-headedness, loss of consciousness. Patients die within 7-10 days. Diagnosis is made on the basis of autopsy.Lung form. Clinic. It begins acutely, from a high temperature, which reaches 39-40 ° C and has a persistent character with small daily fluctuations. In adults, the temperature reaction is less pronounced. Symptoms of respiratory failure are expressed: shortness of breath (up to 40 breaths per minute), feeling of lack of air, frequent breathing, diffuse cyanosis, orthopnea. The cough is predominantly dry, nadsadist. In this case, there is fever, sweating, headache, fatigue, general weakness, emotional arousal.The patient's condition is severe, the skin is pale with slight cyanosis, breathing is superficial. Percussion is determined by mild tympanitis, the limits of the lungs are expanded due to expanded emphysema. Auscultatory examination revealed weakening of vesicular respiration, with the appearance of destruction small bubbling wet rales may appear. Tachycardia responds to the temperature reaction. There is an increase in the liver and spleen.

This form is rare in our time, occurs in a weakened body, in senile people, occasionally in women during pregnancy or after childbirth, sometimes as a complication of primary TB in children who live in the family of a patient with a bacterioviding agent in conditions of massive infection.Pathomorphology. In the lungs, multiple foci the size of a millet grain (milae - millet) are formed. Hence the name of this form - miliary TV. The appearance of foci is preceded by damage to the capillaries of the lungs, which leads to an increase in its permeability. In the wall of small vessels, interstitium and alveolar septa, small TB lesions 1–2 mm in size are formed. They occur within a short time and therefore are monomorphic: all foci are predominantly exudative or productive in nature, rarely necrotic. The impression of the interstitium of the lungs with edema of biological membranes and capillary toxicosis cause significant functional disorders of the respiratory system. With miliary TB, the infection also enters the systemic circulation, and similar foci form in other organs - the liver, spleen, and kidneys. Its drift into the brain and its membranes is possible, then it develops - TB meningoencephalitis.



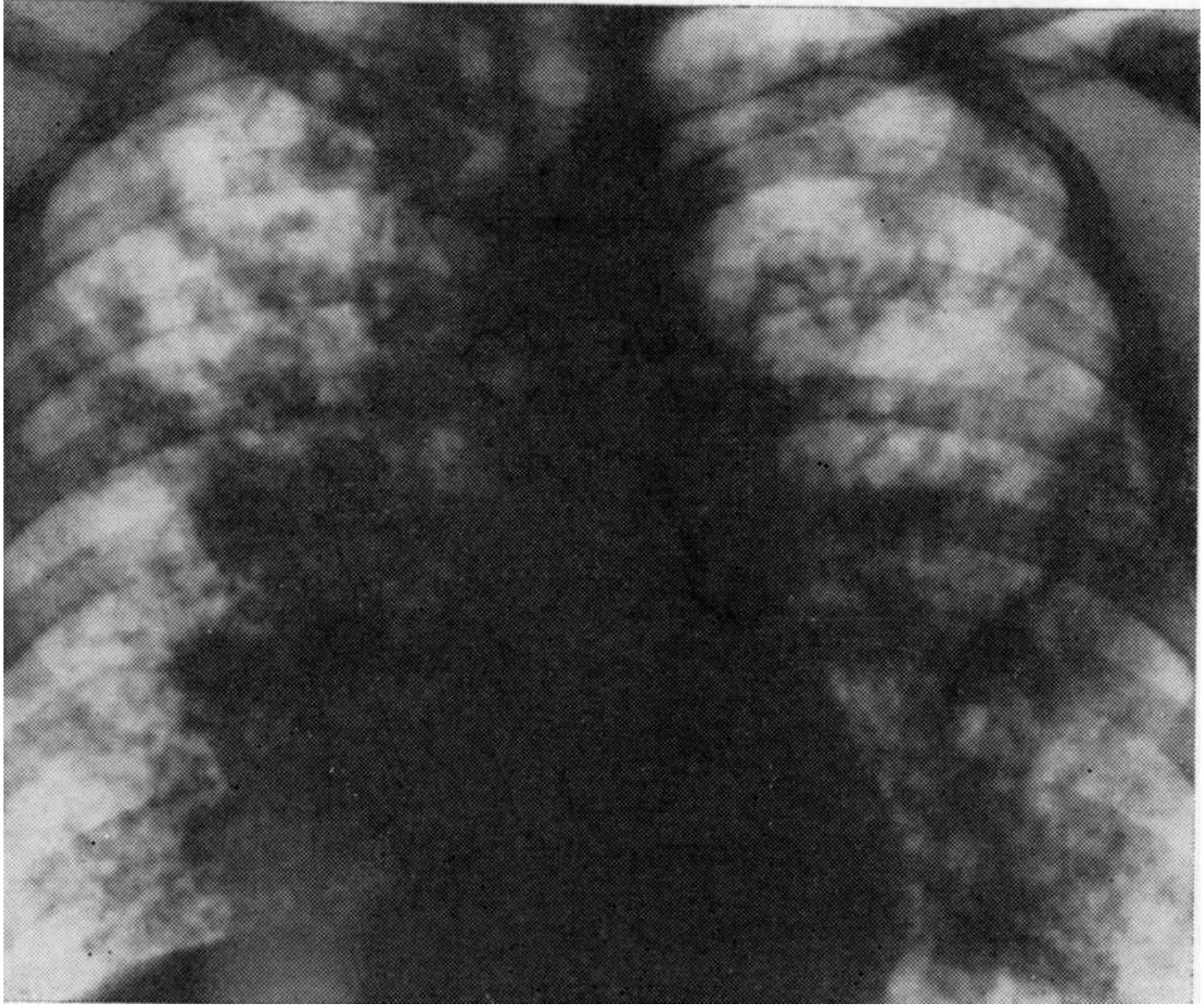
The typhoid form of milliary tuberculosis is formed as a result of an overwhelming impression of the abdominal organs and peritoneum, which is characterized by a high resorptive capacity, as a result of which the onset of the disease becomes especially acute and resembles typhoid fever.It is characterized by a rapid increase in temperature to 39-40 ° C and instability throughout the day, accompanied by fever, impaired consciousness, tachycardia (with typhoid fever - bradycardia), rhythm disturbances (extrasystole, paroxysm of flashing arrhythmia). After 10-12 days from the onset of the disease, cough, auscultatory bronchial breathing, dry whistling rales appear, typical small monomorphic shadows appear in the lungs, which are characteristic of miliary TB, which greatly facilitates diagnosis. In the blood there is leukocytosis, lymphopenia, monocytosis, moderately increased ESR. On the ECG - changes in the type of acute or subacute pulmonary heart (overload of the right heart, incomplete blockade of the right leg of the bundle of His). If TB is not diagnosed in a timely manner and specific treatment is not prescribed, then after 3-4 weeks the patient dies.

The meningeal form is characterized by the development of meningeal syndrome in patients (irritation of the meninges), which includes: headache, vomiting, pain during skull percussion, stiff neck, positive symptoms of Kernig and Brudzinsky. Meningeal syndrome can be predetermined by swelling of the meninges (meningismus) or inflammation (meningitis). Diagnostics. Hemogram: the number of leukocytes is normal, or something increased, with the progress of the process, leukopenia is possible, an increased number of stab leukocytes, there is severe lymphopenia, monocytosis, ESR is normal or somewhat increased. In the vast majority of patients, MBT is not found in the sputum, they appear only in the presence of lung destruction. The Mantoux test is usually negative or weakly positive. X-ray examination plays a decisive role in establishing the diagnosis, however, changes in the lungs appear only from the 7th to 10th day of the disease. Radiographically, miliary TB is characterized by monomorphic small shadows in both lung fields, of low and medium intensity - “millet-like dissemination”, located in chains along the vascular flow against the background of reduction of the vascular bed and increased transparency of the lungs. The structure of the root is reduced.

Subacute dissemination of lung TB is a clinical form of secondary TB that develops as a result of exogenous superinfection or endogenous reactivation, lymphogenous spread of MBT in the lungs, against the background of tissue hypersensitivity, and is characterized by a subacute onset and large confluent foci and infiltrative-destructive changes in the lungs.Pathomorphology. Occurs with damage to the internal lobular veins and interlobular branches of the pulmonary artery. There comes necrosis of the walls of blood vessels and blood staining of the interstitial tissue, less often of the parenchyma of the lungs. Together with blood, MBT of adenogenous or exogenous origin get here. This can be supplemented by hematogenous and bronchogenic disiminaciation and the formation of broncho-acinotic and broncho-lobular rather large impressions with a pronounced phase of exudative inflammation, which causes rapid purulent transformation to caseosis and the occurrence of destruction. The pathological process immediately spreads to the pleura. With hematogenous spread of MBT, lymph nodes, bones, kidneys, larynx, skin, eyes and other organs can also be affected.

