A 35-year-old man came for a second opinion because of a hepatic lesion noted by ultrasound at a local clinic. The physical examination was unremarkable. Abdominal ultrasound showed a 1.2 cm subcapsular hypoechoic area in segment VI of the liver on a background of increased echogenicity, which was confirmed to be focal fatty sparing on subsequent computed tomography (CT) study of the abdomen. CT imaging disclosed that the tail and a portion of the body of the pancreas were absent (Figure 1), while the head and uncinate process appear normal. The patient had been taking oral hypoglycemic agents because of diabetes mellitus for years. He denied any history of pancreatitis or surgery.

Hypoplasia of the pancreas, also known as partial agenesis of the pancreas or, more commonly, congenital short pancreas, refers to embryological underdevelopment of the pancreatic parenchyma involving either ventral or dorsal anlage. Complete agenesis of the pancreas is fatal and extremely rare. Dorsal pancreatic agenesis, which is more common than its ventral counterpart, can be an isolated finding or concomitant with other congenital anomalies. Whether the subjects with short pancreas remain clinically quiescent or not depends on the functional reserves of the pancreas. Diabetes mellitus has been the most commonly described clinical manifestation, which is believed to be because of the loss of the large quantity of islet cells normally present in the pancreatic body and tail. Non-specific abdominal pain may warrant clinical attention in this group of people and eventually leads to the diagnosis. Treatments are not necessary in individuals without symptoms.

Important differential diagnoses of hypoplasia of the dorsal pancreas include fat replacement and distal pancreatectomy. The former occurs as a result of the atrophy of the distal pancreatic parenchyma, notoriously related to pancreatic head tumor or chronic pancreatitis. To identify distal lipomatosis rather than congenital short pancreas relies on the detection of the ductal system. In the cases with the absence of splenic vein and relevant operation history, distal pancreatectomy should be considered.

Photographs and text from: C.-Y. Lin and S.-S. Chen, Department of Radiology, Koo Foundation Sun Yat-Sen Cancer Center, Taipei, Taiwan. email: stillmeat@gmail.com

Conflict of interest: None declared.

Figure 1. Axial contrast-enhanced CT scan shows absence of normal pancreatic parenchyma anterior to splenic vein (A, double arrows) and hypogenesis of the pancreatic body (B, arrow). Note the presence of fatty infiltration in the liver parenchyma. The pseudolesion due to focal fatty sparing is not shown here.
References


