

two weeks. Sometimes emotional disturbances, such as a passionate outburst of temper, will lead to this form of jaundice. A sudden shock or fright is supposed to act as a cause by lessening the blood pressure in the blood vessels, to such an extent that the tension is greater in the bile ducts.

The symptoms of this affection are simply those of gastritis with jaundice, the latter occurring from the accumulation of bile in the ducts of the liver, which, when the tension becomes sufficient, is absorbed by the lymph vessels of the liver, and get into the blood from the thoracic duct, and is deposited in all the tissues of the body, except the cornea, peripheral nerves, and cartilages, and showing outwardly first in the conjunctiva.

The perspiration and urine contain the pigment and sometimes the milk. Dr. Dyce Duckworth states that he has squeezed milk as yellow as gamboge from the breast of a young mother; the tears, saliva and gastric juice are not discolored.

The slowing of the pulse seen in most cases is supposed to be due to the action of the cholate of sodium on the nervous supply of the heart.

The circulation of the bile acids in the blood accounts for the headache, muscular weakness and depression. In the grave nervous phenomena (cholæmia) observed mostly in chronic biliary retention, where there is delirium, convulsions, coma, and hemorrhage. Frerichs, who uses the name *Acholia* to represent this group of symptoms, believes they are greatly the result of the accumulation in the system of the substances which are usually transformed by the liver.

The formation of the clay-colored stools is interesting, and by recalling to your minds the physiological functions and character of bile, you will more readily understand how the modification is brought about. Bile is separated from the portal blood supply in the liver by the hepatic cells, and entering the intercellular biliary passages, passes along the minute channels and ducts to the gall bladder, and when needed in the intestines the gall bladder forces it through the cystic and common duct of the liver and pancreas to the duodenum, where it mixes with the chyme which has just left the stomach. The bile is made up of bile salts (taurocholate and glycocholate of sodium), cholesterin mucin fats and soaps. The yellowish red color is due to bilirubin, which when oxidized becomes the green biliverdin. Bile precipitates pepsin as well as peptone, parapeptone and bile salts, emulsifies fat, stimulates peristalsis, and