

Alcoholic liver disease is the major cause of liver disease in Western countries, (in Asian countries, viral hepatitis is the major cause).

Pathogenesis

Fatty change and alcoholic hepatitis are probably reversible. The later stages of fibrosis and cirrhosis tend to be irreversible.

Fatty change (>50%)

Steatosis is the accumulation of fat in liver cells histological fatty globules. Alcoholism causes large fatty globules (macrovesicular steatosis) and is probably dose-related. Cf. NASH.

Alcoholic hepatitis (~40%)

An acute hepatitis or inflammatory reaction may occur 2 to the steatosis which is not directly related to the dose of alcohol. This is called alcoholic steatonecrosis and the inflammation probably predisposes to liver fibrosis.

Liver fibrosis

Liver fibrosis is largely asymptomatic but as it progresses it can turn into cirrhosis.

Cirrhosis (10-30%)

Late stage of liver disease marked by fibrosis and altered liver architecture. Often progressive and may eventually lead to liver failure. Late complications of cirrhosis or liver failure include portal hypertension, varices, coagulation disorders, ascites, hepatic encephalopathy, and the hepatorenal syndrome. Most have consumed 80-160g (M) or 40-110g (F) EtOH/day (1-2 bottles of wine) for ~10yrs. Some studies suggest that even half these amounts might be dangerous.

Clinical Features

May be asymptomatic or have stigmata of liver disease with a history (\pm signs) of alcoholism (e.g. intoxication, malnutrition, neglect, tremor, cognitive impairment, \uparrow BP, and Hx of Cx such as pancreatitis, seizures, variceal bleeds, cardiomyopathy).

Treatment

- Best is total withdrawal of alcohol and subsequent long-term abstinence
- No other treatment is required for patients with fatty liver or mild alcoholic hepatitis.
- Severe alcoholic hepatitis - prednisolone if no sepsis or bleeding
- Cirrhosis - Treatment for complications (portal hypertension, ascites, SBP etc)
- Transplantation if ETOH previously given up and disease progressing. 5yr survival >70%.

Prognosis

- Prognosis is closely tied to continued drinking.
- If fatty change only: outlook is excellent, provided patients stop or $\downarrow\downarrow$ drinking
- Mild alcoholic hepatitis has a similar prognosis to fatty change.
- In severe, acute alcoholic hepatitis there is a 10-50% mortality within 6mo of presentation. Particularly adverse features are \uparrow bilirubin level and abnormal blood clotting. A discriminant function may help assess prognosis and decide upon treatment:

$[4.6 \times (\text{prothrombin time} - \text{control PT}) + \text{serum bilirubin (mg\%)}]$. If > 32 poor prognosis

- In alcoholic cirrhosis overall survival at 5 years is ~50%, but 70% among abstainers and only 35% in those who continue to drink. A second important prognostic feature is age at presentation. In a recent UK study, 3-year survival was 77% if ≤ 60 yr, and 46% if > 60 .
- Nutrition (possibly reflecting socio-economic status) also influences survival.
- Hepatocellular cancer can arise in patients with long-standing, often inactive, alcoholic cirrhosis, particularly men.