

5. "Insulin sensations," especially hunger, parallel rather closely the degree of gastric activity.

6. Under the experimental conditions described antiperistaltic movements in the stomach were not associated with sensations of nausea.

4505

Motor and Secretory Activity of the Stomach During Acute and Chronic Obstructive Jaundice in Dogs.

KATHLEEN SULLIVAN STILL. (Introduced by A. J. Carlson.)

From the Hull Physiological Laboratory of the University of Chicago.

This work was done in an attempt to segregate the possible rôle of impaired gastric functions in jaundice.

The effect of acute and chronic obstructive jaundice on the hunger contractions of the empty stomach were studied by the balloon method 18 hours after a standard meal. The effects on the secretory functions of the stomach were studied by means of Pavlov pouch dogs. In some animals 100 gm. of hamburger was the test meal, in others 1 mg. of histamine, injected subcutaneously, was the stimulus.

Acute jaundice was produced by intravenous injection of $\frac{1}{8}$ to $\frac{1}{2}$ cc. of bile per kilo of body weight. These experiments were controlled by injection of 0.9% NaCl solution, which had no effect.

Similar studies were made on chronic obstructive jaundice after appropriate control studies. Obstructive jaundice was produced by double ligation and section of the common bile duct.

Summary: 1. Intravenous injection of $\frac{1}{8}$ to $\frac{1}{2}$ cc. of bladder bile per kilo of body weight in dogs causes an immediate but temporary inhibition of gastric motility (hunger), and greatly diminishes the gastric secretion following a test meal. The inhibitory effect upon gastric secretion is more prolonged than upon gastric motility.

2. Chronic obstructive jaundice is followed by a decrease of the motor activity of the empty stomach, a decreased rate of gastric juice secretion, and an increased acidity of the gastric juice.