symptoms manifest themselves. On the other hand, the slightest derangement of the generative system is often accompanied by well marked hysteria; and this cannot always be explained on the score that the patient is ill nourished or ill fed, and so peculiarly liable to receive nervous impressions; for hysteria is by no means an uncommon malady, either in the more healthy agricultural districts, or amongst the females of the higher classes of society. It must be borne in mind, however, that the above mentioned discharges are not always indicative of disease of the ovary, but sometimes of the uterus or vagina.

Royal Free Hospital.

FATAL ULCER OF THE STOMACH.

By WILLIAM BRINTON, M.D., Physician to the Hospital.

A FEW weeks ago, I brought before the readers of the ASSOCIATION JOURNAL a case of ulcer of the stomach, fatal by vomiting and exhaustion. With this case it may be profitable to compare the following instance, which, though analogous in some of its circumstances, such as the age of the patient and the mode of death, differs so much in others, as to afford a good illustration of the remarkable diversity of the symptoms which attend this formidable disease.

CASE. M. N., aged 48, a single woman, who earned a toilsome livelihood by charring, had always been healthy up to the age of 46. About this time, she began to suffer from nausea and retching, which, however, never merged into complete vomiting; and her menses, hitherto always regular, suddenly ceased. After these symptoms had recurred irregularly for about a twelvemonth, she discharged a large quantity of clotted blood *per anum*. Six months subsequently to this hæmorrhage, she began to experience severe pain and tenderness in the region of the stomach, followed by vomiting of a fluid resembling coffee-grounds. Rapidly reduced by the continuance of these symptoms to a state of extreme debility and exhaustion, she applied at the Royal Free Hospital on the 6th of July last, and was immediately admitted as an in-patient, under my care.

On examination, I found that the belly in general was flaccid, and the bowels almost tympanitic on percussion. The whole of the epigastric region was tender on pressure; and this morbid sensibility, which extended into the left hypochondrium, seemed best marked a little to the left of the median line, about midway between the apex of the ensiform cartilage and the umbilicus. And, although I was obliged to be very gentle in my manipulations of this region, I could make out a slight dulness to percussion, and hardness to pressure, beneath (and quite distinct from) the edge of the left lobe of the liver.

The patient had a very cachectic appearance. She was not merely somewhat emaciated and blanched, but her skin had the muddy hue often seen in the cancerous diathesis. She had little muscular power: her pulse was about 90, and feeble; tongue slightly furred posteriorly; decubitus unaffected. The more intense attacks of gastric pain rarely came on earlier than an hour after eating; sometimes on an empty stomach. The vomiting generally ended (and relieved) an attack of pain. The pain had a dull burning character.

On reviewing all these symptoms, I had no hesitation in diagnosing ulceration of the stomach. But I found it impossible to decide whether this lesion was the result of a simple ulcer, or of a cancerous deposit, in the coats of the organ. It is true that the supposition of a simple ulcer was favoured by the duration of the malady; by the copious discharge of blood a year before; and by the absence of any perceptible symptoms of cancer in other organs. But the origin of the malady at the close of the menstrual epoch of life; the cachectic aspect of the patient; the late period of the disorder at which the pain had become a pro-

minent symptom,—were all circumstances which seemed to point to a malignant character of the lesion: while the dulness and hardness which I could distinguish in the region of the pylorus afforded a still more significant indication of the same kind.

In the course of a few days, a little additional information was gleaned. The point of greatest dulness and tenderness was first found to shift toward the right side of the epigastrium; and then, a day or two after, it vanished altogether, apparently from the pyloric end of stomach being overlapped by the flatulent transverse colon. And, about this time, a small dose of castor oil, which was administered to relieve constipation, brought away a fecal evacuation, containing about an ounce of fluid blood.

These facts, however, afforded no very decided aid to my diagnosis. Whatever the cause of the slight epigastric dulness and hardness, it differed from an ordinary scirrhus pylorus in being much more sensible to pressure, and much less bulky and heavy; in having no distinct outline, and in undergoing little or no vertical movement in the abdominal cavity. But it offered no symptom which was not perfectly reconcilable with the notion of a moderate cancerous deposit, of soft consistence, occupying the pyloric pouch of the stomach, perhaps limited to its posterior surface, and uniting it to the adjacent liver. Hence, always conceding the *possibility* of a simple ulceration, I inclined to the greater *probability* of its being—either by origin or complication—malignant.

