

Figure 18-18 Alcoholic liver disease. The interrelationships among hepatic steatosis, alcoholic hepatitis, and alcoholic cirrhosis are shown, along with depictions of key morphologic features. It should be noted that steatosis, alcoholic hepatitis, and steatofibrosis may also develop independently. In particular some patients present initially with cirrhosis without any of the other forms of alcoholic liver disease.

Alcoholic Liver Disease

Excessive alcohol (ethanol) consumption is the leading cause of liver disease in most Western countries. Alcohol accounts for 3.8% of deaths globally, making it the eighth highest risk factor for death (fifth in middle-income countries and ninth in high-income countries). There are three distinctive, albeit overlapping forms of alcoholic liver injury: (1) hepatocellular steatosis or fatty change, (2) alcoholic (or steato-) hepatitis, and (3) steatofibrosis (patterns of scarring typical for all fatty liver diseases including alcohol) up to and including cirrhosis in the late stages of disease (Fig. 18-18). For some unknown reason, cirrhosis develops in only a small fraction of chronic alcoholics. The morphology of the three interrelated forms of alcoholic liver disease is presented first, to facilitate the later discussion of their pathogenesis.

MORPHOLOGY

All changes in alcoholic liver disease begin in acinus zone 3 and extend outward toward the portal tracts with increasing severity of injury.

Hepatic Steatosis (Fatty Liver). After even moderate intake of alcohol, lipid droplets accumulate in hepatocytes increasing with amount and chronicity of alcohol intake. The lipid begins as small droplets that coalesce into large droplets which distend

the hepatocyte and push the nucleus aside (Fig. 18-19). Macroscopically, the fatty liver in individuals with chronic alcoholism is a large (as heavy as 4 to 6 kg), soft organ that is yellow and greasy. **Fatty change is completely reversible if there is abstinence from further intake of alcohol.**

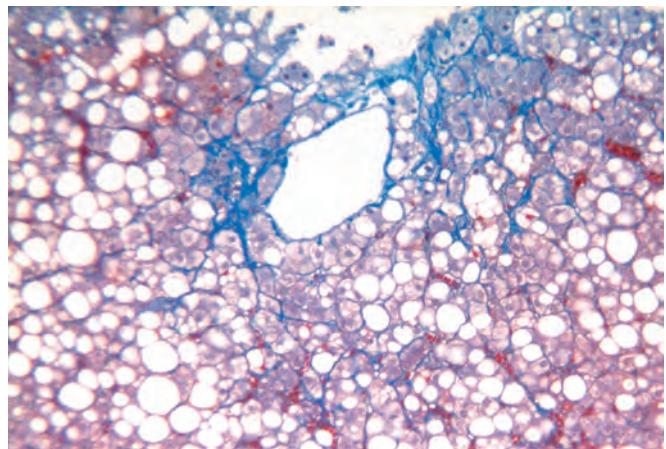


Figure 18-19 Alcoholic steatosis and steatofibrosis. A mix of small and large fat droplets (seen as clear vacuoles) is most prominent around the central vein and extends outward to the portal tracts. Some fibrosis (stained blue) is present in a characteristic perisinusoidal chicken wire fence pattern. (Masson trichrome stain). (Courtesy Dr. Elizabeth Brunt, Washington University, St. Louis, Mo.)