ASSOCIATION MEDICAL JOURNAL:

BEING THE JOURNAL OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

No. CLVI.

LONDON: FRIDAY EVENING, DECEMBER 28, 1855.

NEW SERIES.

HOSPITAL REPORTS.

Bristol Royal Infirmary.

SECONDARY HÆMORRHAGE AFTER AMPUTATION.

By AUGUSTIN PRICHARD, Esq., Surgeon to the Infirmary.

CASES of secondary hæmorrhage after amputation give much anxiety to surgeons, and decisive measures are generally necessary to stop the bleeding. I mean, of course, to allude to hæmorrhage following the separation of the ligatures, at the interval of a week, ten days, or a fortnight after the operation, when the stump is more or less healed, and not to the hæmorrhage dependent upon insecure ligatures occurring within thirty-six hours of the operation. I do not believe, as has been asserted, that secondary hæmorrhage is more common after flap amputations than after operations by the circular incision.

The mode of arresting the bleeding is determined partly by the degree to which union of the flaps has advanced, and partly by the place at which the amputation has been performed. This latter point has not been sufficiently insisted upon by surgical authors.

The following three cases, which were under treatment some time ago at the Bristol Royal Infirmary, will illustrate my meaning. The first in order of time was under my own care.

J. C., aged 20 years, received a gun-shot wound of the right forearm, shattering the bones and nearly separating the limb. He was brought nine or ten miles from the country without a tourniquet, and had bled profusely. I amputated the forearm (by double flap) just below the elbow. Upon the thirteenth day, the stump was almost healed, and all the ligatures but one had come away. There were one or two apertures upon the face of the stump not perfectly filled up. At 11 o'clock in the night of this day, there was sudden and profuse hæmorrhage, and arterial blood rushed out of all the openings.

Considering that the stump was nearly healed, and that ligature of the brachial artery would certainly stop the bleeding (kept in control by the tourniquet until my arrival), I at once placed a ligature upon that vessel in the middle of the arm, and there was no more loss of blood. The ligature came away on the twelfth day, and the patient recovered perfectly.

A parallel case in the lower extremity was under the care of my colleague, Mr. Harrison. He had amputated the leg just below the knee, and the stump was almost healed when hæmorrhage came on. The bleeding was arrested for a day or two by plugging the wound, and by pressure; but it invariably returned. The femoral artery was tied in the usual place, and the man recovered.

The third case illustrates the other mode of treatment. My colleague, Mr. Clark, amputated the thigh of a man for severe compound fracture and dislocation of the knee, by a circular incision. The case went on well for a considerable time, but afterwards blood began to ooze from the stump, and the patient lost a considerable quantity. It was now a question of tying the femoral artery or not; but we considered that as the case was amputation of the

thigh, the bleeding vessel, as far as we could determine might be a branch of the profunda femoris; and not only so, but that the probabilities were against the idea of hæmorrhage from the femoral itself, as this vessel supplies the leg and foot, and not the thigh, with blood; and therefore, that the ligature of the femoral at the usual place would probably not control the bleeding. The risk of tying the common femoral artery of course put that operation out of the question. Under these circumstances, Mr. Clark put the man under the influence of chloroform, and stripped open the stump, and applied turpentine freely to the surface. The hæmorrhage was arrested, and the man recovered perfectly.

Thus, in cases of true secondary hæmorrhage, if the arm or the thigh have been amputated, a ligature upon the main trunk is very likely not to arrest the bleeding; but if the forearm or leg have been amputated, a ligature of the main trunk is certain to command it. In the latter cases, if union be at all advanced, the femoral or brachial should, in my opinion, be tied. In the former, I should use other means: such as laying open the stump, and searching for the bleeding vessel, or the free application of styptics, of which the spirit of turpentine is the best.

In neither of the cases above mentioned, where the brachial and femoral arteries were tied, did the altered circulation interfere materially with the process of healing.

Royal Free Hospital.

ULCER OF THE STOMACH TREATED SUCCESSFULLY: RELAPSE.

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

CASE. T. P., an athletic day-labourer (an "excavator") aged 45, applied at the above Institution on the 26th of June, 1855.

He had always been very healthy. Like most of his class, however, he was in the habit of drinking large quantities of beer: often from three to ten pints in the twenty-four hours.

Four years ago his attention was gradually called to a pain in the epigastric region. This pain was most intense about one and a half inch below the apex of the ensiform cartilage, but it extended downwards, with diminishing severity, to the neighbourhood of the umbilicus. It never reached to either hypochondrium, and was quite unattended by any pain in the back. It was greatly increased by eating, and it enforced an habitual decubitus on the right side; fifteen or twenty minutes being the extreme period that he could lie on the left side, owing to the increased severity of the pain while he was in this posture.

