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## ELIMINATION OF IATROGENIC COMPLICATIONS IN THE POSTOPERATIVE PERIOD OF LAPAROSCOPIC CHOLECYSTECTOMY

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### **Abstract**

This article studied the causes of iatrogenic injuries in 1104 patients with laparoscopic cholecystectomy during and after 54 patients. By dividing them into three groups by time, it was possible to exclude complications with selected surgical methods. It was established that the analysis of the postoperative period in these patients was carried out, stenotic complications were identified and eliminated by modern methods.

Keywords: external liver ducts, iatrogenic lesions, cicatricial narrowing, gold bladder diagnostics, jaundice.

### LAPAROSKOPIK XOLETSISTEKTOMIYA OPERATSIYASIDAN KEYINGI DAVRDA YATROGENIK ASORATLARNI BARTARAF ETISH

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### **Annotatsiya**

Ko'rib chiqilayotgan maqolada 1104 ta laparoskopik usulda bajarilgan xolesistektomiya operatsiyalar vaqtida va undan keyingi 54 nafar bemorda yatrogen shikastlanishlarni sabablari o'rganib chiqildi. Ularni vaqtiga qarab uch guruxga bo'linib tanlangan operativ usullarda asoratlar bartaraf qilindi. Shu bemorlarda operatsiyadan keyingi davrlari o'rganilib keyin bo'ladigan stenozli asoratlari aniqlanib ularni xam zamonaviy usullarda bartaraf etilgani bayon qilindi.

Kalit soʻzlar: jigar tashki oʻt yoʻllari, yatrogen shikastlanish, chandiqli torayish, oʻt pufagi tashxisi, sariqlik.

# УСТРАНЕНИЕ ЯТРОГЕННЫХ ОСЛОЖНЕНИЙ В ПОСЛЕОПЕРАЦИОННОМ ПЕРИОДЕ ЛАПАРОСКОПИЧЕСКОЙ ХОЛЕЦИСТЭКТОМИИ

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### Аннотация

В настоящей статье изучены причины ятрогенных повреждений у 1104 больного лапароскопической холецистэктомией во время и после 54 пациентов. Разделив их на три группы по времени, удалось исключить осложнения при избранных оперативных методах. Установлено, что проведен анализ послеоперационного периода у этих больных, выявлены и устранены стенотические осложнения современными методами.

Ключевые слова: наружные протоки печени, ятрогенные поражения, рубцовые сужения, диагностика желчного пузыря, желтуха.

**Relevance.** Recently, the increase in the incidence of gallstone disease has led to a significant increase in the number of surgical interventions performed. Currently, operations on the extrahepatic biliary tract are performed in most medical institutions by surgeons of various skill levels. This is inevitably accompanied by an increase in the frequency of various complications, including iatrogenic injuries, which are the cause of the formation of cicatricial structures of the extrahepatic bile ducts [1, 2, 4].

In connection with the emergence and development of modern technologies in surgical hepatology, the issues of diagnosis and treatment of iatrogenic injuries of the extrahepatic biliary tract and external biliary fistulas. They have become even more important [3, 5, 8]. In recent years, with the widespread use of laparoscopic cholecystectomy, especially at the stage of mastering this technique and various complicated forms of acute cholecystitis. So if often iatrogenic damage to the bile ducts was stable in recent decades and amounted to 0.05-0.2%, then with the use of laparoscopy cholecystectomy it increased to 0.8-4% [6, 9, 11].

Along with the extensive literature devoted to the study of reconstructive hepatobiliary surgery, we have to admit that many issues in this direction are far from being resolved, and some of them are in their infancy. This is especially true for iatrogenic injuries of the extrahepatic biliary tract [7, 9, 13, 15].

In reconstructive surgery of the biliary tract, he outlined serious progress, primarily associated with the active introduction of modern methods

of endoscopic and X-ray endovascular surgery, the use of precision technology and biomaterials [10, 14]. However, despite this, reconstructive operations on the false ducts in 4.5-25% of cases are accompanied by the development of narrowing of the superimposed biliodigistic and biliary anastomoses, disavowing the results of reconstructive operations and leading to an aggravation of the severity of the patients' condition.

Surgical interventions are accompanied by a large number complications, and mortality reaches 15-30%. In this regard, minimally invasive methods for restoring bile outflow and, first of all, endoscopic interventions are of increasing interest in recent years. Currently, endoscopic methods of diagnosis and treatment play an important role in diseases of the hepetobiliary system. As for the therapeutic possibilities of endoscopic methods, along with traditional methods of sanitation of hepaticocholedochus and restoration of an adequate passage of bile, such as endoscopic papillosphincterotomy, nasobiliary drainage, new endoscopic interventions are widely used in clinical practice. These include mechanical lithotripsy, duodenobiliary drainage of the hepaticocholedochus using endobilioprostheses [11, 13].

**Objective.** This study is to analyze the results of surgical treatment of patients with iatrogenic injuries with damage to the extrahepatic bile ducts at the site of traditional treatment and using endoscopic technologies.

