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THE DEVELOPMENT OF ACUTE SMALL BOWEL OBSTRUCTION AFTER HEPATICOJEJUNOSTOMY

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Abstract:
Clinical observation of biliary stone formation on framed transhepatic tubular drainage into intestinal lumen followed by a stone migration resulting in intestinal obturation. Routine laboratory, clinical, biochemical investigations, sonographic examination, magnetic resonance cholangiography, ultrasound controlled transcutaneous transhepaticcholangistomy, roentgenoscopy examination of organs of abdomen cavity were used. Clinical observation of patient G., 63 years old, who hospitalyse with cholelithiasis for planned surgery presented. Laparoscopic cholecystectomy was perfomed with iatrogenic injury of wall of common bile duct followed by its suturing and formation of stricture of common bile duct followed by Ru hepaticojejunostomy on fraimed transhepatic drainage with formation biliary stone on it followed by migration of the stone along intestinal tract leading to enteric obstruction. Data of formation of biliary stone on framed transhepatic drainage followed by a stone avulsion of the stone along intestinal tract leading to enteric obstruction were presented. Rare clinical case of framed transhepatic drainage fouling with biliary stone (photo) followed by avulsion of stone to enteric lumen leading to enteric obturation.

Keywords: *Chronic and acute cholecystitis, common bile duct, injury, stricture, hepaticojejunostomy.*

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INTRODUCTION:

In the XXI century, cholelithiasis and its complications are the most common surgical pathology of the abdominal organs [1-4]. The frequency in the structure of diseases of the hepatopancreatic-duodenal region is from 14 to 17% [5-7]. The arsenal of surgical interventions and the "gold standard" is laparoscopic cholecystectomy (LCE), performed in 72-95% of patients [1,3,5-7]. At the same time, despite a significant reduction in contraindications, there is a significant frequency of intra- (0.3-0.6%) and postoperative complications, which require conversion up to 7%, which negatively affects the postoperative complications of LCE results [2,3,8]. Despite the prevalence of cholelithiasis and its complications in abdominal surgery, the problem of preventing postoperative complications of LCE, both early and late, is becoming very relevant [2,5,7-9]. The main intraoperative and postoperative complications are iatrogenic injuries of the extrahepatic biliary tract, the formation of subhepatic abscesses, biliary fistulas, etc. But long-term complications of the postoperative period, which is biliary nooar, causing the development of acute intestinal obstruction are observed quite rarely [10,11].

MATERIALS AND METHODS:

The work was performed on the clinical bases of the Department of Surgery No. 1 of the Medical Academy named after S.I. Georgievsky of Vernadsky CFU (state budgetary institution of public health “Republican Clinical Hospital named after N.A. Semashko” and state budgetary institution of public health “Simferopol Clinical Hospital” for the period 2013-2019. The work is based on the results of clinical examination and treatment of 4850 patients for various forms of calculous cholecystitis. Women with this pathology prevailed and amounted to 4049 (83.4%).

The direct indications for LCE in 3322 (68.5%) patients were chronic calculous cholecystitis, and in 1528 (31.5%) acute calculous cholecystitis. As a rule, patients with the acute process, which amounted to 1326 (86.8%), As a rule, patients with the acute process, which amounted to 1326 (86.8%), were transferred from other surgical hospitals of the peninsula on the 3-11th day from the onset of the disease according to the regulation of the Ministry of Health of Crimea on the planned routing of patients to level 3 hospitals. We consider this tactic unreasonable in relation to this pathology, due to the fact that with prolonged conservative therapy, local inflammatory complications develop, which makes it difficult to perform laparoscopic cholecystectomy.

A contraindication to laparoscopic cholecystectomy was considered to be the presence of diseases of the cardiovascular and respiratory systems in the stage of decompensation, in which insufflation of gas in the free abdominal cavity and at the same time an increase in intra-abdominal pressure can adversely affect anesthesia. And the decision on the tactics of this particular patient was decided individually (open minilaparotomy followed by cholecystectomy or drainage of the gallbladder under ultrasound control.

Opinion V.N. Zaporozhan et al. (2000) [1], that the earlier performed surgical interventions on the abdominal organs and obstructive jaundice on the background of choledocholithiasis - are contraindications to LCE, perhaps in some cases justified. Nevertheless, we adhere to a different tactic, namely, extended indications in these situations.

All patients underwent general clinical, x-ray, and endoscopic, ultrasound examinations to assess the degree of infiltrative changes in the area of the proposed surgical intervention, the presence of calculi in the gallbladder and extrahepatic ducts, as well as in the acute process to confirm local complications (peribesular abscess), with mechanical jaundice as necessary MR-cholangiography.

To prevent purulent-septic complications after laparoscopic cholecystectomy in all patients with acute cholecystitis, antibiotic prophylaxis was used: 1 g of generation III cephalosporin and 500 mg of metronidazole were intravenously administered 20 minutes before induction of anesthesia, and this treatment was repeated after 12 hours. And further in the postoperative period, antibiotic therapy was continued for 3 days.

