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PRESERVATION OF ENDOCRINE FUNCTION AFTER CENTRAL PANCREATECTOMY WITHOUT ANASTOMOSES FOR INSULINOMA AT BODY OF PANCREAS:A CASE REPORT

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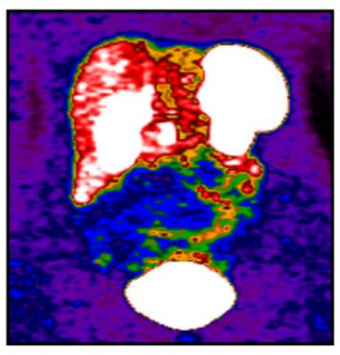
CASE REPORT

Patient History: A 50-year-old homemaker from Tamilnadu who presented with recurrent hypoglycemic episodes characterized by transient loss of consciousness and weakness. Initially misdiagnosed with transient ischemic attacks, further complications led to the discovery of hypoglycemia due to an insulinoma.

Diagnostic Process: Initial assessments at local hospitals led to temporary and incorrect treatments. It was not until specialized imaging studies, such as CT and GA-DOTATE PET scans, that a small lesion in the mid-body of the pancreas was identified. Further confirmation came from an MRCP and an Endoscopic Ultrasound (EUS), which detailed the lesion's size and location, supporting the decision for surgical intervention.



LITERATURE REVIEW

PRIMARY STUDY	NUMBER	TYPE OF PANCREATIC ANASTOMOSIS	FISTULA RATE, COMPLICATIONS
Allendorf et.al.	26	Pancreaticogastrostomy	2/26(7.7%)
Roggin et.al.	10	Central Pancreatectomy	3/10(30%)
Goldstein et.al.	12	Roux-en-Y pancreaticogastrostomy	16/53(30%),2/12 had endocrine insufficiency
Adham et.al.	50	Roux-en-Y pancreaticojejunostomy	11/38, (22%),8% fistula (14% intra-abdominal collection) 6% bleeding
Ocuin et.al.	31	Central pancreatectomy Extended left pancreatectomy	13/31 (41%)

SURGERY AND POST OPERATIVE CARE

Bilateral subcostal incision extended upwards in the midline.

↓

Peritoneum was mobilised and the pancreas visualised through the lesser omentum.

↓

The lesion's relationship to crucial structures like the pancreatic duct and splenic vessels was assessed using intraoperative ultrasound.

↓

The pancreas was then segmented around the lesion, and specific vascular tributaries were ligated to isolate and remove the affected segment effectively.

Preservation Strategy:

- Notably, the procedure included the use of an ENDO GI stapler to divide the pancreas, and careful handling to preserve the remaining segments, thereby maintaining pancreatic and splenic function without the need for anastomosis.

Post Operative Period

- **Immediate Recovery**: The patient demonstrated stable postoperative recovery with normal blood sugar levels. Day 5 CECT of the operated site showed pancreatic fistula grade 1,which was managed by wash and adjustment of drains to ease the drainage.

FOLLOW UP

3 months: Wound healthy and drain was removed after 7 weeks. Normal appetite and reversal of insulinoma symptoms

6 months: Natural weight loss which was gained due to insulinoma. No exocrine and endocrine pancreatic insufficiency.

1 year: Patient had fully recovered, without any exocrine and endocrine pancreatic insufficiency.

CHALLENGES

Context: To address the standard surgical challenges faced when resecting benign and low-grade malignant neoplasms of the mid pancreas. Traditional resections often lead to significant loss of normal pancreatic parenchyma, resulting in pancreatic endocrine and exocrine insufficiency.

Central Pancreatectomy (CP): Introduced as an alternative, CP is a parenchyma-sparing surgical technique particularly beneficial for lesions located in the neck and body of the pancreas. This procedure aims to preserve as much of the distal pancreas as possible, thus maintaining endocrine and exocrine functions and preserving the spleen.

Surgical Challenges for Central Lesions: Centrally located pancreatic lesions present unique challenges due to their depth and proximity to major pancreatic ducts and vascular structures. While superficial lesions smaller than 2 cm can often be enucleated, deeper and potentially ambiguous lesions typically necessitate more radical approaches like pancreaticoduodenectomy or distal pancreatectomy, which risk significant functional loss.