The medical treatment to which he submitted himself for this attack effected its cure in the course of a few weeks.

About seven weeks ago, he was suddenly seized with vomiting, and brought up half a pint of dark clotted blood; and about a week after this hæmatemesis, the pain returned, with much the same symptoms as those he suffered from four years before.

At present he appears to be a strong man, of ruddy complexion, and muscular conformation. But his face has a worn expression of habitual pain, and he states himself to have lost flesh during the last few weeks. His pulse is about 70 in the minute, firm, and regular. His tongue is loaded

with a thick white fur, the quantity of which is increased towards the posterior part of the organ.

The chief pain is one which occupies the epigastrium in exactly the situation of the pain which was present in the previous attack, and is associated with extreme tenderness to external pressure. But, in addition to this, he suffers from considerable pain in the median line of the back, between the lower angles of the shoulder-blades, or at about the level of the tenth dorsal vertebra. The character of the pain in these two situations is identical; being in both described by him as a dull burning sensation. But the spinal pain is much less intense and frequent. And the two are rarely present simultaneously with much severity: at least, so much alternation is observable between them, that the dorsal pain is rarely excessive, save when the epigastric pain is absent. The decubitus of the patient offers the same peculiarities as those attributed to it in the attack four years ago.

The relation of the epigastric pain to the ingestion of food constitutes a very peculiar and interesting feature of the case. It occurs immediately after deglutition. To speak more exactly, the patient often feels the alimentary bolus descend to the epigastrium on being swallowed, and after "working about" in that region for a minute or a minute and a half, return at once into the mouth. But the effort by which it is rejected is distinctly an act of vomiting. Easy as it is, it is preceded by a retching, and is attended by an exercise of the abdominal pressure. And when the act of vomiting fails to occur, the pain excited by the entrance of the bolus into the stomach generally lasts about two hours.

For the last week or two, however, there has been little intermission to the vomiting; and it now occurs on almost every occasion. His appetite is good, but the smallest quantity of his ordinary food is instantly rejected. Fluids, such as tea, coffee, or beer, are also vomited at once. And not only violent bodily exertion, but even very moderate exercise, such as walking, is immediately followed by the same result.

DIAGNOSIS. The previous history of the patient, and the character of the existing symptoms, left me little doubt that his malady was an ulcer of the stomach. The situation and character of the pain and vomiting, as well as the hæmorrhage from which he had suffered a few weeks before, constituted evidence sufficient to entitle me to diagnose the presence of such a lesion.

In addition, however, to this general conclusion, a careful study of the symptoms afforded me fair grounds for conjecturing the exact site of the ulcer. That the entrance of the alimentary bolus into the stomach was followed by the characteristic pain immediately, instead of after the customary interval of five to fifteen minutes, seemed to indicate that the lesion was situated somewhere in the immediate neighbourhood of the cardiac orifice of the œsophagus. Indeed the "working about", of which the patient was sensible, might be plausibly explained as due to the ulcer being near enough to the lower end of this tube to be affected by that violent muscular contraction, and prolapse into the stomach, by which the œsophagus generally concludes its peristalsis*. I need hardly point out the distinction between such a rejection of the alimentary bolus, and that which occurs as the result of obstruction in the œsophagus itself. In the latter case the patient's sensations generally appreciate an obstruction to the onward passage of the food during deglutition; nay more, they can often specify its site: while, since the act is not, strictly speaking, one of vomiting, it is neither preceded by nausea or retching, nor accompanied by the exercise of any perceptible pressure on the part of the muscular wall of the belly.

But, before assuming the accuracy of the above conjecture, I had next to test its merits by inquiring how far it agreed with the other peculiarities of the case. The pain-

fulness of the decubitus on the left side obviously strengthened it, by indicating that the lesion occupied a part of the stomach which became the lowest in this posture, and thus received a greater amount of pressure from its own contents, or from the superincumbent organs: while the amount of the bleeding, which appeared to indicate that a large vessel had been laid open, could only be rendered compatible with the above pain and decubitus, by supposing that the hæmorrhage was derived from the coronary artery of the stomach, or from one of its larger branches to the neighbourhood of the cardia.

