

asepticity. Let the germs touch the discharge, and the chain of putrefactive causation is established between the outer world and the external wound.

By the courtesy of the Council of the Midland Medical Society, the students of this school were privileged to hear the deeply thoughtful and richly instructive address which Prof. Lister lately delivered here. His title, you will remember, was "On the Healing of Wounds without Antiseptic Treatment." I shall only recall to you one passage which I took down *verbatim*, as my distinguished friend and old fellow-student was endeavouring to explain some of the published results of my practice. He did not question the reported recoveries after wounds into joints, and amputations under dry and infrequent dressing, rest, and pressure. Here is the pith of his answer—"that the healthy living tissues have the power of preventing the development of bacteria in their vicinity." This admission goes a very long way towards solving the question at issue. Since the great majority of wounds, whether inflicted by accident or by the surgeon's knife, are in healthy tissues, the development of bacteria need not be feared. Life resists putrefaction. Administer economically, preserve and utilise the resources of life, and you will have the benefit of its power in your surgical work. You will secure nutrition and repair, and, under the circumstances mentioned, have very little need to wage a war of extermination against atmospheric dust. But all wounds are not into healthy tissues—to wit, an incision into a joint filled with pus, an opening into a psoas abscess, or an empyema. It is in these cases that the argument of the germ-theory is full of suggestiveness; it is in these cases, not improbably, that a special triumph will be reserved for Professor Lister's treatment. If so, the triumph will be a grand and glorious one. I for one shall most heartily congratulate my distinguished friend, if experience prove the superiority of his plan of treatment in the exceptional pathological conditions just referred to. But for the great mass of surgical cases, for the treatment of wounds in every-day life and in the workshop, at the pit's mouth and on the battle-field, the requisite knowledge is old and sound. Much of that knowledge has never been sufficiently appreciated; no small part of it has been forgotten. The work of collecting and digesting scattered information, of applying a combination of therapeutic resources, separately valuable, and collectively most powerful for good, is an investigation at once deep and intricate; it demands no less learning than practical skill, and can only be successfully mastered by the combined energies of a number of men. Let anyone read Liston and Syme, living teachers of the other day, in the very first rank of historic surgeons; then let him think of the present discussion on wound treatment. They thought water dressing of recent wounds perfection; many of us look upon it, as I do, as an abomination. Treating of sprains, Liston said, "Avoid such compression as may interfere with swelling from effusion, which is a *salutary process, and should be encouraged, and not repressed.*" We say compress, and you will have no effusion, which is a pathological process to be discouraged and repressed, whether the swelling attend a sprain or a compound fracture, whether it be bloody or inflammatory, beneath an unbroken skin or associated with a wound. Are these truths or errors? *Experientia docet.* Let me repeat to you my favourite quotation from the inexhaustible treasure-house of the old French Academy of Surgery: "*L'Académie n'aime pas les systèmes.*" Theories and systems are what you have to avoid. Facts and their strict interpretation are what we have to search after. It is in this search that we are engaged. It is in this search that all those surgeons who are diligently working out the problem of wound treatment are destined to find a reward which cannot fail to redound to the honour of our art and to the good of our race.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The City of London Hospital for Diseases of the Chest has become entitled to £100 under the will of Mrs. Eliza Devaux, of Mare-street, Hackney. The Grocers' Company have given £100 to the North-Eastern Hospital for Children, Hackney-road. The Gloucester Infirmary has received £200 under the will of Miss Elizabeth Kimberly. Miss Jane Gregory, of Stroud, bequeathed £1500 to the Stroud General Hospital, £1500 to the Gloucester Infirmary, £1000 to the Cheltenham General Hospital, and £1000 to the Gloucester Lunatic Asylum. Lord Overstone has given another £100 to the Charing-cross Hospital. The Grocers' Company have given £50 to the Hospital for Women, Soho-square.

SOME NOTES ON ABSCESS OF THE LIVER,

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

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(Concluded from page 838.)