The operation was performed under endotracheal anesthesia using muscle relaxants. In the majority - 4413 (90.9%) carboxyperitoneum was placed after the introduction of a trocar with a diameter of 10 mm above the navel. In 437 (9.1%) patients with earlier performed the surgical interventions on the organs of the abdominal cavity and a high probability of adhesions - the entrance of the trocar above the navel was performed by minilaparotomy up to 5 cm long according to the methodology of the clinic (under visual control), the sealing was provided by suturing of the aponeurosis. At first, a panoramic revision of the abdominal cavity was performed. 10 mm trocars were introduced in the epigastric region and a 5 mm trocar in the right hypochondrium, the fourth trocar was introduced depending on the severity of the adhesive process

in the abdominal cavity. If necessary, adhesiolysis of the intraperitoneal adhesion process was performed, identifying zones for LCE, visualized the Kahlo triangle.

All endoscopic instrumental manipulations were performed under mandatory visual control. With an acute process and blocked, strained gallbladder performed puncture and aspiration of purulent contents in 256 (16.8%) patients. The cystic duct was clipped, only after a clear visualization of the common hepatic and bile ducts.

In case of calculous cholecystitis complicated by obstructive jaundice on the background of choledocholithiasis in 57 (1.2%) patients, in 20 (35.1%) - the first stage performed endoscopic papillotomy with extraction of calculi and the second stage of LCE. In the presence of a single “floating” calculus in the common bile duct, 37 (64.9%) patients underwent a single-stage surgical aid of LCE combined with choledochotomy, extraction of calculi using a choledochoscope, Fogarty probe, suturing of the bile duct and external drainage according to Holsted-Pikovsky.

3-5 days after the illness, when there was a “loose” infiltrate, perform stage discharge gallbladder and visualization of the cystic duct and cystic artery. There were no technical problems. Difficulties were noted in 59 (3.8%) patients. In the presence of a dense infiltrate, the duration of the disease is 6 or more days. In this situation, they used blunt preparation with the help of a dissector, a Chugunov blade, an electric suction pump and a gauze tupfer, with detailed verification of structural anatomical elements in the gates of the liver and hepatoduodenal ligament.

There is a thesis that if "within 30 minutes" the surgeon does not visualize the cystic duct and artery, conversion is necessary [3, 7]. This can be discussed and, in most cases, we managed to cope with this technically difficult intraoperative situation. As a rule, with the integrity of the gallbladder, the latter is removed from the abdominal cavity without a container, with mandatory drainage of the subhepatic space during the acute process and during work on the common bile duct, in other cases (chronic cholecystitis, when the cystic duct and artery are clearly discharged, there is no blood loss, there are no problems with the gallbladder bed) the issue of drainage was decided individually.

RESULTS AND DISCUSSION:

Of the 4850 patients with cholelithiasis, LCE were performed in 3322 (68.5%) patients with chronic calculous cholecystitis and 1528 (31.5%) with acute calculous cholecystitis. When performing LCE, the need for conversion arose in 60 (1.2%). When mastering the technique of laparoscopic interventions, in the first 2 years 33 conversions (0.7%) of the patient were made. Of these, in 4 cases, damage to the common bile duct was noted, in 2 - the complete intersection of the common bile duct, with hepatic jejunostomy by Ru and in 2 cases, damage to the anterior wall of the common bile duct followed by suturing of the latter and external drainage. Subsequently, the indications for conversion were the presence of dense scar-sclerotic changes in the neck of the gallbladder and extrahepatic ducts in 7 (0.14%) patients with chronic cholecystitis, in 8 (0.16%) cases with acute cholecystitis, accompanied by severe hepatoduodenal ligament infiltrate and the inability to identify the structural elements of the ligament, 5 (0.10%) - in the chronic process, when there were internal biliary fistulas (Mirizzi syndrome II-IV type).

In one case (we give a clinical observation of a patient G. 63 years old) when performing LCE for chronic calculous cholecystitis, iatrogenic partial 2/3 damage of the common bile duct, which was not seen during the operation. After 10 hours, due to the secretion of bile by control drainage, the patient is re-operated - plastic of choledoch made continuous suture (vikryl) and its external drainage according to Halsted-Pikovsky. The patient was discharged after 14 days in satisfactory condition. Repeated hospitalization after 2.5 months against a background of obstructive jaundice - MR cholangiography was performed, on which it is established that there is a stricture in the area of stitches on the common bile duct. Surgery performed - hepaticojejunoanastomosis applied by Ru nodal vicryl seam with an additional nodal second row of seams on the transhepatic frame drainage - used a silicone tube through the liver, common and left hepatic ducts, further through superimposed hepaticojejunoanastomosis into the small intestine, the patient was discharged for outpatient treatment. After 6 months, examined by a surgeon and found that the outer part of the drainage “seemed to be dragged with force” into the anterior abdominal wall. An attempt to remove the frame drainage was carried out with some effort, while there was a feeling of its detachment from "something”, after which he freely went outside. But a day later, the patient developed a clinical picture of acute small bowel obstruction, the reason for which the operation turned out to be that there was a separation of the formed and fixed calculus from the frame drainage with its subsequent movement in the intestines. Apparently during this time at the end of the drainage a calculus of significant size was formed, which did not cause obstruction of the ducts and intestinal lumen. When trying to remove drainage, the

calculus broke away from the latter and migrated in the intestine, causing a clinic of intestinal obstruction (picture. 1).