The clinic is characterized by a gradual or acute onset and a progressive course. With a gradual onset, the patient develops malaise, fatigue, unstable subfebrile condition. Quite quickly, a cough joins the symptoms of intoxication, first dry, then with the release of mucopurulent sputum, sometimes hemoptysis and bleeding, emaciation. The patient's condition worsens, disturbing night sweats, shortness of breath, chest pain. A noticeable reaction of the reflexogenic zones, shortening of the percussion sound over the affected area, in the same place, during the formation of decay cavities, different-sized moist rales are heard against the background of weakened breathing.

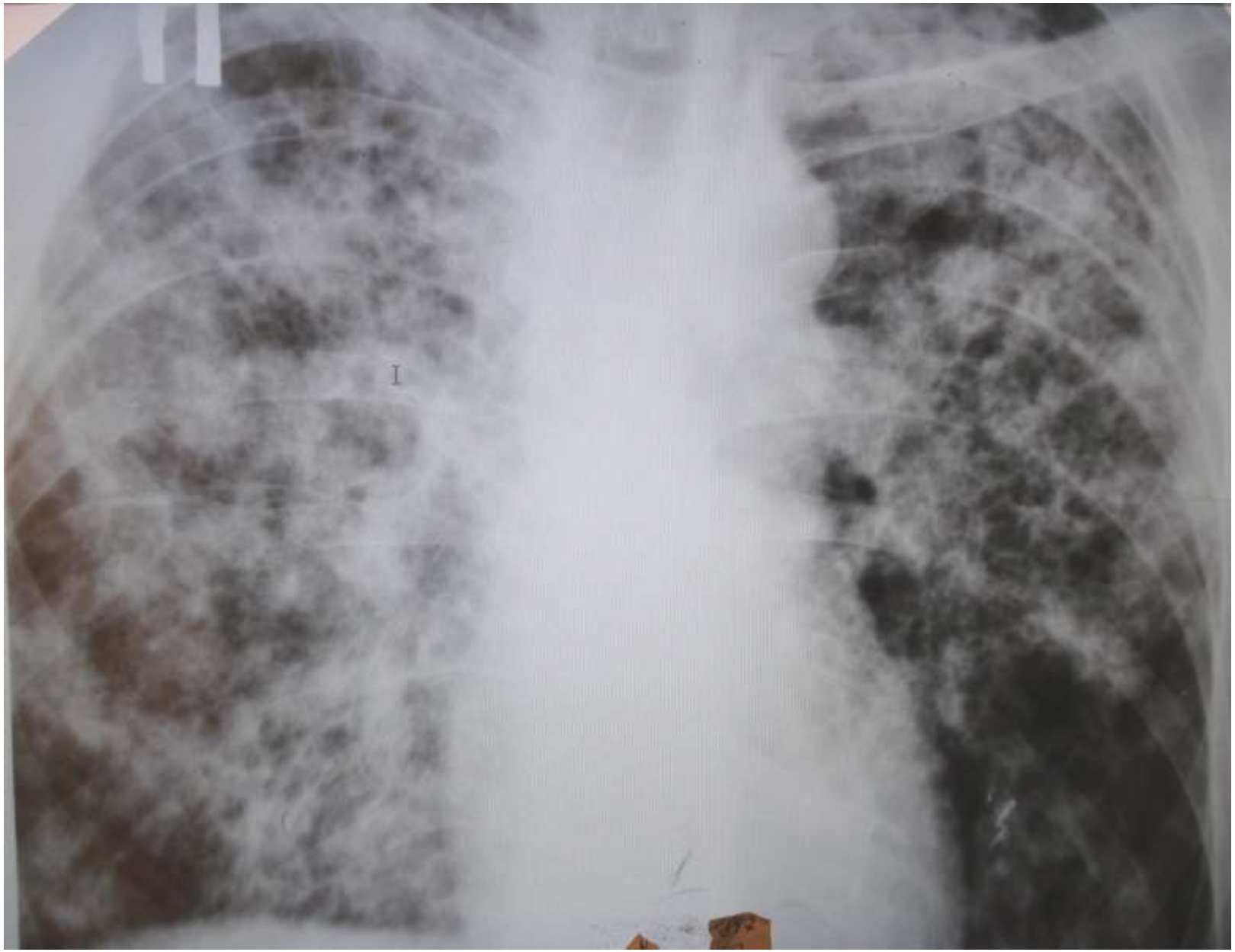
Diagnostics. In the hemogram, hypochromic anemia, leukocytosis with a shift to the left, lymphopenia, monocytosis, and an increase in SOE are detected. MBT is often found in sputum. The Mantoux test is positive, sometimes hyperergic. During X-ray examination, large (5-10 mm) symmetrically located large (5-10 mm), confluent focal shadows with fuzzy contours, prone to fusion, with areas of destruction against the background of a deformed rib pattern and pleural stratifications, are found mainly in the upper lobes and the VI segment. X-ray changes are very typical and resemble a picture of a "snow storm". The molars of the lungs are enlarged, thickened, sometimes with petrifications.Differential diagnosis in disseminated TB is most often carried out with bilateral pharyngeal pneumonia, metastatic carcinomatosis, silicosis, stage II sarcoidosis, congestion in the lungs.



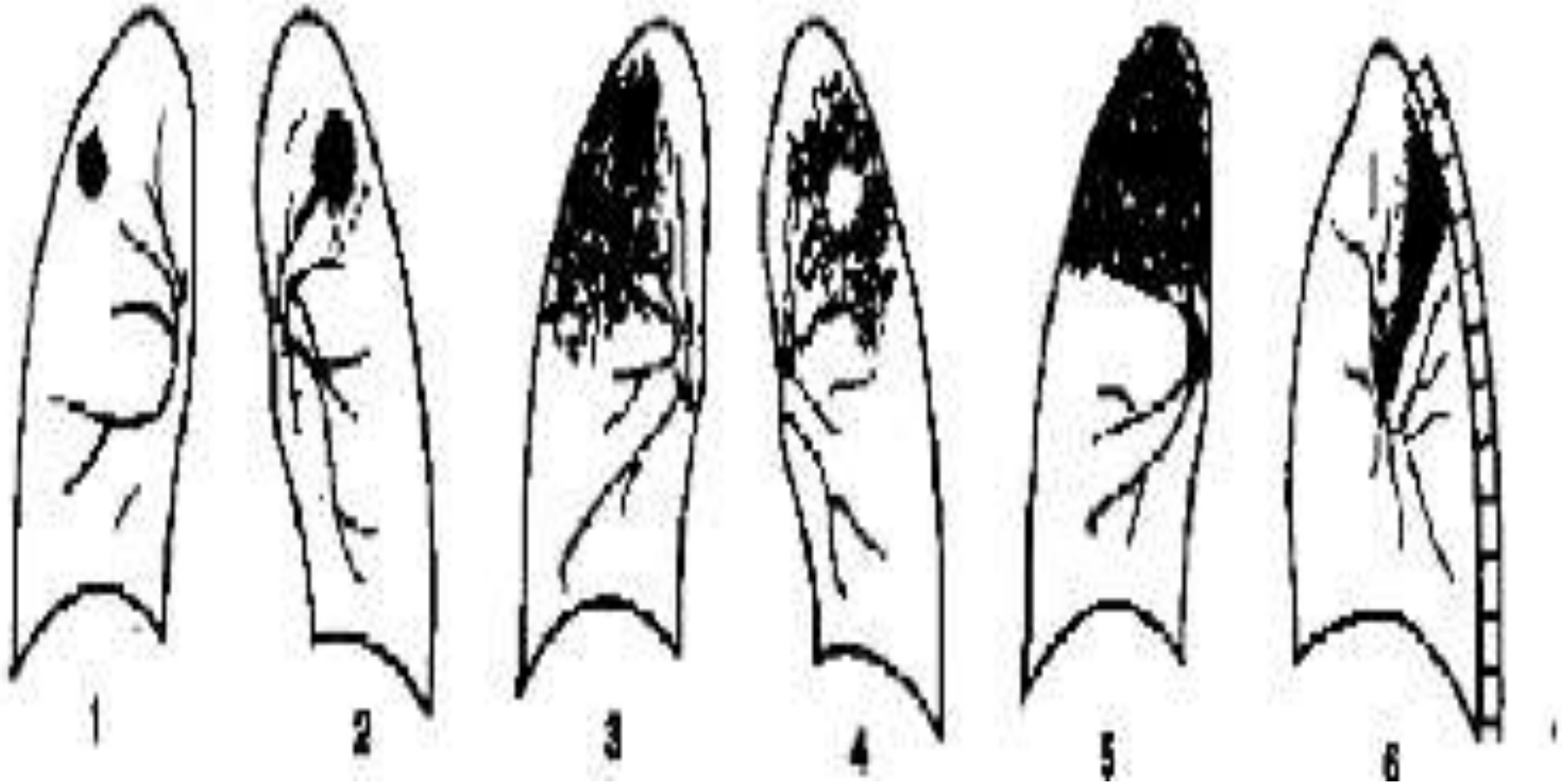
Chronic disseminated TB is a clinical form of secondary TB of the lungs, which has a chronic undulating course (periods of remission and exacerbation), occurs as a result of a progressive course and ineffective treatment for 2 years, caseous pneumonia, infiltrative TB, acute, subacute disseminated TB. Most often, this form of lung TB develops in people who are socially maladjusted, because they carry the greatest threat of infection to people and the environment. The tactics of a family doctor should be aimed at identifying people who abuse alcohol and drugs and their timely examination.

