

#191 - A COMPARATIVE STUDY OF ENDOSCOPIC-PERCUTANEOUS SINGLE-SESSION RENDEZVOUS VS. PERCUTANEOUS TRANSHEPATIC BILIARY DRAINAGE FOR COMPLEX BILIARY TRACT OBSTRUCTION

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Background: Biliary duct (BD) obstruction poses a significant clinical challenge. Most can be treated endoscopically by ERCP, but some require alternative techniques to achieve effective biliary drainage. Percutaneous trans-hepatic biliary drainage (PTBD) and endoscopic-percutaneous single-session rendezvous (EPRV) have been used as alternative techniques. There are limited evidence comparing the efficacy and safety of these techniques in patients with biliary tract obstruction.

Aim: To compare the efficacy and safety of BD drainage via PTBD as compared to EPRV.

Methods: Retrospective cohort study of patients with complex BD obstruction who underwent BD drainage procedures between 2018-2023 in Hospital Clínico UC-Christus analyzed according to whether PTBD or EPRV was performed. Clinical, laboratory and imaging data, technical and clinical success, adverse events for the analysis.

Results: 85 patients were included (47% female, mean age 61 years old), 72.9% (n=62) underwent PTBD and 27.1% (n=23) received EPRV for BD drainage. The most common cause of biliary obstruction was biliary neoplasia (54%) Baseline patient's characteristics, technique efficacy and complications are detailed in Table 1. Technical success for BD drainage was higher in patients with PTBD as compared to EPRV (100% vs 91.3%, p=0.019), however there was no difference in clinical success between the two methods (88.7% vs 87%, p=0.824). Sepsis after the procedure was more frequent in patients with PTBD (19.4% vs 0%, p=0.023).

Conclusion: PTBD and EPRV has similar technical and clinical success in the management of patients with complex BD obstruction. Patients with PTBD had higher frequency of sepsis after the procedure. Our results suggest that the EPRV approach should be prefer, when possible, according to biliary anatomy, patients' characteristics and expertise, due to less rate of adverse events.

Baseline patient's characteristics	Percutaneous trans-hepatic biliary drainage (PTBD) (n=62)	Endoscopic-Percutaneous Rendezvous (n=23)	p value†
Age, median [IQR]	66 (58-74)	48 (35-66)	0.0003
Smoking, n [%]	6 (9.7%)	3 (13%)	0.654
Alcohol consumption, n [%]	15 (24.2%)	3 (13%)	0.264
Diabetes mellitus, n [%]	13 (30%)	3 (13%)	0.406
Cirrosis n [%]	14 (22.6%)	6 (26.1%)	0.735
Hypertension n [%]	27 (43.6%)	8 (34.8%)	0.466
Gastric cancer, n [%]	5 (8.1%)	0 (0%)	0.160
Colorrectal cancer, n [%]	9 (14.5%)	0 (0%)	0.053
Familiar colorrectal cancer history, n [%]	4 (6.5%)	0 (0%)	0.212
Efficacy			
Technical success, n [%]	62 (100%)	21 (91.3%)	0.019
Clinical success, n [%]	55 (88.7%)	20 (87%)	0.824
Complications			
All complications, n [%]	15 (24.2%)	2 (8.7%)	0.113
Bleeding, n [%]	2 (3.2%)	1 (4.4%)	0.803
Perforation, n [95%]	0 (0%)	1 (4.4%)	0.099
Sepsis after procedure, n [95%]	12 (19.4%)	0 (0%)	0.023

† Chi square for categorical variables and Mann-Whitney for numerical variables

Table 1. Baseline patient's characteristics, technique efficacy and complications analyzed whether percutaneous drainage or rendezvous was performed.