Picture 1. Separation of calculus from frame drainage

In mind of the development of small bowel obstruction, the patient was operated on - eliminated the cause of intestinal obstruction - enterotomy, calculus extraction followed by the imposition of a 2-row intestinal suture. The postoperative period without complications. The patient was discharged after 8 days. Observation for 3 years without features.

Patients early operated on abdominal organs conversion was necessary in 7 (1.6%) patients in mind the severity of the adhesive process. In one case, at the entrance to the abdominal cavity, the small intestine was injured, which was sutured through the mini-access, followed by the continuation of laparoscopic surgery.

In the presence of obstructive jaundice on the background of choledocholithiasis in 57 (1.2%) patients, in 20 (35.1%) - the first stage was performed endoscopic papillotomy with extraction of calculi and the second stage of LCE. And in 37 (64.9%) patients a one-stage operational manual of LCE in combination with choledochotomy was performed, extraction of calculi using a choledochoscope, Vogart probe and, by suturing the latter and external drainage of the common bile duct. In 4 cases in the early postoperative period, bile flow was noted, which itself stopped.

In 59 (3.8%) patients with acute destructive cholecystitis and the presence of dense infiltrate, blunt preparation was used with the help of a dissector, Chugunov's scapula, electric suction and gauze tuffer, with detailed verification of structural anatomical elements in the gates of the liver and hepatoduodenal ligament.

Our modest experience allows us to draw the following conclusion that the permissible time for performing laparoscopic surgery is not 30 minutes

[3,7], but 1,5-2,0 hours (despite the earlier performed abdominal surgical intervention), and the mandatory registration of the patient's absence of severe concomitant pathology. And if you recall, also the thesis that any drainage - there is an imperfection of abdominal surgery, then, all questions regarding drainage of the abdominal cavity and common bile duct should to be decided individually.

CONCLUSIONS:

An individual approach to the treatment of cholelithiasis allowed us to reduce the incidence of intra- and postoperative complications to 1.68%, the conversion rate to 0.61%, and reduce mortality - 0.58%. However, we did not note a decrease in mortality from cardiovascular postoperative complications - 0.14%.

REFERENCES:

1. Zaporozhan V. N., Grubnyk V. V., Saenko V. F., Nechitailo M. E. 2000. Video-endoscopic operations in surgery and gynecology. Kiev: Health, 297 p.
2. Nichitaylo M.E., Skums A.V. 2006. Bile duct injury during cholecystectomy and their consequences. Kiev: Mackom, 344 p.
3. Herbali O.J., Kostyrnoy A.V. The prevalence of simultaneous pathology in patients with gallstone disease and metabolic syndrome. Kuban scientific medical bulletin. 2014; 5(147): 26-29.
4. Tokin A.N. Miniinvasive techniques in the treatment of cholelithiasis and its

complications: PhD thesis. Moscow, 2008. 45 p.
5. Kisliakov V.V. Useinov E.B., Ivanov A.G., Groyzik K.L., Frolov A.G., Kaminsky I.V. Laparoscopic cholecystectomy and dangers when it is executed. Transport medicine of Ukraine. 2010; 33(1):50-52.
6. Polenok P.V., Kostyrnoy A.V. Staged surgical treatment urgent abdominal pathology. Crimean journal of experimental and clinical medicine. 2015; T. 5. 3 (19): 46-50.
7. Kakurin S.N. Laparoscopic cholecystectomy for acute cholecystitis: PhD thesis. Moscow, 2008. 24 p.
8. Stepanov Y.A. Analysis of complications of laparoscopic cholecystectomy for acute cholecystitis. Kuban scientific medical bulletin. 2010; 3-4: 174-178.
9. Nichitaylo M.E., Skums A.V., Shkarban V.P., Litvin A.I. Surgical treatment of injury and stricture of bile duct after cholecystectomy. Clinical surgery. 2007; 2-3:21-25.
10. Volobuev N.N., Moshko Y.A., Vorobets I.M., Gusarov V.G., Kerimov E.Y., Motsar N.A., Shupta Y.B. Bezoars gastrointestinal tract. Crimean therapeutic journal. 2011; 1 (16): 46-54.
11. Kostyrnoy A.V., Kosenko A.V., Astapenko S.V., Baranowski Y.G. Prevention of intraabdominal complications after operations on the stomach and duodenum. Herald of emergency and restorative medicine. 2012; 13(2): 290-293.