

his water and to gradually increase it to the extent of his power, always under the impressed conviction that he will succeed. After straining thus for a few seconds, and being required to keep up the act until he had permission to relax it, the point of the instrument was gently insinuated into the urethra, and carried on to the stricture. By careful exploration I was soon satisfied that its point and the slight force I was using were in a line with the axis of the canal, and that the entrance of the stricture had been reached. This I felt, for I had contrived to slide the instrument along the floor of the passage to the furthest point I could reach in any part of the canal, and by the sense of a slight grip of its point which was given me on making a simple move of the instrument onwards, I was sure that the passage had been gained. The patient still keeping up the strain, with a very little more force the catheter passed through with the usual, not always assuring, jerk. It could not, however, be made to enter the bladder, for its course was interrupted by another stricture at the membranous part of the urethra. This I did not attempt to pass, being satisfied that if the instrument could be retained during the night, the remainder of the passage would be easily passed in the course of the morrow, for the catheter would now indirectly act as an expulsor, and therefore keep in check any renewal of action on the part of any counteracting power. The urine passed abundantly during the succeeding night, not *through* the catheter—for it contained some clotted blood, and if it had not, I should have prevented it by the use of a close-fitting stilette,—but around it; and on my visit the next day, the instrument was passed through with the help of the tip of my forefinger. A severe rigor followed the first effort, which was subdued by a glass of hot brandy-and-water and one scruple of quinine in the course of the next twenty-four hours.

The subsequent treatment has been daily catheterisation, using a larger catheter each day, and allowing it to remain a few hours on each occasion. On the seventh day a No. 8 was easily passed. I need not refer to the watchful care which is always needed in the after-management of such cases.

I have ventured to ask permission to publish this case, trusting that the principle advocated—viz., that of falling back upon physiological resources as a help in the treatment of severe cases of stricture—might meet with whatever attention it may be thought to deserve.

I may state that I insisted on this method of treating stricture in a paper published in June 1861; and that, although it called forth but little attention at the time, and I believe less since, I have not failed to employ it in every case requiring it, with invariably the like results. I have also demonstrated it in the course of hospital and private practice, so that it is not entirely without its witnesses.¹

SOME NOTES ON

ABSCESS OF THE LIVER,

ILLUSTRATED BY CASES IN WHICH THE ABSCESS HAS BEEN SUCCESSFULLY OPENED WITH TROCAR AND CANNULA.²

BY SURGEON-MAJOR M. C. FURNELL, M.D., F.R.C.S.,
SENIOR PHYSICIAN, MADRAS GENERAL HOSPITAL.

ABSCESS of the liver is a disease so full of interest to medical men in India that any notes of cases which tend to throw light on its treatment may well find a place in the pages of THE LANCET, which in its past volumes is singularly rich in hepatic literature.

I propose in the following notes to add additional testimony to the fact that puncturing the liver is a comparatively safe proceeding, and to suggest a new and simple modification of an old plan, in place of the aspirator, whereby the danger of opening an abscess is, it seems to me, considerably diminished.

I can well remember the first time, now many years ago, I

found myself present at a post-mortem on a soldier who had died of an abscess of the liver unopened, and being struck with the comparative superficialness of the collection of pus, and how easy it would have been by a small puncture to have let it out, and thus, if not to have saved life, at any rate much mitigated the poor man's sufferings. I remember propounding at the time the query to my senior officer, the surgeon in charge, "Why could we not have put a lancet into this abscess and let the matter out?" and being answered in the following conclusive manner:—"Well, if we had, the man was sure to have died after it, and then they would have said in the regiment we killed him by the operation." This was in 1855, and I had not at that time seen Dr. Waring's admirable little book on "Abscess of the Liver," which was only published that year. Opinion has undergone much change since then on the subject of puncturing livers, but there still remains, despite the opinion of such men as Frerichs, Murchison, Waring, Ranald Martin, Cameron, Murray, and, latterly, Surgeon-Major Condon, many who look upon puncturing the liver as an operation only to be undertaken as a last and desperate resource, almost necessarily fatal. In systematic books on medicine opinions are divided, but lean rather to non-opening of abscesses. Thus, in Aitken we read:—"It is a question whether or not an artificial opening ought to be made"; and the method of two French doctors—namely, to cut down over the abscess, merely dividing the muscle and aponeurosis, dressing the wound with charpie or scraped lint, and waiting until the abscess bursts—is given as advisable. The late Surgeon-Major Lowe, of the Madras Medical Service, is also quoted as a strong opponent of opening abscesses, and his views in opposition to such practice, taken from the *Madras Quarterly Journal* of April, 1863, are given *in extenso*. Still, the article, although in the main against puncturing, has the following very candid and sensible remark:—"But we must still look to physicians of large Indian experience for information on this important subject."

Dr. Budd, in his admirable work, is clearly against opening an abscess of the liver, and thinks it best "when an abscess of the liver projects at the side, to allow it to open itself."

