AB129. P105. A comparative study of the totally one-layer and stratified pancreaticojejunostomy in pancreaticoduodenectomy

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Background: Pancreatoduodenectomy (PD) is used to treat diseases of the pancreatic head, the duodenum and ampullar region. The most common disease treated includes cancer, traumatic lesions and chronic pancreatitis. Pancreatojejunostomy (PJ) is surgical procedure commonly used to reconstruct the pancreatic stump after pancreatoduodenectomy, which means the pancreatic stump must be connected with the small bowel where pancreatic juice can play its role in food digestion. There are dozens of different ways about Pancreatojejunostomy. All of these procedures have a non-negligible rate of postoperative complications. Since it is unclear which procedure is better, there are currently no international guidelines on how to reconstruct the pancreatic stump after pancreatoduodenectomy, and the choice is based on the surgeon's personal preference. The aim of this study was to compare the safety and efficacy of a new technology, totally one-layer pancreaticojejunostomy, with conventional stratified pancreaticojejunostomy after pancreaticoduodenectomy in preventing post-operative pancreatic fistula (POPF).

Methods: In this retrospective observational study, the clinical data of 79 patients who received pancreaticoduodenectomy from January 2015 to February 2017 were collected, which included 43 patients in the observation group who underwent totally one-layer end-to-side pancreaticojejunostomy, the control group of 36 cases, who underwent stratified Pancreaticojejunostomy. The time of anastomosis, bleeding volume, postoperative hospital stay and postoperative complications were observed.

Results: All 79 pancreaticoduodenectomy were performed successfully. The mean pancreatic anastomosis time in the totally one-layer end-to-side pancreaticojejunostomy was significantly shorter in the stratified Pancreaticojejunostomy [(26.65±1.84) *vs.* (34.47±2.29) min, P<0.05]. In addition, the mean postoperative hospital stay was not statistically significant between the two groups [(19.93±8.29) *vs.* (22.28±13.46) d, P>0.05]. There were no deaths in 79 patients, and there was no significant difference in the incidence of postoperative complications between the two groups (P>0.05). Among them, there were 8 cases of postoperative pancreatic fistula (Pancreatic fistula), the total incidence of PF was 10.1%. The incidence of pancreatic fistula in the totally one-layer end-to-side pancreaticojejunostomy was 7.0% (3/43), which was 13.8% (5/36) in the stratified Pancreaticojejunostomy. The total incidence of abdominal infection was 13.9% (11/79), which was 9.3% (4/43) in the observation group and 19.4% (7/36) in the control group. The total incidence of pulmonary infection was 18.9%, which was 14.0% (6/43) in the observation group and 25.0% (9/36) in the control group. The total incidence of gastric emptying was 3.80%. There were 2 cases (4.7%) in the observation group and 1 case (2.8%) in the control group.

Conclusions: The results of this study show that the totally one-layer end-to-side pancreaticojejunostomy has the advantages of being more easily to operate, shorter operative time, and effectively reducing the morbidity of pancreatic fistula. It is a simple, convenient and safe way of pancreatic anastomosis, which is worthy of clinical promotion.

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