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Original Articles.

SPASM OF THE PYLORUS.

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Spasm of the pylorus is a narrowing or closing of that organ, or lengthening of the period of contraction during digestion, and causing obstruction to the exit of the gastric contents. As a result of the spasm the period of gastric digestion is prolonged.

The pylorus takes a very important part in digestion. It is the gateway connecting the stomach, in which the secretion is acid to the intestine, in which the digestive medium is alkaline due to the secretion: succus entericus, bile, and pancreatic juice. To a certain degree it controls both gastric and intestinal digestion; the former by retaining the food in the stomach until the gastric functions are complete, and the latter by regulating the supply of acid chyme.

Since in normal digestion no inorganic acid can be detected beyond the first few inches of the duodenum, the gastric contents, after being emptied into the intestine, must be rapidly neutralized. This is made possible by the working of the sphincter pylori. The pylorus does not remain open continuously, but closes and opens in a rhythmic manner, due, no doubt, to the reflex influences originating in the stomach or intestine.

Experiments by Cannon seem to point to the presence of free hydrochloric acid in the stomach, as a stimulus which causes the sphincter to relax. He was led to this conclusion, principally