

ISSUES OF DIAGNOSTICS AND TREATMENT OF ECHINOCOCCUS CYST OF RARE LOCALIZATION: A CLINICAL CASE

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ABSTRACT — Echinococcal cysts of the pancreas are a rare pathology, but after surgical treatment they give a high percentage of complications and mortality. This article describes a clinical case of successful surgical treatment of a patient with a diagnosis of pancreas echinococcosis. A female patient A., 60 years old, was admitted in a planned manner with complaints that allowed her to suspect an echinococcal liver cyst. The correct selection of instrumental methods of diagnosis allowed us to identify a rare form of this disease. With a thorough revision, a cyst is found in the body of the pancreas. Pericistectomy performed. The postoperative period without features, recurrence of the disease was no longer observed. This clinical example shows that the timely identification of echinococcal cysts and their precise localization is fundamental in improving the results of surgical treatment of this category of patients.

KEYWORDS — pancreas, echinococcal cyst, surgical intervention.

INTRODUCTION

Echinococcosis is a helminthiasis that can damage any organ and system of the body. The causative agent is the larval stage of the tapeworm of *Echinococcus granulosus*. Echinococcal lesion of the pancreas is a rather rare pathology, the incidence of which is not more than 0.21% of all possible localizations of the specified parasitic disease [1]. As a rule, with rare localization, parasitic cysts can simultaneously be detected in other organs - the liver, lungs, spleen, pancreas, etc. [2].

The primary larvae of the helminth (oncospheres) are coated with a membrane, which under the action of gastric juice is lysed. The separated parasites perforate the intestinal mucosa further through the portal vein, are transported to the liver, where they mature to a mature cyst. Most parasites are held in the liver parenchyma, so from 31 to 92% of echinococcal cysts are formed in the liver [1]. Individual eggs that have overcome the hepatic barrier enter the pulmonary circulation and are delayed in the pulmonary capillary bed, which leads to the formation of pulmonary cysts (15–20%). When the parasite enters the great circle of

blood circulation, cysts (10–15%) are formed in the spleen, brain and bone marrow, heart, etc. [2].

As a rule, patients with rare localization of echinococcal cysts are re-operated and previously could be subjected to surgery for echinococcosis localized in another organ — liver, lung, spleen, pancreas, etc. [1].

Purpose

Presentation of a clinical case of observation and treatment of a patient with localization of an echinococcal cyst in the pancreas.

Materials and methods of research

In the present work the result of treatment of a patient with a diagnosis of "pancreatic echinococcosis" is presented, this diagnosis was established in accordance with international clinical recommendations. Clinical examination included the collection of anamnesis, examination of complaints, physical examination and examination of the patient. Laboratory diagnostics included morphological, biochemical, immunological studies.

Instrumental methods of investigation included ultrasound and spiral computed tomography (SCT). The ultrasonic study was performed with ultrasound scanners Hitachi Aloka SSD-4500 (Hitachi Japan), Esaote My lab 30 ("Esaote" Italy), GE Vivid S5 ("GE", USA) with linear and sector scan sensors with a frequency of 3,5 and 5 MHz in real time.

To identify focal formations, SCT was performed with the introduction of a bolus of contrast substance. SKT parameters: voltage x-ray tube 120 kV, current of 200–350 mA, an image matrix of 512×512. The thickness of the cut was 7 or 5 mm, the feed rate of the table corresponded to the thickness of the allocated layer — 7 or 5 mm (pitch = 1), the reconstruction index — 5 or 4 mm. Metric and densitometric analysis of the obtained images was performed. The density of organs and tissues was determined in Hounsfield units (H units). In addition to the analysis of transverse scans, we used the multiplanar construction and three-dimensional reconstructions.

A CLINICAL CASE

A female patient A. 1957.20.10.17 years admitted to the Department 1 Aleksandro-Mariinsky regional clinical hospital of Astrakhan routinely with complaints of intermittent rapicauda, burning pain in the

right upper hypochondrium, occurs more frequently after errors in diet, bitter taste, dry mouth, nausea in the morning. The patient had a history of cholecystectomy in February 1994, and in May 1996 she was operated on for an echinococcal liver cyst.

Upon admission of the patient performed CT in which the liver is of ordinary size, with clear smooth contours, the structure is heterogeneous. In the projection s7, a totally calcified rounded formation was identified with dimensions 26–17–19 mm. Density indices of liver parenchyma were not changed to + 59 HU. The vascular system is not changed, the intrahepatic ducts are dilated. Additional formations are not revealed. The bile duct expanded to 18mm, there are no concretions in its lumen. Gall bladder is absent after removal. The pancreas is located as usual, not enlarged: head up to 18 mm, body up to 14 mm, tail section up to 11mm. Its contours are uneven, clear. The structure is heterogeneous, with fatty acinar restructuring. Density values are reduced to 30 NU. Calcification of the parenchyma of the pancreas and the expansion of its duct is not marked.

In the region of the tail of the pancreas, posteriorly there is a round formation of a cyst-like structure, with dimensions 51–34–49 mm, the capsule of formation diffusely calcined.

CONCLUSION

CT-signs of parasitic cysts in the region of the right lobe of the liver (totally calcined), and in the region of the pancreatic tail.

Data from laboratory blood tests dated 10/20/2017: amylase – 79.7 U/L, potassium – 3.8 mmol/L, sodium – 132.9 mmol/L, creatinine – 61.6 μ mol/L, glucose – 8.0 mmol/L, total bilirubin – 24.0 μ mol/L. The level of total protein in blood plasma is 62.5 g/L. The activity of aspartate transaminase – 47.0 U/L, alanine transaminase – 39.7 U/L. Ethanol and β -naphthol tests are negative. The fibrinogen level in the blood is 4.65 g/L, the activated partial thromboplastin time is 29.2 sec, the prothrombin time in the blood or plasma is 17.0 sec. General blood test: hemoglobin – 121 g/L, Erythrocytes – $3.9 \cdot 10^{12}/L$, Hematocrit – 37.6%, platelets – $265 \cdot 10^9/L$, Leukocytes – $12.9 \cdot 10^9/L$, segmented neutrophils – 88%, monocytes – 5%, lymphocytes: 7%.

From the hematological analysis, it can be seen that the patient lacked eosinophilia typical of helminth infections. In addition, the ELISA method in its serum did not detect antibodies IGG to echinococcus antigens. Despite the fact that the patient does not have an immune response to echinococcus, on the basis of the clinical and instrumental data, the main clinical diagnosis is made: pancreatic echinococcosis.

The patient is prepared for surgery. 23.10.17 made pericystectomy operation. Protocol of operation: an upper median laparotomy was performed, in the area of the liver there is a pronounced adhesive process, which is divided by blunt and acute route. With a thorough revision of the liver, a cyst was not found. With further revision after the mobilization of the greater curvature detected Echinococcus 5×6 located at the front edge of the pancreas emanating from her cloths. Pericystectomy was performed. Hemostasis. A drainage tube is connected to the operation area. Sutures to the operating wound. Bandage.

The course of the postoperative period without features. The drainage tube was removed on the third day. After the operation, she received planned pain therapy, antibacterial, anticoagulant, infusion therapy, local treatment of postoperative wounds. After the treatment, the patient's condition improved. Postoperative wound healed by primary intention, the sutures were removed on day 7. He was discharged in a satisfactory condition for 11 days. In the dynamic observation and examination of relapse of the disease in this patient, we do not observe.

CONCLUSION

Thus, further study of the possibilities of instrumental methods of research is one of the priorities. Timely detection of this disease is fundamental in improving the results of treatment of this category of patients.

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