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ABDOMINAL TUBERCULOSIS: PROBLEMS OF DIAGNOSTICS

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Abstract: The article highlights the problems of diagnosis and differential diagnosis of abdominal tuberculosis (AT), the features of the clinical course are determined. Attention is focused on reducing the diagnostic significance of biopsy studies as lengthening the duration of a specific inflammatory process and reducing the activity of the disease. The progression of fibrotic changes, oligobacillarity, and the treatment of comorbid diseases lead to a decrease in the results of the Mycobacterium tuberculosis (MBT) culture on solid and liquid nutrient media. Also in granulomas, the number of sites with caseous necrosis decreases or they are not determined at all. Thus, as the period of the disease lengthens, granulomas can lose their most important specific sign of tuberculous inflammatory process - caseous necrosis. In AT, due to the absence of characteristic clinical symptoms, the diagnosis of the disease is difficult because of the similarity of the clinical picture, and because of morphological changes in the treatment of comorbid diseases.

Key words: Abdominal tuberculosis, diagnostics, extrapulmonary tuberculosis, mycobacterium tuberculosis, methods

Extrapulmonary tuberculosis (ET) is less common than pulmonary tuberculosis (PT), but it is a complex multidisciplinary problem. In highly developed countries, ET accounts for 20–40% of the total tuberculosis (TB) incidence rate. In developing countries, ET is not diagnosed in 3/4 patients.

Depending on the level of organization and equipment of primary care, qualifications and alertness, especially for general practitioners, the proportion of ET in various regions of developing countries can range from 5 to 15%.

The main risk groups for ET are immigrants, HIV-infected, patients with RT, contact on TB, taking corticosteroids, cytostatics. In patients with HIV infection, ET symptoms are more variable and mainly depend on the number of CD + 4 lymphocytes and the degree of viral load. With the reactivation of their strain of MBT, the symptoms of abdominal tuberculosis (AT) are less pronounced, the specific inflammatory process is less active than when infected with a new strain.

AT is a disease with unusual mimicry and a variety of clinical variants of the course. A significant prevalence of non-specific diseases of the digestive system is a risk factor for the development of antibodies. In patients with AT, differential diagnosis is difficult due to the similarity of clinical symptoms, which leads to late diagnosis of the underlying disease.

The leading role in the genesis of AT belongs to post-primary intra-abdominal foci, as well as to negative pathomorphosis due to the predominance of alternative tissue reactions, mainly with caseous-ulcerative changes., Lymphohematogenous dissemination. As a result, the number of patients with asymptomatic antibodies is sharply reduced and rises with an acute and subacute course.

A feature of the structure of non-specific diseases of the digestive system when combined with antibodies is an increase in the number of patients with diseases of the hepatobiliary system and pancreas due to alcohol abuse. Also, this factor is important in the reactivation of MBT in the lymph nodes of the abdominal cavity and retroperitoneal space.

More than 90% of patients with AT have a need for differential diagnosis with diseases of therapeutic, surgical, oncological and infectious profiles. AT is diagnosed more often in non-specialized medical institutions, which especially emphasizes the role of general practitioners, gastroenterologists, therapists, surgeons, infectious disease specialists in timely verification of the diagnosis. AT is more often detected

among the contingent of therapeutic, gastroenterological, infectious, rheumatological, oncological departments, as well as abdominal surgery.

Intestinal TB in 30% of patients manifests itself as an acute abdomen, acute intestinal obstruction, acute appendicitis due to tuberculous mesadenitis [1, p. 175]. The cause of intestinal obstruction may be hypertrophic ileocecal TB. It must be differentiated with Crohn's disease. Establishing this diagnosis instead of antibodies with prescribing corticosteroids often leads to dramatic consequences with the development of complications [2, p. 33].