FROM the six cases narrated, it will be seen that puncturing the liver with a trocar and cannula, after first making an incision with a scalpel to facilitate their introduction, is a simple and safe proceeding. I have come from experience to prefer this method to using the aspirator. I will give my reasons for so doing; but in the first place it is fair to state that I have no sort of prejudice against the pneumatic aspirator; rather should I be an advocate on its side, for I was the first medical officer who introduced it into India, and recommended its adoption.¹ I saw Professor Maclean use it at Netley shortly after its introduction there, and on my return carried one out to India, and brought it to the notice of Dr. Mackenzie, our then Surgeon-General, who persuaded Government to send for some. My reasons for deserting the aspirator, founded on unsatisfactory results, are simply these: If we look at the abscesses in our pathological museums (this is very well shown in the collection of the Madras Medical College Museum, and even better in recent cases in the post-mortem-room), we observe that the abscess proper, in by far the majority of cases, is shut off, as it were, from the rest of the liver substance by a membrane more or less thick. In some abscesses of long standing, quiet abscesses, the membrane is like a piece of tough doe-skin leather, such as gloves are made of; in recent cases it is thin, like the membrane lining an egg-shell, or a thin piece of overland letter paper. This membrane is the product of Nature's effort to localise the mischief, and cut off the abscess from the living tissues of the liver—the "limiting membrane," if we may so call it. Now the last draught of the aspirator is very apt to break this down or tear it away, and thus not only lay bare the healthy liver-tissue, to absorb pus and bring about pyæmia, but, if I am not mistaken, to cause a sort of hæmorrhage or oozing from the liver itself at the time into the cavity of the abscess. Often have I seen in the last traction of the aspirator, not only pus, but blood, and a thick red fluid, looking like broken-down liver tissue, flow into the bottle. These cases almost invariably die. The simply tapping with a trocar, and allowing the abscess to empty itself, certainly avoids this.

In nearly all cases when an abscess is tapped and any considerable amount of pus extracted by an aspirator, even when enormous relief is given—and on that point, that great relief is given, there can be no doubt,—it is found the abscess fills again and again; in fact, it must do so, for it is difficult to imagine what else can take place in a large hollow thus created in a tolerably unyielding viscus like the liver. And it is found, at least such is my experience, borne out also by the careful study of all the cases I have been able to find, which are described at length, that on the next tapping the pus is less laudable, more serous, thin, and often sanious. The abscess is tapped again and again, with relief, but there is no actual progress towards recovery as far as the patient is concerned. This has been my experience in several instances, and is well shown in Case 5 of Surgeon-Major Condon's admirable paper in THE LANCET of August 25th, 1877, where, as he says, upwards of 400 ounces were from time to time extracted, with ultimately a fatal result.² It is also well shown in a case given in the *Madras Quarterly Journal of Medicine*, vol. ii., 1873, where, although the instrument used is not precisely stated—there can be no doubt it was the aspirator,—the enormous amount of 430 ounces of pus was from time to time with-

¹ Vide Madras Quarterly Journal for 1870.

² There is a remarkable exception to this in a case detailed in the "Indian Medical Gazette" for June, 1878, when thirty ounces were drawn off at one sitting and aspiration never repeated. The man, a native, completely recovered.

drawn. At last, Nature seems in this case to have rebelled and the wound refused to heal, and then the abscess drained gradually and dried up, and the patient recovered. If the abscess is a little one, containing a small quantity of thick pus only, the same unfortunate sequence of things does not necessarily take place. Here often the aspirator is efficacious.

Again, the abscess should not be squeezed or pressed to empty its contents. All old authors are strong on this point. Dr. Jackson, formerly of Calcutta, in some capital practical remarks on abscess of the liver (THE LANCET, August 13th, 1859), says, *apropos* of puncturing abscesses of the liver, "The opening should be small and matter allowed to exude without *any amount of pressure*." Annesley deprecates pressure. Dr. Morehead also is strong on emptying "without pressure." In my student days, in St. Bartholomew's Hospital, it was a golden rule not to squeeze or forcibly press out the contents of an abscess. I can almost imagine at this distance of time I hear the veteran Stanley: "Don't squeeze it, squire! let it alone, it will empty itself." What does the aspirator do? Its powerful suction far exceeds any pressure one could bring to bear on an hepatic abscess. By its traction it makes the surrounding parts, if I may so say, squeeze very hard.

