

The cardinal symptoms of disease of the bile passages are jaundice, pain, and fever.

*Jaundice* is the most common, as it is practically a constant symptom of the affections of the common bile duct.

As diseases of this duct always alter its calibre and therefore cause obstruction, it follows that jaundice must result. The converse is, I think, equally true, viz., that jaundice is always the consequence of obstruction of the common bile duct or its ramification in the liver. A non-obstructive jaundice is described in the books, and acute yellow atrophy among others is given as belonging to this class; but in this disease, as in others of a similar character, there is ample proof of obstruction of the bile canaliculi in the periphery of the hepatic lobules. It will certainly contribute to the definiteness of the pathological concept if jaundice signifies to us absorption of bile, and that its absorption always results from its flow through the bile ducts being somewhere obstructed.

*Fever* is a frequent symptom in all forms of disease of the gall bladder and bile ducts. It is caused by the absorption of toxic material from the inflamed or ulcerated mucous membrane. Its severity usually accords closely with the gravity of the cause. In catarrhal jaundice the fever, if present, is slight, lasting three or four days; here the infection is mild. In marked obstruction, especially from gall stones, there may be recurrent chills with high temperature, the temperature being normal in the interval—the so-called hepatic intermittent fever. Chills and fever are more common, however, in suppurative cholangitis, which is very often associated with a history of gall-stone obstruction. It may occur also in obstruction from tumor, especially in such as rapidly growing cancer implicating the ducts. In gall-stone colic, even in the absence of suppuration, the chills and fever may recur in distinct malarial-like paroxysms of great regularity. The suppurative cases can only be differentiated by the continuous fever, deeper jaundice, tenderness in the gall bladder area, rigidity of the overlying muscles, and the graver constitutional symptoms. If a decided increase of leucocytes is found on examining the blood the existence of a suppurative condition may be rendered certain.

*Pain* varies according to the cause; it is the earliest and may be the most distinctive symptom. It is referred to the upper right quadrant of the abdomen. In inflammatory conditions it is of varying intensity, but usually moderate, and always continuous and associated with tenderness. That due to passage of gall stones is sudden in onset in typical cases; it may be mild, but is usually severe, so severe it may be as to kill outright. It is paroxysmal, and, as in colics generally, pressure gives