# Pancreatic tuberculosis with common bile duct and pancreatic duct dilatation

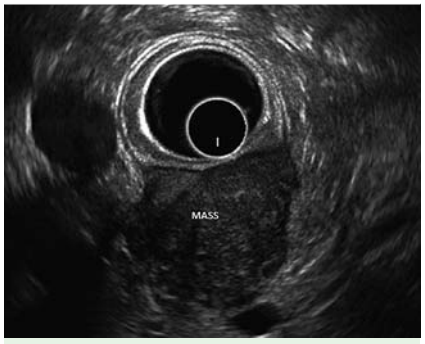


**Fig. 1** Radial endoscopic ultrasound: hypoechoic mass lesion in the head of pancreas.

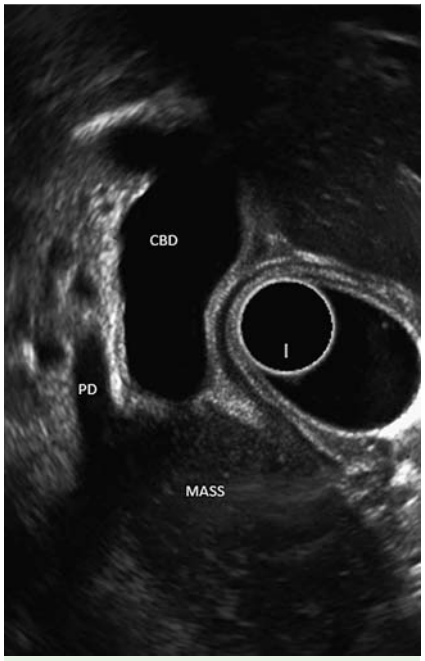


**Fig. 2** Endoscopic ultrasound: lesion obstructing the common bile duct (CBD) as well as the pancreatic duct (PD).

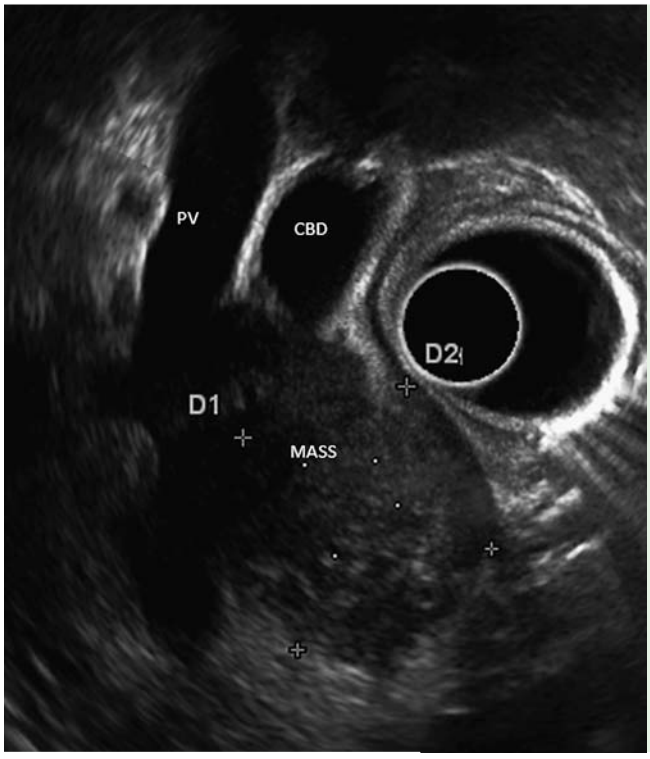


**Fig. 3** Endoscopic ultrasound: lesion infiltrating the portal vein (PV). CBD, common bile duct.

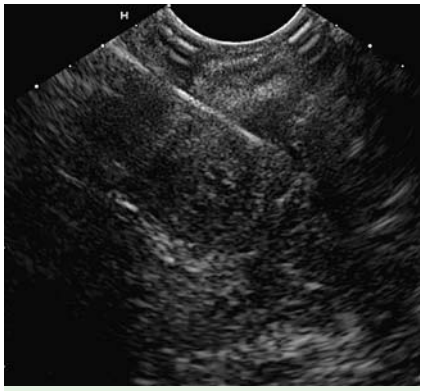

**Fig. 4** Endoscopic ultrasound-guided fine needle aspiration from the mass in the head of pancreas.

A 40-year-old woman with no comorbidities presented with history of abdominal pain of 3 months' duration and progressively increasing cholestatic jaundice of 2 months' duration. There was profound loss of weight and appetite. Clinical examination revealed deep icterus and a palpable gallbladder. Laboratory investigation revealed conjugated hyperbilirubinemia (total bilirubin: 16.2 mg/dL with conjugated fraction of 12.8 mg/dL) and markedly elevated serum alkaline phosphatase (580 IU/L; normal < 126 IU/L). Chest radiograph was normal. Ultrasound examination of the abdomen showed a distended gallbladder with no calculi, and both the common bile duct (CBD) and the pancreatic duct were dilated. The lower end of the CBD was obstructed by a hypoechoic mass lesion in the head of pancreas. Side-viewing endoscopy showed normal papilla. Radial endoscopic ultrasound (EUS) examination revealed a 3.6 cm × 2.4 cm hypoechoic mass lesion in the head of pancreas (**Fig. 1**). This lesion was obstructing the CBD and the pancreatic duct (**Fig. 2**) and also infiltrating the portal vein (**Fig. 3**). No significant peripancreatic or celiac axis lymphadenopathy was noted. EUS-guided