APPLICATION OF MINIMALLY INVASIVE METHOD OF TREATMENT OF PATIENTS WITH CHOLEDOCHOLITHIASIS

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Summary

The article highlights the problems of diagnostics and treatment of gallstone disease (GCD) in persons of different age groups. The data of morbidity statistics for different countries and regions are given. Modern methods of choledocholithiasis treatment, which are currently applied in our country in surgical clinics, are considered. When studying the methods of treatment of LCB and choledocholithiasis, as well as complications arising from these pathologies, it can be concluded that the ideal method of treatment of the pathology in question has not yet been found. To date, for the majority of physicians, the main method of treatment of GIC remains surgical removal of stones.

Keywords: cholelithiasis, choledocholithiasis, laparoscopic cholecystectomy, retrograde papillosphincterocholidochotomy

Relevance. Concretions in bile ducts at cholecystolithiasis according to different authors are detected approximately in 10-25% of cases [3]. Therefore, the problem of cholecystocholedocholithiasis treatment is actual for any general surgical hospital. Retrograde papillosphincterocholedochotomy (ERPST) and laparoscopic cholecystectomy (LCE) is historically the first and most common scheme of minimally invasive treatment of choledocholithiasis [1]. In subsequent years, ERPST became more frequently used due to the widespread introduction of laparoscopic surgery. The method is highly effective, complete stone extraction can be achieved in 80-98% of patients [2,3]. The indisputable advantage of the two-stage method of treatment is the possibility of rapid performance of low-traumatic decompression of bile ducts with decreased duration of anesthesia, which is actual in elderly patients with serious concomitant pathology [3,4]. Some authors insist on application of two-stage minimally invasive treatment method with ERPST in all patients in order to reduce lethality and complications [5]. In the last decade, as a result of intensive development of laparoscopic surgery, publications about one-stage laparoscopic method of cholecystocholedocholithiasis treatment have appeared [3,5].

Purpose of the study: to improve the results of treatment of patients with acute calculous cholecystitis complicated by choledocholithiasis by using minimally invasive methods of treatment with nitroglycerin and EAP.

Material, methods of research. Patients with acute calculous cholecystitis complicated by choledocholithiasis, to whom retrograde papillosphincterotomy was applied in the treatment complex, in order to accelerate the terms of cholangitis process recovery, were supplemented with retrograde lavage of choledochal lumen with electroactivated solution EAR-A, possessing anti-inflammatory property.

For preparation of electroactivated aqueous solution we used Apparatus NPF "Espero-1", developed in 1998 by the employee of Tashkent Institute of SANII S.A.A.Alyokhin. Espero type bioelectroactivator is authorized by the Pharmcomittee of RUz for obtaining preparations used in medical and clinical practice and was widely used by the staff of V.V.Vakhidov Research Institute and clinics of TMA. Electroactivated solution - anolyte (EVR-A) is formed in the anode

zone (Graphite), pH of which is from 7 - to 1; ORP 0 +1200 mV. EBP-A (anolyte) has a pronounced antimicrobial activity, anti-inflammatory, antipruritic, anti-allergic action, bactericidal, drying, inhibitory properties, slowing down biological processes.

Results and their discussion. From 46 examined patients of the third group in 41(89,1%) the first stage of the operation was successfully performed, which ended with complete removal of concrements from the choledochus. The duration of the first stage of surgery in the third group of patients with successful completion averaged 22±1,8 minutes. In all these patients after the acute inflammatory process in the lesion and normalization of intoxication indices, as well as blood bilirubin by 5-6 days the second stage of surgical intervention - cholecystectomy - was performed. In 4 (8.6%) patients of the third group, due to dense occlusion and high location of the concrement on the background of strong spasm of the choledochal muscular structures, the first stage of surgery was unsuccessful - by means of ERPST it was not possible to remove the concrements. In 1 (2.1%) cases in the first operation during manipulation due to technical difficulties there were intraoperative bleedings from choledochal vessels. In 5 (10,8%) patients antegrade removal of stones from the choledochus with drainage of the choledochal lumen with one-stage cholecystectomy on the background of acute cholecystitis with high intoxication of the organism was forcedly performed. Out of 41 (89,1%) patients, who at the first stage with the help of ERPST were successfully removed the concrements, after general detoxication and anti-inflammatory conservative therapy by 5-6 days 40 (97,5%) patients underwent delayed cholecystectomy with laparoscopic method. In 1 (2,1%)-patient because of contraindication to laparoscopic operation the second stage was applied by open laparotomy method. Thus, only 6 (13.0%) patients underwent open method of surgery with median laparatomic access.

Analysis of the results of intoxication parameters of the patients' organism revealed the following changes: on the first day of treatment the body temperature varied in the range of 38,8±0.06. In the general blood analysis the content of leukocytes averaged 8,7±0,17. The volume of middle molecules ranged between 0,192±0,011. An increase in COE and LII was also observed.

At ultrasound examination of liver, gallbladder and bile ducts of all this group of patients as well as in the previous group of patients stasis of intrahepatic bile ducts and common bile duct and dilatation of lumen of intrahepatic bile ducts and upper part of common bile duct were revealed. In the majority of cases in 44 (95,6%) patients there were revealed signs of cholangitis and hyperbilurubinimia on the background of mechanical jaundice.

From 4 patients of the third group, in whom it was not possible to remove the concrements at RPSCT, in 2 (50%) the concrement of the common bile duct was localized in the upper third part, in 1 (25%) patient the localization of the concrement in the middle parts of the bile duct was revealed, in 1 (25%) patient the obturation concrement was located in the lower parts of the common bile duct.

In all these patients as well as in the previous patients from the moment of admission in parallel with complex diagnostic investigation general detoxication and symptomatic therapy were carried out. From laboratory data, first of all, we studied indices of general intoxication and blood bilirubin, ALT, AST.

In all cases the size of the stones was at least 7-8 mm, which was the main reason for the failure of RPSCT within 30-40 min. Because of this, it was decided to suspend the procedure of

retrograde papillosphincterotomy and to switch to emergency-delayed laparotomy after appropriate preoperative preparation.

The mean duration of open surgery was 65±3,1.

Drainage tubes from the abdominal cavity were removed on the 5th-6th day. Pikovsky drainage from common bile duct was removed on the 8th-9th day of treatment.

Conclusion. Thus, our conducted study revealed the following peculiarities, which have an important practical value: when using nitroglycerin 0,5 mg under the tongue during ERPST, the % of not successful removal of stones from the choledochus decreases from 48,3% of cases to 10,8%.

When using nitroglycerin 0,5 mg under the tongue before performing ERPST contributes to the increase in the number of successful removal of the nodule from 38,7% to 89,1%.

Performance of RPSCT against the background of common bile duct wall spasm control with application of nitroglycerin 0,5 mg under the tongue decreases technical difficulties of stone removal thus decreases bleeding complications from 14% to 2,1%, duration of RPSCT time from 60,2±2,8 min to 25,4±1,9 min.

After stone removal from the choledochus and within 3-4 days after ERPST application of retrograde sanation and lavage of the common bile duct with the use of EAR-A, decreases complications of prolonged cholangitis by 17,7%, accelerates the terms of normalization of total bilirubin and intoxication from 8 to 3-4 days. In the treatment of patients with cholecystitis complicated by choledocholithiasis application of nitroglycerin and retrograde sanation and lavage of choledochus with electroactivated solution EAR-A, improves the results of treatment and reduces the period of hospital treatment of this category of patients from 12,6 to 8,4 days. All this allows us to widely recommend the proposed method of treatment in clinical practice and has economic efficiency.

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