

#122 - THE ROLE OF SINGLE OPERATOR CHOLANGIOSCOPY IN THE MANAGEMENT OF ANASTOMOTIC BILE DUCT STRICTURES AFTER LIVER TRANSPLANT: A PROSPECTIVE COHORT STUDY.

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BACKGROUND:

Liver transplantation (LT) offers lifesaving therapy for patients with advanced liver disease. Anastomotic bile duct strictures (ABDS) are a frequent adverse event of LT and most are suitable for endoscopic treatment by Endoscopic retrograde cholangiopancreatography (ERCP). Single-operator cholangioscopy (SOC-ERCP) is an emergent technique for the management of complex biliary disease. Data about its role in ABDS after LT are scarce.

AIM: to evaluate the role/efficacy of the use of SOC in management of ABDS after LT.

METHODS:

Single-center prospective cohort study. All patients undergoing LT in Hospital Clínico UC-CHRISTUS (Santiago, Chile) between January/2021 and June/2023 were included. Demographic, clinical, laboratory and radiology data were considered. Outcomes: rate of ABDS, success rate of conventional ERCP, efficacy of SOC-ERCP, technical/clinical success, and adverse events.

RESULTS:

136 patients underwent LT during the study period. Mean age was 51 years, 59% female, most frequent etiology was metabolic dysfunction-associated steatotic liver disease (MASLD) (31.1%) and mean MELD score before LT was 27.7; 73.5% (100/136) were deceased donor LT (DDLT) and 26.5% (36/136) were living donor LT (LDLT).

54/136 (39%) patients developed ABDS. No difference in occurrence of ABDS was seen between DDLT and LDLT (39%(39/100) vs 42%(15/36), $p>0.05$). 4%(2/54) of ABDS underwent primary interventional radiology treatment (IR) based on biliary anatomy. Treatment of ABDS by conventional ERCP was successful in 81% (42/52). Patients with ABDS that failed conventional ERCP, 12%(6/52) were treated successfully with SOC-ERCP, 4%(2/52) underwent successful one-session combined IR-ERCP treatment and 2%(1/52) required surgical biliary reconstruction. Technical and clinical success of SOC-ERCP was 100% in both DDLT and LDLT. No adverse events were recorded during SOC-ERCP.

CONCLUSIONS:

SOC-ERCP is a novel, safe and effective tool in the management of complex ABDS after failed conventional ERCP in LT patients.