

OUR EXPERIENCE IN TREATING LIVER ECHINOCOCCOSIS COMPLICATED PERITONITIS IN CHILDREN

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Hydatid echinococcosis of the liver is a widespread parasitic disease in humans, which is much more severe in childhood than in adults. During the course of the disease, the development of various complications is possible, among which an important place is occupied by rupture of the wall of the liver cyst with the development of peritonitis and anaphylactic shock, which determine the severity of the patient's condition. The developed serious complication requires adherence to rational treatment tactics aimed at preparation, gentle surgical treatment, postoperative management and prevention of disease relapse.

Purpose of the work: to determine the possibilities of expanding the indications for laparoscopic echinococectomy (LE) of the liver in children and improving the results of surgical treatment of complicated liver echinococcosis with peritonitis in children.

Material and research methods. In our center, from 2009 to 2023, LE was performed in 16 patients aged 6 to 18 years for complicated peritonitis of hydatid liver disease. Of these, there were 13 boys and 3 girls. The time of admission of patients was 6.5 ± 3.5 hours after the appearance of the first clinical symptoms of peritonitis. In 10 (62.5%) patients, the development of peritonitis was preceded by trauma. The clinic was characterized by signs of anaphylactic reaction and peritonitis. Ultrasound made it possible not only to detect free fluid in the abdominal cavity, but also to establish the cause of peritonitis - the presence of cystic formations in the liver. Preoperative preparation was aimed at correcting disturbances in homeostasis and included detoxification, desensitization and anti-shock therapy.

Surgical treatment in all cases began with diagnostic laparoscopy. During revision of the abdominal cavity, the extent of the process was determined and intraoperative tactics were outlined. At the diagnostic stage, a cloudy effusion was visualized in the abdominal cavity, with perforation of the cyst with fragments of the chitinous membrane, which were evacuated with an electric suction, then sanitized with antiseptic solutions (ozonated water, decosan) to "clean waters." Then the localization of the cysts was determined, and additional working trocars were installed, the insertion points of which depended on the location of the EC. Indirect signs of the localization of liver EC were multiple adhesions between the Glissonian capsule and the diaphragm, as well as between the fibrous membrane of the cyst and the greater omentum. After dissection of part of the adhesions using monopolar electrocoagulation, the operating angle of view increased and access to the cyst expanded, sufficient for manipulation. After bipolar coagulation, a wide dissection of the fibrous membrane of the opened cyst was performed, aspiration of residual fluid and the remains of the chitinous membrane by vacuum extraction, then antiparasitic treatment of the inner surface of the fibrous capsule was performed with an 80-100% solution of glycerin, 3% solution of hydrogen peroxide and spirit 96⁰, followed by drainage of the OP liver and abdominal cavity.

Some difficulties are caused by laparoscopic visualization in multiple and combined EC of the abdominal organs, especially when they are intraparenchymal, as well as when cysts are localized on the diaphragmatic surface of the VII-VIII segments of the liver. In some cases,



intraoperative ultrasound was performed in cases of suspected EC, which were not visualized during survey laparoscopy, to clarify the topography of the focal formation, marking the sectoral and segmental boundaries of the liver.

In 5 cases, conversion was carried out due to the complete intrahepatic location of multiple liver ECs in a segment technically inaccessible for laparoscopy. The operation was completed by drainage of the cyst cavity and abdominal cavity. In the postoperative period, in addition to antibacterial and detoxification therapy, chemotherapy was administered with the anthelmintic drug albendazole at a dose of 12 mg/kg body weight for 28 days, two courses with a 30-day break. Control examinations were carried out within 3 – 6 – 9 – 12 months.

Results and discussion. When analyzing the results of examination of patients who underwent LE, sanitation, and drainage of the abdominal cavity for liver cysts complicated by peritonitis, a more favorable course of the postoperative period was noted. Body temperature returned to normal at 2.5 ± 0.15 days. As a result of the minimal invasiveness of laparoscopic surgery, pain was relieved in patients earlier (1.8 ± 0.2 days), and intestinal motility was restored faster (by 1.7 ± 0.16 days). Analysis of the motor activity of patients in the postoperative period showed that earlier activation of patients, at 3.5 ± 0.17 days, occurred after endovideosurgical intervention. A decrease in leukocytosis and a decrease in neutrophilia to normal levels after laparoscopic surgery occurred on days 2.5 ± 0.2 . The drains were removed on 3.6 ± 0.2 days (due to the cessation of discharge), the duration of their treatment in the hospital was 14.5 ± 0.2 days. The obtained treatment results allow us to recommend endovideosurgical intervention as the method of choice in the treatment of patients with liver echinococcosis complicated by peritonitis.

Conclusion. Thus, minimal trauma and an adequate volume of surgical intervention during laparoscopic echinococectomy and sanitation of the abdominal cavity for liver echinococcosis complicated by peritonitis contribute to a more favorable course of the postoperative period than with traditional surgical treatment.