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Gall Bladder Visualization in Experimental Achylia.

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Hines[1] has reported 11 cases of *Achylia gastrica* in which the Graham test was done; these patients received the tetraiodophenolphthalein intravenously. In most of these cases the gall bladder failed to visualize and in the others the shadow was reported as abnormal. Patients with absence of shadow showed visualization in some instances when HCl was given by mouth. More recently Davis and Talley[2] have reported 20 cases of anacidity, in the majority of which they obtained good visualization although 9 of these cases presented clinical evidence of gall bladder disease. They gave the dye by mouth.

To determine whether the absence of hydrochloric acid from the gastrointestinal tract was capable of interfering with gall bladder visualization, 5 dogs with pouches of the entire stomach (esophagoduodenal anastomosis) in which all of the gastric secretion drained to the outside were subjected to the Graham test. Tetraiodophenolphthalein, 0.18 gm. per kilo, was given intravenously and 10 to 12 hours later roentgenograms were made of the gall bladder area. A total of 7 such experiments were performed on the 5 animals. In all cases the gall bladder showed normal concentration of the dye. In 4 instances egg yolk was given by mouth and evacuation of the gall bladder followed by x-ray. The gall bladder emptied promptly in 3 cases; in the fourth contraction occurred but complete evacuation was delayed more than 6 hours.

Although acid in the duodenum is undoubtedly a factor in evacuation of the viscus, the above results indicate that gall bladder function, in the dog at least, is not impaired by the presence of complete achylia.

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[1] Hines, L. E., *J. Am. Med. Assn.*, 1928, **90**, 2099.

[2] Davis, D., and Talley, D. D., *J. Am. Med. Assn.*, 1929, **92**, 110.