

Acute Abdomen Beyond the Obvious

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Abstract:

Introduction: Groove pancreatitis is a rare form of chronic pancreatitis affecting the anatomical space between the pancreatic head, duodenum, and common bile duct. First described by Becker in 1973, it accounts for fewer than 2.7% of pancreatic resection specimens. Its greatest clinical challenge lies in its striking resemblance to periampullary malignancy, often leading to misdiagnosis, unnecessary surgery, or dangerous diagnostic delay. Despite advances in imaging, it remains one of the most under diagnosed conditions in pancreatic surgery.

Case Report: A 33-year-old female presented with progressive epigastric pain, nausea, vomiting, and dizziness of 4 days duration. Contrast-Enhanced Computed Tomography revealed fluid collection within the pancreaticoduodenal groove, thickening of the duodenal wall, an enlarged liver with periportal cuffing, pleural effusion, and ascites.

Investigations: Serum Amylase (51 U/L), Serum Lipase (33 U/L), and leucocyte count (8,300 cells/ μ L) were all within normal limits. Serum Immunoglobulin G4 antibodies were negative, ruling out autoimmune pancreatitis. All remaining investigations were unremarkable. In the complete absence of biochemical evidence, imaging alone confirmed the diagnosis.

Discussion: On Imaging, fluid collection within the pancreaticoduodenal groove and duodenal wall thickening with sparing of the main pancreatic duct are characteristic features. Contrast-Enhanced Computed Tomography combined with Magnetic Resonance Cholangiopancreatography remains the gold standard for diagnosis.

Key radiological features favouring groove pancreatitis over malignancy include preservation of the main pancreatic duct without upstream dilatation, absence of vascular encasement or invasion, presence of cystic changes within the duodenal wall, and a sheet-like soft tissue configuration in the groove rather than a discrete mass lesion.

Negative Immunoglobulin G4 antibodies in this case conclusively excluded autoimmune pancreatitis.

The patient responded well to conservative treatment and remains on regular follow-up. However, recurrent episodes that do not respond to conservative measures carry the risk of progressive scarring and obstruction of the bile duct and duodenum. In such cases, Whipple's Pancreaticoduodenectomy becomes the definitive and necessary surgical option.

Conclusion: Groove pancreatitis can be completely silent on blood tests yet highly evident on imaging. Normal enzyme levels should never be used to dismiss the possibility of pancreatitis. Early imaging-based diagnosis, serological exclusion of autoimmune pancreatitis, and conservative management form the pillars of care. Recurrent refractory disease must be recognised early and managed decisively – in such cases, Whipple’s Pancreaticoduodenectomy remains the definitive surgical intervention, offering both diagnostic certainty and therapeutic resolution. When the groove whispers recurrence, the surgeon must be prepared to answer with the scalpel.