Pathomorphology. The features of this form of tuberculosis are due to periodic recurrent lymphohematogenous dissemination of MBT in conditions of immunodeficiency, with an impression of the interstitium, the formation of granular sclerosis, trophic disorders of the lungs and the formation of true emphysema and hypertrophy of the right heart, as well as post-legal lesions.

The clinic is characterized by an undulating course with periods of sharpening and remission. The development of the disease is inapperceptive (unconscious). For a long time, sometimes many months, why alcoholism and drug addiction contribute, low-grade fever, severe fatigue, general weakness, cough with frequent hemoptysis, large loss of body weight (to cachexia), shortness of breath. During remission, patients feel satisfactory, complaints of slight weakness, shortness of breath.With an external review (with a long, progressive process), patients find a decrease in body weight, there is a sinking of the supraclavicular and subclavian fossae; the terminal phalanges of the fingers look like "drumsticks".There is a shortening of the percussion sound over the affected area, in the lower parts of the lungs - a boxy shade due to emphysema. On auscultation, breathing is weakened, mostly dry, sometimes moist rales.Diagnostics. In the hemogram during remission, no changes are found, during the period of exacerbation, a slight leukocytosis with a shift to the left, lymphopenia, sometimes with monocytosis, and an increase in NCO are found. In harkotinni - MBT in large quantities. The Mantoux test is positive, but may be negative (anergy).Radiologically, shadows of different sizes and intensity, pneumosclerosis, rounded thin-walled and old deformed cavities, mainly in the upper particles, a decrease in the upper particles and emphysema in the lower ones are found in both lungs.



Infiltrative tuberculosis -this is a clinical form of secondary tuberculosis, characterized by infiltrative, caseous-destructive changes in the lungs with a prevalence of more than 1 cm in diameter. According to clinical and radiological signs, infiltrates are divided into:broncholobular (lesion diameter 1.5-2cm, the lobule is involved);roundedcloudy;periscissuritis (with spread along the interlobar fissure);lobitis (defeat of a share);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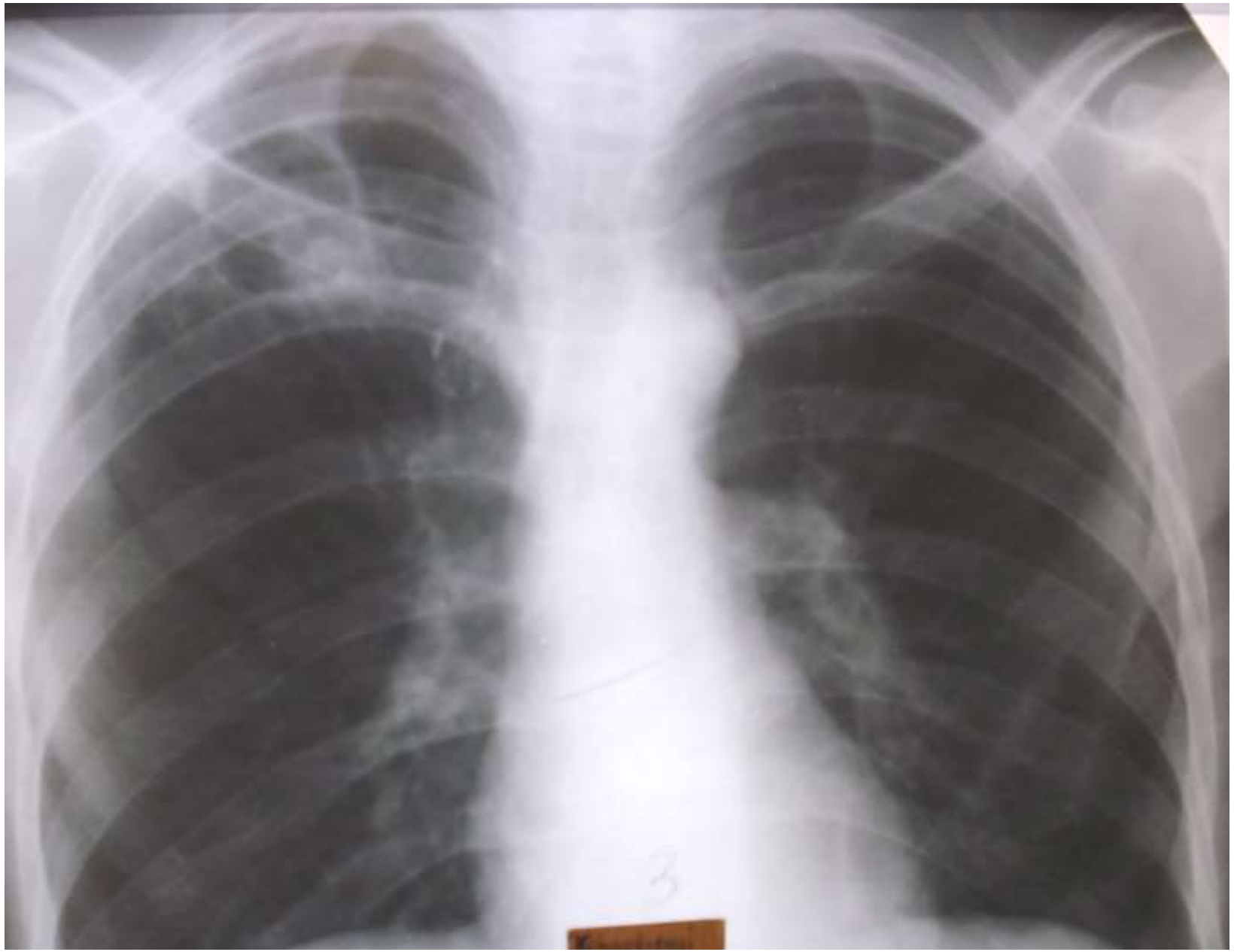


Broncholobular infiltrate, given that this is a limited lesion of the lung tissue, up to 2 cm in diameter, the clinic is very poor.Complaints: usually asymptomatic.Objectively: the appearance of a healthy person. Percussion sound is not changed, breathing is vesicular, dry rales are possible.Laboratory: no changes in the blood There is no MBT in sputum; when destruction occurs, MBT is found.X-ray: infiltrative shadow 1.5-2 cm in diameter, localized in segments I, II, VI, low intensity, homogeneous, associated with the root, clear contours.