I offer no apology to the reader for troubling him with such conjectures. Whatever weight he may be disposed to assign to them, he will probably agree with me, that it is only by a resolute determination to push our conclusions as far as the symptoms afford *any* clue for doing so, that we shall ever advance in the study of many of these obscure diseases of the abdominal organs. Remembering the uncertainty of our conjectures, we shall not, I think, be disposed to lay undue stress upon them; while it is only by recording all the minute details of a diagnosis, in the earlier period of the malady, that we can derive the full advantages which, in the event of the case having a fatal termination, may be subsequently afforded by its necropsy. The facilities which a hospital appointment offers for such contrasts of symptoms during life and appearances after death, not only constitute one of the most valuable rewards for the excessive toil it often implies, but renders it a post the holder of which has a serious responsibility to the profession in general.

Rightly to fulfil this responsibility is no easy task: and nothing renders it more difficult than a timidity which hesitates to compromise itself by a diagnosis. Our opinions must often be doubtful; the balance of probabilities, weigh it as dispassionately and prudently as we can, often inclines but slightly in favour of this or that view as to the nature or details of a given malady. But, after all, some opinion we must come to, if only as a basis of treatment. And it is no paradox to assert that, even where such a diagnosis proves to have been wrong, it may still (relatively to ourselves) have been right: in other words, that, forced as we often are to judge by circumstances, the circumstantial evidence of disease, like that of crime, will occasionally mislead us. In the main, however, it does not do so: and the contrast of the careful records of the symptoms and diagnosis of an interesting case with its necropsy will either encourage us by proving our accuracy, or, what is far better, will explain to us why we were mistaken, where was the flaw in our logic, or the error in our interpretation of symptoms.

For the present, however, I can pursue this digression no further. Nor can I add (what would perhaps be more interesting to the reader) an account of the general evidence which a large number of such cases have afforded me, in support of conjectures like those I have brought forward in this and other cases lately published in the ASSOCIATION JOURNAL. I may add, however, that, since recording the above diagnosis, I have met with a curious illustration of its probable accuracy in an instance of gastric ulcer, which has been reported in a foreign journal. The symptoms of this case agree with those just detailed as regards the decubitus of the patient, and the relation of the pain to the act of deglutition. And the necropsy showed that the stomach was occupied by an annular ulcer, which encircled the cardiac aperture immediately below its junction with the œsophagus.*

TREATMENT. June 26th. He was ordered to take arrow-root, boiled in milk and allowed to cool, in quantities not exceeding a single tablespoonful, every two hours at least; and with increased frequency as soon as the vomiting became less urgent. The pain being for the time excessive, he was prescribed a moderate dose of morphia, with a few grains of bismuth, thrice daily: and, as the vomiting appeared to be checked, the next day after commencing this plan I ordered him an ounce of castor oil, which was re-

* With reference to this partial and temporary intussusception of the œsophagus, I may refer the reader to my essay, "Stomach and Intestine", in the *Cyclopædia of Anæsthesia*. Supplement, p. 511.

tained on the stomach, and produced two or three copious evacuations from the hitherto constipated bowels.

July 6th. There has been scarcely any vomiting since the last report; but he has occasional attacks of pain, lasting an hour or two. They do not, however, exhibit any appreciable connexion with the scanty meals mentioned above; but occur indifferently before and after the ingestion of this food. On one occasion, he has brought up about a teaspoonful of blood, with about a quarter of a pint of an acid fluid. Tongue still furred as before. Ordered to vary the preceding diet, by substituting ground rice, sago, and tapioca, for the arrow-root.

July 10th. He has had very little pain in the epigastrium since the last report, though the pain in the spine is somewhat increased. Complaints of the monotony of his diet. Ordered to take a small quantity of strong cold beef-tea; and repeat it twice or even thrice daily, if well borne by the stomach. A blister to be applied to the painful region of the spine. Omit the morphia.

July 13th. An egg which he has been allowed to take since the last report, beaten up in a little cold tea, brought on severe vomiting. With this exception, however, there has been no vomiting, and scarcely any pain, during the last four days. His tongue is much cleaner; and he is sensible of much less pain in lying on the left side. States that he feels greatly improved. The beef-tea seems not to cause the slightest uneasiness. To take eight grains of the citrate of iron thrice daily, in an ounce of distilled water.

July 17th. No pain or vomiting since the last report. The soreness and tenderness to pressure on the epigastric region have also greatly diminished. Ordered on no account to repeat the manipulation on which he founded this statement.

July 24th. Tongue much cleaner. In all other respects, remains as at last report.

From this time, his diet was gradually enlarged; and his amendment steadily continued up to the period of his discharge from the hospital, at the end of August, or about six weeks from the cessation of the pain and vomiting. He was requested to continue attendance as an out-patient.