In the following histories it will, I think, be seen by Cases 1 and 2 that, even when none but the most ordinary precautions which any careful surgeon would take in opening an abscess in such an important region are adopted, the great bugbear—"entrance of air"—does not, as asserted by Surgeon-Major Lowe, and so feared by Dr. Budd, "invariably" take place; and the remaining cases show that if antiseptic precautions are taken, and, above all, any attempt at squeezing the abscess avoided, the simple incision by scalpel, followed by puncture with a trocar, is preferable to the forcible extraction of pus by an aspirator; and that keeping the wound open by a piece of carbolised lint is immeasurably superior to allowing the cannula to remain in, as recommended by Dr. Murchison, and so frequently practised by the older surgeons.

CASE 1 (abridged from full report given in the *Madras Journal of Medical Science*, 1861).—J. B.—, a volunteer from H.M.'s 43 L.I. to the A Troop, Madras Horse Artillery. He suffered from symptoms of chronic hepatitis from Oct. 24th, 1859, until Nov. 25th, when he was discharged convalescent, and on the 29th sent to duty. His duty was of a somewhat fatiguing nature. He was, as stated above, a volunteer from an infantry regiment, at a time when we had lost numbers of our gunners, who elected to go home at the amalgamation of the old Company's with the Queen's troops; and the process of conversion from a foot soldier to a horse artillery-man was a somewhat rough one, entailing a good deal of riding in the school, and jolting on the limber of a gun. No wonder that we find him returning. I copy the rest of the case as it stands.

"Dec. 10th.—This man was readmitted about the 6th with all the symptoms of acute hepatitis. I was away on leave at the time. I find him to-day, on my return, pale, anxious-looking; a hot skin; pulse 92, small in volume; bowels moved, once scantily, in twenty-four hours; the hepatic region much swollen, especially in one part about two inches below the ensiform cartilage, and somewhat to the right of the median line. His gums are sore from mercury. [Let me, *en passant*, call your particular attention

¹ Since the foregoing was penned, my friend Dr. Neale, the able editor of the "Medical Digest," has called my attention to the fact, hitherto new to me, that Mr. Le Gros Clark enunciated the same views in a lecture delivered by him in June, 1860.

² These notes are founded on a Clinical Lecture delivered in the Madras Medical College, which will explain the somewhat conversational tone of the paper.

to this—his gums are sore from mercury.] And he is now taking two grains of quinine and five grains of Dover's powder three times a day, ordered by the medical officer who saw the case during my absence. Ordered effervescing saline with half a drachm of tincture of hyoscyamus every four hours, after the action of some castor oil ordered to be taken immediately; poultices to the hepatic region; spoon diet.—11th: Had a bad night; severe cough, attended with considerable expectoration; bowels freely opened from the oil; fever continuous. To have twelve more leeches to the side, and continue the effervescing saline. From the 11th to the 17th he continued much the same; the febrile symptoms became somewhat less, but there was still considerable irritation of the system, and a palpable increase of the swelling on the right side, despite constant leeching.—17th: Pulse 100, small volume; tongue white and furred; bowels open; the swelling has increased, and one portion bulges prominently out, as if a small orange were beneath the skin. Dr. Macfarlane (the senior field surgeon) was kind enough to see the case with me, and not only agreed in the propriety of opening the abscess, but recommended its being speedily done.—18th: A small incision (above an inch in length) was made over the most prominent portion of the swelling, and the dissection carried down about half an inch, when a large-sized trocar was introduced upwards and backwards. This required to be carried about two inches and a half to three inches in depth before the abscess was reached, when about three ounces of thick laudable pus exuded. The man bore the operation well; expressed himself relieved. Pulse 96 after the operation. A bread poultice to the part; anodyne at bedtime.—19th: The piece of lint introduced yesterday to keep open the puncture was withdrawn, giving vent to about an ounce of thin brown pus; the wound looking angry and inflamed, with a suspicious blush and considerable tenderness. Pulse 100. Much thirst; a bad tongue; bowels confined. To have half an ounce of castor oil immediately; after its action to continue the effervescing saline with tincture of hyoscyamus. A bread poultice to the part. Spoon diet.—20th: Passed a good night; is cheerful and looks better this morning; skin cool; pulse 84, small volume; bowels open freely from the oil; wound lost its blush and tenderness. Continue saline and spoon diet.—23rd: Progressing most favourably. To have ten minims of dilute nitro-muriatic acid, eight minims of tincture of opium, one ounce of infusion of quassia, and half an ounce of peppermint-water, three times a day. A chop and bread pudding for dinner; two measures of wine daily.—28th: Wound healed up; no more discharge; the patient looking well and rapidly gaining colour and flesh. The side presents scarcely any enlargement, and is free from pain, even on firm pressure. The man is walking about, and takes convalescent exercise night and morning in a dhooly.—Jan. 8th: Discharged to duty."

I had this man under observation for some time after, and he continued quite well, until I left the troop.

It will be observed that the patient was operated on upon Dec. 18th, and on the 28th, ten days after, the wound "was healed up." There is also another noticeable feature: the man's gums were sore from mercury when I took over charge from my locum tenens. Mercury does not stop suppurative hepatitis—aids it I think. The old surgeons were very fond of mercury—*vide* Johnson, Annesley, Sir Ranald Martin, &c.,—and had in consequence, I think, more abscesses of liver than we have now.

