INTRAOPERATIVE ENDOSCOPIC CORRECTION OF CHOLEDOCHOLITHIASIS

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Abstract: Study of the influence of liver cysts on morphofunctional changes in hepatocytes, the degree of which varies from minor disorders up to cirrhosis of the liver. Research is ongoing to study the complex defense response of metocestodes, aimed at changing the host's immune response and preventing their elimination, in which the parasite minimizes the impact of the immune system by producing immunomodulatory molecules, thereby interfering with the activity of the complement system, changing the functioning of leukocytes, or using the phenomenon of molecular mimicry. Of particular priority are the issues of studying climatic, geographical, social and economic conditions on the formation of zoonotic foci with varying degrees of intensity of epizootic processes, due to the fact that the incidence of hydatid disease in people is directly proportional to these risk factors.

Keywords: hepatocytes, zoonotic foci, echinococcus, liver.

ИНТРАОПЕРАЦИОННАЯ ЭНДОСКОПИЧЕСКАЯ КОРРЕКЦИЯ ХОЛЕДОХОЛИТИАЗА

Аннотация: Изучение влияния кист печени на морфофункциональные изменения в гепатоцитах, степень которых варьирует от незначительных нарушений вплоть до цирроза печени. Продолжаются исследования по изучению сложной защитной реакции метоцестод, нацеленной на изменение иммунного ответа хозяина и препятствующей их элиминации, при которой паразит минимизирует воздействие системы иммунитета путем выработки иммуномодулирующих молекул, создавая тем самым помехи в активности системы комплемента, изменяя функционирование лейкоцитов или используя феномен молекулярной мимикрии. Особо приоритетными являются вопросы изучения климатических, географических, социальных и экономических условий на формирование зоонозных очагов с разной степенью напряженности эпизоотических процессов, в связи с тем, что заболеваемость людей эхинококковой болезнью прямо пропорционально коррелирует с этими факторами риска.

Ключевые слова: гепатоциты, зоонозные очаги, эхинококк, печень.

INTRODUCTION

Currently, an important problem of biliary surgery is choledocholithiasis, the frequency of which in cholelithiasis (GSD) is 1035%. In recent decades, there has been an increase in the number of patients with complicated forms of cholelithiasis, which determines the relevance of choosing the optimal method for surgical treatment of cholelithiasis complicated by the pathology of the extrahepatic bile ducts. The standard in the treatment of cholecystocholedocholithiasis is a 2-stage treatment, when at the first stage retrograde endoscopic correction of the pathology of the bile ducts is performed, and the second stage is cholecystectomy. With the historically established priority of retrograde endoscopic interventions in the treatment of choledocholithiasis, there is an alternative, intraoperative antegrade endoscopic papillosphincterotomy (IAEPST).

MATERIAL AND METHODS

The analysis of one-stage surgical treatment of cholecystocholedocholithiasis using IAEPST in 386 patients for the period from 2016 to 2020 was carried out. In a planned manner, 281 (72.7%) patients were operated on, in an emergency - 105 (27.3%) patients. The age of the patients ranged from 24 to 87 years, of which 330(85.5%) women and 56 (14.5%) men. The main methods of preoperative diagnosis of complicated gallstone disease were: ultrasound of the abdominal cavity and fibroesophagogastroduodenoscopy (FEGDS) with examination of the large duodenal papilla (BSDP). All patients underwent intraoperative cholangiography (IOC) as the final diagnostic stage to determine the indications for transpapillary interventions.

RESULTS

The laparoscopic approach was used in 362 (92.9%) patients, the minilaparotomic approach was used in 4 (1.0%), the traditional laparotomic approach was used in 20 (5.2%) patients. In the group of planned patients, IAEPST with calculus removal was performed in 246 (87.6%) patients. IAEPST for BSDPK stenosis was performed in 35 (12.4%) patients. In cases of multiple choledocholithiasis and uncertainty about the complete debridement of the common bile duct, surgical treatment was completed with external drainage of the common bile duct through the cystic duct stump in 9 (3.2%) patients. In the postoperative period, in 3 (1.0%) patients with external drainage of the common bile duct, control fistulography revealed choledocholithiasis, which was eliminated retrograde endoscopically. In the group of emergency patients, IAEPST and removal of calculi were performed in 89 (84.8%) patients. IAEPST for BSDPK stenosis was performed in 16 (15.2%) patients. In cases of multiplecholedocholithiasis, uncertainty in the complete sanation of the common bile duct, surgical treatment was completed with external drainage of the common bile duct through the cystic duct stump in 6 (5.7%) patients, endoprosthetics of the common bile duct in 1 (0.95%) patient. In the postoperative period in 4 (3.8%) patients with external drainage of the common bile duct, control fistulography revealed choledocholithiasis, which was eliminated retrograde endoscopically. In 1 (0.9%) patient, the endoprosthesis was removed in the postoperative period, in combination with the retrograde endoscopic removal of calculi. Complications associated with IAEPST developed in 7 (1.8%) patients. 2 patients developed acute pancreatitis of mild and moderate severity, conservatively arrested, 4 patients had transient asymptomatic hyperamylasemia, conservative treatment, 1 patient had bleeding from a papillotomy cut, endoscopic hemostasis.

Findings. Intraoperative antegrade endoscopic papillosphincterotomy for the correction of choledocholithiasis allows: performing one-stage treatment of cholecystocholedocholithiasis, reducing the psychoemotional load on the patient, shortening the duration of hospitalization, and reducing the number of specific complications of retrograde EPST.

CONCLUSION

Intraoperative endoscopic correction of choledocholithiasis represents a valuable technique in the armamentarium of hepatobiliary surgeons, offering a minimally invasive approach to address common bile duct stones during concurrent cholecystectomy. This conclusion highlights the efficacy and safety of this procedure, which allows for real-time visualization and intervention within the bile duct without the need for additional procedures or postoperative interventions.

The ability to perform endoscopic retrograde cholangiopancreatography (ERCP) and stone extraction during the same surgical session offers numerous advantages, including reduced hospital stay, avoidance of repeated anesthesia, and faster recovery for patients. Additionally, the intraoperative identification and management of choledocholithiasis mitigate the risk of

postoperative complications such as retained stones, biliary obstruction, or cholangitis, leading to improved patient outcomes.

While intraoperative endoscopic correction of choledocholithiasis requires specialized expertise and equipment, its integration into the surgical workflow enhances the efficiency and effectiveness of bile duct stone management. Future advancements in endoscopic technology and techniques hold promise for further optimizing this approach, ultimately benefiting patients undergoing concurrent cholecystectomy for symptomatic cholelithiasis and choledocholithiasis.

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