A rounded infiltrate develops more often with good immunity as a result of exogenous superinfection against the background of normergic reactivity. A clear delimitation of the tuberculous area from healthy tissue is characteristic by fibrous tissue, a shaft of lymphocytes, and epithelioid cells. Patients do not show complaints, they are detected radiologically. Objectively: the data are scarce, dullness of percussion sound over the affected area is possible, auscultatory pathology is most often not found, rarely dry rales. Laboratory: there are no pathological changes in the blood, MBT is not found in the sputum. X-ray: infiltrative shadow, more often localized in segments I, II, VI, with clear contours, regular rounded shape, low or medium intensity, homogeneous, not associated with the root of the lung

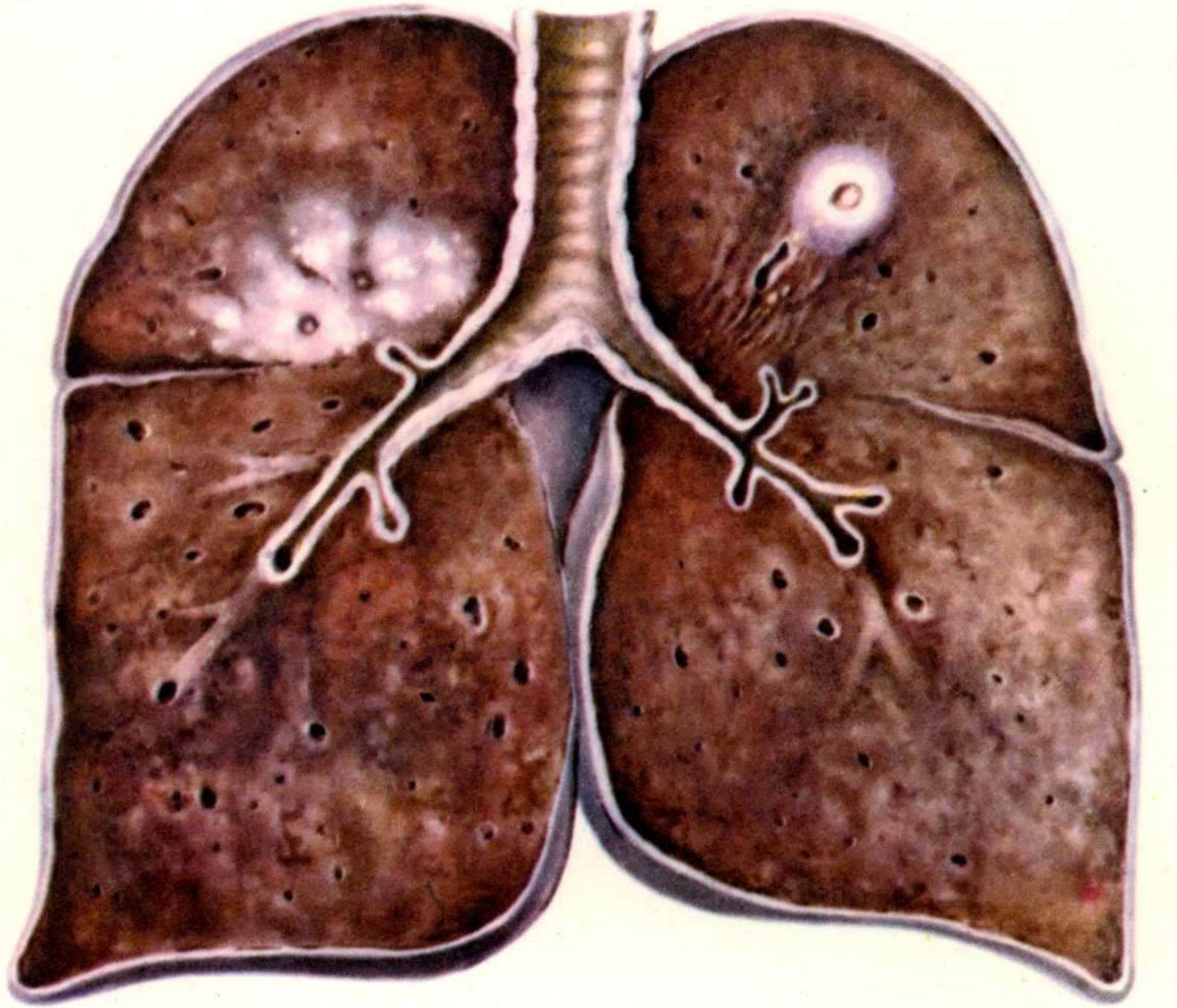
Cloud-like, the name is due to the fact that it resembles a cloud in intensity and shape.Complaints: the onset can be acute or slow with a slight increase in body temperature, which gradually increases to 38-39 C, chills, weakness appear, with the decay of a cough with mucopurulent sputum, a small amount, hemoptysis is possible.Objectively: dullness of percussion sound over the affected area, auscultatory hard breathing, dry, moist rales.Laboratory: moderate leukocytosis, shift of the leukocyte formula to the left, lymphocytosis changing to lymphopenia, ESR 30-35mm per hour. BC is found in sputum.Radiographically: an infiltrative shadow in the form of a cloud, of low intensity, may be homogeneous or with areas of enlightenment, the contours are fuzzy, blurred, associated with the root, localized most often in segments I, II, VI.

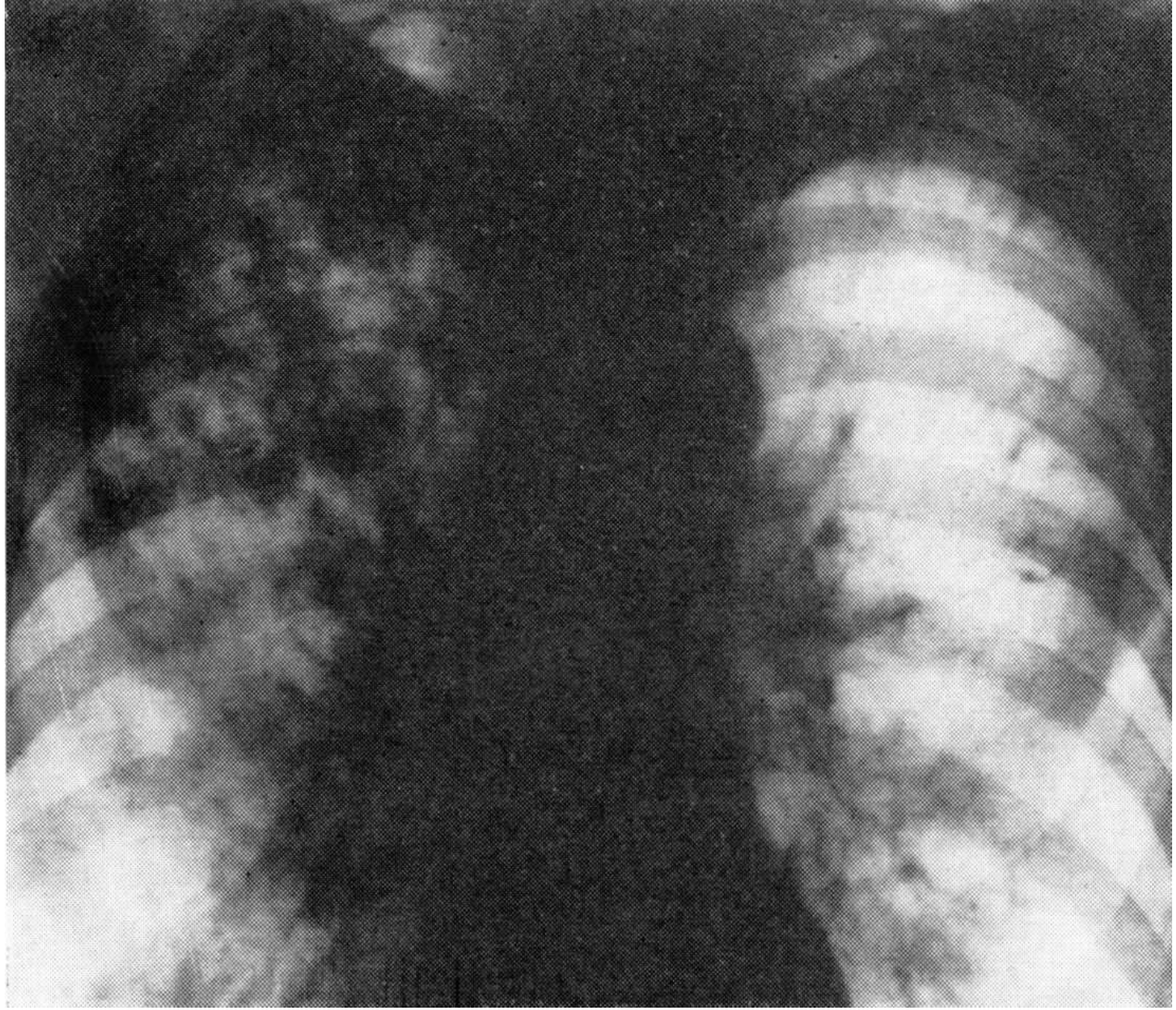
Lobit is a severe form of infiltrative tuberculosis involving the entire lobe of the lung in the process. Complaints: acute onset, t - 39C, chills, weakness, torrential night sweats, lack of appetite, wet cough with mucopurulent sputum. Objectively: the state of moderate severity, signs of intoxication. Percussion - above the lungs above the affected area, dulling of the lung sound. Auscultatory - sharply weakened breathing, possibly moist rales.Laboratory: in the general blood test, moderate leukocytosis with a shift of the leukocyte formula to the left, lymphopenia, accelerated ESR up to 40-50 mm per hour. MBT is found in sputum.Tuberculin Mantoux test with 2TU anergic.X-ray: an infiltrative shadow, which most often occupies the upper lobe of low, heterogeneous intensity, with a clear lower edge, merges with the root, decay cavities are possible.