CASE 2. — Appadoo, a Hindoo, was admitted into the Dowlaishwaram Civil Hospital on October 12th, 1860, with symptoms of acute hepatitis, brought on from a blow received over the hepatic region while fighting. He was subjected to the usual treatment—leeches, antimonial salines, alteratives, &c., and ultimately nitro-muriatic acid. At first he seemed to progress favourably; but, although the sympathetic fever diminished, it became evident that the hypochondrium was enlarging considerably. The fever returned, and at length fluctuation became very marked. At one point, about three inches below the end of the sternum, and in the mesial line, the skin had on pressure that peculiar pitting so indicative of matter. His appearance on Nov. 1st was this: Thin and worn; countenance anxious and indicative of suffering; pulse 130, very small volume; tongue brown and dry; great thirst; lies on his back, knees drawn up; breathing hurriedly; complaining of great weakness; impressed with the idea that he is about to die. Having been persuaded to drink a little arrack-and-water, an incision was made over the most prominent part of the

swelling of about an inch or an inch and a half long. On dissecting downwards a little way and plunging in the trocar, a quantity of thin, peculiar-smelling, watery-looking matter escaped, having the appearance of congee-water, and which was upwards of sixty-five ounces in quantity. The patient bore the operation well, much better than could have been expected. Several times arrack-and-water was administered, and he was allowed to lie down whenever he felt faint. After the abscess was emptied, and while the wound was being brought together, considerable trouble was experienced from hæmorrhage from four or five small vessels, which bled most persistently, and were secured with great difficulty. This being ultimately effected, the wound was closed with sutures, a piece of oiled lint having been previously inserted into the aperture made by the trocar; a bread-and-water poultice ordered as a dressing, and a broad abdominal belt to hold things together; anodyne at bedtime.—2nd: Passed a tolerable night; was frequently at stool. Wound looks pale and gaping; continue the same dressing. Beef-tea and plenty of nourishment, with an anodyne draught after each motion.—3rd: Diarrhœa continues; looks worn and weak. Pulse 118, but of tolerable volume as compared with previous few days. Tongue dry and brown; sordes on lips; no pain. Wound shows symptoms of granulating. Abdomen tympanitic. Breathing hurried; crepitant râle and moist sounds over right lung. Ordered one ounce of port wine every hour, with one grain of quinine. To continue the draught and nourishment. Dressed the wound.—6 P.M.: Skin hot but moist. Pulse 125, full. Man more confident and cheerful. Tongue dry, but losing the rough brown appearance. On drawing out the lint from the wound there occurred an immense discharge of pale straw-coloured serum followed by flakes of thickish lymph. Dressed the wound. Ordered the port wine to be given every three hours instead of every hour, half grain of the acetate of morphia at bedtime. To discontinue the tincture of opium and aromatic spirit of ammonia, as the diarrhœa has ceased. (By measurement the discharge on withdrawal of the lint was found to be twenty-four ounces.)—4th: A good night. Patient looks cheerful. Pulse 120, better volume. Tongue inclined to moisture. Bowels only moved once during the night. Wound discharged about three ounces of very yellow pus when dressed. To have one grain of the sulphate of quinine every three hours, one ounce of port wine every two hours, beef-tea and plenty of nourishment.—5th: Not such a good night. Looks worn. Pulse thready, 118 per minute. Wound discharged, when dressed, about two ounces of pure bile, and then a small quantity of pus. To continue port wine and quinine.—6th: Better pulse, 110; discharge much the same as yesterday; pure bile, but the motions contain likewise plenty of bile.—10th: Has been progressing well the last few days; there is now very little discharge of pus, but quantities of pure bile, sometimes thin as water, at others thick as honey, but always highly coloured and with a strong, very marked bilious odour; the man getting stronger.—14th: Steadily progressing; no pus now exudes, but about two ounces of bile per diem; faecal motions containing plenty also; is continuing his quinine and wine.—20th: The wound nearly closed; man recovering his strength and flesh; he has been taking cod-liver oil the last few days.

This man ultimately returned to his duty, which was that of a coolie on the canal works. I saw him frequently afterwards, strong and hearty, doing his work.

There are two noticeable points in the above case—namely, that puncturing a liver, even so late in the day, is better than allowing a man to die without interference. On Nov. 1st, when Appadoo was operated on, it certainly was a *dernier ressort*, and yet the man, once freed of his abscess, recovered. Had the liver not been punctured, he would have died. Secondly, the puncture seems to me, from the nature of the discharge, to have been made right into the gall-bladder, and it is just possible the whole mischief, arising as it did from a blow, in an otherwise healthy man, was from inflammation of that viscus. Dr. Budd mentions, on the authority of Annesley, Stokes, and others, that puncturing a gall-bladder is a necessarily fatal operation.

(To be continued.)

MR. ALBERT B. REES, M.R.C.S. Eng., on leaving Resolven for Swansea, has been presented with a case of surgical instruments, and his wife with a handsome silver tea and coffee service and salver.