

Predictors of Unplanned Conversion in Robotic versus Laparoscopic Pancreaticoduodenectomy and its Impact on Complications



Abigail Chmiel, Dominic E. Sanford

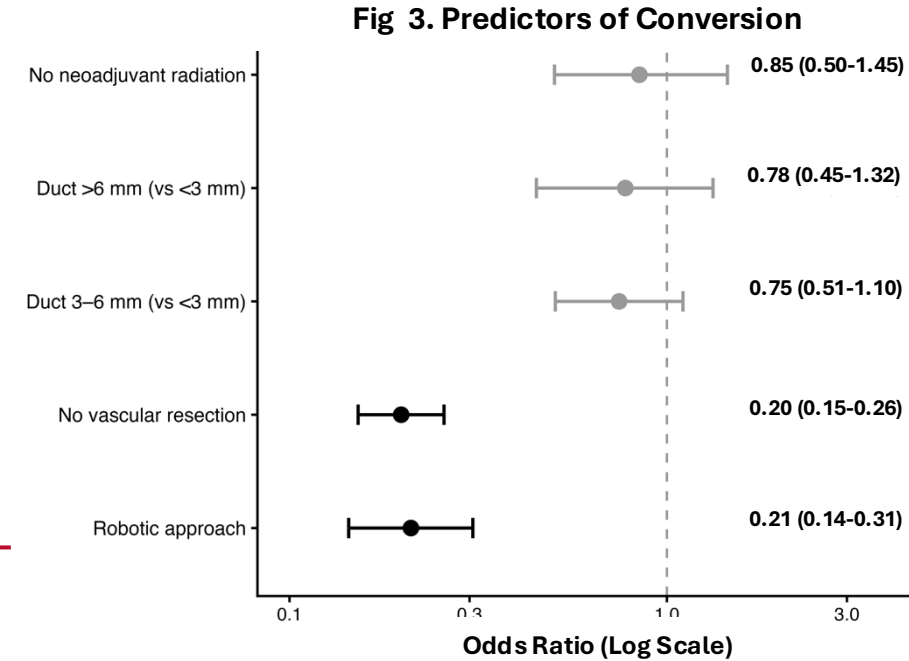
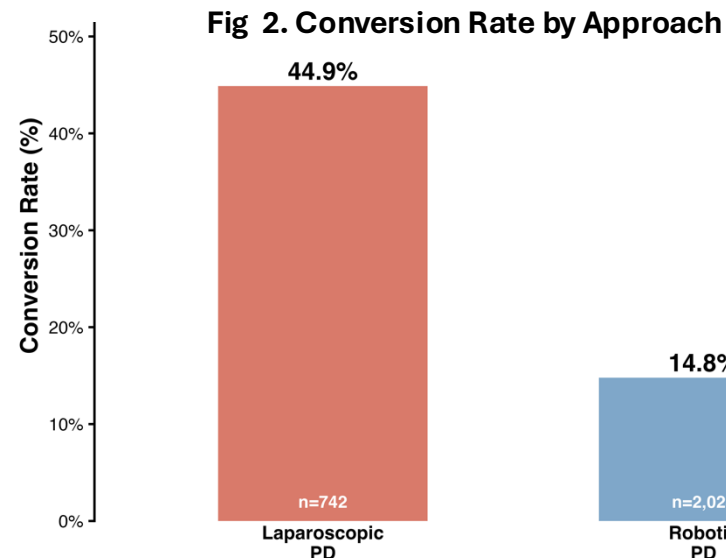
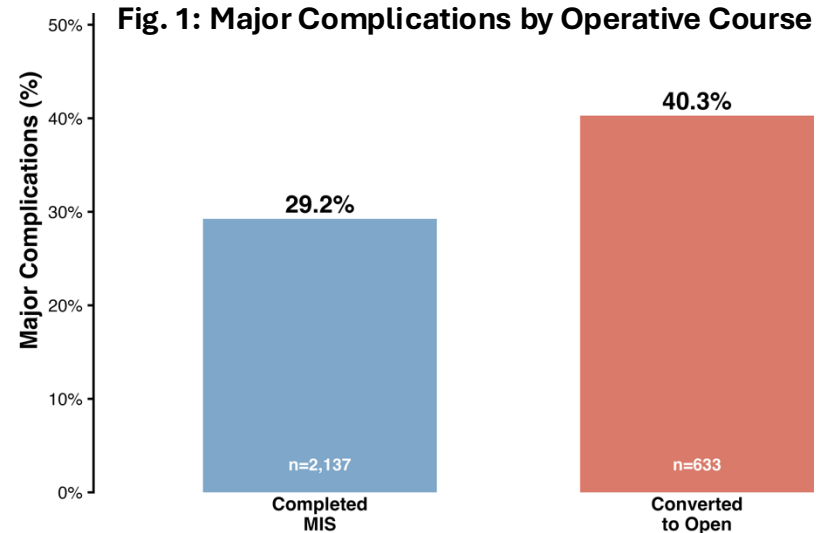
Introduction

- Minimally invasive pancreaticoduodenectomy (MIPD) is increasingly utilized with outcomes comparable to open PD.
- Unplanned conversion to open surgery occurs in a subset of cases and may be associated with worse perioperative outcomes.
- This study aimed to identify predictors of conversion during minimally invasive PD and evaluate approach-specific risk factors.

Methods

- Data Source: ACS NSQIP Database 2018-2023
- Population: Elective MIPD (Laparoscopic & Robotic)
- Primary Outcome: Conversion to open surgery; Secondary Outcomes: Major complications
- Analysis: Multivariable logistic regression, interaction terms for surgical approach
 - Stratified models by approach

Results



Conclusions

- Robotic pancreaticoduodenectomy was associated with significantly lower conversion rates compared with laparoscopic PD.
- Conversion to open surgery was associated with increased major complications.
- Vascular resection was the strongest predictor of conversion during minimally invasive PD.