

able to make ourselves acquainted with the constituents of the gastric juice at various periods after a meal, especially as to the presence of hydrochloric acid in normal amount, or its absence, we must not forget that failure of secretion of hydrochloric acid, on the one hand, and its excessive secretion, on the other, are alike only symptoms of disease—symptoms whose import, to be rightly estimated, must be weighed in conjunction with the other circumstances of the particular case. But a short time ago it was considered that the persistent absence of hydrochloric acid was particularly pathognomonic of carcinoma. Further investigation has demonstrated that hydrochloric acid is not infrequently absent in gastric catarrh, in degenerations of the gastric mucosa, and in certain gastric neuroses. On the other hand, cases of gastric carcinoma are met with in which free hydrochloric acid is found after food, and in a few it is present in excessive quantity. In these latter, it is supposed that the cancer is secondary to, and develops on, the cicatrix of a gastric ulcer, in which latter disease we know that the gastric secretion is usually highly acid. The reason for this difference in these two classes of cancers is probably due to a widely disturbed degeneration and inflammation of the gastric mucosa in the former class, while in the latter changes in the mucous membrane are limited to the immediate vicinity of the neoplasm.

We are, nevertheless, fairly safe in laying down as a rule that while the absence of hydrochloric acid is not pathognomonic of cancer, its persistent presence is strong evidence that cancer does not exist.

Then, it will probably be found that in cases of doubtful diagnosis between cancer and chronic gastric catarrh, the effect of treatment with the stomach tube will be of material aid. In such cases the regular daily washing out of the stomach will be followed by general improvement in cases of simple chronic gastritis, while in cancer the improvement is usually confined largely to some relief of the stomach symptoms, without much gain in general health.

In such a case under my care in Toronto General Hospital a year ago, in a man who was much addicted to beer drinking, and whose symptoms were those of aggravated chronic gastric

catarrh, no improvement resulted from lavage. There was no pain, tumour, or cachexia to indicate cancer, but his condition grew worse steadily. He left the hospital, and a month or so later died at his home. The autopsy showed a diffuse colloid cancer infiltrating nearly the whole wall of the stomach, and the general cavity was much contracted, a contraction that must have resulted chiefly after he left the hospital, as shortly before that time the capacity of the stomach was apparently normal.

The tube will, however, find its most frequent application both in diagnosis and treatment in that most common of "ills that flesh is heir to"—dyspepsia. By its use we are able to differentiate those characterized by hyperacidity from those more frequent ones in which there is a deficiency of hydrochloric acid secretion, and thus be guided to the treatment appropriate for each.

In the former we need to reduce the amount of sodium chloride in the food to a minimum, to neutralize the acidity of the stomach by use of such alkalis as magnesia and the alkaline carbonates, which contain none of the elements of hydrochloric acid, and to diet mainly on nitrogenous food, so as to appropriate the greatest possible amount of hydrochloric acid in its digestion.

In those suffering from in acidity, on the other hand, we must supply the deficiency in hydrochloric acid by giving it after food as freely as each individual demands, usually in frequent, divided doses, and, it may be, peptonizing the food before it is partaken of—appropriate general treatment, of course, being carried out at the same time.

Of the dyspepsias, the most frequent are those associated with and dependent upon chronic gastritis. Here, too, no means of treatment avail as does thorough and regular cleansing of the stomach by means of the tube. Usually the appetite is poor, but it may be at times good, even ravenous, at others the first morsels or even the sight of food satisfies, or may beget nausea. "Soon after eating, such patients feel oppressed and bloated, they do not complain of true pain in the epigastrium; it is more of a choking, a vague sensation, which only becomes slight pain on pressure over the stomach." If decided pain occurs, we should suspect other lesions. These conditions are frequently combined with atony of