Akhmadzhonov Kozimjon, Tuychiev Zoirjon.

Republican Emergency Medical Science Center.

Andijan branch.

The applicant Yakubova Ranohon

Andijan State Medical Institute

DIFFERENTIAL DIAGNOSIS OF INTERSTITIAL LUNG LESIONS BY MSCT SIGNS.

Annotation: *this article comments on the differential diagnosis of interstitial lung lesions with symptoms of multispiral computed tomography MSCT.*

Keywords: *COVID-19, lung lesion, pneumonia.*

It is known that in many rheumatic diseases, lung damage occurs. The new coronavirus infection (NCI) has similar clinical, physical, laboratory and instrumental manifestations, which causes significant difficulties in differential diagnosis and subsequent selection of therapy, even with good diagnostic capabilities. To carry out differential diagnosis of the genesis of lung tissue damage in patients with autoimmune diseases, it is necessary to identify the main clinical and instrumental manifestations of respiratory damage. The most common immuno-inflammatory rheumatic diseases (ARI), in which lung tissue damage is possible:

Rheumatoid arthritis is characterized primarily by chronic erosive arthritis of small joints of the hands and feet. According to various authors, the incidence of lung damage in Rheumatoid arthritis reaches up to 50%. Risk factors determining the predisposition to the development of pulmonary fibrosis in rheumatoid arthritis include the presence in patients of antigens of the main histocompatibility complex B8 and Dw3 and high titers of rheumatoid factor.

Some authors also include tobacco smoking, the use of methotrexate to treat rheumatoid arthritis, as well as high alveolar concentrations interferon-γ and transforming growth factor β1.The most common type of lung lesion is pleurisy, which develops in 50% of cases.

The nature of pleurisy depends on the activity of the disease: dry pleurisy is characteristic of moderate activity The nature of pleurisy depends on the activity of the disease: dry pleurisy is characteristic of moderate activity rheumatoid arthritis , exudative — for high activity Rheumatoid arthritis. Interstitial lung lesion is the most relevant variant of pulmonary pathology in patients with rheumatoid arthritis . There are several morphological types of interstitial lung damage, common interstitial pneumonia, lymphoid interstitial pneumonia, nonspecific interstitial pneumonia, acute interstitial pneumonia.

Systemic scleroderma, or systemic sclerosis (SSD) is a CST characterized by the development of fibrosis in tissues and organs, among which the skin, lungs, organs of the gastrointestinal tract (gastrointestinal tract), kidneys predominate. Frequency of lung damage with SSD, it ranges from 80 to 100%, negatively affects the prognosis and ranks first among the causes of death. The highest risk of lung damage in diffuse and visceral forms.

Clinical and instrumental signs are presented in Table. 2. There is evidence of more frequent involvement of the respiratory system in the pathological process during the circulation of anti-Scl-70 autoantibodies and anti-centromeric autoantibodies (ANCA). Systemic lupus erythematosus, characterized by hyperproduction of organ-specific autoantibodies to various components of the cell nucleus with the development of immuno-inflammatory tissue damage. Lung damage is most often found in the form of pleural lesions and is observed in 45-60% of cases.

The lesion of the lung parenchyma proper includes: acute lupus pneumonitis occurs in 2-8% of cases, diffuse alveolar hemorrhages occur in 2-5.4%, interstitial

lung lesions in 3-10%. Characteristic manifestations of lung lesions in SLE. Dermatomyositis (DM) is a group of CST, the main manifestations of which are myositis with the development of muscle weakness of the proximal upper and lower extremities and skin lesions (erythema on the face, chest, shoulders, back, skin of the back surface of the metacarpophalangeal, proximal interphalangeal, elbow and knee joints, paraorbital heliotropic edema).

Extramuscular manifestations include articular (non—erosive rheumatoid-like polyarthritis), constitutional (fever, weight loss), less often - cardiovascular lesions. Nevertheless, the most common cause of the unfavorable course of the disease is lung damage (45-50%). The characteristic manifestations of lung damage are presented in Table. 4. The main forms of DM are aspiration pneumonia (26%), which occurs due to weakness of the muscles of the pharynx and esophagus and ISL (60%). The lesion of the interstitium of the lungs mainly affects the lower parts. Taking into account the epidemiological situation, it became necessary to differentiate the identified syndromes.

Neither SARS-CoV-2 RNA nor antibodies to the SARS-CoM-2 IgM, IgG virus were detected in the laboratory. Total blood count: hemoglobin 141 g/l, erythrocytes 4.66 x 1012 / l, leukocytes 9.7 x 109/l, leukocyte formula unchanged, platelets 290 x 109 / l, ESR 23 mm/h, CRP < 3 mg/ml. Coagulogram and proteinogram indicators within the reference values. During the chest CT scan, multiple bilateral, mainly subpleural, foci were determined on a series of tomograms compaction of the pulmonary parenchyma according to the type of "frosted glass" with signs of consolidation, the density of changes — from medium to high, the volume of damage up to 20%, mediastinum, bronchi, heart cavities, thoracic aorta, diaphragm — without especially stey, free fluid in the pleural cavity was not detected, lymph nodes are not enlarged, bone structures of the thoracic cells without destructive changes. Thus, there was no laboratory confirmation of NCI, but radiological changes did not exclude this pathology.

The activity of dermatomyositis was evaluated. Antinuclear antibodies were not detected at the time of hospitalization (positive in the anamnesis, their negative indicator is most likely due to the fact that the patient has been on methotrexate and prednisolone therapy for 6 years). Also, attention was drawn to the increasing changes in the dynamics of the proximal muscle groups of the upper extremities during needle electromyography: the progression of the denervation process with reduced amplitude potentials of motor units of the myogenic type was revealed.

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