Nor does the aspirator always successfully exclude air, which is one of its chief recommendations. Indeed, unless the operator has carefully rehearsed his lesson beforehand—and one is not always tapping liver abscesses,—the aspirator is a very ingenious apparatus for admitting a good deal of air into a cavity admirably prepared for its reception. In Case 5 of Dr. Condon's, already quoted, that accident is graphically described as having occurred: "My finger slipped off the hole by accident, and air rushed in with a whiz." I have seen this occur more than once, although in recorded cases Dr. Condon is the only writer who candidly relates it. If the abscess is carefully opened under the antiseptic spray with an incision followed by the trocar, and before the cannula is withdrawn, carbolised lint introduced, and, moreover, no pressure whatever is made, it is almost impossible for air to enter. I have never found it to occur—at any rate, I have never seen any unfavourable evidence of its having occurred. In fact, you imitate as nearly as possible Nature's plan—"a small opening, and the abscess allowed to drain away gradually." Dr. Lowe puts it graphically³ in his objection to operative proceedings: "When the operator is entirely left to Nature, small worm-eaten-like openings serve to discharge the pus, so that it has a slow but constant escape. As these apertures never close up, and as the matter is always oozing out, air cannot enter, no decomposition takes place (no septicæmia occurs), no secondary fever sets in; the patient feels no shock from the loss of matter which escapes so gradually, and as it escapes "*so Nature closes up the wall of the sac*." All this is possible if the abscess is opened by a small opening and allowed to drain away gradually; in fact, we are imitating and assisting Nature only. If the abscess is forcibly emptied by an aspirator, we are, it seems to me, doing violence to her.

Then why not wait on Nature altogether? it may be reasoned. Dr. Murchison has very admirably answered this: "To wait in these cases upon Nature, as it is called, is to wait upon death." No doubt of it. From the time I first contemplated the soldier in the post-mortem room, to which I made allusion in the commencement of this paper, to the present time, I can recall with sorrow many a case under my care and the care of others which has been allowed to die with abscess, or presumed abscess, unopened. But I cannot recall a single case where I have regretted having punctured. My only regret is that I ever deserted the trocar and the cannula for the aspirator. I have not lost a case with the trocar and cannula; several with the aspirator. A look at the chart of Case 4 (see page 838) will show very markedly the advantages of opening an abscess of the liver, and not waiting upon Nature. The great majority of patients with abscess of the liver, if not relieved, die of exhaustion from hectic fever or diarrhœa. As Dr. Cameron⁴ says, "It is a duel between hectic fever and an enfeebled constitution, and few survive the combat." Neutrality, so much the fashion nowadays, is here misplaced; armed intervention with a bistoury, trocar, and cannula is the correct proceeding. Nor need we, I think, hold our hand because the patient is

too far gone. It is almost impossible to say when this state has arrived. In case No. 2, the man with a pulse of 130, very small volume, tongue brown and dry, &c., lived to go to work again. In Case 5 the patient was very bad, so bad his medical attendants did not like to put him on board ship, and certainly he himself never expected to recover; but he is now playing cricket in the green fields, Gloucestershire, instead of enriching the plains of Hindustan with his bones.

Again, in THE LANCET of July 12th, 1873, will be found a case by Dr. Maclean, which shows very conclusively we should never despair, but invariably give our patient this chance. One thing, *he is sure to die* if you do not puncture.

That puncturing the liver, if even pus be not found, is not a dangerous proceeding, must now, I think, be freely admitted. In Dr. Condon's paper there are no less than six cases quoted, in which the liver was explored by the needle and no pus found, but great and immediate relief given to the patients. In one case (No. 6), where the gentleman had very serious and very natural objections to having his liver "poked up" as he calls it, he becomes, after one experiment, not only a convert, but an ardent admirer of the practice.⁵ But the most satisfactory witness is Professor Maclean, at one time, if I mistake not, a most determined opponent of indiscriminate prospecting. In THE LANCET of July 12th, 1873, already quoted, he has no less than three cases wherein he punctured the liver without finding pus, but gave the patient immediate relief. The testimony of so experienced and careful an observer is most valuable. Dr. Waring gives several instances, and I find in some seventy odd cases of livers opened for abscess, which I have been able to collect, as having occurred since Dr. Waring's invaluable little work was written, many similar instances. It is an old Indian and Chinese practice to puncture both the liver and spleen, and even Hippocrates recommends it.⁶

Dr. Murchison, in his otherwise most valuable treatise on the liver, recommends the cannula to be "tied in for two or three days," and this apparently was the course pursued by the old practitioners. Few proceedings seem to me more calculated to bring about an unfavourable result: a hard, unyielding piece of metal in a sore and often inflamed organ, an active cause of irritation, bathed in pus, and thus rapidly causing that peculiar change and decomposition which liver pus in contact with metal undergoes, and a more or less patent orifice to conduct air into the cavity of the abscess! In effect, death supervenes in nearly all the cases where it is definitely stated the cannula was left in the wound. Thus in Waring's eighty-one cases of operation, in nine we are distinctly informed the cannula was left in the wound after operation; of these seven died. In Annesley's cases all those in which the cannula was left in proved fatal; in his two successful cases the cannula was withdrawn after operation, and the wound stuffed with lint. No wonder the cannula thus used fell into disrepute.

