## MEDICAL MATTERS.

THE SYMPTOMS OF DUODENAL ULCER

Mr. C. Mansell-Moullin, F.R.C.S., contributes to the London Hospital Gazette a very interesting article on the subject of duodenal ulcer, in the course of which he claims, concerning the symptoms that are ordinarily assumed to indicate the presence of an ulcer in the duodenum, that they indicate nothing whatever of the kind. They may, and they do, indicate that there is something very wrong with the duodenum, and often with the stomach, too; but except in special circumstances, they are not the symptoms of ulceration. The three most important symptoms which the writer discusses are hunger-pain, hæmorrhage, and hyperchlorhydria.

## PAIN.

Of pain Mr. Mansell-Moullin writes :--- "The usual explanation for the pain in cases of gastric and duodenal ulcer is that it is due to the acid gastric juice coming into contact with the raw surface of the ulcer; and the lateness of its occurrence in duodenal as compared with gastric ulcer is explained on the supposition that the acid contents of the stomach do not pass through the pylorus until some hours after the food has entered the stomach. As a matter of fact, ulcers of the stomach or duodenum may exist for months exposed to acid all the time without the patient suffering any inconvenience; and patients with proved (not supposed) gastric ulcer, may swallow acid of far greater strength than is ever secreted in the stomach without experiencing so much as an unpleasant sensation.

"As a matter of fact, the real explanation for this pain is quite different. The immediate cause, until, that is to say, the stage is reached when the peritoneum becomes involved and another factor is introduced, is nothing more nor less than muscular cramp, violent spasmodic contraction of the unstriped muscular fibre at and near the pylorus. If the contraction is comparatively moderate, so as merely to cause a certain degree of tension, there is only the sensation of fulness. When it is more severe the sensation becomes pain, which is described as bursting-a phrase, it may be noted, patients are very fond of using. It describes literally what they feel. In the worst cases this pain becomes almost unbearable, and leaves behind it when it subsides a feeling of soreness and tenderness that may last for days. If there is no mechanical obstruction, the contraction comes on in waves, one succeeding

another in regular sequence; but if the passage is free, except for spasm, and the stimulus is continuous, the contraction is maintained without intermission, until at last it gives way either because the muscular fibres are tired out or the nerve centre is exhausted.

"The immediate stimulus that starts this contraction is probably always the food as it leaves the stomach. There may be an ulcer or there may not. The presence of an ulcer is certainly not necessary. Muscular spasm may occur in its worst and most painful form without anything of the kind. All that the pain really indicates is that there is an irritable, hyper-responsive condition of the mucous membrane, so that the stimulus which in ordinary circumstances would produce only a normal result, calls into play a reaction which is not only excessive in amount, but which persists and continues so long as this condition is present. If this goes on, if the spasm and contraction are kept up, it ends in the establishment of a typical vicious circle-the increased responsiveness of the mucous membrane intensifying the muscular spasm, and the increased muscular spasm irritating the mucous mem-brane still more by crushing the tender surfaces together. It is the formation of this vicious circle that holds the secret not only of the symptoms that are present in what is commonly known as duodenal ulcer, but of the reason why they are relieved with such certainty and success by the operation of gastro-enterostomy, when all else has failed.

## HÆMORRHAGE.

"The second symptom, or supposed symptom, of duodenal ulcer to which I wish to call your attention this evening, is hæmorrhage. It is of very frequent occurrence, much more frequent than is usually believed, but unless it is profuse it is no proof of the presence of an ulcer and cannot be accepted as evidence that there is one. Profuse hæmorrhage coming from the duodenum, which fortunately is of rare occurrence, is another matter. This is probably always due to an ulcer that has eaten its way into the wall of an artery and demands immediate operation. But what are commonly called occult hæmorrhages, small quantities of blood occurring in the fæces, so small that they can only be detected by chemical analysis, the hæmorrhages that are usually met with in cases of this kind, do not mean anything of the sort. All that they mean is that there is great congestion of the mucous membrane so that the blood pours out from the capillaries that have given way, and escapes between the epithelial