Periscesuritis is a form of infiltrative tuberculosis that spreads along the interlobar pleura.Complaints: acute onset with the appearance of t 39-40C, pain on the side of the lesion, which limits inspiration, weakness, chills. Objectively: a state of moderate severity. Percussion - slight dullness over the affected area. Auscultatory - weakened breathing, later a pleural friction rub is heard. Laboratory: moderate leukocytosis, with a shift of the leukocyte formula to the left, lymphocytosis changing to lymphopenia, accelerated ESR 30-40 mm per hour, rarely MBT is in sputum. X-ray: infiltrative shadow with a clear lower edge of low intensity of a homogeneous or heterogeneous structure, associated with the root.

Caseous pneumonia is a form of infiltrative tuberculosis, popularly called transient consumption. Without treatment, it takes away from life within 2-4-6 months.Complaints: high t 39-40 C weakness, shortness of breath at rest, constant wet cough with mucopurulent sputum, lack of appetite, sweating. Objectively: pallor of the skin and mucous membranes, blush on the cheeks, dilated pupils, increased skin moisture. Tachycardia of respiratory rate up to 28-30 in 1 min. In the lungs percussion dullness of pulmonary sound, auscultatory - hard breathing, dry and wet rales, with the formation of cavities - amphoric breathing.Laboratory: normochromic anemia in the blood, leukocytosis, shift of the leukocyte formula to the left, lymphopenia, ESR - 50-60 mm per hour. In sputum - BC, often a copious amount.X-ray: infiltrative shadow of low intensity, heterogeneous structure, polycavern, without clear contours, merges with the root.

Treatment of infiltrative tuberculosis depends on the form of the infiltrate, the severity of the process and prevalence. 4 antibiotics are prescribed against the background of pathogenetic therapy. The intensive period of treatment lasts to 2 months in a hospital setting. Aftertreatment period is 2-4 months in a sanatorium or on an outpatient basis. Then anti-relapse treatment 2 times a year for 2 months in the autumn-winter and winter-spring periods.