fine needle aspiration (EUS-FNA) was done from the mass in the head of pancreas using a linear echoendoscope (**Fig. 4**). The cytological analysis of the aspirate revealed epithelioid cell granuloma (**Fig. 5**), but no acid-fast bacilli were noted. The patient was started on four-drug antitubercular therapy and within 2 weeks the pruritus subsided. The liver function tests normalized after 3 months of antitubercular therapy and an ultrasound of the abdomen after 3 months of therapy revealed normal pancreas. On EUS of the head of pancreas 4 months later, there was no mass and few echogenic strands were noted.

Pancreatic tuberculosis is rare, probably because of the antibacterial effect of pancreatic enzymes [1]. The clinical and radiological findings of pancreatic tuberculosis usually mimic pancreatic malignancy; both conditions tend to occur more commonly in the head and uncinate process, probably due to the rich blood

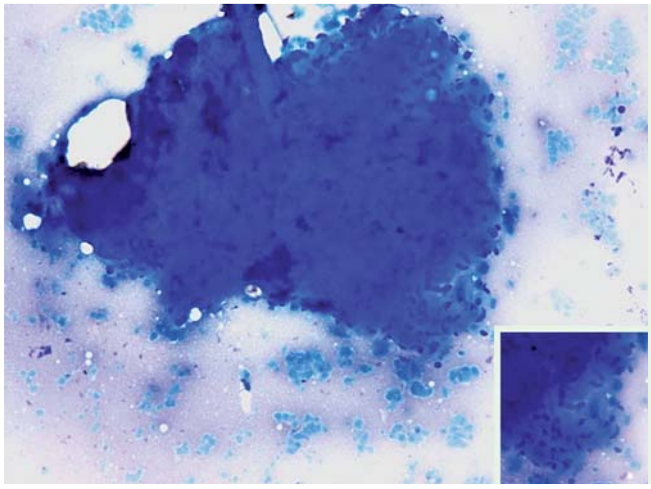

**Fig. 5** Epithelioid cell granuloma (May–Grünwald–Geimsa, magnification ×20). Inset: epithelioid cells (May–Grünwald–Geimsa, magnification ×40).

supply [2]. In spite of these similarities, it has been shown that the CBD and the pancreatic duct are usually normal in patients with pancreatic tuberculosis, even with a centrally located head mass [3]. However, in our case both the ducts were dilated. Percutaneous imaging or EUS-FNA can help in establishing the correct diagnosis and preventing morbid surgery. Because of the rarity of this disease, there are no treatment guidelines but most patients respond well to 6 – 12 months of antitubercular therapy.

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**Competing interests:** None

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## Bibliography

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