

Modified Puestow Procedure for the Management of Paediatric Chronic Pancreatitis: A 10-year Experience from a Tertiary Paediatric Hepatobiliary Unit in Singapore

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Introduction

Recurrent pancreatitis, though uncommon in the paediatric population, can negatively impact childhood development and their quality of life. We report our experience with the modified Puestow procedure (lateral pancreatico-jejunostomy) for symptomatic pancreatic duct dilatation in 3 children with chronic recurrent pancreatitis.

Methods

A retrospective review of medical records of 3 children who underwent modified Puestow procedure in a tertiary paediatric referral unit in a single institute between 2013-2022.

Results

- Case 1: 17-year-old female with a background of Type 1 (fusiform) choledochal cyst, with previous excision of common bile duct, hepatico-duodenostomy, cholecystectomy and appendectomy. She developed recurrent pancreatitis due to pancreatic duct stenosis.
- Case 2: 10-year-old female who developed recurrent idiopathic pancreatitis leading to pancreatic stones and stricture.
- Case 3: 3-year-old male with pancreas divisum who had a previous pancreato-jejunal anastomosis. Inadequate pancreatic duct drainage led to recurrent pancreatitis.

Management with endoscopic retrograde cholangiopancreatography (ERCP) was unsuccessful due to failed cannulation because of pancreatic head pseudocyst in case 1 and resistant strictures with recurrent stones in case 2. ERCP was not attempted in case 3 because of young age of 12 months.

All 3 patients eventually underwent Puestow procedure.

Case	Onset of pain to surgery (months)	Age at surgery (years)	Hospital stay (days)	Follow-up (months)
1	70	7	10	48
2	50	10	8	29
3	5	3	11	38

Postoperative Care and Complications

Case 1 developed a pancreatic tail collection which resolved with radiologically-guided percutaneous drainage. Case 2 recovered well with no complications. Case 3 had recurrent abdominal pain on follow-up which could be managed with ERCP and sphincterotomy.

As of last follow-up, all patients reported no abdominal pain and there was no incidence of diabetes mellitus.

Conclusion

Lateral pancreatico-jejunostomy may be offered as a safe and effective surgical intervention to children with chronic pancreatitis whose abdominal pain is refractory to less invasive treatment.

References

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