

# PRIMARY SCLEROSING CHOLANGITIS

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PSC is a rare idiopathic and progressive biliary tract disease characterised by inflammation and destruction of the intrahepatic and extrahepatic bile ducts that can lead to liver fibrosis and cirrhosis. Association with hypergammaglobulinaemia and markers such as anti-smooth muscle antibodies and anti-nuclear factor suggest an immunological basis; cystic fibrosis transmembrane conductance regulator (CFTR) gene mutations have been associated with the development of PSC. The majority of patients are between 30 and 60 years of age. There appears to be a male predominance and a strong association with inflammatory bowel disease (IBD), especially ulcerative colitis (IBD in PSC, 80%; PSC in IBD, 5%). Patients may be asymptomatic, but common symptoms include pruritus, fever, fatigue, right upper quadrant discomfort, jaundice and weight loss. Liver function tests reveal a cholestatic pattern, elevated serum ALP and gamma-glutamyl transpeptidase (GGT) and smaller rises in the aminotransferases; bilirubin values can be variable. MRCP (or ERCP) may demonstrate stricturing and beading of the bile ducts (Figure 71.37). Liver biopsy is helpful to confirm the diagnosis (concentric periductal 'onion skinning') and may help guide therapy by excluding cirrhosis. Important differential diagnoses are secondary sclerosing cholangitis, immunoglobulin G4 (IgG4) cholangitis, autoimmune hepatitis, human immunodeficiency

(a) A T-tube in situ with a stone in the bile duct. (c) The stone is extracted from the duct along the T-tube. Differential diagnoses include Congenital Biliary atresia, Gallstones, Bile duct injury at Parasitic surgery, Pancreatitis, Cholecystectomy, Sclerosing cholangitis, Choledochotomy, Radiotherapy, Gastrectomy, Hepatic resection, Trauma, Transplantation, Idiopathic, USG, MRCP, ERCP (with brush cytology in cases of a dominant stricture), PTC, CT

virus (HIV) cholangiopathy and cholangiocarcinoma. The last may arise in patients with PSC and is difficult to diagnose; a high index of suspicion is required, especially in the setting of unexplained clinical deterioration. Patients with PSC are at increased risk for cholangiocarcinoma and gallbladder cancer, as well as colon cancer in those with concurrent IBD. Medical management with antibiotics, vitamin K, cholestyramine, steroids and immunosuppressant drugs may not relieve symptoms. Endoscopic stenting of dominant strictures and, in selected patients with predominantly extrahepatic disease, operative resection may be worthwhile. For patients with cirrhosis, liver transplantation is the best option; 5-year survival following transplantation in high-volume centres is in excess of 80%. Screening for malignancies involving the gallbladder (polyp)

and bile ducts and colonoscopy for IBD or malignancy are therefore critical, and bone densitometry for bone density is mandatory .

Figure 71.37 Sclerosing cholangitis in a patient with ulcerative colitis, visualised by endoscopic retrograde cholangiopancreatography.

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