Material and methods. In the department of abdominal surgery of the Regional Multidisciplinary Medical Center and the department of emergency surgery of the Jalalkuduk district for the period 2015 to 2020, various laparoscopic interventions were performed in 3115 patients aged 17 to 84 years, of which: cholecystectomy - 1671, women were 1384 (83%), men 287 (17%), chronic calculous cholecystitis was diagnosed in 926 patients, acute in 716, gallbladder polyposis - in 13, acute without stone cholecystitis - in 9, chronic without stone cholecystitis - in 5 of them complicated 64 patients with "fresh" iatrogenic injuries of the extrahepatic bile ducts execution time Laparoscopic cholecystectomy 7 patients were transferred from other clinics 6-9 days after injury with biliary peritonitis. Intraoperative diagnosis of damage to the extrahepatic bile ducts was based on the appearance of bile in the surgical field; in the postoperative period, the diagnosis was based on the patient's complaints of jaundice of the sclera, darkening of urine, acholic feces, bile secretion through drainage, clinical signs of peritoneal irritation, symptoms of obstructive jaundice, cholangitis. Ultrasound was used to determine the level of damage, according to the indication Retrograde cholangiopancreatography, fistulography and computed tomography.

**Results and its discussion.** According to the nature of damage to the extrahepatic bile ducts, the patients were distributed as follows: parietal damage 28; full intersection 19; clipping of hepaticocholedochus 8; partially coagulative necrosis 6; during the operation, erroneously partially removing part of the hepatic ducts was found in 3 patients.

Depending on the timing of the detection of bile duct injuries, the patients were divided into 3 groups.

Injuries discovered during surgery in 16 patients. In this group, the operations were completed as follows: 14 patients received a primary suture of the common bile duct on the drainage; cases, external drainage of the common bile duct was performed according to the Vishnevsky method. In 2 patients diagnosed with acute phlegmonous cholecystitis, expressed by adhesive processes, it was operated on, during the operation there were suspicions of partially resected hepatic duct with gallbladder. Not finishing the operation, the histological material was examined and it was found that about 1.0 cm of hepaticocholedochus was resected. The operation continued with the conversion of the damaged part of the hepaticocholedochus and the Roux-en-Y hepatico-jejunostomy.

Damage was detected 5-8 days after surgery in 17 patients. In this group, 3 patients with various biliary peritonitis and thin-walled choledochus underwent external drainage of the biliary tract according to the Vishnevsky method. In 5 patients with complete clipping of hepaticocholedochus, clips were removed and external drainage was performed on the T-shaped drainage according to Kare in one case and hepaticojejunostomy with lost drainage was applied. In a patient who has a T-shaped drainage according to Kare, periodic attacks of cholangitis are noted. In 8 patients with diffuse bile peritonitis, hepatico-jejuno anastomosis was performed on a loop isolated according to Roux with good results. In one patient, on the 5th day after laparoscopic cholecystectomy, a severe condition was transferred from another hospital, which was expressed by obstructive jaundice and pain under the hepatic region, phenomena of dynamic obstruction. After a one-day preoperative preparation in the intensive care unit, the patient underwent a laparotomy; during the revision, hepaticocholedochus was completely clipped and the choledochus was partially resected. Taking into account the condition of the patient, removal of the clip, hepaticocholedochus, external drainage was installed at the first stage of the operation. Three months later, the patient underwent an isolated hepatico-jejunostomy according to Roux.

Injuries found after discharge from the hospital, 2-4 weeks after surgery 8 patients. In this group, patients were admitted with symptoms of obstructive

jaundice, external biliary fistula. After preparation, stabilization of the condition, various types of hepaticojejunostomy were performed along the Roux loop. To determine the cause of iatrogenic damage, we studied the history of patients, the state of the gallbladder and inflammation of the circumference during surgery. Of the 64 patients at admission, 29 patients were admitted on days 5-6 from the onset of an attack of cholecystitis. 35 patients were admitted 3-4 days. 24 patients with acute gangrenous form around large infiltrates and adhesive processes and local peritonitis. 29 patients with acute phlegmonous form around large infiltrates. 3 patients with a short neck of the gallbladder. 1 patient had a duplication of the gallbladder. The remaining 7 patients are technical errors of the operating surgeon.

After the operation, all patients were examined after 6 and 12 months and after 2 years. Of the 44 patients who did not have a hepatojejunal anastomosis, 9 patients had late complications. The structure of the extrahepatic bile ducts that have established endoscopic methods of diagnosis and treatment play an important role in the hepatobiliary system. All 12 patients managed to stent the stenotic part of the extrahepatic bile ducts with the help of an endoscope.

### Conclusions.

- 1. During the operation it is necessary to take into account the history and inflammation of the hepatobiliary zone. Which can be complicated by iatrogenesis.
- 2. The best results were obtained when performing hepaticojejunostomy on a loop of the small intestine isolated according to Roux. The immediate postoperative period was uneventful, the patients were discharged on the 8-12th day in a satisfactory condition with normal liver function. Long-term results within 1-3 years were followed up in 19 patients. results Good in 11 were obtained patients who underwent hepaticojejunostomy with lost drainage. A satisfactory result was noted in 5 patients who, after removal of the drains from the bile ducts, are worried about recurrent pain in the right hypochondrium, attacks of cholangitis. In 3 patients who underwent primary choledochal plasty, narrowing of the hepaticocholedochus developed within 6-15 months, which required endoscopic stenting.

**Inference.** With parietal wounds of the extrahepatic bile ducts, identified during the operation, it is possible to perform suturing and drainage on the T - shaped drainage through the stump of the cystic duct. With complete intersection of the choledochus, primary plasty is performed, which in almost 100% of cases leads to stenosis. The operation of choice is a

hepaticojejunostomy with a lost drainage, which is performed with a precision operating technique using monofilament suture materials.

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