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## TRANSDRAINAGE SANITATION OF THE BILIARY TRACT WITH ANOLYTE AND CATHOLYTE SOLUTIONS OF SODIUM HYPOCHLORITE IN THE TREATMENT OF CHOLANGITIS

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Surgical interventions in the study group of 83 patients with acute cholangitis were completed by drainage of the choledochus, of which 56 (67.5%) had external drainage, 27 (32.5%) had nasobiliary drainage (NBD) with endoscopic transduodenal intervention.

In order to stop inflammation in the bile ducts and prevent the formation of microabscesses or abscesses in the liver, these patients underwent sanitation perfusion of the biliary tract with 0.06% sodium hypochlorite solution developed by us. Intrabiliary sanitation was carried out through drainage tubes installed in the hepaticocholedochus (HC) after choledocholithotomy in 56 patients and NBD in 27 patients.

After choledocholithotomy, 2 paired tubes were installed in the lumen of the choledochus, one of which (thin in the lumen diameter 2 mm) in the direction of the proximal end of the GC, the second (with a wider lumen up to 4 mm) in the distal direction of the GC.

Sanitary perfusion of the biliary tract on the first day was carried out with 400.0 ml of an analyte 0.06% sodium hypochlorite solution with pH = 6 until the bile microflora was normalized. The analyte solution of sodium hypochlorite, being a strong oxidizing agent in the bile ducts, binds with bile and dilutes it, increasing the degree of bile secretion through drainage.

In case of endobiliary sanitation of the bile ducts with 0.06% sodium hypochlorite solution with the same indicators of bile secretion on the 1st day by the 3rd day, they amounted to  $200 \pm 4.7$  ml / day (in the comparison group  $121 \pm 3.4$  ml per day), to 6th day  $420 \pm 7.1$  ml/day (in comparison group  $280 \pm 6.5$  ml/day.

The obtained results on the study of bile viscosity showed that in the main group, by 2  $\pm$  0.3 days from the start of sodium hypochlorite administration, the bile viscosity indicators normalized and averaged 0.5-0.6 c.u., while in the control group the indicators bile viscosity returned to normal on  $5\pm0.4$  days.

Getting into the intrahepatic ducts and diluting the bile, the anolyte solution of sodium hypochlorite contributed to the sanitation of the bile ducts, reducing high titers of microbial bodies. As our studies have shown, it is the "acidic" solutions (anolytes) of sodium hypochlorite that have a pronounced disinfectant property and antimicrobial activity. At the same time, the introduction of 400.0 ml of 0.06% anolyte solution of sodium hypochlorite reduced the titer of microbes in the bile inoculation, and it steadily decreased in the following days after administration.

Microbiological examination of bile was carried out on days 1-3-5 and before removal



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of the drainage. At the same time, Escherichia coli - 75.2%, Klebsiella - 12.3%, Enterobacter - 8.1% and various associations. On day 5 after intrabiliary sanitation, negative bile cultures were observed in 72% of patients, on day 12, complete eradication of the microbial landscape occurred.

When analyzing the results obtained, it turned out that the level of total bilirubin in the main group differed significantly in the dynamics of the decrease, in contrast to the patients of the comparison group. Also, when analyzing the results obtained, the indicators of alkaline phosphatase activity and the level of AsAT normalized much earlier .

Thus, the optimization of the tactical and technical aspects of the complex surgical treatment of AHC as a complication of cholelithiasis with the sanitation of the biliary tract contributed to the early relief of cholangitis, the prevention of the formation of a liver abscess and the development of biliary sepsis. Achieved a decrease in purulent - septic complications up to 12.1%, mortality up to 2.4%.