All authors are agreed on the comparative danger of puncturing an abscess which points in an intercostal space. The parts do not contract, and the objection raised by Mr. Lowe, "that air invariably enters, and the renewal of inflammation and fever may end in gangrene," holds pretty well of puncture made here. The first case in which I used the aspirator was on a European in 1870. The abscess was punctured in an intercostal space; the relief given was immense I remember, and we were all very sanguine of the result; but the abscess filled again and again, and had to be repeatedly emptied, until at last caries of a rib set in, the parts around sloughed, and the man died.

In the sixteen fatal cases given by Morehead, in five it is distinctly stated the abscess was opened between the ribs, and in all these gangrene set in. In most of the others it is not mentioned where the opening was made. In the summary of eighty-one cases in which the contents of the liver were evacuated by operation, given in Dr. Waring's book, I find in eight cases it is clearly mentioned that the puncture was made in an intercostal space. All these proved fatal. But I think it would be erroneous to infer death, took place simply because the abscess pointed and was opened there. There are other factors at work—depressed vital powers from previous bleedings, mercury, &c.; but some of the old cases did recover in spite of bleeding and mercury, when the

³ Aitken, p. 996.

⁴ THE LANCET, June 6th, 1863.

⁵ In the London Medical Gazette for January, 1846, quoted in Ranking's Abstracts, vol. iii., 1846, will be found a very interesting case of a man having a large piece of his liver, which protruded from a spear wound, removed without any apparent inconvenience.

⁶ On this subject *vide* an admirable article in the Medico-Chirurgical Review for July, 1845.

abscess pointed in the free abdominal parietes ; so that there can be no doubt that puncturing in an intercostal space, is a dangerous proceeding.

I have a case at the present moment under my charge in which an hepatic abscess has been punctured between the seventh and eighth ribs, somewhat far back on the right side. The man, a native, shows, I am thankful to say, no tendency to death. He is doing well, gaining flesh, and quite free from fever ; but the wound will not close ; it discharges daily an ounce or two of pus, and a probe can be pushed down its full length into the liver. There is a little button-like excrescence at the mouth of the wound, showing a rib is involved. This will go on probably for months, but, being a native, we shall have no serious constitutional disturbance. It is carefully dressed antiseptically.

To conclude, I will describe at length, for the benefit of junior members of the profession, the steps of the operation I venture to recommend. The part where the incision and puncture are to be made, having been determined upon, is marked with ink. The patient is then propped up in bed, and carefully supported with pillows, bed-rest, &c., in an easy sitting position. It is well to examine and determine the place for incision again now the patient is raised, for it occasionally changes.⁷ This being decided on, and remarked if necessary, chloroform is administered. The moment the patient is under chloroform, an incision, an inch and a half long, is made over the part marked, cutting down through skin and muscle for half an inch or more—depth of course depending on condition of patient. A grooved exploratory needle, or a fine needle from the aspirator, is now pushed in upwards and backwards, and if pus is indicated on its withdrawal a large-sized trocar and cannula are introduced in its place. The trocar being withdrawn, the pus is allowed to flow out ; *the parts around not squeezed or pressed in any manner* ; the pus allowed to flow as slowly as it pleases. When pus ceases to flow, a piece of lint, cut so as readily to admit of its passing, and previously well dipped in carbolised oil (1 to 40), is passed down the cannula into the wound in such a manner that when the cannula is withdrawn, which it may be now, the long piece of lint lies half in the abscess and half out. This is simply to keep the wound open and allow the pus ready exit. The reason, however, the lint is introduced *before* the cannula is withdrawn is, that if you withdraw the cannula first, and then attempt to introduce the lint, you will often fail. Why, I cannot well say ; something shifts, either muscular fibres or aponeurosis, or what not ; but without unwarrantable force or another incision you cannot get it in. Over the wound, with the piece of lint protruding, a piece of soft cotton-wool previously dipped in carbolised oil is placed, and over this a soft bread-and-water poultice, secured with a many-tailed bandage. During the whole time of the operation, which, if everything is carefully prepared beforehand, will not take many minutes, the antiseptic spray is kept going over the parts, and every knife, trocar, probe, &c., is carefully wiped with carbolised oil. In India it is *absolutely necessary* that the medical officer look to every instrument he is about to use himself.