A few weeks after his discharge, he returned to the hospital, apparently in much the same state as when first admitted. He stated that he had received an injury of the leg, for which, among other remedies, a surgeon who attended him had prescribed some pills, apparently of a drastic purgative nature. They had made him extremely sick, and purged him; since which the pain and vomiting had returned, and were, in his opinion, as bad as ever.

There was not much reason to expect a very successful result from treating a man of his habits and circumstances as an out-patient: and, owing to want of room in the hospital, he could not be readmitted that day as an in-patient. On the day fixed for his admission, he failed to come: and since then I have seen him no more.

REMARKS. I have already alluded to all that seems worth noticing with respect to the diagnosis in this case: and, in the instances previously reported in this JOURNAL, the outlines of the above plan of treatment have been sufficiently explained. Hence there are few points of any practical importance left for me to notice.

The influence of intemperance in the production of gastric ulcer is once which can only be established by the careful collection and analysis of a large number of cases. But habits of this kind seem to be so frequently connected with the occurrence of this lesion for the first time in strong and well-nourished men of middle age, that it is scarcely possible to avoid the conclusion that such an influence often does obtain. And the instance under consideration offers us a good example of this coincidence.

The manner in which the symptoms were suddenly aggravated by an error of diet, such as would perhaps hardly be expected to give rise to very marked results, is especially interesting. Where, as in this case, the general health and state of the constitution do not contraindicate so restricted a diet, I think we can hardly do better at first than adhere punctiliously to the simple regimen originally prescribed

by Cruveilhier; into which we may afterwards gradually introduce the various alterations mentioned above.

The blister in this case had, as is not infrequent, a marked influence in diminishing the dorsal pain.

Was the patient's account of his relapse a true one, especially as regards the cause to which he attributed the return of his symptoms? From what I have often seen in such cases, I should be disposed to think it might be. Once or twice I have known the symptoms of an ulcer of the stomach greatly exaggerated by a dose of salts, an aloetic mixture, or a pill containing a grain or two of calomel, with three or four of the compound extract of colocynth: in fact, by such an aperient as few would hesitate to prescribe, supposing the exact nature of the malady unknown to them. Examples of this kind teach us, I think, almost to limit our selection of aperients to castor oil and enemata. The beneficial effects of the latter are generally restricted to the unloading so small an extent of the large intestine, that we are often obliged to use some more efficient aperient. But I have never known the castor oil do any mischief; and believe that even constant vomiting is scarcely a valid contraindication of its use.

Lastly, the above case well illustrates some of the difficulties which frequently attend the treatment of this malady; especially among the classes who form the majority of our hospital patients. There is often no way of administering the necessary diet and regimen except by the most careful discipline and attention in the wards of an hospital. And even after thus effecting what seems to be a cure, the patient sometimes returns on our hands, reduced by accident, disobedience, or intemperance, to a state which again taxes all that our care or skill can bestow, with what is now scarcely any hope of a permanent cure.

Whether the ulcer had really cicatrised in the above case, it is, of course, impossible absolutely to certify: but from the gradual nature of the amendment, and the length of time during which the symptoms had been completely interrupted, it is probable that it had thus healed. I have known a similar intermission last many months (instead of six weeks), and yet a single large meal of unusually indigestible food has brought back the whole train of symptoms, ending in the speedy death of the patient.

Brook Street, Grosvenor Square, Dec. 24th, 1855.

ORIGINAL COMMUNICATIONS.

MASS OF HAIR FOUND IN THE STOMACH.

By GEORGE MAY, jun., Esq., Surgeon to the Royal Berks Hospital.

SOME months ago, I was requested to visit Mrs. Eaton, of Woodley, aged 26 years. She was ill from a slight attack of peritonitis; and her history was, that about three years previously, she began to suffer from pain in the left hypochondriac region, and soon noticed a hard swelling near the umbilicus, but a little to the left of the median line.

At the time I saw her, the tumour occupied the situation of the distended stomach, which it closely resembled in shape, the abrupt curve at the pylorus being distinctly marked. It was hard, with a defined and rounded margin, and appeared to be slightly moveable; but its partial adhesion to the abdominal walls caused any attempt to move it to be very painful. The abdomen above the tumour was tympanitic, and the margin of the liver could be distinctly traced. She looked unhealthy, had lost flesh, and occasionally vomited; but, with the exception of some attacks of peritonitis, did not suffer much pain. She gradually became weaker, and, during the last week of her life, was troubled by diarrhoea and constant vomiting, and died from exhaustion.

On a *post mortem* examination, the stomach was found adherent to the abdominal wall, and in it was a mass of hair, composed of numerous small hairs matted together