

AB047. P018. A technical refinement of the pancreaticojejunostomy after pancreatoduodenectomy (PD): the pancreas encompassing jejunal anastomosis (PEJA)

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Background: Postoperative pancreatic fistula (POPF) is the factor most strongly implicated in life-threatening complications and death in most pancreatoduodenectomy (PD) series. It's well demonstrated that the incidence of pancreatic leak following PD depends from surgeon's and center experience as well as from certain predisposing factors. In particular, the fistula is most likely to occur when anastomosis involve a normal and soft pancreas and a small pancreatic duct, with no significant difference in the different techniques. Nevertheless, the knowledge of these predisposing factors can lead to possible technical refinements to mitigate the risk of POPF.

Methods: We developed some changes in the standard pancreaticojejunostomy (PJ) with the aim to minimize the weak points of the PJ in patients with high risk of POPF. This anastomosis is an invaginating anastomosis in which the jejunum is sutured end to side to the pancreas. The unique aspects of this procedure are the apposition of 8 not absorbable stitches in two rows encompassing the pancreatic gland. A stent in the Wirsung duct is left in place. We

initially validated this technique on 15 consecutive patients (male =8, female =7) with different diseases involving the pancreatic head; 13/15 patients were older than 70 years (range, 60–83 years).

Results: A patient died due to ischemic perforation of the sigmoid colon, and two patients had an upper gastrointestinal (GI) bleeding treated conservatively. The risk of POPF was calculated according to the most recently published risk scores; 5/15 patients were at high risk to develop POPF. No patients in the whole series developed POPF of any degree. No patients developed abscesses and no patient were discharged with drains. No patients developed gastric delayed emptying.

Conclusions: After a thorough examination of the many different technique to perform the PJ, their advantage and disadvantages, we developed some changes to the standard PJ. This technique minimizes the tension on the anastomosis, the trauma of the knots on the pancreas, and preserve the vascularisation of the stump. The only weak point of the anastomosis seems to be the potential leak from the needle holes. In fact, six patients had a biochemical leak in the first days after the operation, related to the technique itself and the presence of encompassing stitches, but without any clinical consequence. This biochemical leak solves spontaneously in 3–5 days after the operation. Pancreas encompassing jejunal anastomosis (PEJA) is a reliable anastomotic procedure to minimize POPF even when the texture of the pancreas is soft and normal. Further validation of the technique is needed.

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