In any case, there could be no doubt as to the treatment. Hopeless as was her condition, much could evidently be done to alleviate the pain, to check the vomiting, and to support her failing strength. She was ordered hydrocyanic acid in an effervescing mixture; turpentine fomentations to the epigastrium; small quantities of brandy with cold water; and a generous diet, containing (in addition to strong beef-tea, milk, and eggs) a small quantity of roast meat once a day. Under this plan, and a rigid enforcement of the recumbent posture, the attacks of pain and vomiting became very infrequent, and her strength appeared to increase. In a few weeks, however, the previous symptoms returned; and were accompanied by a cough, attended with slight expectoration of purulent mucus, and the signs of a cavity in the right lung. The prostration thus brought about gradually increasing, she died on the 9th of October.

The necropsy showed that the symptoms were due to a simple ulcer of the stomach. The lesion was about two inches in diameter, and occupied the posterior surface of the organ, at the left extremity of the pyloric sac, and close to the lesser curvature. The upper half of the ulcer corresponded to a mass of lymph, which united the left lobe of the liver and the stomach, by a firm and almost ligamentous connexion. The lower part of the ulcer opened, by an orifice as wide as the diameter of the ulcer on the mucous surface, into a small sac, the margin of which consisted of a thin filmy adhesion, no thicker than ordinary peritoneum. On raising the stomach, this serous film gave way, so that the contents of the organ began to stream into the cavity of the belly, through an aperture just above the pancreas. The superior pyloric branch of the hepatic artery passed along the floor of the ulcer, barely covered by the lymph which occupied this part; and one of its larger branches to the coats of the organ seemed to have been the source of the copious hæmorrhage that had occurred during life.

REMARKS. A single case of this kind, carefully observed, suggests a number of useful reflections. Among these, my limits only allow me to allude to the following.

As regards the diagnosis arrived at, we learn the general lesson, that, while it is often easy to grasp the chief or essential feature of a disease, it is sometimes all but impossible to carry on our inductions so as to include all its details. Even as regards these details, however, it is interesting to notice how nearly we can approach to the truth. Especially, it is most encouraging to find with what accuracy the physical exploration of the belly informs us

of the state of the viscera within. Few who had seen this preparation for the first time after death, would have thought it possible to verify* the presence and effect of the moderate amount of lymph which bound together the stomach and liver: while the specific signs that I made out were additionally trustworthy, from their having been detected some months before the necropsy revealed their import.

The circumstances calculated to mislead the diagnosis have already been alluded to. But some of them deserve special mention, from the erroneous views which they may serve to refute.

It is generally supposed that ulcer of the stomach interferes but little with nutrition; and hence that the presence of extreme cachexia, in a case otherwise doubtful, would tend to indicate the cancerous character of the lesion. But the clinical study of gastric ulcer quite contradicts this view. During youth, it is true that we often meet with cases in which there is little emaciation or wasting; and sometimes, though more rarely, no very marked loss of colour. But, in middle or advancing life, it is very unusual to find the ulcer present, without the existence of a degree of cachexia and exhaustion, such as it is often quite impossible to distinguish from those seen in cases of cancer. And, since it is during these epochs of life that both† maladies are most liable to occur, it is important that we should not lay any undue stress on a sign which would so often mislead us.

The imminent risk of perforation, that threatened the life of the patient, is another interesting feature of this case. Strictly speaking, perforation had indeed occurred long before. In other words, the wall of the stomach had long been penetrated by the ulcer; and its floor, now formed entirely of new tissue, was the seat of the ulceration. The gradual destruction of the lower half of this mass of organised lymph had excavated a kind of small sac, external to the stomach itself, and communicating with it by the large orifice of the ulcer: and there can be little doubt that, had the patient not died of hæmorrhage and exhaustion, the delicate parietes of this sac would soon have given way, and thus caused an effusion of the gastric contents into the cavity of the omentum behind the stomach. Such a secondary form of perforation is almost the only one by which an ulcer of the posterior surface of the stomach generally opens into the peritoneal cavity.

Lastly, the termination of this case well exemplifies the danger which, in ulcers situated on this aspect of the stomach, more than compensates the diminished risk of perforation. The very adhesion which here opposes penetration of the organ, by binding it down to the apposed pancreas and liver, brings it into close proximity with the large branches of the celiac axis. And any extension of the ulcerative process in the adherent lymph is pretty sure to denude and erode one or other of these vessels, with the result of a dangerous hæmorrhage. In the instance before us, though the ulcer was situated too far to the right to touch the splenic artery, it involved the next most frequent source of such copious hæmorrhage:—namely, one of the primary or secondary gastric branches of the hepatic trunk.

