Recurrent pyogenic cholangitis – an independent poor prognostic indicator for resectable intrahepatic cholangiocarcinoma
A propensity score matched analysis

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Introduction:
Recurrent pyogenic cholangitis (RPC) is a known risk factor for intrahepatic cholangiocarcinoma (ICC), whether it represents a poor prognostic factor remains controversial, we aim to investigate the post-hepatectomy oncological outcomes of ICC patients with co-existing RPC

Method:
From 1990-2017, consecutive patients admitted to a single centre for hepatectomy for ICC were retrieved from hospital database. Exclusion criteria were paediatric patients, Klaskin tumour and mixed hepatocellularcarcinoma. Independent factors for survival were identified with cox-regression model. Propensity score matching (PSM) was performed before comparison between ICC patient with and without RPC.

Result:
There were 143 ICC patients recruited with median follow-up of 21 months. RPC was diagnosed in 18% of patients. The median (range) time from RPC diagnosis to ICC diagnosis was 137 months (47-481). The 3-year disease-free (DFS) and overall survival (OS) for the whole population was 34% and 43% (respectively). Preoperative child score, elevated carcinoembryonic antigen (CEA), presence of microvascular invasion, multiple tumours, presence of postoperative complications and RPC were independent factors for DFS and OS in ICC patients. After PSM, 60 ICC patients who did not have RPC were compared with 20 ICC patients with RPC. Patients with RPC had significantly worse median DFS (10 vs 23 months, \( P=0.020 \)) and OS (15 vs 45 months, \( P=0.004 \)) when compared to the patients without RPC. There was no significant difference in survival outcomes between concurrent and subsequent ICC development in RPC patients.

Conclusion:
RPC represents a distinct poor prognostic factor affecting oncological outcomes after hepatectomy for patients presenting with ICC.