

DEFINITION

1. **Fatty disease of the liver** is defined as deposition of fat, largely triglyceride, exceeding 5% of the liver weight. The fatty liver could be due to increased delivery of fatty acids to the liver, increased or decreased oxidation of fatty acids, or a defect in removal of triglyceride as very low-density lipoproteins.

CLASSIFICATION

2. Increased fat in the liver is divided into two morphological categories, **macroscopic** and **microscopic**. The two may be combined.

CLINICAL FEATURES

3. In **macroscopic** fatty liver, the patient is usually symptom free, although she/he may complain of right upper quadrant heaviness, worse on movement. The liver is usually, but not always enlarged.
4. In **microscopic** fatty liver, the onset is marked by fatigue, nausea, vomiting with variable jaundice, impairment of consciousness, coma and fits. The liver is not the only organ involved, the kidneys, myocardium and pancreas being occasionally affected.

AETIOLOGY

5. **Macroscopic** (also called **macrovesicular**) **fatty liver** may be due to nutritional, metabolic, drug-related or general causes.
 - 5.1. **Nutritional** causes include kwashiorkor, gastrointestinal disease, pancreatic disease, obesity, intestinal bypass and prolonged parenteral nutrition.
 - 5.2. **Metabolic** diseases include Type II diabetes mellitus, galactosaemia, glycogenoses, fructose intolerance, Wilson's disease, tyrosinaemia, hyperlipidaemias, Wolman's disease and Weber-Christian disease.
 - 5.3. **Drug-related** causes include alcohol, corticosteroids, high-dose oestrogens, amiodarone and drugs causing direct hepatotoxicity.
 - 5.4. **General causes** include fever, systemic diseases and viral infections.
 - 5.5. When causes such as those listed above have been excluded, there remains a hard core with no obvious aetiology. These are called **cryptogenic fatty livers**.

6. **Microscopic** (also called **microvesicular**) **fatty liver** may be associated with the following:
 - 6.1. Acute fatty liver of pregnancy, Reye's syndrome, vomiting disease of Jamaica, sodium valproate toxicity, congenital defects of urea cycle enzymes, genetic defects of mitochondrial fatty acid oxidation, alcoholic foamy fat syndrome and delta virus hepatitis in South America.
 - 6.2. The mode of initiation of these diseases is diverse. Viral, toxic and nutritional factors have been implicated.

CONCLUSION

7. **Fatty disease of the liver** is a condition resulting from deposition of fat in the liver. It may be associated with a wide variety of causes and conditions which have been listed above. In some cases, a causative condition cannot be identified.

REFERENCE

Sherlock Sheila. Diseases of the Liver and Biliary System. 8th Ed. 1989. Oxford. Blackwell Scientific Publications. p470-476.

December 1992