Tuberculosis enteritis can lead to intestinal strictures with the development of intestinal obstruction. The most serious complication is perforation of a bowel ulcer with the development of diffuse peritonitis., But is very rare. A chest x-ray in patients with AT reveals a combined lung pathology in less than 25% of cases. In the early diagnosis of antituberculosis, anti-tuberculosis therapy is more effective and it is rare to resort to surgical treatment.

Specific lesions of the gastrointestinal tract, peritoneum, mesenteric lymph nodes and pelvic organs are combined under the general concept of AT. With AT, there are no specific clinical symptoms of tuberculous lesions of the abdominal organs. The lack of expression and nonspecificity of the symptoms of the disease in the opening, the presence of comorbidity with other diseases of the digestive system leads to the late diagnosis of advanced forms of AT and disability of patients.

The relevance of AT is determined by the more frequent occurrence in young and middle-aged people, including women of reproductive age after childbirth and abortion. In the abdominal cavity with AT, the lymph nodes, peritoneum, intestines, stomach, liver, spleen are affected. Organs with a large presence of lymphoid elements and more developed vascularization are more often involved.

AT appears as a primary or secondary disease. Peritonitis occurs with a specific lesion of the peritoneum and organs, with the formation of effusion. Mesadenitis can lead to the occurrence of peritonitis with perifocal inflammation of the lymph nodes. Resolution of the process leads to the formation of adhesions and adhesive disease. Intestinal TB is characterized by an infiltrative process mainly in the ileum and

cecum, regional mesenteric lymph nodes. The disease in the debut disguises itself as pathological conditions with functional disorders without proven organic pathological changes in the intestine.

In the future, the progression of clinical symptoms is often explained by the presence of a nonspecific inflammatory process. Particularly difficult is the differential diagnosis between tuberculous ileotiflitis and Crohn's disease with lesions of the ileum and cecum. There are many similar clinical symptoms in these diseases, including chronic diarrhea, the formation of ulcers, fistulas, damage to the ileocecal valve, and the development of intestinal obstruction.

AT can flow both erased and acutely. Quite rarely, various variants of the course of adhesive disease are regarded as specific mesadenitis or sluggish current peritonitis. Due to the polymorphism of clinical manifestations and the lack of clear diagnostic criteria, in most cases, AT progresses under the guise of other diseases and is verified mainly as an operational and sectional “find”. Laboratory methods are not specific enough, often they do not allow to establish the correct diagnosis, especially in the early stages of AT.

The clinical picture of abdominal TB includes general and local symptoms. Common symptoms include manifestations of intoxication syndrome in the form of sweating, headache, low-grade fever. Most often, pain with AT is moderate with periodic intensification. In patients with long-term pain, pain can be permanent.

The alternation of constipation and diarrhea is considered characteristic of AT. Liquid frequent stools are usually observed at an early stage of the disease and the pronounced activity of the inflammatory process. Constipation is more often observed with a prolonged course of TB of the intestine, peritoneum, mesenteric lymph nodes and occurs with scar-adhesive changes.

AT is manifested by various symptoms and can be combined with other diseases of the digestive system. The most common symptoms of AT are fever (70.0%), abdominal pain (70.0%), weight loss (68.0%), loss of appetite (30.0%), sweating (30.0%). A triad of symptoms such as fever, abdominal pain, ascites cause suspicion of TB.

Acute forms of antibodies differentiate with acute nonspecific mesadenitis, acute intestinal obstruction, acute adnexitis. Differential diagnosis of chronic forms of antibodies is carried out with Crohn's disease, chronic nonspecific mesadenitis, enterocolitis, malignant tumors, chronic gynecological diseases.

Relatively rare are localizations of MBT in the liver and spleen. In these organs, miliary foci are determined. After calcification of granulomatous foci in the spleen, the disease may not progress for many years. In the diagnosis of antibodies, the speed and accuracy of diagnosis is important. Promising in this regard is the polymerase chain reaction (PCR) method.

False negative reactions more often occur with a long course of the process against the background of pronounced fibrotic changes and oligobacillarity. This trend is also quite often observed in patients with severe immunodeficiency conditions.

