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IMPROVEMENT OF ENDOSCOPIC TREATMENT IN MECHANICAL JAUNDICE

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Abstract. Pathology of the organs of the hepatopancreatoduodenal zone accounts for a large percentage of diseases of the gastrointestinal tract. Despite the abundance of proposed research methods, the diagnosis of diseases of the biliary tract, pancreas and large duodenal papilla remains an urgent problem to this day. The high risk of pancreatic complications and the potential threat to patients' lives associated with endoscopic retrograde pancreatic cholangiography and endoscopic papillosphincterotomy force us to look for ways to prevent this pathology with medication. The above made it necessary to carefully study and analyze the causes of the most frequent and serious complications after retrograde transpapillary interventions, as well as evaluate the results of various types of their correction.

Key words: mechanical jaundice; endoscopic methods; large duodenal papilla; development of acute pancreatitis.

Endoscopic methods of diagnosis and treatment of diseases of the hepatopancreatoduodenal zone (HPDZ) complicated by obstructive jaundice. HPDZ organ pathology accounts for a large percentage of gastrointestinal diseases. Due to the increasing incidence of liver, biliary tract, pancreas, and duodenal diseases, early diagnosis of these organs is becoming increasingly important [1, 2].

Despite the abundance of proposed research methods, the diagnosis of diseases of the biliary tract, pancreas, and large duodenal papilla (LDP) remains an urgent problem to this day.

The most common manifestation of HPDZ diseases is mechanical jaundice (MJ), which can be caused by a variety of changes in the biliary tract and LDP. When the flow of bile into the intestines is disrupted due to a mechanical obstruction, it leads to hypertension in the biliary tract. The accumulation of bile and the increase in pressure in the ducts are the triggers that initiate the complex pathological process in the liver in MJ [3, 4, 5].

Choledocholithiasis is the most common cause.

Among patients with calculous cholecystitis, the incidence of MJ due to MJ stone obstruction is 30-85% [6].

MJ obstruction is caused by stones of various sizes, with small stones usually blocking the distal parts of the choledochus and larger stones blocking the supraduodenal parts.

Small stones that cause obstruction of the LDP and its preampular part are often visible during surgery, which can lead to the development of post-cholecystectomy syndrome in the postoperative period. According to Beburishvili et al. (2000), chronic pancreatitis is detected in 35% of patients with chronic calculous cholecystitis that has lasted more than 5 years.

Despite the unity of pathogenesis, there are significant clinical and, consequently, therapeutic differences between these forms.

In the case of acute recurrent pancreatitis, the degree of functional or organic changes in LDP is of primary importance.

The frequency of LDP polyposis is related to the form of pancreatitis. In acute biliary pancreatitis, it is detected in 1.7-3.5% of cases, while in chronic pancreatitis, the frequency of papilla polyposis increases to 30-36.6%, and according to some data, it can reach up to 68% [7, 8, 9].

According to Zolotukhin T.F. (1999), the general list of LDP stenosis includes 12 factors: congenital stenosis, scarred stenosis resulting from papillitis, polyposis, papillary tumors, obstruction by gallstones, parasites, and other foreign bodies, adenomatosis, adenomyomatosis, leukemic infiltration, pancreatic heterotopia, paraphateral diverticula, duodenostasis, etc. [10].

Despite the abundance of clinical and pathomorphological data, the nature of LDP's inflammatory and hyperplastic changes remains unknown.

The mechanisms of development of papillary valve-sphincter apparatus insufficiency are even less studied, although it occurs in 13.5% of cases of chronic pancreatitis.

Thus, despite the existing descriptions of the macroscopic signs of the main pathological changes in LDP, there is no systematization of the accumulated knowledge in the literature, particularly the endoscopic classification of LDP diseases.

However, the capabilities of esophagogastroduodenoscopy and duodenoscopy are limited to diagnosing only the pathology of the most distal parts of the biliary system, the LDP area.

Errors in endoscopic retrograde pancreatography (ERP) are more common in patients with small calculi and purulent cholangitis, while in patients with large calculi, the diagnostic error does not exceed 1-2%. [11].

Complications in the remote period of ERP (late complications) – recurrent cholelithiasis, sphincter restenosis, cholangitis, cholecystitis, hepatic colic, and pancreatitis – develop in 5.2-24%. At the same time, the percentage of complications is higher during a longer period of follow-up in patients who underwent ERP [12].

The ERP technique involves the destruction of the LDP sphincter apparatus, even in the absence of pathology. ERP leads to new anatomical and physiological relationships between the HPDZ organs, with corresponding consequences.

Loss of the physiological barrier between the duodenum and the choledochus leads to duodenocholedochal reflux and bacterial contamination of the biliary system, and a large number of cytotoxic components are found in the bile.

A study of the long-term results of endoscopic papillosphincterotomy shows a relatively high percentage of unsatisfactory outcomes, reaching 27%, including the occurrence of cholangitis in the long term after endoscopic papillosphincterotomy. [13].

Therefore, a number of authors advocate a more restrained approach to operations that destroy the LDP sphincter apparatus.

Ultrasound is a non-invasive method that does not involve radiation exposure, but it provides only preliminary information and does not allow for the development of a treatment strategy.

Bleeding from the papillotomy incision. Bleeding usually develops as a result of the impaired blood clotting system in MJ, described above. Acute pancreatitis, as well as transient amylaseuria and hyperdiastasiauria, are most common in patients who undergo endoscopic surgery in the presence of acute or chronic pancreatitis [14].

In most cases, the nature of the visual picture during an endoscopic examination allows for an accurate diagnosis of the local cause of the bleeding, determination of its duration, prediction of the disease's progression, and, if necessary, endoscopic control of the bleeding or prevention of its recurrence, as well as the development of a management strategy for patients with this severe complication.

Modern endoscopy offers a wide range of endoscopic hemostasis methods, which differ in their physical nature, effectiveness, accessibility, safety, cost, etc.

Targeted irrigation of the bleeding source is the simplest and most common, but unfortunately, the least effective method of endoscopic hemostasis.

The following are used for irrigation: calcium chloride, norepinephrine, aminocaproic acid, mesaton, etc.

In general, most authors agree that irrigation is ineffective, and they recommend injecting hemostatic and vasoconstrictor drugs directly into the tissue of the bleeding source.

The hemostatic effect of the method is a combination of the pharmacochemical action of the administered drugs with the mechanical compression of the bleeding vessel by the formed intratissue infiltrate.

When performing injection hemostasis, almost all types of drugs listed in the application methods are used.

Injections of adhesive substances, which have a purely mechanical but longer-lasting hemostatic effect, are also widely used in clinical practice.

Thus, the analysis of literature data shows that to date, the problem of diagnosis and treatment of HPDZ organ diseases complicated by MJ remains highly relevant. As data from various researchers show, the existing open methods of surgical treatment through a wide laparotomy do not meet the requirements of surgeons due to the high frequency and severity of postoperative complications and mortality, which are primarily caused by the fact that traumatic and voluminous operations were performed at the height of MJ, often against the background of developing liver failure.

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