

## DIAGNOSIS AND THERAPEUTIC MANAGEMENT OF HEPATOPORTAL SCLEROSIS

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Hepatoportal sclerosis is one of the denominations for the histopathological entity found in the liver of patients with portal hypertension in the absence of cirrhosis, schistosomiasis, extrahepatic obstruction of the portal veins, sinusoidal obstruction syndrome/venoocclusive disease of the liver, or Budd-Chiari syndrome. Other denominations that largely overlap with hepatoportal sclerosis are idiopathic portal hypertension, and non cirrhotic portal fibrosis. These 3 entities are characterized by various degrees of portal fibrosis, and by abnormal portal veins which are reduced in size and number while there are abnormal vascular channels in the periphery of the portal tracts. These changes are commonly associated with regenerative changes in hepatocytes (sometimes culminating in full blown nodular regenerative hyperplasia), sinusoidal dilatation, and perisinusoidal fibrosis. In liver needle biopsy specimens, sampling can be insufficient to provide the full spectrum of the changes. Portal fibrosis tend to be extensive but slender, a picture called incomplete septal cirrhosis when the slender fibrous septa are partly circumscribing hepatocellular nodules.

It has been generally admitted that the primary lesion eventually resulting in the above histopathological changes is an obliteration of the small intrahepatic portal veins, the so-called obliterative portal venopathy. This lesion, however is frequently lacking in needle biopsy specimens although it is found at the examination of the whole liver at necropsy or in the explanted organ following liver transplantation.

Clinical manifestations can be lacking or consist in features of portal hypertension: enlarged spleen, subcutaneous portosystemic collaterals, oesophageal varices. Ascites is rare, except transiently following gastrointestinal bleeding. Encephalopathy, when present is related to large portosystemic collaterals. The most characteristic laboratory features are those of marked hypersplenism while serum transaminase, GGT and alkaline phosphatase activities are normal or mildly increased. Typically, there are no features of hepatic dysfunction although, in the advanced stage, prothrombin and serum albumin can be moderately decreased and serum bilirubin moderately increased.

Affected patients are predominantly but not exclusively males in their 30s to 40s. The disease has been reported in children. Diagnosis must be suspected by a contrast between

marked portal hypertension and little liver dysfunction, or by the absence of the causes for common liver diseases. However, diagnosis can only be made at liver biopsy. Awareness and expertise of the pathologist are crucial to the recognition of the disease, which otherwise is commonly diagnosed at cirrhosis.

Recognized causal factors can be classified into the following 4 categories: (a) chronic exposure to toxic substances, including vinyl chloride monomer, arsenic salts, azathioprine, and thorium sulphate; (b) systemic disease such as systemic lupus, systemic sclerosis, rheumatoid arthritis or Sjögren syndrome; (c) prothrombotic diseases such as myeloproliferative diseases or antiphospholipid syndrome or HIV associated decrease in protein S; (d) congenital disorders such as Turner syndrome or congenital hepatic fibrosis. About half the cases cannot be ascribed to any reported causal factor. Although the course of the disease has been reported to be benign, there is increased recognition that progressive deterioration in hepatic function does occur in some individuals, leading to liver transplantation or death. Hepatocellular carcinoma has been reported to develop in some patients although the exact incidence of this complication remains unclear. It has been well shown that these patients are at high risk of extrahepatic portal vein thrombosis (30% by 5 years).

Treatment is based on prophylaxis and management of gastrointestinal bleeding with pharmacological and endoscopic means, as recommended for cirrhosis. Anticoagulation should be considered in patients with underlying prothrombotic conditions and in patients who develop extrahepatic portal vein thrombosis. 6-monthly Doppler ultrasound surveillance should be implemented for early detection of portal vein thrombosis. Liver transplantation is considered in the rare patients with intractable encephalopathy or decompensated liver disease.

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