Functional radiological signs of intestinal TB:

– local small intestinal hyperperestaltics;
– dyskinesia of the cecum according to the hypermotor type;
– local bowel spasm;
– functional defect in filling the cecum (Stirlin symptom);
– ileostasis (delay of barium in the ileum for more than 9 hours);
– rapid emptying of the cecum;
– straightening loops of the small intestine;
– hyperperestaltics with spastic contraction of the terminal ileum or ileocecal region;
– segmental expansion of the loops of the small intestine.

Organic radiological signs of intestinal TB:

– reduction and deformation of the cecum;
– thickening of the ileocecal valve;
– dentate contours of the rectum;
– thickening of the longitudinal folds of the mucous membrane of the terminal ileum and cecum;

– adhesive process in the ileocecal region;
– strictures after scarring;
– shortening of the ascending intestine;
– internal fistulas.

Changes in multispiral computed tomography are possible with AT: high-density ascites, lymphadenopathy, thickening of the intestinal wall and uneven tissue density in the omentum [3, p. 58].

Given the absence of specific symptoms of AT, diagnosis should be carried out only by histological, bacteriological and polymerase chain reaction (PCR). The use of indirect diagnostic methods does not make it possible to verify antibodies and lengthens the duration of the stationary phase of the examination. Currently, in the diagnosis of antibodies, endoscopic research methods are more often used.

Important is the use of modern endoscopic NBI technologies with short-focus amplification and biopsy. Bacteriological methods in the study of biopsy specimens are highly specific, but not sensitive enough due to the presence of oligobacillarity. Especially low sensitivity of bacteriological methods in the detection of MBT in ascitic fluid. The most informative are endoscopic and laparoscopic methods with histological examination and PCR. Molecular genetic methods should be used only in the initial diagnosis of antibodies, but not for research in the process of anti-TB treatment or in the coming months after it. This is due to amplification of the DNA of non-viable MBT.

The World Health Organization recommends the Xpert TB / RIF system in TB diagnostics, the result can be obtained after 2 hours. However, with high sensitivity with ETB, the test does not have high sensitivity.

Diagnostic laparoscopy allows you to get material for morphological studies. This method is informative for differential diagnosis with peritoneal carcinomatosis, peritoneal mesothelioma.

The laparoscopy method makes it possible to detect the presence of miliary tuberculous rashes on the peritoneum, enlarged mesenteric lymph nodes, adhesions, scars, infiltrates, constrictions of the intestine, characteristic of this specific

inflammatory process. Laparoscopy is one of the gold standards for the diagnosis of antibodies [4, p. 145]. The presence of calcifications in the lymph nodes is a confirmation of the transferred mesenteric lymph nodes TB.

AT develops with a predominance of alteration in a specific inflammatory process, in 2/3 of cases as a result of reactivation of post-primary intraperitoneal foci, which are affected in more than 50% of patients with AT. Basically, specific mesadenitis is characterized by a caseous form of lesion. The diagnosis of AT is confirmed by the study of smears and cultures for MBT obtained after diagnostic laparoscopy in 85.7% of cases, that is, significantly more often than in the study of intestinal biopsy specimens after endoscopy (39.1%) [5, p. 699].

Gastrointestinal TB is more often manifested by an ulcerative form of damage to the small and large intestines. With TB, the liver and spleen are mainly determined by miliary lesions, in the peritoneum - exudative and adhesive forms of the lesion. In almost half of patients, AT is combined with non-specific diseases of the digestive system, which masks clinical symptoms and makes it difficult to evaluate the results of laboratory and instrumental methods. Acute and subacute forms of antibodies dominate, corresponding to pronounced alteration in the lesions. Chronic forms in antibodies are about 10-15%, asymptomatic forms of antibodies are very rare. Complications with AT, especially fatal, are more common than with RT, which suggests the need for early diagnosis of AT.

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