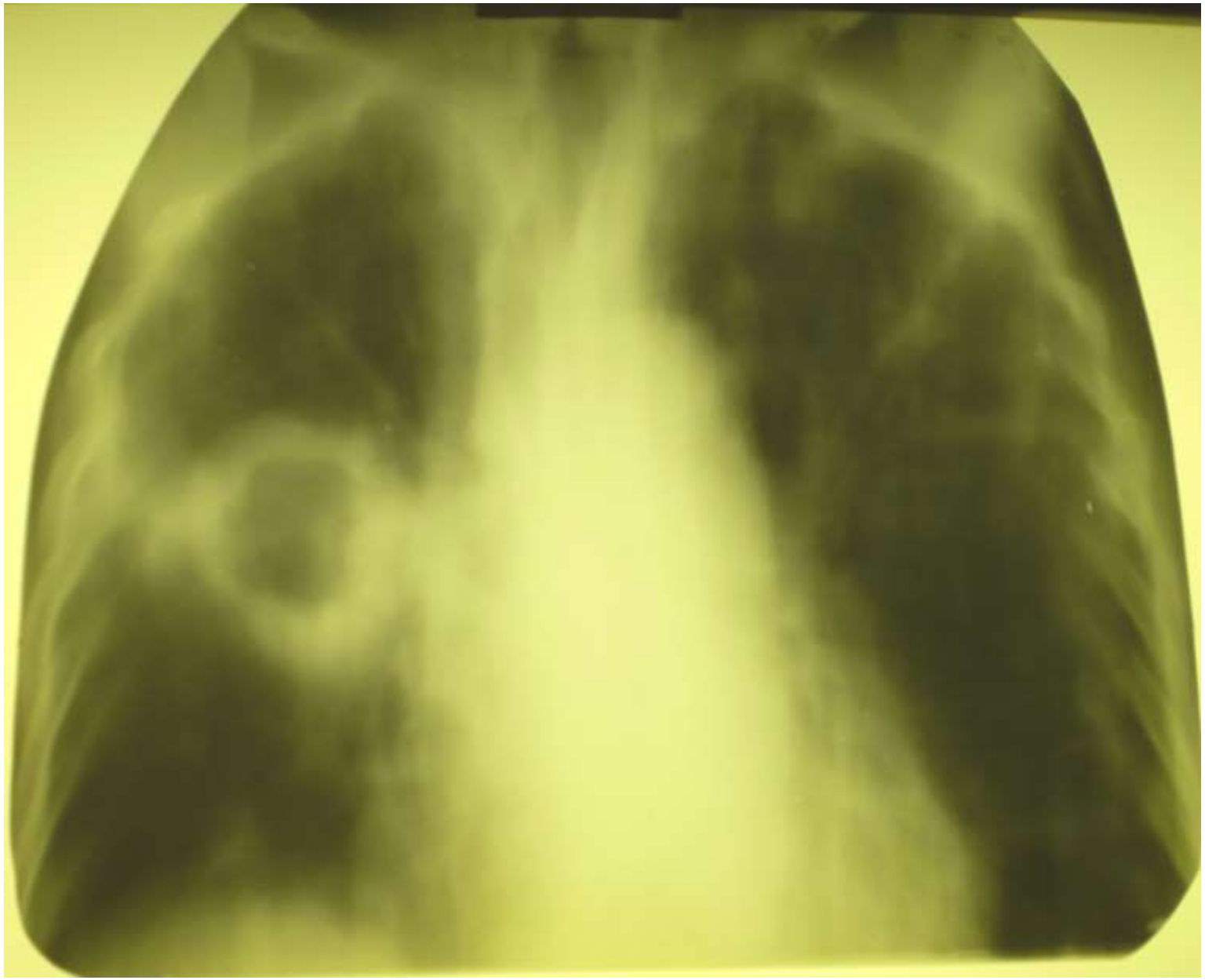


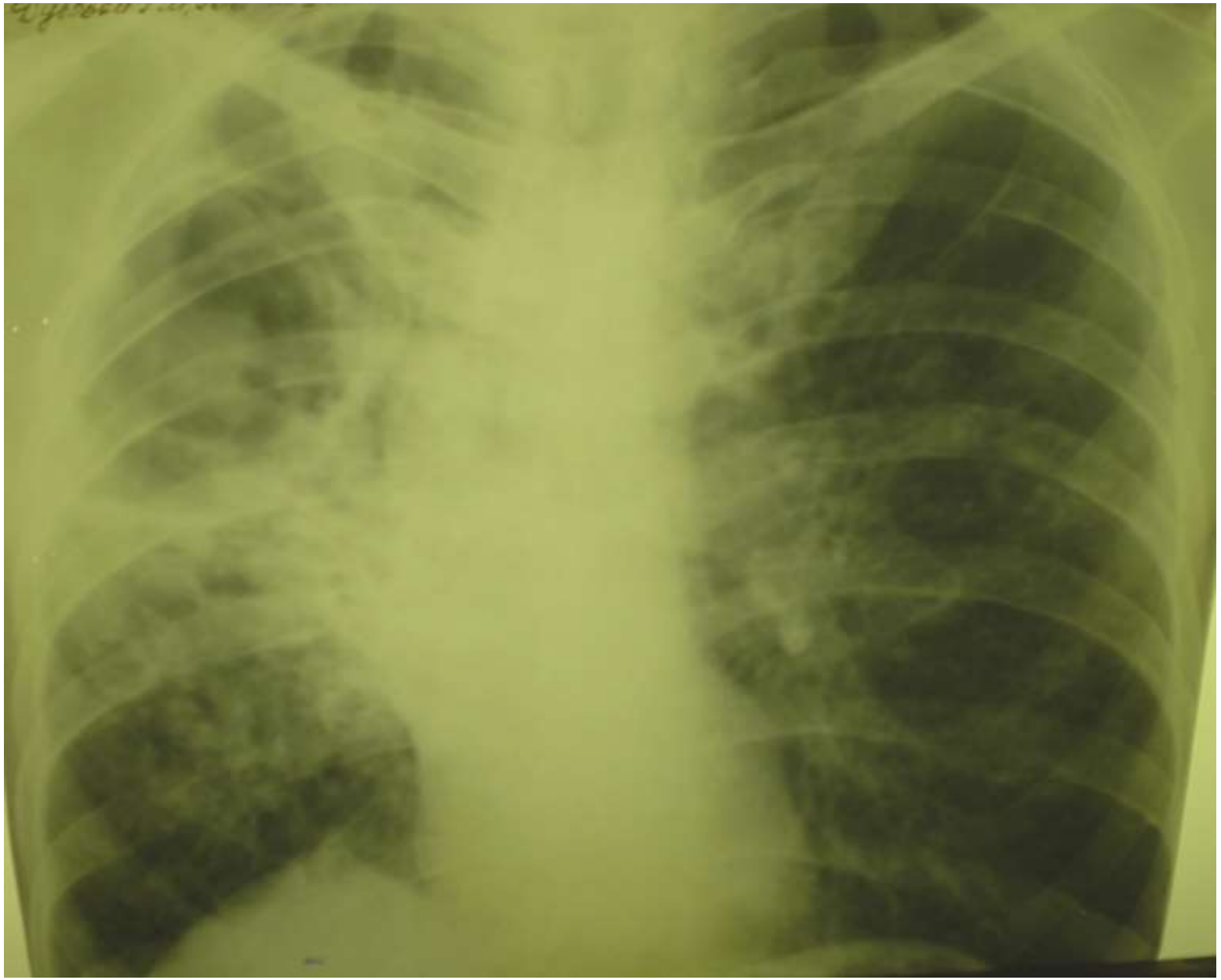


Tuberculoma of the lung is a clinical form of secondary TB, which is characterized by encapsulation of caseos, with a diameter of more than 1 cm. Tuberculoma is most often the result of involution of the exudative-caseous focus in individuals with a high level of specific immunity. The following tuberculomas are distinguished by size:small (up to 2 cm in diameter);medium (2-4 cm in diameter);large (more than 4 cm in diameter).

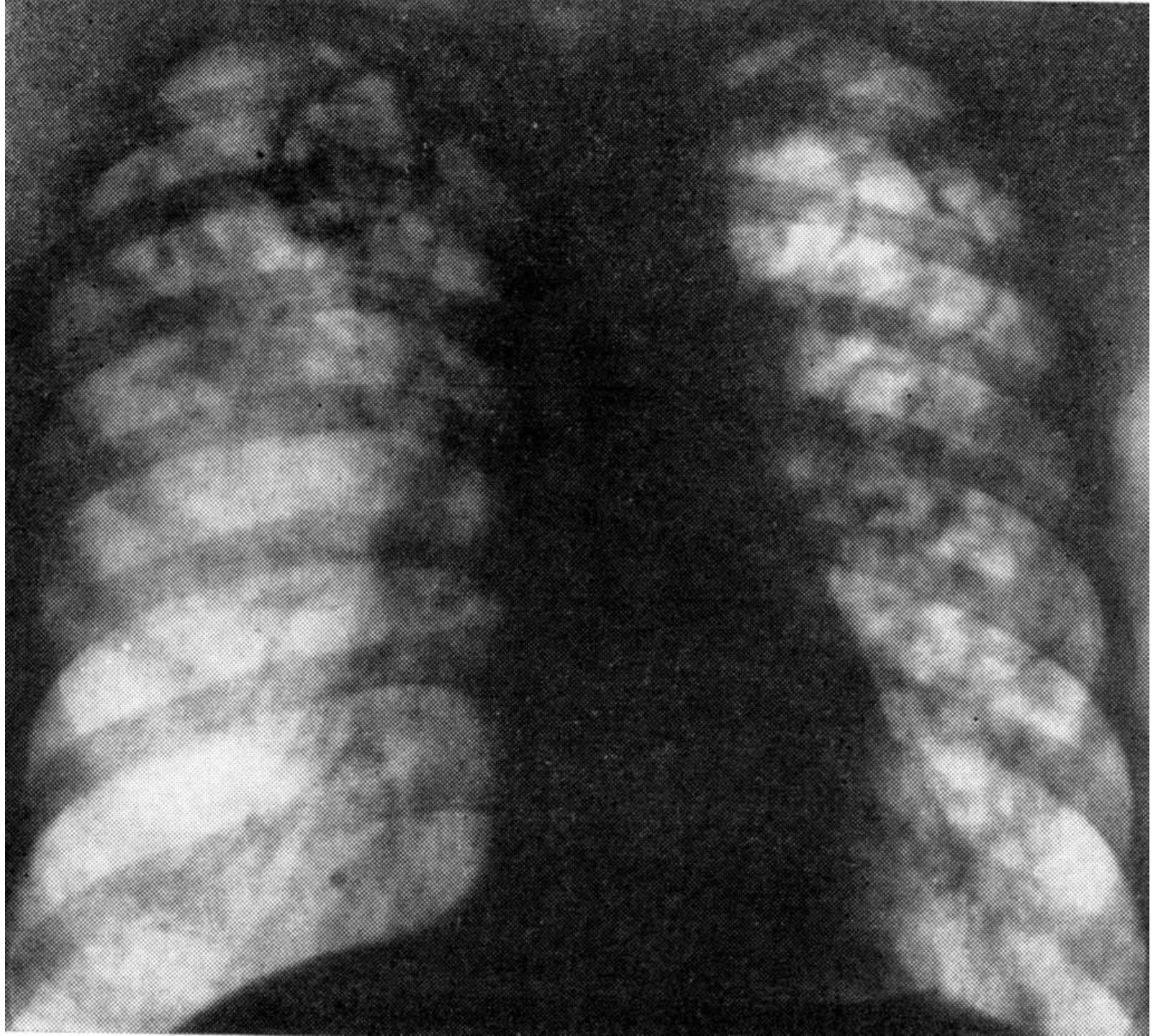
Treatment: newly diagnosed patients with tuberculoma are treated with 4 anti-TB drugs for 4 months according to category III, if the dynamics is positive, treatment can be continued. In the absence of dynamics, surgical treatment (segmental resection) is indicated. In the postoperative period, anti-tuberculosis therapy is continued for up to 2 months to prevent exacerbation of the tuberculosis process.

Fibrous-cavernous pulmonary tuberculosis is a clinical form of chronic pulmonary tuberculosis, which is characterized by an undulating course, the presence of an old thick-walled fibrous cavity in the lungs, foci of dropouts, a decrease in the affected lung and a displacement of the mediastinal organs towards the affected lung. This form of TB develops with ineffective treatment of infiltrative, disseminated TB, tuberculoma, caseous pneumonia, due to the development of MBT drug resistance. MBT resistance develops when the treatment regimen is violated due to alcoholism, drug addiction. Possible infection with resistant forms of MBT. Contributes to this HIV infection and AIDS. Complaints: weakness, emaciation by 10-20 kg, lack of appetite, shortness of breath when walking, cough with mucopurulent, then purulent sputum, hemoptysis joins, there is also pulmonary bleeding. During an exacerbation, the temperature rises to 39-40 C and lasts for months.



