

84 (1544)

A. Vicious activity of the gall bladder during biliary stasis.

B. The determining factor in the causation of white stasis bile.

By **PEYTON ROUS** and **PHILIP D. McMASTER.**

[From the Rockefeller Institute for Medical Research.]

Ligation experiments in dogs, cats, and monkeys show that under stasis conditions the gall-bladder and bile-ducts act very differently. The gall-bladder, continuing to exercise functions that are normal to it, effects a great concentration of the stasis bile and adds mucus thereto in quantity. As result, when an obstruction is produced below the entrance of the cystic duct all of the extralobular biliary channels come at length to be filled with a thick, greenish-black fluid. The ducts, on the other hand, have no concentrating faculty, and their lining secretes but little mucus. In an obstructed duct system blocked off from the gall bladder, or connecting with one so changed as to be incapable of functioning, there regularly accumulates a limpid, watery fluid devoid of pigment and bile salts even when the animal is heavily jaundiced. This is the "white bile" of the surgeons. The passages soon become so distended with it that true bile ceases to enter them.

The facts as given relate to uninfected and uninflamed bile passages. So far as they go they point to cholecystectomy as a wise measure in gall stone cases, and notably when the gall-bladder is but little damaged. For an abnormal concentration and thickening of the bile such as the gall bladder can effect must act both to promote the formation of stones and to render obstruction by them more complete. The frequent rapid increase in size of stones partially obstructing the common duct (Naunyn) is attributable to the concentration of stasis bile by the gall bladder.