Advocacy for CP: To elaborate on the evolution of CP as a preferred method for managing benign and low-grade malignant lesions located centrally in the pancreas. It discusses the surgical community's growing body of literature that supports the safety and feasibility of CP, emphasizing its advantage in preserving pancreatic function with acceptable levels of morbidity.

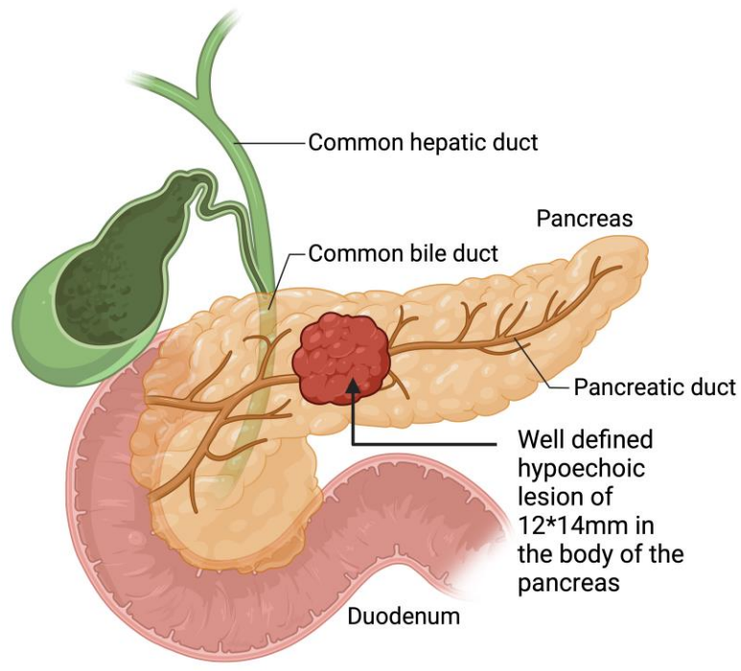


Fig 1:Image showing pancreatic body tumor of 12*14mm.

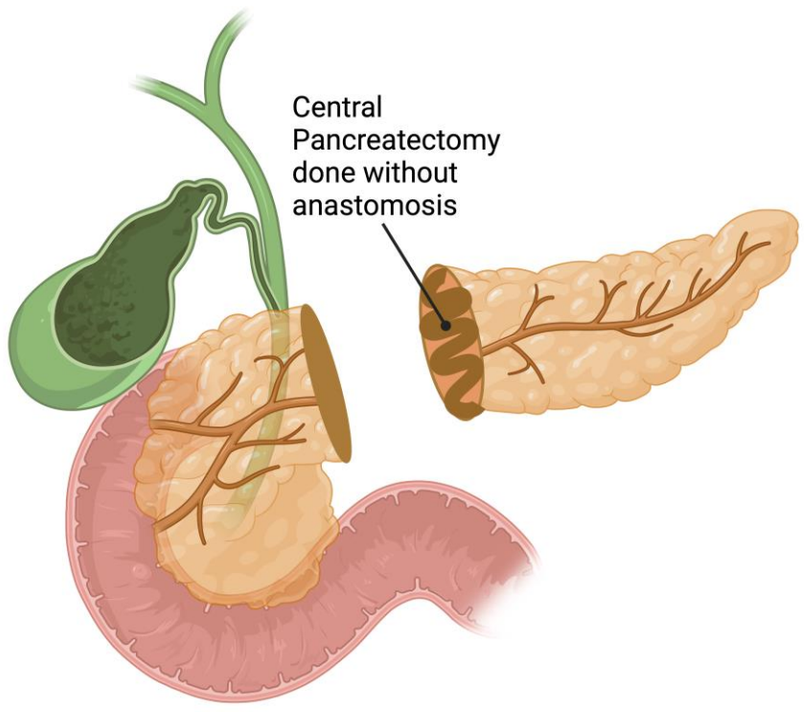


Fig 2: Central Pancratectomy without anastomoses executed

DISCUSSION AND CONCLUSION

Surgical Outcomes and Recommendations: To strongly advocate for CP without anastomoses as a viable option for mid-gland pancreatic lesions. It underscores the advantages of this technique in terms of reduced morbidity, preservation of pancreatic function, and shortened hospital stays.