

DIFFERENTIAL DIAGNOSIS OF ACUTE CHOLECYSTITIS WITH AN ATYPICAL ULTRASOUND IMAGE



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Background: to improve the ultrasound diagnosis of the gallbladder (GB) pathology by developing a diagnostic algorithm for the atypical ultrasound image of acute cholecystitis.

Materials and methods. 5600 patients with acute pathology of GB were examined in CCH No. 68 in 2010-2018. Of these, 360 patients at primary ultrasound revealed changes in the GB that didn't allow them to be attributed to the image of acute cholecystitis. Patients were divided into 2 groups: the 1st group included 120 (33.3%) patients whose changes in the GB included thickening (change/poor differentiation) of the wall without increasing the size of the GB, the 2nd - 240 (66,7%) patients with an increase in the size of the GB, but without changes in the wall.

Results. In a retrospective analysis in the first group, the following changes were diagnosed: Mirizzi syndrome - in 10 patients, GB tumor - 20, reactive changes in the wall against other diseases and conditions (liver disease, pregnancy, acute abdominal pathology located nearby) - 62, biliary digestive fistula - 12, perforation of the GB at acute cholecystitis - in 16 patients.

In the second group, only 30 patients were diagnosed with acute cholecystitis, including empyema of GB - in 8 patients, enlargement of GB wall' was regarded as a manifestation of congestive or "hungry" GB, which does not require specific treatment and observation, in 210 patients.



*Vesico-duodenal fistula:
collapsed GB with gas.*



*Perforation of the GB: collapsed GB
(1) and paravesical leak (2)*



*Mirizzi syndrome: shrunken
gallbladder with stone*



*Perforation of the GB: the bottom
wall is not differentiated*



*Thickened GB wall due to
liver cirrhosis*



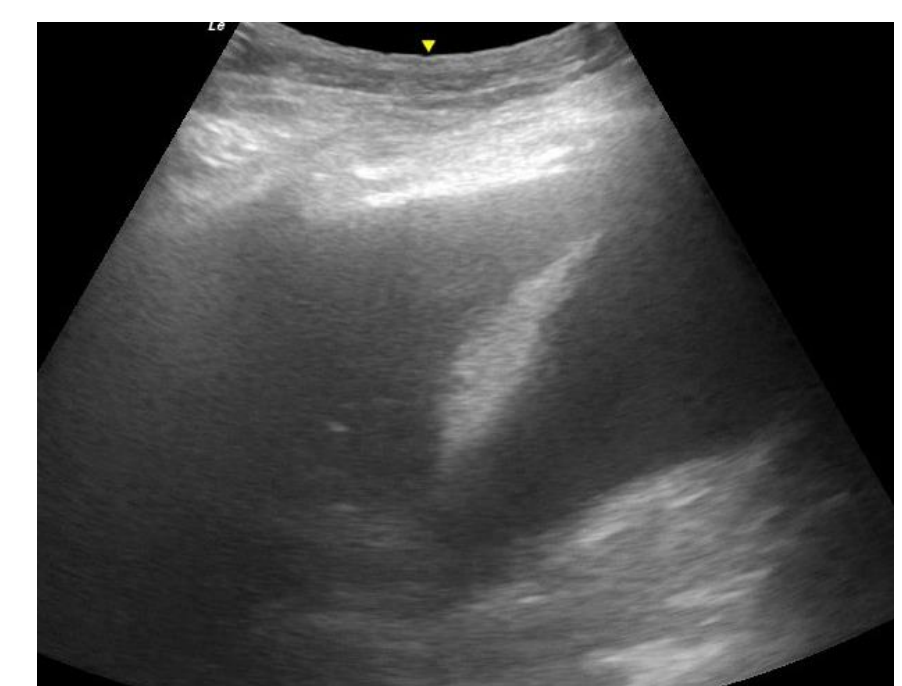
Neoplasm of the GB



*Enlarged nonacute gallbladder of
an intensive care patient*



*Thickened GB wall due to
acute pancreatitis*



*Thickened GB wall due to
acute pancreatitis*

Against the background of conservative therapy, 240 patients (65 from the first group, 175 from the second group) showed a positive dynamics of GB state. Surgical treatment with laparotomy or laparoscopic access was performed only in the first group in 17 patients. Diagnostic punctures and drainage of GB were performed in 12 patients of the first group and 70 patients in the second group. Retrograde cholangiopancreatography, endoscopic and percutaneous drainage of the bile ducts were performed in 15 patients. 15 (4.2%) patients died (5 from the first and 10 from the second group).

Conclusion. After comparing the findings of ultrasound examinations of GB and final diagnoses (based on other imaging techniques, the clinical and laboratory picture of intraoperative and pathoanatomical studies), an analysis of inconsistencies and errors was performed. The main diagnostic criteria and algorithm to help make a differential diagnosis between various pathologies of GB were formulated.