The cavity in the right lung had the size of a walnut; and there was a scanty deposit of crude tubercle scattered throughout the opposite organ. This complication, again, is by no means uncommon in the ulcer of the stomach.

Brook Street, Grosvenor Square, Dec. 11th, 1855.

* Where everything depends on minute accuracy, I may be excused if I allude to some of the means by which I am accustomed to pursue it in such cases as that we are discussing. At the time of making a physical examination, it is my practice to delineate all the suspicious signs on paper, so as to add to my notes of the case, a map of the belly, specifying the site of its different viscera, and the sound, resistance, etc., they afford. And, lastly, in examining a case after death, I read over the written diagnosis before making the necropsy.

† This proposition, which will probably be a novel one to the reader, he will find more fully stated in an article by the author on the "Pathology of the Gastric Ulcer", in the forthcoming January number of the *British and Foreign Medical-Chirurgical Review*.

Peterborough Infirmary.

UMBILICAL HERNIA, WITH RUPTURE OF THE INTESTINE AND SUBSEQUENT CLOSURE OF THE OPENING.

Communicated by Dr. HENRY PORTER, House-Surgeon.

SEPTEMBER 29th, 1855. Sarah Rowell, a stout hearty woman, aged 65 years, had been attended for a fortnight suffering from the ordinary symptoms of dyspepsia, with gastrodynia, but no other complaint; except telling me that yesterday a large quantity of "yellow water" had come away from her body while in bed. To-day, I find her in bed, and am told that more water has come away from her; and she wishes me to make an examination. On doing this, the following case discloses itself; and, in company with Dr. Walker and Mr. T. Walker, is carefully examined.

She states, that fifteen years ago she ceased to menstruate, and then for the first time observed a small tumour at the navel, which disappeared when pressed. This continued to increase for five years, since which time it has remained about the same size. The tumour is now about twice the size of a man's head, much lobulated, and towards the lower part on the left side is a large sloughing ulcer opening into the gut, and giving out a yellow foetid discharge, composed of partially digested food. The whole tumour is tympanitic, and is capable of being diminished by pressure. At the opening in the parietes, which is half the size of the palm of the hand, are apparently two large rounded coils of intestine. On inquiry, she states that about a month ago she fell down with violence, and that the tumour caught the ground; since that time she has felt pain at the part where it has since ulcerated. Nothing was done for this; and on the evening of September 28th, she felt a gush of water, which was found to proceed from a small opening, which has since increased, by the sloughing of the integuments, to its present size. She states that the sore still discharges large quantities of yellow matter. She yesterday took a dose of castor oil, and has since passed a motion *per anum*.

Oct. 2nd. To-day there is no doubt that faecal matter passes through the opening, of a light yellow colour, containing portions of undigested orange, crusts, etc. An opening is now perceptible in the coil of intestine nearest the left side, about the size of a sixpence, and the shape of a leg of mutton. The appearance of the ulcerated surface is rather more healthy, though still extending. A motion was passed *per anum* last night, and her general health continues good. Ordered to dress the ulcer with ceratum cetacei, and to take an effervescing saline mixture, containing a small quantity of sulphate of magnesia.

Oct. 5th. The tongue is very black, and the pulse irregular, but the patient reports herself in good health. A motion is occasionally passed *per vias naturales*, but the discharge from the opening continues.

Oct. 11th. Since last report, ulceration has extended considerably in the superficial textures towards the left side, but no further openings have formed in the bowel; and, indeed, as more of the motion has passed *per anum* and less by the wound, it is possible that the opening which does exist may be contracting. The tongue is cleaner, the appetite good; she takes a pint of beer a day, and makes no complaint.

Oct. 24th. For the last few days, no discharge has proceeded from the part, except a little pus, and the motions have passed naturally. She does not complain of pain in the ulcer, and no extension of the slough has taken place.

Oct. 29th. She has been down stairs the last few days; and the bowels have been constipated; the discharge of faecal matter again coming away from the opening. Ordered to take liquoris sennæ dulcis semijuncium bis die.

Nov. 24th. The bowels are now regular, but some slight faecal discharge continues to escape from the wound. The surrounding ulcer is rapidly healing by healthy granula-