# AB049. P020. Robotic pancreatoduodenectomy: results of the first twenty procedures

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**Background:** Minimally invasive surgery is gaining momentum in pancreatoduodenectomy. Presumed benefits include fewer major complications, less blood loss and a shorter hospital stay. However, a conventional laparoscopic approach to pancreatoduodenectomy is hindered by the straight, non-articulating laparoscopic instrumentation. The robot was designed to overcome these technical restrictions. The aim of this study was to demonstrate safety and feasibility of a robotic approach to pancreatoduodenectomy.
**Methods:** Patients underwent robotic pancreatoduodenectomy in two centers in the Netherlands, performed by the same surgical team, between March 2016 and September 2017. Patients were selected for robotic pancreatoduodenectomy in a multidisciplinary meeting. Tumors with vascular involvement were excluded. Data were prospectively collected and postoperative outcomes were scored up to 90 days after resection.
**Results:** In total, 20 robotic pancreatoduodenectomies were performed. Two procedures were converted to an open procedure: one due to failure to progress during the resection phase and one due to a portal bleeding that could not be controlled robotically. Median operative time was 415 min. (IQR, 355–457 min). Median blood loss was 325 mL (IQR, 178–675 mL). Four patients had postoperative pancreatic fistula (ISGPS gr. B/C). Eight patients suffered from delayed gastric emptying (ISGPS gr. B/C). One patient had a bile leak (ISGLS gr. C). One patient suffered from post-pancreatectomy hemorrhage (ISGPS gr. C). In total, ten patients suffered from a major complication (≥ gr. III Clavien-Dindo). There were no grade IV postoperative complications and there was no mortality. Median length of hospital stay was 16 days (IQR, 9–24 days). Five patients had to be readmitted within 90 days for surgery-related complications.
**Conclusions:** Robotic pancreatoduodenectomy is a safe and feasible procedure in selected patients.

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