Linear endoscopic ultrasound examination of portal biliopathy

A 30-year-old man diagnosed 10 years ago with extrahepatic portal vein thrombosis underwent multiple sessions of endoscopic band ligation of esophageal varices. The last endoscopy session showed obliterated varices. Recently the patient complained of having had mild abdominal pain for 2 weeks. Laboratory evaluation showed mild anemia (Hb 11 g/dL) and normal bilirubin (total 1 mg/dl) with mildly elevated liver enzymes: alanine transaminase 68 U/L, aspartate transaminase 42 U/L, and alkaline phosphatase 168 U/L (normal <120 U/L). Serum amylase and lipase were normal. Contrast-enhanced computed tomography showed diffuse thickening of the common bile duct (CBD) (Fig. 1), multiple peripancreatic collaterals, and a normal pancreas. Magnetic resonance cholangiography could not be done because of the patient’s claustrophobia. For CBD evaluation he underwent endoscopic ultrasonography (EUS) with a linear echoendoscope. The EUS scope was passed into the duodenal bulb. From the duodenal bulb, multiple serpiginous linear structures were seen in the suprapancreatic region. On Doppler examination all these linear serpiginous structures showed a positive signal, and in the center a small, round, anechoic structure suggestive of the CBD was seen (Video 1). The CBD was then traced from the ampulla to the hilum and back and forth. These paracholedochal collaterals resulted in a diffusely decreased caliber of the CBD. On CT examination these paracholedochal collaterals gave a pseudo-appearance of thickened walls of the CBD. Further EUS examination showed a normal pancreas, splenomegaly, and multiple peripancreatic and splenic hilar collaterals (Fig. 2). The patient was managed symptomatically and asked to attend for regular follow-up. Portal biliopathy is defined as abnormalities in the extrahepatic bile duct with or without abnormalities in intrahepatic radicles in a patient with portal cavernoma [1]. The role of EUS is still evolving. EUS can accurately detect sites of varices in relation to the CBD (paracholedochal, intracholedochal, subepithelial, etc.), and that could be useful in patients undergoing endoscopic retrograde cholan-

Fig. 1 Contrast-enhanced computed tomography showed diffuse thickening of the common bile duct (arrows, ring).

Video 1 Endoscopic ultrasound examination of portal biliopathy.

Fig. 2 Endoscopic ultrasonography showing the pancreatic body with multiple peripancreatic collaterals.
giography. EUS may be considered as an alternative diagnostic modality to magnetic resonance cholangiography when it is not possible to perform the latter.

Competing interests

None

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