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XVIII. Diseases of Liver, G. Bladder, Pancreas & Peritoneum

Liver

Congenital anomalies of the liver:

1. ***Cystic disease.***
2. ***Absence of a lobe.***
3. ***Very small lobe.***
4. ***Riedel's lobe.***

N.B. 2

- **Softness of the liver** may be due to toxic causes before death (and hence is associated with a histologically-detected inflammatory response) or is a post-mortem autolysis(without an inflammatory reaction).
- *Another **post-mortem change is the brownish-black discolouration** due to haemolysis of blood and deposition on the surface of the liver of sulphides from the adjacent colon.*
- The so-called **foamy liver** is that which shows partial replacement of its substance by gas-blebs produced at death (agony) by micro-organisms (Cl. welchii) carried out by the portal vein (from intestine to liver).

N.B. 3

Causes of hepatomegaly

I. Congestion:

1. **Active** (after heavy meals, severe exercises and polycythemia).
2. **Passive:**
   (a) Congestive cardiac failure (mitral stenosis and fibrotic changes in lungs).
   (b) Pericardial disease (constrictive pericarditis and pericardial effusion when chronic).
   (c) Right-sided heart disease (tricuspid stenosis or regurgitation).

II. Inflammation:

1. Non-suppurative:

(a) Viral infective hepatitis, homologous serum-jaundice, yellow fever, infectious mononucleosis, herpes simplex, rubella, cytomegalic inclusion disease (neonatal hepatitis).
(b) Rickettsial (typhus fever, Rocky Mountain spotted fever and Q-fever).
(c) Spirochaetal (relapsing fever, Weil's disease and syphilis).
(d) Bacterial (brucellosis, tuberculosis and typhoid or para-typhoid fevers).
(e) Fungal (histoplasmosis and coccidioido-mycosis).
(f) Protozoal (toxoplasmosis, kala azar, malaria and Amoebiasis).
(g) Metazoal (Fasciola hepatica, hydatid disease, ascariasis, Bilharziasis and visceral larva migrans).

2 Suppurative:

(a) ***Systemic blood (septicaemia by acute fulminating organisms).***
(b) ***Portal blood (portal pyaemia by organisms transported from the intestine).***
(c) ***Ascending infection (through the biliary tree as duct). Inflammation of the gall bladder and common bile duct.***

3. inflammatory non suppurative and non-organismal

(a) Secondary to hepatotoxic drugs:

- ***Direct hepatotoxins as chloroform, cytotoxins as urethane, drugs leading to hypersensitivity and producing intrahepatic cholestrin and biliary obstruction inside liver such as chlorpromazine group).***

(b) Toxaemia of pregnancy.

(c) Allergic as in serum sickness.

(d) Thyrotoxicosis.

III. Cirrhosis (and liver-fibrosis):

- ***Whether diffuse chronic fibrosing hepatitis affecting the parenchymal cells primarily (degeneration, slow necrotic changes, fibrosis and regeneration) or increase in the mesenchymal tissue primarily.***

1. ***Portal cirrhosis (Laennec, alcoholic & nutritional).***
2. ***Post-necrotic (resulting from infection i.e. viral hepatitis or hepato-toxins alone).***
3. ***Biliary cirrhosis due to prolonged biliary obstruction:***

(a) Extrahepatic:

- *Stricture; fibrosis; stone or worms as* Ascaris in C.B.D.; tumours or enlargement of lymph nodes in porta hepatis; chronic fibrosing pancreatitis; cancer of head of pancreas; congenital obstruction of biliary passages.

(b) Intra-hepatic:

- Obstruction with cholestasis as in primary biliary cirrhosis i.e. Hanot's; post-hepatitic cholestasis; **mucoviscidosis** i.e. fibrocystic disease of the pancreas leading to peri-cholangitic fibrosis; toxic drugs leading to intra-hepatic obstruction; congenital alterations of biliary tree inside the liver; congenital fibrosis of the liver.

4. ***Metabolic cirrhosis (or infiltrative)***
   (a) Pigmentary (haemochromatosis; hepato-lenticular *degeneration i.e. Wilson's disease.*
   (b) *Galactosaemia.*
   (c) *Glycogen storage disease such as* ***von Gierke's***.
5. ***Schistosomal*** (bilharzial hepatic fibrosis) due to mesenchymal reaction around the Schistosoma ova.
6. ***Congestive cirrhosis (so-called cardiac).***
7. ***Syphilitic cirrhosis (congenital syphilitic pericellular fibrosis).***

IV. Metabolic diseases and infiltration

1. ***Iron → haemochromatosis.***
2. ***Copper →Wilson's disease.***
3. ***Fat → severe obesity; mal-nutrition in alcoholics and in diabetes mellitus.***
4. ***Reticuloendotheliosis; lymphoma; Hodgkin's disease; Leukaemia.***
5. ***Histiocytic →***
   - ***Eosinophilic granuloma;***
   - ***Hand-Schuller-Christian disease;***
   - ***Letterer Siwe disease;***
   - ***Xanthomatosis.***
6. ***Lipoid storage disease →***
   - ***Gaucher's cerebroside Lipoidosis;***
   - ***Niemann-Pick phosphatide Lipoidosis.***

7. ***Granulomatosis →> sarcoidosis; berylliosis.***
8. ***Amyloidosis.***

V. Blood diseases:

1. Leukaemia.
2. Polycythemia Vera.
3. Haemolytic and severe anaemias.
4. Thrombocytopenia.

VI. Malignant tumours:

1. Primary:

(a) Hepatoma and Cholangioma.
(b) Sarcoma and angiosarcoma.

2. Secondaries.

VII. Cysts:

- Polycystic disease.

VIII. Miscellaneous conditions:

- Acromegaly.

N.B.4:

Diminution in the size of the liver occurs in such conditions as

- Acute and subacute yellow as atrophy,
- Brown atrophy,
- Late stages of cirrhosis and liver-fibrosis and
- Bilharzial fibrosis.

Diminution in the consistence of the liver → (softer) occurs in degenerative conditions such as

- Fatty change and Albuminous degeneration,
- Acute yellow atrophy and
- Some cases of necrosis or/and hepatitis.

Increase in the consistence of the liver → (firmer) occurs in many conditions including

- Chronic venous congestion,
- Amyloid disease,
- Cirrhosis,
- Fibrosis,
- Lymphomatous disease (Hodgkin's disease and leukaemia) and
- Tumours.

Nodularity or/and granularity of the liver-surface *occurs in*

- *Cirrhosis,*
- *Abscesses,*
- *Scarring,*
- *Hepar-lobatum of acquired syphilis,*
- *Cysts,*
- *Tumours and*
- *Metastases.*