"CAN WE GO MORE MINIMAL?" : COMPARATIVE STUDY OF SHORT-TERM OUTCOME OF BETWEEN SINGLE PORT (SP) AND MULTIPORT (SI/XI) ROBOTIC DISTAL PANCREATECTOMY

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Background : The advent of robotic surgical systems has increased the adoption of minimally invasive pancreatic surgeries, particularly robotic distal pancreatectomy (DP) for tumors in the pancreatic body or tail. While many studies compare the safety and efficacy of robotic DP with laparoscopic and open techniques, research on the differences between single port robotic (SP) DP and multiport robotic (MP) DP is limited. This study evaluates the technical utility of single port robotic surgery by comparing the short-term outcomes of da Vinci SP (single port) and Si/Xi (multiport) systems during distal pancreatectomy.

Methods : We reviewed robotic DP cases performed at a single center from February 2017 to December 2024. Patients were divided into the SP group (N=36, da Vinci SP) and the MP group (N=47, da Vinci Si/Xi). Short-term outcomes, including operation time, length of hospital stay, postoperative pancreatic fistulas (POPF), and other complications classified as Clavien-Dindo (CD) grade $\geq$ IIIa.

Results : There were no significant differences between the two groups in operation time, console time, perioperative transfusion rates, or open conversion rates (P=0.583, 0.944, 1.000, and 1.000, respectively). Additionally, there was no statistically significant difference in complications such as POPF. However, docking time was significantly shorter for the SP DP compared to the MP DP (P < 0.001).

Conclusions : The short-term outcome of SP DP is comparable to MP DP with offering shorter preparation time. Although it may have potential role to make single-site distal pancreatectomy much easier for expanding minimally invasive surgery, further experiences are mandatory.

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