

## AB114. P088. Comparison between robotic assisted and the 'gold standard' open approach for left sided cystic tumors of the pancreas: results from a single center

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**Background:** Pancreatic cystic lesions are increasingly found incidentally and those located in the body/tail of pancreas, can benefit from spleen preserving left side pancreatectomy (LSP) with laparoscopic surgical approach increasingly considered an appropriate surgical option. On the other hand, laparoscopic LSP remains a challenging operation, with a steep learning curve, high unplanned splenectomy and conversion rates, even when performed in high volume centers. For these reasons, open LSP is still considered the 'gold standard' by many pancreatic surgeons. The advent of the robotically-assisted surgery (RAS) with the da Vinci surgical System may, by facilitating the execution of LSP, address these issues of direct manual laparoscopic surgery, thereby reversing the situation. The present study compares RAS with the open approach, for surgical management of cystic lesions of the body and tail of pancreas, with a view to documenting benefits from the more expensive robotic approach.

**Methods:** From April 2010 to April 2017, 37 robotic-assisted LSP for lesion of the body/tail of the pancreas were performed, of which 27 were patients with cystic tumors (RAS-group). Baseline features, surgical outcomes and histopathological examination were compared retrospectively with a group of 27 consecutive patients treated with open surgery for the same indication from May 2005 to April 2010, obtained from the institutional prospectively collected database (OS-Group).

**Results:** The spleen-preserving rate was significantly higher in the RAS group (63% vs. 33.3% in the OS-Group,  $P<0.05$ ). No difference in the post-operative pancreatic fistula and morbidity was found between the two groups. The median postoperative length of hospital stay was significantly shorter in the RAS-group: 8 (range, 3–25) vs. 12 (range, 7–26) days in the OS-Group ( $P<0.01$ ). No conversion to open approach was reported in the RAS-group.

**Conclusions:** The robot-assisted LSP is a safe and effective procedure. The robotic approach significantly increases the spleen preservation rate and reduces the post-operative hospital stay. By reducing the trauma of access, it results in smoother post-operative course and faster recovery, particularly important in patients harbouring cystic pancreatic tumors, in increasing their acceptance for surgery when recommended. Prospective studies are necessary to validate the clinical benefits of robotic approach for LSP.

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