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## Case Report

# A Redo of Duct-To-Mucosa Pancreaticojejunostomy for Recurrent Acute Pancreatitis Due to Intra-Pancreatic Lithiasis and Anastomotic Stricture: Is This a Reasonable Strategy?

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### ABSTRACT

Few studies have examined the postoperative long-term complications after partial pancreatoduodenectomy and there are mainly focused in the presence of biliary strictures. The occurrence of intra-pancreatic lithiasis secondary to the presence of late stenosis of the duct-to-mucosa pancreaticojejunostomy is an extremely rare condition. We observed that the late occurrence of a pancreaticojejunostomy stricture could be a potential cause for acute pancreatitis in long-term survivors following partial pancreatoduodenectomy. The importance of this report is to emphasize that the strategy of a redo of this difficult anastomosis is a very challenging abdominal operation but provides excellent early and long-term results.

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## Introduction

Few studies have examined the postoperative long-term complications after partial pancreatoduodenectomy (PPD) and there are mainly focused on the presence of biliary strictures [1]. The occurrence of intra-pancreatic lithiasis secondary to the presence of late stenosis of the duct-to-mucosa pancreaticojejunostomy is an extremely rare condition. Only one patient having intra-pancreatic lithiasis due to the stricture of pancreato-gastrostomy after a PPD was reported and successfully treated with a longitudinal transverse pancreatojejunostomy [2]. Reoperative pancreatic surgery is a complex procedure with an increased rate of minor complications but a similar incidence of major complications compared to de-novo procedures [3]. Pancreatic redo procedures are demanding operations and could represent a challenging option for the anastomotic strictures following pancreatic surgery [4]. To the best of our knowledge, this is the first report of a patient having recurrent episodes of acute pancreatitis after PPD who was successfully treated with a redo of duct-to-mucosa pancreaticojejunostomy.

## Case Report

We present a 46-year-old woman who underwent a cephalic pancreatoduodenectomy associated with liver resection in 2008 due to a duodenal Gastro-Intestinal Stromal Tumor (GIST) with caudate lobe liver metastases. After 7 years of free-tumor interval, she developed recurrent episodes of mild acute pancreatitis. The abdominal contrast-enhanced computed tomography reveals a calcic image close to the duct-to-jejunum pancreatic anastomosis associated with dilatation of the main pancreatic duct (Figures 1 & 2). An upper intestinal endoscopy failed to discern the orifice of the pancreatic anastomosis, so we decided for a surgical approach with the intention to perform a parenchymal preserving pancreatic surgery.

The operative procedure was performed through a bilateral subcostal incision. First, the pancreatic anastomosis was identified, and the proximal jejunum was transected with staplers in between the biliary and the pancreatic previous anastomosis (Child montage). The superior mesenteric vein was identified and detached from the pancreato-jejunal

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anastomosis. Once the anastomosis was fully free from the surrounding structures, the pancreatic parenchyma was transected with electrocautery 1 cm distance from the anastomosis. Multiple intra-pancreatic lithiasis were extracted and the main pancreatic duct was flushed using saline solution. Finally, a duct to mucosa (end-to-side) Wirsung-jejunal anastomosis was performed in a standard technique with a Roux-en-Y jejunal loop. The operative procedure concluded with the placement of an abdominal closed suction drain close to the pancreatic anastomoses.



**Figure 1:** Calcic image into the main pancreatic duct close to the duct-to-mucosa pancreaticojejunostomy.



**Figure 2:** Dilatation of the main pancreatic duct due to intra-pancreatic lithiasis and duct-to-mucosa pancreaticojejunostomy stricture.

The patient had an uneventful postoperative recovery, starting the oral intake 8 hours after surgery. The amylase determination in the abdominal drainage output was normal at postoperative day 3 so it was removed. The patient was discharged from the hospital on the 5th postoperative day. After 6 years of follow-up, she remains symptom-free with excellent conditions and no signs of endocrine or endocrine pancreas insufficiency.

## Conclusion

The late occurrence of a duct-to-mucosa pancreaticojejunostomy stricture is a rare condition that could be a potential cause for acute pancreatitis in long-term survivors following partial pancreatoduodenectomy. The strategy of a redo of the duct-to-mucosa anastomosis is a very challenging parenchymal preserving surgery, even for specialized surgeons, but it provides excellent early and long-term results.

## Conflicts of Interest

None.

## Funding

None.

## Abbreviations

**PPD:** Partial Pancreatoduodenectomy  
**GIST:** Gastrointestinal Stromal Tumor

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