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CLINICAL EFFECTIVENESS OF DIAPEUTIC, ENDOSCOPIC, AND X-RAY  
SURGICAL METHODS IN THE TREATMENT OF GALLSTONE DISEASE  
COMPLICATIONS.

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Biliary peritonitis is a serious complication of acute cholecystitis. At the same time,..."despite the seriousness of this problem, little attention is paid to biliary peritonitis, although the mortality rate in this complication, according to various authors, ranges from 6.2 to 24%".

For the treatment of biliary peritonitis, laparotomy or relaparotomy is usually used, which in itself is a highly traumatic intervention, in which postoperative mortality reaches 9.1-22.5% (1,4,8,9,14). The outcome of the surgical intervention largely depends on the choice and sequence of surgical correction methods used.

Further prospects for improving the results of surgical treatment of patients with biliary peritonitis are currently associated with the use of cost-effective minimally invasive surgical interventions - puncture drainage and endoscopic operations performed before the development of a systemic inflammatory reaction of the body and abdominal sepsis.

**Research objective.** Improving the results of diagnosis and treatment of patients with biliary peritonitis as a complication of acute cholecystitis using minimally invasive surgical correction methods.

**Materials and methods.** The treatment results of 82 patients with biliary peritonitis complicated by acute cholecystitis are presented, which constituted 7.1% of all 5849 operated patients with cholelithiasis.

Among the patients with peritonitis, there were 24 (29.7%) men and 58 (70.3%) women, the sex ratio was 1:2.5. In all operated patients with gallstone disease, this ratio was 1:6, which confirms the literature data on the complex course of cholelithiasis in men. Patients aged 60-74 years constituted 35.2%, and 45-59 years - 28.2%. 8.3% of patients were over 75 years old, with an average age of  $55.2 \pm 1.3$  years. Concomitant diseases were identified in 62.6% of patients. Cholangitis as a complication of the underlying pathological process was identified in 51.1%. Chronic concomitant pathology of two systems was noted in 41% of patients, three or more systems - in 26%.

In a study aimed at solving the problems of developing a new treatment and diagnostic tactic for biliary peritonitis, taking into account modern trends in the development of surgery, patients were divided into two groups.

Thus, in the main study group, 33 (67.3%) patients with acute destructive cholecystitis complicated by various forms of biliary peritonitis underwent minimally invasive interventions.

**Results and their discussion.**

In 11 patients of the comparison group, various purulent-septic complications were observed after operations on biliary peritonitis caused by acute destructive cholecystitis,

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which amounted to 33.3%. In this case, in 2 patients (6.1%), bilomas were re-formed in the subhepatic region, which were drained by recanalizing the contraapertures. In 2 (6.1%) patients, prolonged bile leakage from drainage tubes installed in the subhepatic space was observed for 2 to 4 weeks, in 4 (12.1%) patients, due to ongoing peritonitis, repeated relaparotomy operations with repeated abdominal cavity sanitation were performed, and in 1 patient, subhepatic and subdiaphragmatic abscesses were opened and drained. Also, 1 patient underwent repeat surgery for cholemic bleeding into the abdominal cavity. In 9 (27.3%) patients, suppuration of the postoperative wound was observed.

The most severe complication of biliary peritonitis in the studied group of patients was abdominal sepsis, which led to the death of 2 patients, with a mortality rate of 6.1%.

In the main group of patients with biliary peritonitis as a complication of acute destructive cholecystitis (49 patients), minimally invasive interventions were used in 33 (67.3%) patients according to the principles of FTS.

Of these, 16 patients (32.6%) underwent the following surgeries using videoendoscopic technology: 9 patients with acute destructive cholecystitis complicated by local biliary peritonitis underwent LXE and liver drainage; 4 patients with acute destructive cholecystitis complicated by diffuse biliary peritonitis underwent LXE and abdominal drainage (right iliac canal and pelvic cavity); 3 patients with acute destructive cholecystitis combined with choledocholithiasis underwent LXE and liver drainage, EPST. EPST in these patients was performed in 2 stages. In 11 (22.4%) patients, diapeptitic technologies were used - microcholecystostomy and bead puncture under ultrasound control.

In the main study group, postoperative complications in 8 patients amounted to 16.3%. In this case, in 2 (4.1%) patients, biliomas of the subhepatic region were successfully sanitized by ultrasound-controlled puncture. One patient experienced cholemic hepatic hemorrhage from a transhepatic puncture of the gallbladder. In 1 patient, external bile leakage was noted, relaparoscopy revealed cystic duct stump failure, and repeated clipping was performed. In 1 patient, after EPST, bleeding from the duodenum was noted, which was stopped by conservative measures. In 1 patient, the diaphragm abscess was sanitized by 3 repeated punctures under ultrasound control. Relaparotomy was performed in 1 patient with persistent peritonitis, and suppuration of the postoperative wound was observed in 5 patients.

At the same time, in the main group, out of 49 operated patients, 2 patients died, the mortality rate was 4.1%. The cause of death was acute pancreatitis as a complication of transduodenal endoscopic intervention in 1 patient and persistent peritonitis in 1 patient.

### **Conclusion**

1. Bile peritonitis as a complication of acute destructive cholecystitis was observed in 7.1% of patients. Perforative form of peritonitis was most frequently noted, in 67.1% of cases, and in 32.9% of patients, biliary peritonitis developed as a result of perforation of the gallbladder wall.



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2. Priority use of minimally invasive surgical interventions (diaplectic and laparoscopic methods) in the treatment of local biliary peritonitis, which developed as a complication of acute cholecystitis, was successfully performed in 67.3% of patients in the main group. In 32.7% of cases of diffuse biliary-purulent peritonitis, cholecystectomy through a wide laparotomy incision and abdominal cavity sanitation was required.

3. Optimization of surgical treatment tactics for patients with biliary peritonitis based on the principles of selective use of minimally invasive surgical interventions allowed for improved treatment outcomes in the main group: purulent-septic complications were 16.5%, mortality was 4.1%, while in the comparison group, these figures were 33.3% and 6.1%, respectively.

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