Pancreatic head mass diagnostic dilemma: inflammatory mass resembling neoplasm.

A 12-year-old girl was referred with a 1-week history of jaundice, itching and a loss of appetite. Abdominal ultrasound (US) revealed a mass in the pancreatic head measuring 4.1 cm in diameter and a dilated pancreatic duct measuring 3.2 mm. She had a pancreatic magnetic resonance imaging (MRI), which revealed a 2.7 x 4.1 x 5.1cm ill-defined, enhancing mass with restricted diffusion emerging from the head and uncinate process as well as extensive bile duct dilatation and pancreatic duct dilatation secondary to mass effect (Figure 1). The features were thought to be consistent with a pancreatoblastoma prompting an endoscopic ultrasound and endoscopic retrograde cholangiopancreatography.

After an endoscopic finding of lower common bile duct stricture (Figure 2), biliary sphincterotomy and stent placement were performed. The endoscopic biopsy showed features of chronic pancreatitis with no evidence of malignancy. For further delineation of the mass, an abdominal contrast enhanced computerised tomography (CT) scan demonstrated an enhancing, ill-defined pancreatic mass (Figure 3).

The appearance of the imaging was again suggestive of a neoplasm. A repeat endoscopic biopsy was performed due to a lack of consistency between imaging and biopsy results which confirmed a tissue diagnosis of chronic pancreatitis. (Figure 4)

Diagnostic imaging is an important tool to evaluate pancreatic neoplasms (1-3). For an accurate diagnosis and to avoid unnecessary surgery for inflammatory disorders, a repeat biopsy can play an essential role.

References:
Figure 1. MRI showing enhancing mass in the head of pancreas
Figure 2. MRCP showing bile duct dilatation and stricture
Figure 3. CT demonstrating neovascularisation of a mass at the head of the pancreas with bile duct dilatation.
Figure 4. Pancreatic mass tissue showing periductal and intra-lobular fibrosis with some ductal epithelium showing reactive atypia appearance suggestive of chronic pancreatitis. No evidence of malignancy