

ANSA PANCREATICA- A RARE PANCREATIC DUCTAL VARIATION

INTRODUCTION: With recent advances in radiological imaging techniques, a wide spectrum of anomalies of the pancreas, the pancreatic ductal system and the biliary tree are commonly encountered at radiologic evaluation.

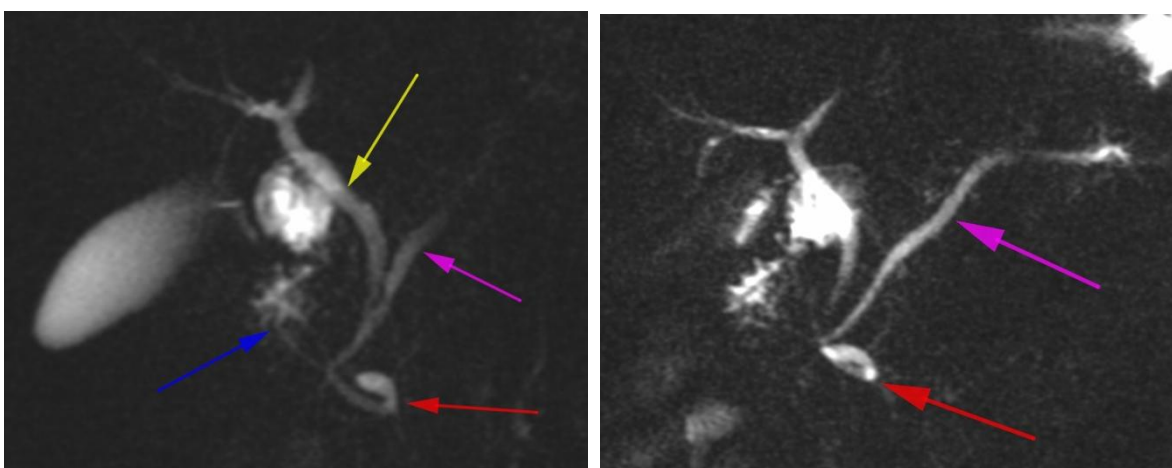
Ansa pancreatica is a rare type of anatomical variation of the pancreatic ductal system. There is a variation in the communication between the main pancreatic duct of Wirsung and the accessory pancreatic duct of Santorini. The ansa pancreatica arises as a branch duct from the main pancreatic duct; which descends down initially and then ascends upward forming a loop. The looping branch terminates at or near the minor papilla.

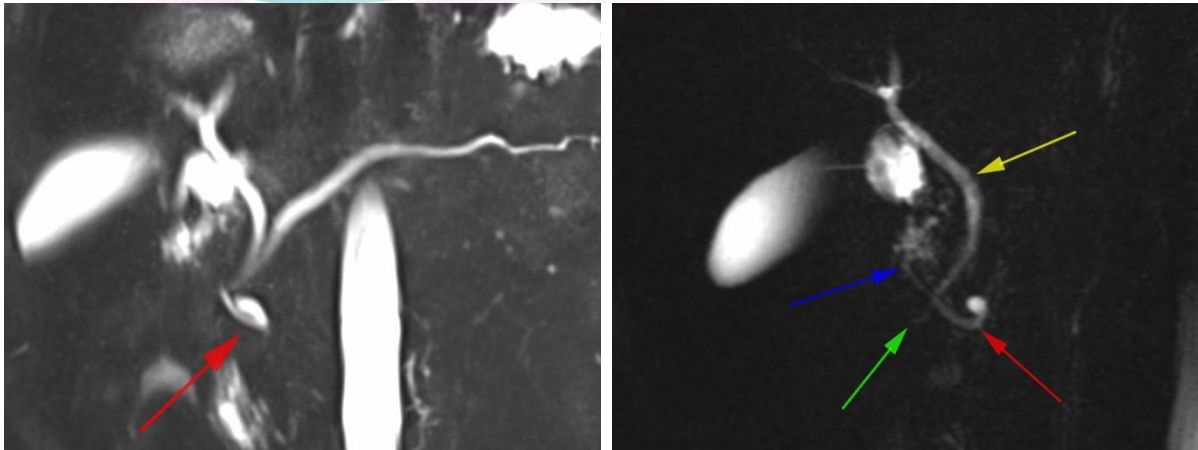
We report a case demonstrating this rare entity on MRCP and describe its imaging features; with emphasis on the basic understanding of embryologic development of the pancreas and anatomical variants like ansa pancreatica.

CASE REPORT: A 47 year old male with history of inflammatory splenic lesions was referred for MRI abdomen with MRCP which revealed resolution of the splenic lesions.

MRCP images obtained revealed, variation in pancreatic ductal anatomy. An accessory pancreatic duct showing mildly curvilinear reverse 'S' shaped configuration was seen arising inferiorly from the main dorsal pancreatic duct, forming a loop and ascending upwards to drain into the minor papilla (Blue arrow). The main pancreatic duct (Pink arrow) was normal in course and caliber. It was seen draining along with the CBD (Yellow arrow) into the duodenal ampulla through the major papilla (Green arrow).

These imaging features were consistent with Ansa pancreatica type of pancreatic ductal variation (Red arrow).





DISCUSSION:

Anatomy and embryology: The normal pancreatic ductal system consists of the dorsal duct (or duct of Santorini) and the ventral duct (or duct of Wirsung). These two ducts commonly fuse in the head region with the majority of the drainage occurring through the major papilla via the duct of Wirsung. The dorsal duct (duct of Santorini), terminates via the accessory (minor) papilla.

Ansa pancreatica is characterized by obliteration of the accessory pancreatic duct at its junction with the ventral pancreatic duct and replacement of this duct by an additional arched communication between the dorsal and ventral duct systems. This arched duct is formed by the combination of proximal duct of the dorsal pancreatic bud, the inferior branch of the duct of the dorsal pancreatic bud and the inferior branch of the duct of the ventral pancreatic bud. Thus, in ansa pancreatica type of ductal variation, the accessory pancreatic duct arises from the main pancreatic duct and loops, running an arched course into the caudal portion of the pancreas, turning anterior to the main duct to terminate in or around the minor papilla.

Clinical significance and Imaging: Recently, ansa pancreatica has been considered as a predisposing factor in patients with idiopathic acute pancreatitis. However, the association of ansa pancreatica and acute pancreatitis is controversial.

Ansa pancreatica can also take part in the etiology of postoperative pancreatitis following pancreatico-biliary surgery. MRCP as an imaging modality has proven its benefits to recognize and clearly define the pancreatic ductal anatomy, especially in the preoperative period, as they may be clinically significant.

Differential diagnosis: The looping branch of ansa pancreatica may resemble the annular pancreas type of ductal variation. In contrast to the ansa pancreatica, the looping branch in the annular pancreas will course around the descending duodenum and will be seen crossing the duodenum.

Regards,

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N.B: This case is authentic and from the archives of Radiance Diagnostics. For any queries /suggestions /feedback write to us at radiancediagnostics.in. Case of the month can also be accessed anytime online at VIEW BOX at www.radiancediagnostics.in