

TEXTBOOK OUTCOMES OF TOTALLY ROBOTIC VERSUS TOTALLY LAPAROSCOPIC PANCREATODUODENECTOMY FOR PERIAMPULLARY NEOPLASM: A PROPENSITY SCORE MATCHED COHORT-STUDY

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Background : Textbook outcome (TO) is a comprehensive quality measure in surgery. Few studies have compared TO after robotic pancreaticoduodenectomy (RPD) and laparoscopic pancreaticoduodenectomy (LPD). The aims of this study was designed to compare the achievement of TO in RPD and LPD.

Methods : A retrospective analysis of 322 patients (RPD, n=60; LPD, n=262) who have received PD for periampullary neoplasms between 2015 and 2023 was performed. Propensity score matching was employed to balance patients between two groups. TO was defined by the absence of postoperative pancreatic fistula, bile leak, postpancreatectomy hemorrhage (PPH), severe complication, readmission, and in-hospital mortality.

Results : After 1:2 matching, 48 patients in RPD and 96 patients in LPD were analyzed. In matched cohort, no significant differences were observed in operation time, blood loss, hospital stay and major complications. TO was similar in the RPD and LPD groups (64.6% vs. 76.9%, P=0.656), although RPD showed a higher rate of PPH (P=0.032). On multivariate analysis, body mass index < 25 kg/m² was associated with a better TO rate.

Conclusions : RPD and LPD can achieve similar TO. Further prospective studies and long-term follow-up are warranted to confirm these results and assess the impact on long-term oncological outcomes.

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