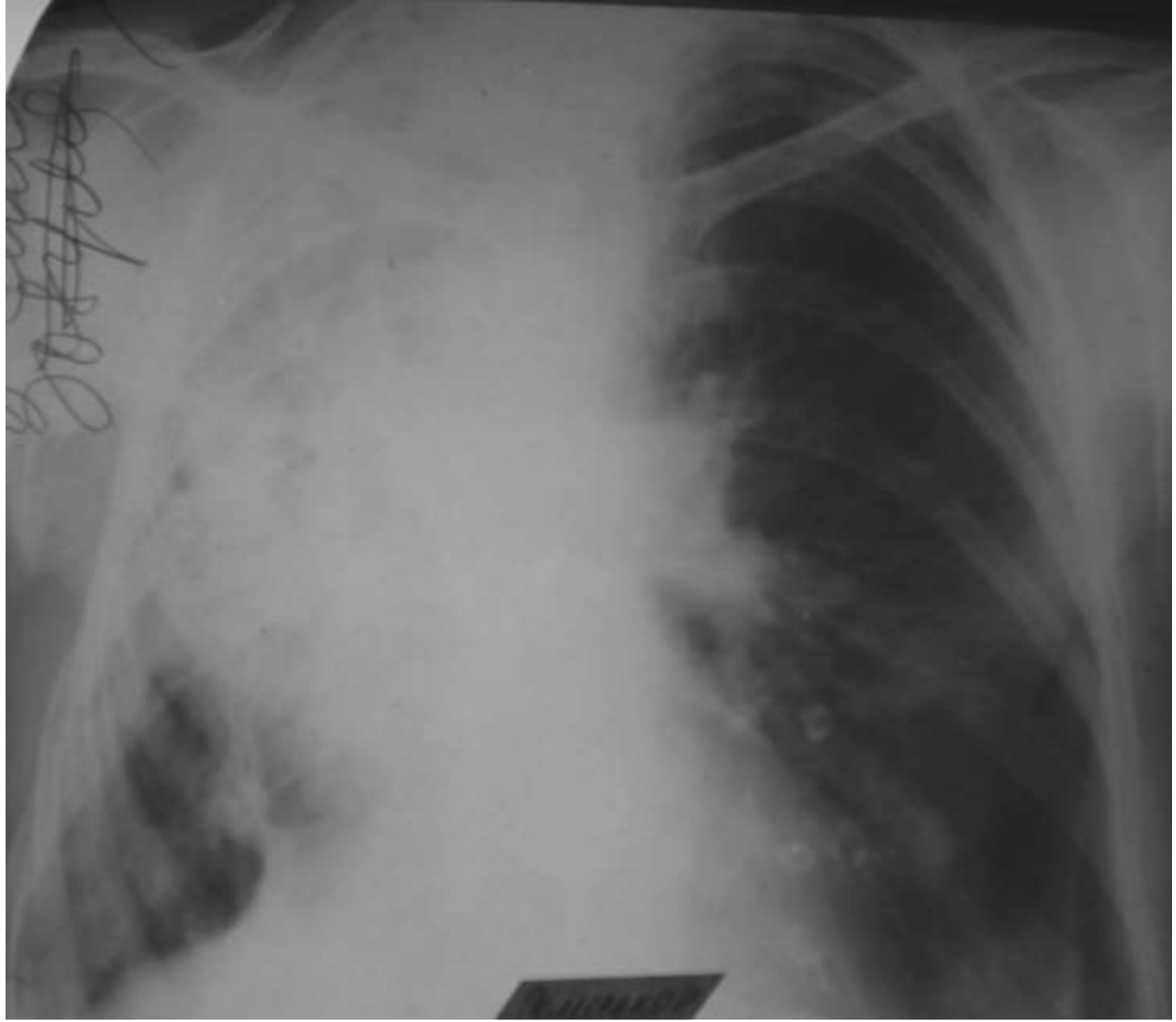


Objectively: habitus phtisica (emaciation, pallor, dilated pupils, blush on the cheeks). Cachexia, pale skin and mucous membranes, moist skin, peripheral lymph nodes are not enlarged.Heart: tachycardia, frequency - 100-110 beats per 1 min. A/P 90/60 mm Hg. Art. and below.
On examination, the intercostal spaces are retracted during breathing, the chest may be asymmetric due to retractions, respiratory rate - 20-25 in 1 min.
Percussion dullness over fibrous changes and tympanitis over the lower unaffected areas.
Auscultatory hard breathing over a large cavity - amphoric breathing, dry and wet rales. Laboratory: anemia (hypochromic), leukocytosis, shift of the leukocyte formula to the left, lymphopenia, accelerated ESR up to 40 mm per hour. In the sputum, an abundant amount of MBT.
X-ray: the lung or both lungs are reduced in volume, the mediastinal organs are displaced to the affected side. Against the background of fibrous heaviness, thick-walled decay cavities with perifocal inflammation, foci of seeding of low, medium intensity, there are petrificates.



This form of tuberculosis poses a great danger in epidemiological terms. Patients are a source of infection for those around them. Treatment: carried out according to an individual regimen, taking into account the sensitivity of the MBT to anti-TB drugs and the individual tolerance of anti-TB drugs to patients (category 4), achieving abacillation; scarring of thick-walled caverns does not occur. With a limited process, surgical treatment is possible (cavernotomy, lobectomy).

Cirrhotic pulmonary tuberculosis is a clinical form of chronic tuberculosis that develops as a result of involution of fibrous-cavernous, chronic disseminated, infiltrative tuberculosis (lobitis), caseous pneumonia, pleurisy and is a massive proliferation of connective tissue in the lung parenchyma with a decrease in the lung and displacement of organs mediastinum towards the affected lung. It is divided into:limited (1-2 segments);widespread (whole lung or both affected).

