Anemic Syndrome In Chronic Diseases

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ABSTRACT

Diagnosis of chronic active hepatitis - study of liver function tests, serum markers of hepatitis viruses, immunological parameters, determination of antibodies to antigens, ultrasound and liver biopsy; rheumatoid arthritis - X-ray of the joints, a blood test for rheumatoid factor, for antibodies to citrullinated peptide and citrullinated vimentin; seronegative arthritis - X-ray of the joints of the lumbosacral spine, sacroiliac joints, a study for chlamydial infection, a blood test for rheumatoid factor. To diagnose tuberculosis of various localizations, x-rays and tomography of the lungs are performed, sputum and bronchial washings are examined, and a nephrourological examination with urinalysis, ultrasound is performed, X-ray methods are used (for tuberculosis of the kidneys and urinary system), an examination is prescribed by a urologist and gynecologist (for urogenital -tal tuberculosis).

Keywords: hepatitis viruses, joint radiography, lung tomography, chronic kidney disease.

Introduction. After a laboratory study and detection of ACD, it is necessary to conduct a comprehensive examination of the patient to make a diagnosis of the underlying disease [2]. In infectious and inflammatory diseases of the lungs (bronchiectasis, abscesses, pleural empyema), the main methods are X-ray and tomography examination of the lungs, bronchological examination (bronchography, bronchoscopy).

Diseases of the abdominal organs (cholangitis, liver abscesses, subdiaphragmatic abscess, interloop abscess, peritonitis, inflammatory processes in the small pelvis) are detected using ultrasound, laparoscopy of the abdominal organs, and gynecological examination [4].

Pathological processes in the kidneys and urinary tract (apostematous nephritis, carbuncle of the kidney; chronic pyelonephritis, etc.) help to determine the ultrasound of the kidneys, nephrourological examination, bacteriological analysis of urine.

The primary diagnosis of chronic osteomyelitis is bone radiography, infective endocarditis is a bacteriological blood test, echocardiography, sepsis is a bacteriological blood test, an X-ray examination of the lungs, a gynecological examination, an ultrasound of the abdominal organs, kidneys [5].

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joints, a study for chlamydial infection, a blood test for rheumatoid factor. To diagnose tuberculosis of various localizations, x-rays and tomography of the lungs are performed, sputum and bronchial washings are examined, and a nephrourological examination with urinalysis, ultrasound is performed, X-ray methods are used (for tuberculosis of the kidneys and urinary system), an examination is prescribed by a urologist and gynecologist (for urogenital -tal tuberculosis) [1].

Diagnosis of sarcoidosis - X-ray of the lungs, computed tomography of the mediastinum. If malignant tumors are suspected, a full oncological search program (endoscopic, radiographic methods, ultrasound, biopsy) is performed to identify the primary tumor or its metastases, biopsy of peripheral lymph nodes and skin (in altered areas), bronchoscopy with transbronchial lung biopsy, diagnostic brochoalveolar lavage, open lung biopsy (if other methods are not informative) [3].

Purpose of the study. The aim of the study is to study the etiology, pathogenesis, treatment and prevention of anemic syndrome in chronic diseases.

Materials and research methods. To accomplish our task, we selected a total of 65 patients with chronic diseases and, therefore, with an anemic syndrome.

Research results. Anemia in chronic inflammatory (infectious) diseases. Most often, anemia develops with purulent diseases of the lungs, kidneys and other organs a month after the onset of the disease. Hb decreases to 110-90 g/l. ACD can become a leading symptom of a latent disease. With such ACD, no special corrective therapy is required; treatment should be directed to the underlying disease.

Anemia due to HIV infection. Viral load in HIV infection is inversely correlated with all hematological parameters. The disease can cause anemia by affecting the production of cytokines and suppressing erythropoiesis, reducing the concentration of EPO and increasing the risk of developing opportunistic infections. Therapy used in the treatment of HIV also causes a decrease in the number of red blood cells (myelotoxic effect). Anemia is associated with reduced life expectancy and poorer quality of life in HIV-positive patients.

Anemia in chronic kidney disease (CKD). Diabetes mellitus and arterial hypertension are the main causes of end-stage CKD. For patients newly diagnosed with CKD, the main goal is to slow the progression of the disease by optimizing the treatment of the underlying disease. Anemia in CKD develops due to the inability of the kidneys to secrete enough EPO to stimulate adequate erythropoiesis and is aggravated by ID, severe hyperparathyroidism, acute or chronic inflammatory diseases, and shortened erythrocyte lifespan. Anemia worsens as CKD progresses. The RAC-C/OOP guidelines recommend maintaining Hb at 110–120 g/l in patients with end-stage CKD. Hb should be maintained at the same level (110–120 g/l) in patients with non-terminal CKD. Consultation with a nephrologist is recommended at serum creatinine levels of 1.5 mg/dl for women and up to 2 mg/dl for men (only 20-25% of patients are referred to a nephrologist before they require dialysis).

Anemia in systemic diseases of the connective tissue is caused by a violation of the synthesis of EPO, ID due to blood loss from ulcers and erosions of the gastrointestinal tract, which develop with long-term use of anti-inflammatory drugs. Rheumatoid arthritis is accompanied by anemia in 16-65% of cases. In the group of patients with anemic syndrome, 77% of patients have ACD and 23% have IDA. The development of anemia in rheumatoid arthritis contributes to an increased level of inflammatory cytokines. Approximately half of patients with systemic lupus erythematosus have anemia with an Hb content of less than 100 g / l, it is either hypo- or normochromic type. In all cases of anemia against the background of connective tissue diseases, treatment of the underlying disease is necessary.

Diagnostic algorithm for chronic anemia. Initially, the hemolytic nature of anemia is excluded based on the study of bilirubin, reticulocytes, and the presence of stercobilin in the feces. With the exclusion of hemolysis, the tactics are determined by the picture of peripheral blood. When the color index (CPI) is

low, the level of HC is determined. Its decrease obliges to look for the cause of hypochromia (source of bleeding, malnutrition, the presence of a tumor, chronic infection). With increased CP and pancytopenia, a sternal puncture is necessary. It will confirm megaloblastic bone marrow transformation or leukemia. Megaloblastic hematopoiesis obliges to exclude a tumor of the stomach, helminthic invasion. Negative results of the previous stages of the examination are an indication for trepanobiopsy. To analyze the compensatory activity of erythropoiesis and evaluate the effectiveness of subsequent therapy, it is necessary to determine the content of reticulocytes in the blood and its dynamics. The effect of treatment with iron preparations and vitamin B12 is determined by the development of the so-called reticulocyte crisis, i.e., an increase in the number of reticulocytes (normal 1-2%) during iron treatment up to

3-5% by the 5-7th day of therapy, and in the treatment of vitamin B - up to 10-30% by the same period. It is mandatory to study the morphology of erythrocytes in a peripheral blood smear. This is all the more important since the definition of cirrhosis can be erroneous, and the morphology of erythrocytes will help to identify both hypo- or hyperchromia of erythrocytes, as well as their other changes characteristic of a particular anemia.

Conclusion. In chronic diseases, even in cases of anemia, there is a need for a blood transfusion, as it develops gradually, the patient adapts to anemia.

Blood transfusion is justified by the fact that in a life-threatening condition, the presence of severe symptoms (tachycardia, shortness of breath) from the cardiovascular and pulmonary systems complicates the patient's daily life.

Most often, these symptoms develop when the HB level drops below 70 g / l. 2-4 erythrocyte masses are transfused once. Severe anemia should not be rapidly resolved, as there is a risk of subsequent hypervolemia and heart failure.

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