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ENDOSCOPIC INTERVENTIONS AT HEPATOPANCREATOBILIAR ZONE PATHOLOGY

Summary

Presented in this report data confirm feasibility and need for the use of endoscopic treatment of diseases of the biliary tract as a pre-operational and final treatment at high risk of operation needed. Made endoscopic intervention for 365 patients with choledocholithiasis and papillary stenosis, studied the results in the immediate post-operational period. As a result by 65% reduction of bilirubin was achieved from baseline and improvements of patients which allowed to reduce pre-operational period, and for 13% patients with high risks of operation needed endoscopic intervention became the effective final methods of treatment.

Keywords: choledocholithiasis, papillostenosis, endoscopy, biliary hypertensions, concomitant pathology.

Throughout the regions biliary pathology has a tendency for rise. Thus digestive diseases in the last decade (2000-2010 years) in the Republic of Sakha (Yakutia) therefore morbidity rate of the population has grown by 2.1 times [2]. The types and scope of surgical interventions depend on changes in the organs of hepatopancreatobiliary and gastro duodenal zone, exactly on the comorbidities biliary tract, pancreas and duodenum, which differentially set indications for various interventions on the organs of parsing system considering identified changes in its every link. Comorbidities as the risk factors of post-surgical complications affect the results of surgical treatment [4-6, 9-11]. In our research the risk factors of patients with biliary tract diseases as well as with other diseases are diabetes, lung disease, cardiovascular system, kidneys, etc. In particular cases the identified changes by different organs are probably playing one of the leading roles in pathogenesis of hepatopancreatobiliary and gastro duodenal zone require noninvasive surgical correction in time [3, 6-8]. This tactic contributes to the reduction of mortality and in some cases allows using minimally invasive surgery as a final effective treatment for patients with high operative risk [1, 2, 4, 5]. In our research endoscopic papillosphincterotomy is regarded as an alternative to surgery of the BAN with concomitant diseases.

Materials and methods

The presented work is based on the analysis of results of surgical treatment of 365 patients with biliary hypertension from 1470 patients with diseases of a gastroduodenal zone (GDZ) and gepatopankreatobiliary (GBZ) zone, being on treatment in surgical offices of Republican hospital No. 2 of the Center of emergency medical care of the Republic of Sakha (Yakutia) during the period with 2005-2010g. Of the 1470 examined patients with abnormal biliary pathology (choledocholithiasis and papillary stenosis) were 365 people. All patients are divided into two groups:

- 1) Indigenous patients (937 persons) - born in the far north and immigrants living in the North for more than 5 years;

2) Non-indigenous patients - Caucasians (533 persons) – living in the North less than 5 years. For comparison of relative sizes associability tables were used, thus in the analysis values of criterion of a consent of Pearson χ^2 , an arithmetic average a standard deviation ($M \pm \sigma$) were studied at the reached significance value of signs $p < 0,05$.

Results and discussion

There were 218 of 1470 (14.8%) patients with choledocholithiasis during the study period including patients with residual stones - 69 (32%). Among them indigenous - 249 (68.2%), non-indigenous - 116 (31.8%) patients.

Age from 21 to 60 years was 77.4% of the total number of patients with diseases of the bile ducts and BAN (365), the average age of the patients was $48 \pm 0,3$ years. Women - 149, men - 69, the ratio of men and women is 1:2. The symptoms of recurrent pancreatitis were observed in 60 (28%) patients, cholangitis - in 53 (25%), and obstructive jaundice after cholecystectomy was detected in 29 (14%) patients. These symptoms often were combined.

The principal place of comorbidities among non-indigenous people has cardio-vascular system diseases which proved to be a risk factor of post-surgical complications in non-indigenous 12.3% and 8.8% cases in indigenous patients.

There were 11.8% among them indigenous 65.8% and non-indigenous 34.2% patients with related lung diseases. Most of the patients are the patients with pneumosclerosis - 78 (29.1%), pulmonary emphysema - 63 (23.4%), bronchial asthma, 58 (21.7%) and residual pulmonary tuberculosis - 43 (15.3%), chronic bronchitis - 27 (100%), in the group with related lung diseases 152 (56.5%) of patients with diseases of the GPB and GDZ were operated.

Diabetes mellitus was diagnosed in 11.8% of all patients; the vast majority was women - 61.7% (166), men - 38.3% (103 persons). Indigenous people with diabetes were 65%, non-indigenous - 35%. Older than 60 years was 23.3% (63) patients. Mild diabetes was at 48.9% of patients. Patients with this form of diabetes were 38.4% (103) of patients.

60 patients with diabetes were operated, complications occurred in 14 patients, of which 7 people died. Moreover, in all cases diabetes was decompensated, unyielding for correction.

BAN stenosis was diagnosed in 147 people, or 10% of total number of researched people. The following groups: indigenous people - 89, non-indigenous - 58. Most often at good-quality stenoses level of a bilirubinemia made from 75 to 200 $\mu\text{mol/l}$ with duration cholestasis till 2 weeks, especially at radical persons (28-174,6 $\mu\text{mol/l}$; $M=62,04$; $P < 0,001$, and with duration holestasis to 1 level of a bilirubinemia made in the same group (62,3-276,3 $\mu\text{mol/l}$; $M=123,85$; $P < 0,05$ against indicators at not radical 68,4-143,4 $\mu\text{mol/l}$ $P < 0.001$). Bilirubinemia level more than 200 $\mu\text{mol/l}$ was available at not radical only for 5,6% of all patients with the holestasis. With the purpose of pre-surgery preparation for patients with hypertension in the bile and pancreatic ducts the endoscopy papillosphincterotomy was made in 156 cases, micro holangiostomy with percutaneous transhepatic access - 17 patients, under the supervision of a laparoscope - 2 patients. Pre-surgery biliary decompression with external drainage of the biliary system allows improving the condition of patients, lower serum bilirubin more than 65% from baseline already at 4-5 days after admission.

Of the 326 patients with common bile duct stones and stenosis BAN 187 (57.4%) patients underwent reconstruction surgery; reconstructive surgery was made for 139 patients (42.6%). In 156 cases endoscopic papillosphincterotomy was made with need for re-intervention after previously undergone surgery for biliary tract and gall bladder, as well as in 19 patients with obstructive jaundice, suppurative cholangitis and high surgical risk was the final non-invasive surgery with a good outcome.

In 48 cases, the Dormia basket was used, the rest - limited with dissection of BAN. We used two methods of papillosphincterotomy: cannula when mouth of BAN cannulated and dilated when dissection was subject of CBD sphincter, distal sphincter of BAN and partly sphincter pancreatic duct. To avoid perforating duodenal incision did not exceed 10-15 mm.

As an urgent action at the height of jaundice in order to decompress biliary endoscopic papillosphincterotomy is performed in 102 patients.

Information provided in this report data confirm the feasibility and need for endoscopic treatment of diseases of the biliary tract as preoperative preparation and as a final treatment at high operative risk.

CONCLUSIONS:

1. At the surveyed patients with biliary hypertension the risk factors complicating a postoperative current and demanding use of modern low-invasive technologies (EPST) come to light.
2. EPST use in case of identification residual choledolithiasis allows avoiding repeated surgeries at patients with high operational risk.
3. Tactics of two-stage treatment allows liquidating obstruction of biliary tract and as a result a toxemia and the bacteremia, conducting to biliary sepsis, multiorgan insufficiency, prepares patients for radical operation.

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