CLINICAL REMARKS ON TRAUMATIC HERPES.

BY PROFESSOR VERNEUIL,

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GENTLEMEN,—The case about which it is my intention to speak to you to-day is that of a woman, still in her youth, who was operated upon by me for a very large tumour of the breast. The case was one of ramous cyst, with infiltration of the galactophorous canals. The operation was brought to a successful termination, and the patient remained for two whole days without presenting any symptoms worthy of note. On the third day, however, she complained of

general malaise and loss of appetite, which had supervened on the second day after the operation. These symptoms were soon followed by vomiting and one or two rigors. The appearance of these symptoms was extremely sudden, and was accompanied by a considerable elevation of the temperature. Upon these indications I immediately examined the wound, and found that it was surrounded by a reddish blush, and the already granulating surface presented a fungous aspect in certain points. In the face of these symptoms it was reasonable to suppose that an invasion of erysipelas was to be feared. But if the general symptoms were those which attend the prodromic stage of erysipelas, the local aspects of the wound did not permit of our thinking of that disease. I consequently diagnosed traumatic herpes of the wound, an affection which I was one of the first to describe in a *mémoire* which I presented to the Société de Biologie in 1873. This diagnosis was amply confirmed shortly afterwards by the appearance of herpes labialis. Our patient thus offered us an example of what I have called local herpes, or herpes of the wound, and herpes at a distance.

The pain, which was very intense at the beginning, soon disappeared, and the temperature fell suddenly. The wound remained for a few days longer in the condition which I have described, and shortly afterwards the curative process continued its course till recovery, without any fresh accident.

The diseases of the granular membrane, one of which you have had the opportunity of witnessing in the case of our patient, have not as yet been studied sufficiently, and it is necessary to fill up this gap.

Many years ago an eminent surgeon, M. Robert, described, under the name of diphtheria of wounds, a complication which he considered wrongly as an attenuated form of "pourriture d'hôpital." This surgeon had been struck with the fact that certain wounds suddenly became extremely painful, fungous in places, and bled easily, and that they were covered over with small superficial ulcerations, forming a complete diphtheroid layer. What one had before the eyes in these cases was that which it is easy to see in herpetic angina, so well described by Trousseau and Gubler. There are ulcerations which generally become covered over by false membranes of a yellowish-white colour, indented and irregularly cut round the edges. M. Robert took special care to point out in his observations the intense pain and the high temperature which accompanied these disorders. Later on I myself studied this complication of wounds, which I then considered as herpes of the granular membrane, and which for that reason I designated by the name of traumatic herpes.

I must also insist upon these two signs of capital importance in traumatic herpes, the high temperature, and the intensity of the pain. In addition, the aspect of the wound which I have described is sometimes fungous and dotted over with ecchymotic spots, at others the granulations become livid, soft, and puffy, ulcerations are formed, and the wound partakes of a diphtheroid aspect. Every time you see the temperature rise suddenly, accompanied by rigors, whilst the patient complains of intense pain in the immediate vicinity of the wound, you may predict the supervention of local traumatic herpes.

I remember, some years back, the case of a man operated upon for a cancerous growth of the breast. The doctor who had charge of the case came suddenly to tell me that the patient, who had been very well the day before, had suddenly become worse ; that he complained of a great deal of pain, and presented a high temperature, without having, however, any swelling of the ganglions. As I did not think that it was likely that the patient was about to have an attack of erysipelas, owing to the fact that he had been operated upon under favourable conditions and at his own home, I said it was probably herpetic fever he was suffering from, and my diagnosis was fully justified shortly afterwards. In this case, as also in the one which we have just considered together, the curative process was not considerably hindered in its progress by the intervention of this complication. Thus, gentlemen, in future you will have to reckon traumatic herpes amongst the number of those complications which may affect wounds, and it may either appear on the granular substance in the immediate neighbourhood of the wound or at a distance.

⁷ If, when the patient is raised in the sitting position, the marked swelling where one intended to make an incision, disappears I have hitherto held my hand and postponed operation. I have taken this as a sign that no adhesion had taken place between the liver and abdominal parietes. Such a case occurred to me some three months back, and the case subsequently progressed to recovery without any operative proceedings.