Laparoscopic cholecystectomy with laparoscopy-assisted transgastric rendezvous ERCP in gastric bypass patients.

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Background

Treating CBDS found during laparoscopic cholecystectomy in gastric bypass patients is challenging due to altered anatomy. Laparoscopy-assisted transgastric rendezvous ERCP (LAERCP) has become a more frequent treatment option for CBDS in these patients. There are no previous studies comparing the outcomes of this group of patients to those undergoing standard rendezvous ERCP in individuals with no prior upper abdominal surgery.

Aim

This study compare the outcome of laparoscopic cholecystectomy with concomitant rendezvous transgastric ERCP (LAERCP) in gastric bypass patients, to patients with no prior upper abdominal surgery that had a laparoscopic cholecystectomy with concomitant regular RV-ERCP.

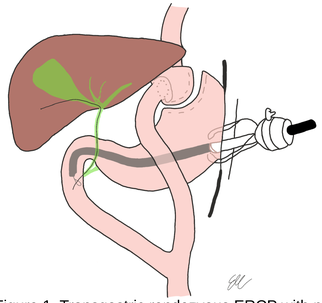


Figure 1. Transgastric rendezvous ERCP with port through the abdominal wall into the gastric remnant

Method

Retrospective study on prospectively collected nationwide cohort data from the Swedish Registry of Gallstone Surgery and ERCP (GallRiks) from 2016-09-01 to 2021-06-20. All laparoscopic cholecystectomies with same day ERCP procedures made with rendezvous technique were divided into either having had previous gastric bypass surgery or no prior upper abdominal surgery and compared for outcome measures.

Table 1. Patient demographics comparison between Laparoscopy assisted transgastric rendezvous ERCP and Rendezvous ERCP

	Laparoscopy assisted transgastric rendezvous ERCP n=70	Rendezvous ERCP n=4342	*P value*
Age(yr)[1]	53 (41-61)	56 (39-71)	0.012
Gender			
Female	59 (84 %)	2,616 (60%)	<0.001
Male	11 (16%)	1,726 (40%)	
ASA			
I	17 (24%)	1,433 (33%)	
II	44 (63%)	2,154 (50 %)	
III - IV	9 (13%)	755 (17 %)	
BMI[1]	31 (26-35)	28 (25-32)	0.006

[1]Described in median and percentiles P25-P50.

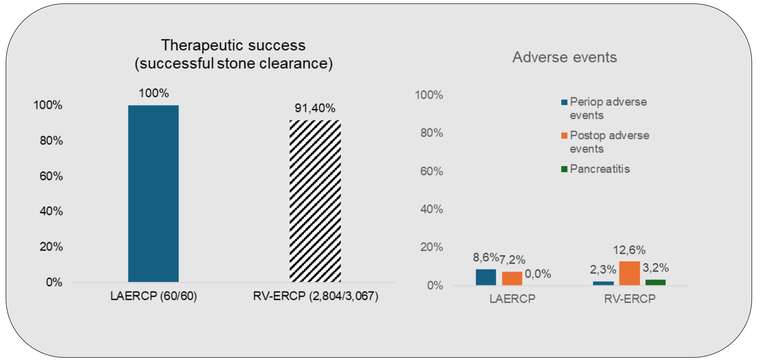
Table 2. Outcome comparison between Laparoscopy assisted transgastric rendezvous ERCP and standard Rendezvous ERCP in concomitant laparoscopic cholecystectomy.

	Laparoscopy assisted transgastric rendezvous ERCP	Rendezvous ERCP	*P value*
CRP[1]	108.5 (58-133)	92 (32-170)	
Surgical data			
Acute surgery[2]	53 (75.7%)	3,146 (72.5%)	
Surgery time (min) [1]	168.5 (120-242)	121 (88-168)	<0.001
Successful stone clearance[3]	60/60 (100%)	2,804/3,067(91.4%)	0.018
Perioperative adverse events[2]	6 (8.6%)	98 (2.3%)	<0.001
Postoperative data			
Postoperative antibiotics	5 (7.2%)	327 (7.6%)	
Postoperative length of stay (d) [1]	4 (3-6)	4 (3-6)	
Postoperative adverse events	5 (7.2%)	541 (12.6%)	
Postoperative pancreatitis	0 (0%)	141 (3,2%)	

[1]Described in median and percentiles P25-P50.
[2] Described in frequences and percentages
[3] Out of patients with stones present

Results

100 % theraputic success in stone clearance when stones were found in the LAERCP group. There was no postoperative pancreatitis. When compared to the RV-ERCP group, the LAERCP group had longer surgery time and more perioperative adverse events but no difference in postoperative adverse events or postoperative length of stay.



Transgastric rendezvous ERCP to treat CBDS in gastric bypass patients during laparoscopic cholecystectomy is as feasible as standard rendezvous ERCP during laparoscopic cholecystectomy in patients without previous upper abdominal surgery.

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