

THE USE OF ERCP AND CHOLEDOCHOSCOPY FOR THE CLEARANCE OF COMMON BILE DUCT BY PATIENTS WITH CHOLEDOCHOLITIASIS

Author: Aleksandrs Sapovalovs¹

Scientific research supervisor: Doc. Haralds Plaudis²

¹ Riga Stradins University, Latvia

² Riga Stradins University, Latvia

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Introduction. 10-18% of patients with signs of symptomatic gallstone disease have stones in common bile duct (CBD) or choledocholitis. Nowadays two different strategies have been developed for the clearance of CBD stones. Two stage strategy considering pre- or postoperative endoscopic retrograde cholangiopancreatography (ERCP) may be used, however, it is associated with considerable number of complications. Alternative approach (one stage strategy) has been developed and recommended for patients with CBD stones providing laparoscopic common bile duct exploration using choledochoscopy.

Aim. To compare two stage strategy using ERCP and one stage laparoscopic choledochoscopy in patients with CBD stones.

Results. Patients with proved CBD stones treated in Riga East Clinical University Hospital Gailezers were retrospectively included from 2011-2013. Patients were stratified in two groups, Group I – one stage strategy using laparoscopic choledochoscopy and Group II – two stage strategy considering preoperative ERCP.

68 patients with median age 63 (IQR=48-75) years were included in Group I and 96 patients with median age 74 (IQR=62-82) years in Group II. At the admission acute cholangitis was diagnosed in 42 (62%) Group I comparing to 67 (70%) Group II patients ERCP and choledochoscopy was performed median on the 5th (IQR=3-7) day after admission. Clearance of CBD using choledochoscopy was achieved in 65 (96%) patients leading to conversion to open procedure in 3 patients. During ERCP choledochography single stone in CBD was revealed in 31 and multiple calculi in 44 patients, in 13 – the CBD was clear and 8 procedures failed. Complete CBD clearance was achieved in 67 (70%) Group II patients. Bleeding after endoscopic papillotomy complicated clinical course in 3 Group II patients. ERCP was associated with 2.4 times (CI95%: 1.0-5.9) higher post-ERCP *de novo* pancreatitis than choledochoscopy 18 vs. 5 patients, respectively, p=0.035. In Group I patients 2 additional ERCPs, 1 percutaneous abscess drainage and 1 relaparotomy due to bleeding was needed comparing to 10 additional ERCPs, 13 laparotomies and 1 laparoscopic choledochoscopy to

achieve CBD clearance in Group II patients. Overall median hospital stay in Group I was 9 (IQR=7-14) days or statistically shorter comparing to 11 (IQR=8-14) days in Group II, $p=0.04$. The same ICU requirement and median stay – 3 days (IQR=2-4) – was found. There was no mortality in our series.

Conclusion. Choledochoscopy is safe and feasible procedure that is associated with low post procedure pancreatitis risk and significantly higher success rate considering CBD clearance comparing to ERCP.