ORIGINAL RESEARCH PAPER

General Surgery

A CASE REPORT OF ANNULAR PANCREAS WITH SUBACUTE DUODENAL OBSTRUCTION

KEY WORDS:

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ABSTRACT

Annular pancreas is an uncommon congenital anomaly which usually presents itself in infants and newborn. Rarely it can present in late adult life with wide range of clinical severities thereby making its diagnosis difficult. Pre-operative diagnosis is often difficult. CT scan can illustrate the pancreatic tissue encircling the duodenum. ERCP and MRCP are useful in outlining the annular pancreatic duct. Surgery still remains necessary to confirm diagnosis and bypassing the obstructed segment. We report a case of 61 year female presenting with duodenal obstruction due to annular pancreas.

INTRODUCTION

Annular Pancreas is a rare congenital anomaly which consists of a ring of pancreatic tissue partially or completely encircling the second part of the duodenum. Though it accounts for around 1% of all intestinal obstructions in paediatric population, it rarely presents itself in adults.

CASE REPORT:

48 year old male came with % abdominal pain for 2 months on and off, vomiting for 1 month, vomits out after taking food. He had no comorbidities.

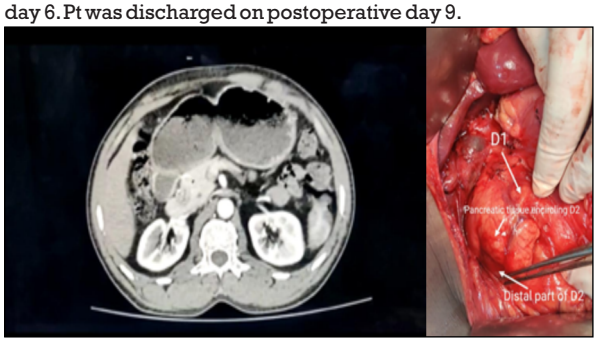
On examination, patient is conscious, oriented. VITALS were stable. Per abdomen examination showed epigastric fullness with tenderness, no guarding/rigidity. Normal fecal staining present in digital rectal examination.

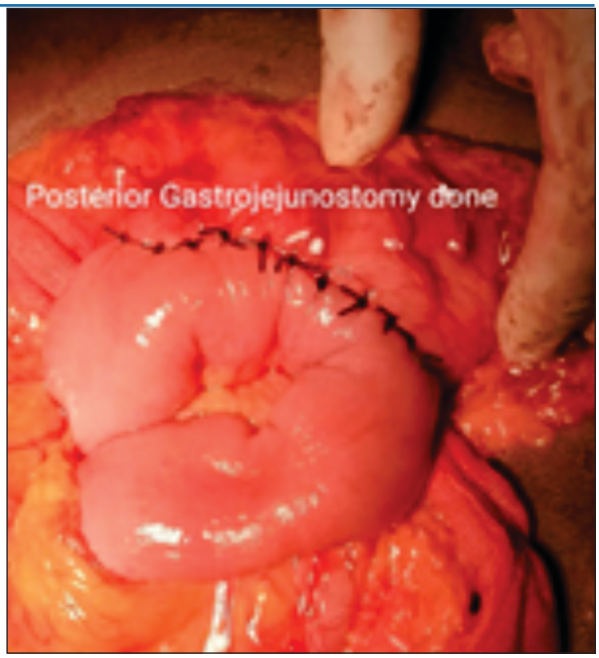
CECT abdomen report came as Complete annular pancreas with D1 and stomach distension.

Deformed first part of duodenum was seen in endoscopy.

Pt was proceeded with laparotomy. Intraoperative findings were dilated stomach and first part of duodenum, pancreas appeared to be completely encircle the second part of duodenum.

Then, pt was proceeded with Truncal vagotomy and posterior GASTROJEJUNOSTOMY. Oral intake started on post operative day 6. Pt was discharged on postoperative day 9.





DISCUSSION:

AP is a rare congenital anomaly affecting approximately 1 in 20,000 newborns. Tiedemann first reported this congenital anomaly in 1818 and it was named "annular pancreas" by Ecker in 1862. It is due to an embryologic migration fault and has been associated with other congenital anomalies, including Down's syndrome, tracheoesophageal fistula, intestinal atresia, pancreas divisum and pancreaticobiliary malrotation. Thereported incidence in adults varies from 0.005 to 0.015%. AP affects both sexes equally. however a recent review has found that symptomatic adult AP is mainly concentrated in males.

The clinical presentation in most patients occurs between ages 30 and 50. In adult patients with AP common symptoms include cramping epigastric pain, post-prandial fullness and

relief with vomiting. Associated conditions include peptic ulcer diseases, acute pancreatitis, pancreatic head carcinoma, biliary obstruction with jaundice and gastric outlet obstruction. Pancreatitis as the initial disease expression is more commonly reported among adult patients than in children.

Useful diagnostic modalities for the diagnosis of AP include ultrasonography or plain abdominal radiographs, which usually show the classic "double bubble" sign when a duodenal obstruction is present. Surgical management is usually required to relieve the obstruction when the diagnosis of AP is confirmed operatively. Although surgery has been considered the "gold standard" for the diagnosis of annular pancreas, non operative modalities (CT scanning, MRI, MRCP, ERCP and EUS) may all suggest the presence of pancreatic tissue encircling the duodenum. MRI and CT scanning have the advantage of being non invasive, although the correct diagnosis maybe overlooked by both scan techniques if the pancreatic tissue is present as a thin band incorporated in the duodenal wall.

When the AP is symptomatic and associated with an effective duodenal obstruction, the treatment of choice is the surgical procedure. The preferred treatment is a by-pass operation such as gastro-jejunostomy or duodeno-jejunostomy. Resection of the annular pancreatic tissue may be also peformed, on the other hand, has been associated with several complications including pancreatitis, pancreatic fistula formation, and incomplete relief of obstruction, as well as a lower rate of permanent cure. In our patient, we have done truncal vagotomy with posterior gastrojejunostomy.

CONCLUSION

To summarise, annular pancreas is one of the rare causes of duodenal obstruction in adults. Preoperative diagnosis is often difficult. CT scan, ERCP and MRCP are the imaging methods used for diagnosis. But still surgery is necessary to confirm the diagnosis and bypassing the obstructed segment.

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