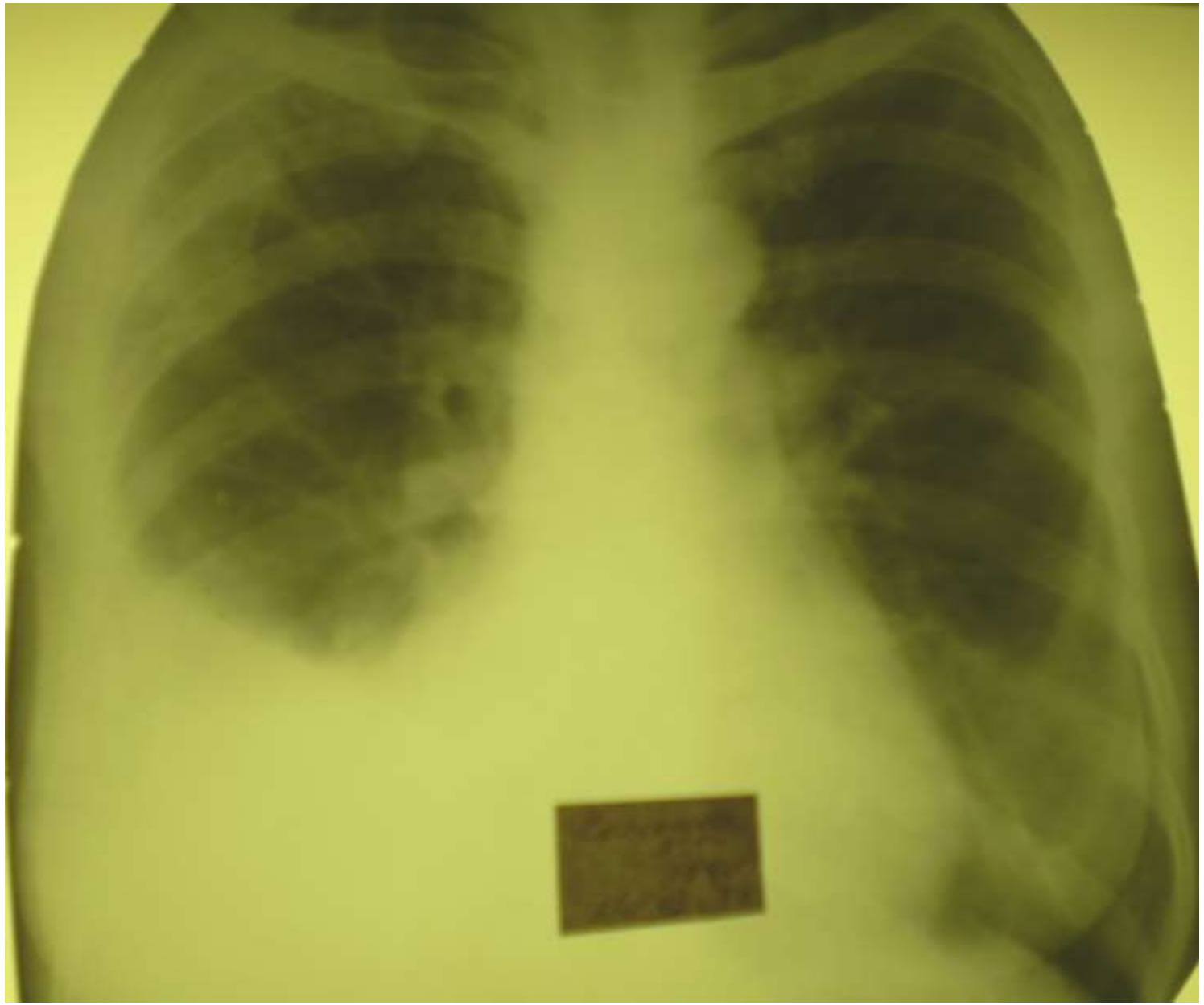


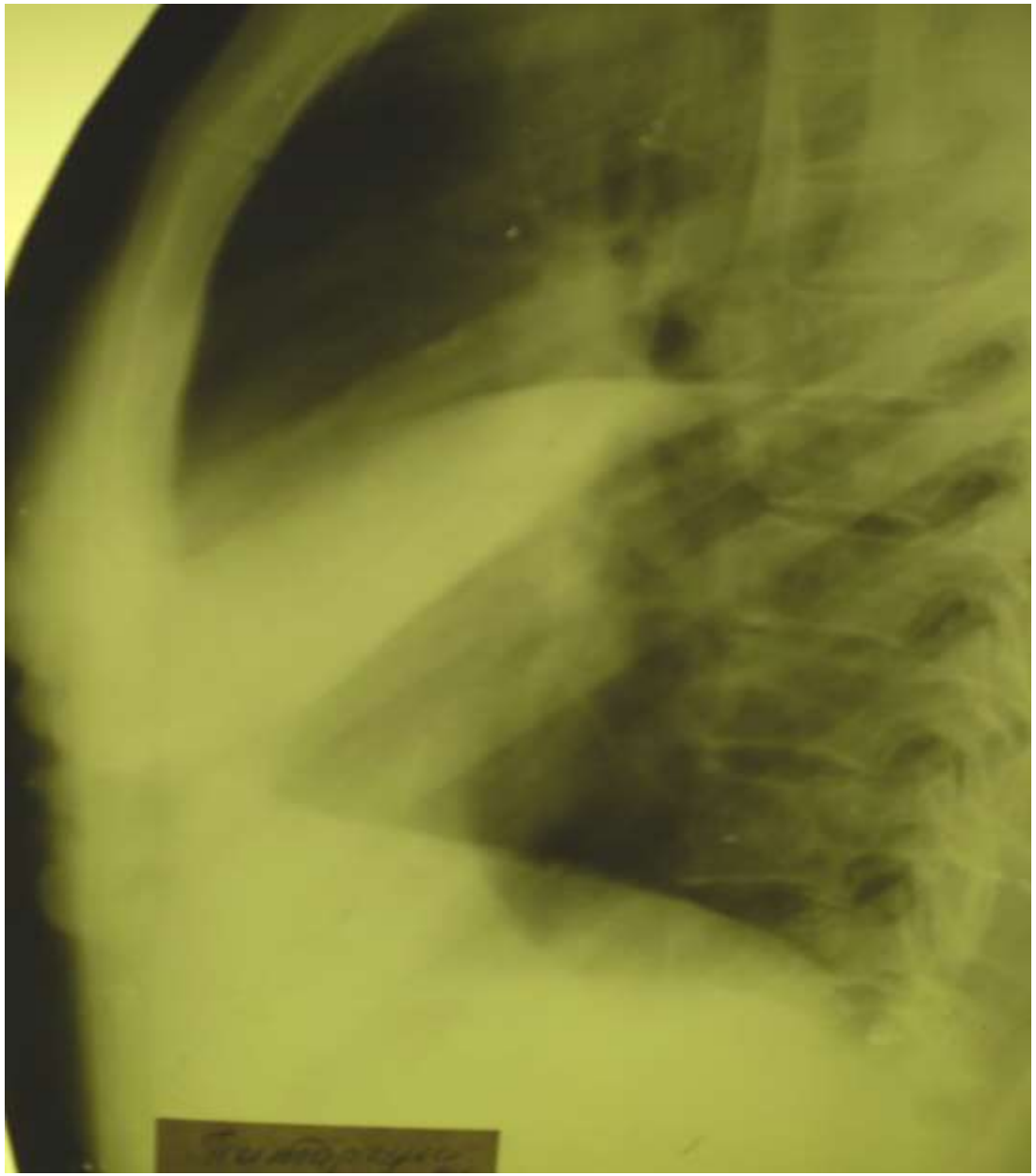
Complaints: due to emerging changes in the lung tissue. Cough with sputum due to the development of bronchiectasis.Hemoptysis is caused by damage to blood vessels, the development of angioectasias.Shortness of breath - due to a decrease in lung tissue and the development of CHLS.Stagnation in the systemic circulation (cyanosis, swelling of the legs, abdomen) is the result of HLS. The temperature is usually normal, in the period of exacerbation subfebrile. Objectively: shortness of breath at rest, cyanosis of the nasolabial triangle, tachycardia, swelling of the legs. Asymmetry of the chest, due to retraction on the side of the lesion, there is also a lag in the act of breathing. Percussion - over the affected area of dullness.

Auscultatory - hard breathing over the affected area, often bronchial, dry rales are possible.Laboratory: slight leukocytosis, shift of the leukocyte formula to the left, accelerated ESR up to 50-60mm per hour. As a rule, there is no MBT in sputum, possibly sporadically.
X-ray: a decrease in lung volume, displacement of the mediastinal organs to the affected side, the presence of an infiltrative shadow, more often at the apex, high intensity, heterogeneous structure.
Treatment: carry out anti-tuberculosis therapy of ABP according to category 4 against the background of pathogenetic and symptomatic therapy during the period of exacerbation and the development of complications (hemoptysis, bleeding, CHLS).

Pleurisy of tuberculous genesisTuberculous ethnology pleurisy is a clinical form of tuberculosis, which is characterized by a specific or allergic lesion of the pleural sheets in primary or secondary tuberculosis of different localization.Independent lesion of the pleura by tuberculosis is observed in 9-12% of cases, the rest as a complication of disseminated tuberculosis, less often infiltrative or primary forms of TB.Normally, in the pleural cavity, formed by the parietal and visceral layers of the pleura, there is 10-15 ml of lymph, which comes from the visceral layer and is absorbed by the "hatches" of the parietal pleura.

Pleurisy is divided into: dry or fibrinous; xudative; Exudative, according to the localization of the exudate, they are divided into:apical; paracostal;interlobar;paramediastinal;supradiaphragmatic.





By the nature of the exudate are divided:serous (serous-fibrinous) - transparent, yellow, odorless, forms a fibrin film, contains 3-5% protein. characteristic of tuberculosis.hemorrhagic - cloudy, reddish, brownish brown, many red blood cells. characteristic of cancer.purulent - cloudy, thick, yellow-greenish in color, with a smell can be. Occurs in empyema.chylous - turbid liquid, milky in color, contains a large amount of fat. It is observed with rupture of large lymphatic vessels.

Complaints

Pain on the side of the lesion, often sharp and severe;

Shortness of breath due to a decrease in the volume of lung tissue;

The cough is dry, reflex in nature; Increasing t of the body to 39-40 ^{0}C, sometimes subfebrile. Weakness;

Rarely (with a small amount of exudate) is asymptomatic

Medical history The onset of the disease is most often acute, less often gradual worsening, and extremely rarely asymptomatic.ObjectivelyThe patient is pale, lethargic;Shortness of breath when walking, then at rest;Forced position (lying on the affected side);Tachycardia;BH - 26-28 in 1 minute;On the affected side, the intercostal spaces bulge and this side lags behind in the act of breathing;Dullness on the affected side;Lack of breathing on affected side.

Laboratory: Complete blood count (leukocytosis, shift of the leukocyte form to the left, acceleration of ESR, lymphocytosis changing with progression to lymphopenia);

Exudate analysis (serous, straw-yellow, transparent, odorless, lymphocytes predominate, protein content> 3%, due to the content of seromucin - a substance of globulin nature; MBT is present in 10-15%)

X-rayThe contour of the affected lung is reduced in volume;Mediastinal organs are displaced to the healthy side;In the affected area there is an infiltrative shadow of high intensity, homogeneous; There is no pulmonary pattern in the affected areaFor diagnostic and therapeutic purposesperforming a pleural puncture.
Treatment is carried out according to category I or II.

Thank you very much