

Jaundice, preceded by a history of severe pain, is of calculous origin, and due to obstruction of the common duct. 4. Jaundice, associated with an antecedent history of similar attacks, points to gastro-duodenal catarrh, or to biliary calculi, as the primary morbid state. 5. If it occur suddenly, in apparent health, it is due either to obstruction of the ducts, or to emotional disturbance. 6. If it appear slowly, yet progressively, it is due either to stricture, or to compression of the common duct. Stricture usually has an antecedent history of biliary colic, and compression is often associated with a discoverable tumor. 7. Slight but persistent jaundice is due either to incomplete obstruction of the biliary ducts, or to passive congestion of the liver. Passive congestion depends on some thoracic obstruction to the circulation—either disease of the heart, or disease of the lungs. 8. Very slight jaundice, associated with an abnormally small liver, indicates sclerosis of the organ. 9. Jaundice, associated with enlargement of the liver, is, in acute cases, of catarrhal origin; and in chronic cases it is usually due to cancer, but occasionally due to hypertrophic sclerosis. It occurs in over fifty per cent. of the cases of cancer. 10. If jaundice be attended with fever, it is due either to gastro-duodenal inflammation, or to inflammation (infective) of the portal vein; or it is a complication of some specific febrile disease. 11. Jaundice, associated with ascites, indicates either cancer or sclerosis. In cancer the liver is abnormally large, and in sclerosis it is abnormally small. In cancer, ascites occurs in seventy-five per cent. of the cases. 12. Jaundice, associated with cerebral disturbance, indicates either acute thoracic inflammatory obstruction to the circulation, or specific febrile disease; or, in very rare cases, acute yellow atrophy of the liver. 13. Jaundice is not a characteristic symptom of hepatic abscess, waxy degeneration, fatty infiltration, or hydatid tumor of the liver, though it may occur in any of these diseases.

Consider now the diagnostic relations of some other prominent symptoms of hepatic disease:—

1. Enlargement.—This is marked, and symmetrical, in amyloid degeneration, and sometimes in passive congestion; marked, but symmetrical in cancer, hydatid tumor, and in ninety per cent. of the cases of abscess; symmetrical, but not marked, in congestion (ordinarily), acute biliary obstruction, fatty, and pigmentary infiltration, and hypertrophic sclerosis. 2. Enlargement and Jaundice.—These conditions co-exist in cancer, obstruction of the bile ducts, passive congestion and pigmentary infiltration. Jaundice is marked in fifty per cent. of the cases of cancer, and in all cases of biliary obstruction; but in passive congestion and pigmentary infiltration, it is usually slight. 3. Enlargement, Jaundice, and Ascites.—The conditions co-exist in cancer. 4. Shrinking and Jaun-

dice.—Occur in acute yellow atrophy. 5. Shrinking and Ascites.—Occur in sclerosis. 6. Fever.—In acute yellow atrophy, the temperature of the body is 100°, or over; and in hepatic abscess there is usually an obscurely periodical fever, of variable intensity, associated with much sweating. 7. Emaciation.—It is rapid in cancer, and usually in abscess; and slow in cirrhosis. 8. Hemorrhagic Tendency.—It is very marked in acute yellow atrophy. It often exists in cases of chronic jaundice and anemia depending on cirrhosis, cancer, and pigmentary infiltration. 9. Cerebral Symptoms.—They are striking in acute yellow atrophy, and in advanced pigmentary infiltration.

Finally, let us consider the diagnostic features of the important diseases of the liver and biliary passages:—

1. Catarrhal Jaundice.—Begins with symptoms of gastro-duodenal catarrh; the jaundice lasts two or three weeks, and is associated with some enlargement of the liver and local discomfort; the stools are clay-colored, and sometimes the gall-bladder is noticeably distended. 2. Obstructions, Cystic Duct.—Here there is a pyriform tumor, but there is neither jaundice nor clayey stools. 3. Obstruction, Hepatic Duct.—No tumor of the gall bladder; decided jaundice, and depending on the seat of obstruction, the stools may be clayey, or of normal coloration. 4. Biliary Colic.—Usually comes on two or three hours after a meal, or immediately after vigorous exercise; calculi appear in the stools; jaundice occurs within a day or two. There is no evidence of intestinal derangement (colic); no stercoral vomiting (intestinal obstruction); no pyuria or hæmaturia (renal colic). 5. Passive Congestion.—There is either disease of the heart, or obstructive disease of the lungs; the liver is large, sometimes very large, firm and tender; sometimes there is bilious vomiting and purging, and also slight jaundice. 6. Sclerosis or Cirrhosis.—Nearly always a history of intemperance, constitutional syphilis, or chronic biliary obstruction ("biliary cirrhosis") precedes it; onset insidious; course, three months to six years. The liver is small; dyspeptic symptoms are associated with ascites, and prominence of the epigastric veins. 7. Amyloid or Waxy Degeneration.—There is a history of profuse suppuration, or of syphilis or tuberculosis without suppuration. Liver is large, smooth, and hard; spleen also; there is albuminuria; late, the gastro-intestinal canal becomes irritable; general health impaired; course of the disease is slow. 8. Fatty Infiltration.—Liver is large, smooth, soft, and its edges are rounded. Dyspeptic symptoms usual; also symptoms of heart failure. Without the latter, diagnosis cannot be made. 9. Pigment Infiltration.—Always associated with a history of chronic malarial infection. At first the liver is enlarged, but later it shrinks. Symptoms of gastro-intestinal catarrh