INPLASY PROTOCOL

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None declared.

Short-term comparison of Robotic and Laparoscopic pancreatoduodenectomy: a systematic review and meta-analysis

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Review question / Objective: **P(patients): Male or female patients over the age of 18 with a benign or malignant disease that requires pancreatoduodenectomy; I(intervention):Robotic pancreatoduodenectomy; C (control): Laparoscopic pancreatoduodenectomy; O (outcome): short-term outcomes.**
Condition being studied: **benign or malignant disease that require pancreatoduodenectomy.**
Information sources: **PubMed: Published as of December 23, 2021. The search terms including 'Robotic Surgical Procedures', and , Laparoscopy*, and 'Pancreaticoduodenectomy Embase:Published as of December 23, 2021. The search terms including 'Robotic Surgical Procedures', and 'Laparoscopy', and 'Rancreaticoduodenectomy' Cochrane Library:Published as of December 23, 2021. The search terms including 'Robotic Surgical Procedures1, and 'Laparoscopy*, and' Pancreaticoduodenectomy'.**

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INTRODUCTION

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METHODS

Participant or population: Male or female patients over the age of 18 with a benign or malignant disease that requires pancreatoduodenectomy.

Intervention: Patients with robotic pancreaticoduodenectomy

Comparator: Patients with laparoscopic pancreaticoduodenectomy

Study designs to be included: Randomized and non-randomized studies are eligible as long as they meet the inclusion criteria.

Eligibility criteria: The search was limited to English language articles and to humans.

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Main outcome(s): Primary outcomes were open conversion, length of postoperative stay, overall complication.

Additional outcome(s): Secondary outcomes were bleed, surgical site infection (SSI), postoperative pancreatic fistula (POPF), delayed gastric emptying (DGE), reoperation, postoperative death 30 days after surgery, postoperative deep venous thrombosis DVT, operative times, and length of admission in ICU.

Quality assessment / Risk of bias analysis: If the included study was randomized controlled study, The Cochrane Risk Bias Assessment Tool was adopted. If the included studies were cohort studies and case-control studies, The Newcastle-Ottawa Scale (NOS) was used.

Strategy of data synthesis: The analysis was performed using RevMan 5.4 (freeware from the Cochrane Collaboration). Statistical heterogeneity and inconsistency were measured using Cochran's Q tests and I^2 tests, respectively. Confidence intervals (CI) were set at 95%. $P<0.1$ in Q test was considered to be statistically significant. In I^2 test, articles with $I^2<50\%$ were considered as low heterogeneity and the fixed effect model was adopted.

Subgroup analysis: Subgroup analyses are generally not performed, and if they are performed, they are classified according to age and pathology.

Sensitivity analysis: Sensitivity analysis was performed by separately deleting each study included in the meta-analysis.

Language: English.

Country(ies) involved: China.

Keywords: Robotic, Laparoscopic, pancreatoduodenectomy.

Contributions of each author:
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Author 4 - Huiju Wang.