The uncommon loop: Circumportal annular pancreas

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Abstract
Circumportal annular pancreas (CAP) also known as portal annular pancreas (PAP) is an uncommon pancreatic anatomic variant in which normal pancreatic tissue completely surrounds the portal vein and can be mistaken for mass of pancreatic head. We present here a case of a 65 years old woman who was a diagnosed case of endometrial carcinoma, underwent CT scan for further metastatic workup which revealed this rare pancreatic variant.

Keywords: Portal annular pancreas, Circumportal annular pancreas, annular pancreas, retroportal main pancreatic duct.

A 65 years old woman, diagnosed case of endometrial carcinoma underwent CT scan for further metastatic workup. The scan revealed a normal pancreas with extension of the uncinate process posterior to the portal vein. This was fused with the dorsal surface of pancreatic body above the porto-splenic confluence (blue arrows in Fig A and B) and main pancreatic duct coursing posterior to the portal vein (black arrows in Fig. A, B and C). This was consistent with Type 1a circumportal annular pancreas. Circumportal annular pancreas is a rare anatomic variation with prevalence of approximately 1.14%\(^2\) in which the pancreatic uncinate process encases the portal vein and extends posterior to the portal vein to fuse with the pancreatic body.\(^3\) The exact developmental mechanism of CAP is still uncertain but it is thought to result from fusion of ventral and dorsal pancreas to the left of mesenteric and/or portal vein.\(^4\) Joseph et al classified CAP into 3 types. In Type 1 the pancreatic ductal system passes posterior to the portal vein, in Type 2 there is pancreatic divisum and in Type 3 the main pancreatic duct passes anterior to the portal vein. These 3 types are further subclassified on the basis of relationship of circumportal pancreatic fusion to the splenic vein into suprasplenic, infrasplenic and mixed types.\(^5\) Knowledge of this anatomic variation is essential as it can easily be mistaken for pancreatic head mass and can have catastrophic consequences in patients undergoing pancreatic surgery.\(^3\) It is therefore important to understand variations of pancreatic anatomy to avoid any serious repercussions.

References