June 4, 1910]

## Clinical Motes on Some Common Ailments.

## GASTRIC ULCERATION.

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In considering the subject of anemia, we saw that in women who suffer from that disease, a certain amount of indigestion was not only not uncommon, but might be said to be an almost invariable accompaniment of their condition. We noted, too, that while the indigestion aggravated the anæmia, the anæmia also of itself produced dyspepsia, in that the blood going to the stomach was of poorer quality than in the healthy subject.

As a rule, if the anæmia and the dyspepsia receive attention—and it is very necessary to treat both, and not the anæmia only—the appetite improves and the patient recovers from her gastric troubles as the quality of the blood is altered, and no serious disease of the stomach remains.

But this is not always the case; there comes a time in the course of the anæmia when the stomach, instead of merely acting badly, becomes the site of disease, and very serious disease, too. In order to understand what happens then we must go back for a moment and consider the physiology of digestion as it occurs in healthy people.

occurs in healthy people. When the food passes into the stomach it meets with the gastric juice, which is composed mainly of weak hydrochloric acid and a ferment called pepsin, the object of which is to convert the insoluble proteids in the food into soluble peptones. This juice is poured out from the mouths of numerous little glands which together make up the lining of the stomach or mucous membrane, as it is sometimes called. Below this mucosa is a little loose tissue containing blood vessels which carry blood to the glands, and deeper still is a thick layer of muscle which serves to keep the stomach moving during digestion. Outside this again is the thin coating of peritoneum, which covers the stomach and intestines.

Now, if we examine the stomach of a man who has been dead for a day or two, we find that all or nearly all the mucosa has disappeared, because it has been digested by the gastric juice still remaining in the glands. Why, then, does this not occur while the patient is alive? Obviously because, while the blood is circulating, there is something in it which prevents the gastric juice having any effect on the glands themselves, and, in point of fact, this something is a weak alkali, which serves to protect the mucosa from the action of the acid in the gastric juice.

Now, we saw that in anemia the circulating blood was of poor quality because it was deficient in iron, but this is not all; it is also apt to coagulate or clot while it is still in the vessels. The effect of this is obviously to cause the death of those glands which were formerly supplied by the obstructed vessel, and the patch thus affected is soon digested, so that an ulcer is produced.

But in practice the ulceration does not always stop sharply at the mucous membrane; it may go deeper and attack one of the blood vessels running in the next layer, so that a quantity of blood is shed into the stomach itself, or it may penetrate further still into the muscle and ultimately make a hole in the peritoneum, so that the contents of the stomach escape into the general peritoneal cavity, and set up a train of symptoms there.

Now, let us come back to the patient. What are the signs which show us that the simple indigestion of anæmia has passed into the very grave condition of gastric ulcer?

Firstly, there is a change in the character of the pain; in ulceration, this is usually intense and limited to a spot at the pit of the stomach, though it may be felt also in the form of a dull aching at one or other side and radiating round to the back when the ulcer is at the back of the stomach; it occurs directly after food, and is often accompanied by vomiting. It has always, incidentally, puzzled me why so many young women—I am not thinking just now especially of nurses—go on with their usual occupation while they are suffering from acute pain and sickness after every meal, and do not seek advice; often, of course, it is because they are afraid of losing their occupation, but in many this is not the case, and some women seem to tolerate almost any degree of pain in the stomach after food without complaining. Another symptom is vomiting after meals, but as this is followed by a cessation of the pain, the sickness again is often not taken very seriously. The tongue is usually large, pale, flabby, and indented by the teeth at the sides, but may be in acute cases small and red. Inasmuch as the patient either vomits her food, or else digests it incompletely, she soon loses flesh, and ultimately feels so weak that she is compelled to give in.

At any stage in the illness the most characteristic symptom of gastric ulcer may appear namely, vomiting of blood. Usually a large quantity is brought up, so that the patient becomes faint or may lose consciousness completely: more rarely, however, the blood is



