

## PSOAS AND

No.	Name and Age	Date of Operation and Discharge; with result	Disease
27	John R., 10 . .	<i>Op.</i> , Nov. 20, 1876. <i>Dis.</i> , Aug. 5, 1877. <i>Result</i> , cured.	Psoas abscess pointing in the thigh. Disease of the spine.
28	Hugh McL., 6.	<i>Op.</i> , Jan. 29, 1877. <i>Dis.</i> , Aug. 1878. <i>Result</i> , improving.	Psoas abscess on the left side pointing in the thigh. Extensive disease of the vertebrae and curvature of the lower dorsal and upper lumbar vertebrae. An abscess formed on the other side at a later period.
29	Michael C., 21.	<i>Op.</i> , Jan. 28, 1877. <i>Dis.</i> , May 1878. <i>Result</i> , cured.	Lumbar abscess on the right side. Pain in the back. A second lumbar abscess formed.
30	John B., 25 . .	<i>Op.</i> , Feb. 11, 1877. <i>Dis.</i> , Feb. 1878. <i>Result</i> , cured.	Psoas abscess which had not passed into the thigh. Had been treated for spinal disease for eighteen months. Patient very weak.
31	John D., 29 . .	<i>Op.</i> , Oct. 12, 1877. <i>Dis.</i> , Jan. 1878. <i>Result</i> , died.	Psoas abscess which had passed into the thigh. The curvature of the spine began at the twelfth dorsal and the most prominent part was at the second lumbar vertebrae. Patient much emaciated and very weak.

LUMBAR ABSCESSSES (*continued*).

Treatment	Remarks
Opened in the thigh. A sound was then passed under Poupart's ligament, the point projected against the skin and cut out. The lower wound was then stitched. Drainage-tube inserted into the upper.	Aseptic course, soundly healed June 1877. The wound in the thigh healed in a few days, but pus reaccumulated there, and it was necessary to open the sear. (The object of the procedure was to obtain an opening above Poupart's ligament as far away from the pubis as possible without the difficulty of a special dissection. It was hoped that the wound in the thigh would heal by first intention, and that the part of the abscess in the thigh would drain into the abdomen.) (See T. Chart LIX.)
Opened like No. 27. Very thick pus containing pieces of bone was evacuated.	For some time the case went on very well, but it was a matter of extreme difficulty to keep on the dressings owing to his deformity. An abscess formed on the opposite side and was opened in May 1877. Putrefaction occurred during the summer. Of this patient Dr. Bishop writes: 'His father removed him in August 1878 to the West of Scotland. He was then considerably improved, having youth on his side to resist the septic influences; and when he was last heard of he was running about.'
Opened. Drainage-tube inserted.	Aseptic course. The second abscess was opened February 25, 1877. Dr. Bishop says, 'Michael C. healed in March 1878. Left in May. In July 1878 he was able to go to Peterhead to the herring fishing. He returned to the fishing in 1879.' (See T. Chart LX.)
Abscess opened above Poupart's ligament. Drainage-tube inserted.	Aseptic course. Dr. Bishop says: 'John B., healed in December 1877; left in February quite strong and well. When last heard of, he was employed as a colporteur.' (See T. Chart LXI.)
Opened, 35 oz. of pus evacuated. Drainage-tube inserted.	The patient apparently suffered from carbolic poisoning, and therefore the dressings were left on for a long time and were made very small, and creosote and ultimately thymol were substituted for carbolic acid. As the result of these changes, putrefaction occurred. The discharge became foul and exceedingly profuse and the patient became rapidly weaker. As he expressed a desire to go home, he was allowed to do so. He died about a month after he got home.



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32	Lucy S., 22 . .	<i>Op.</i> , July 23, 1878. <i>Dis.</i> , June 1879. <i>Result</i> , cured.	Large psoas abscess. Also a collection of fluid in the gluteal region. Curvature of the lower dorsal vertebræ.
33	Mary R., 7 . . .	<i>Op.</i> , Oct. 11, 1878. <i>Dis.</i> , May 17, 1879. <i>Result</i> , cured.	Psoas abscess, which had not yet passed into the thigh. Considerable angular curvature of the lower dorsal and upper lumbar vertebræ.
34	Sarah P., 21 . .	<i>Op.</i> , May 5, 1879. <i>Dis.</i> , April 1880. <i>Result</i> , cured.	Psoas abscess pointing in the thigh. Had noticed pain over the second and third lumbar vertebræ for twelve months.
35	Catherine C., 15	<i>Op.</i> , Feb. 6, 1880. <i>Dis.</i> , Sept. " " <i>Result</i> , cured.	Curvature of the spine chiefly in the lumbar region. Psoas abscess. Pain in back.
36	Henry W., 24 . .	<i>Op.</i> , June 20, 1879. <i>Dis.</i> , July 1880. <i>Result</i> , in process of cure.	Patient was admitted with disease of the elbow-joint. Had suffered from pain in the back for some time. An abscess was found in the left lumbar region.
37	Mary P., 25. . .	<i>Op.</i> , Oct. 7, 1880. <i>Result</i> , cured.	Psoas abscess. Prominence of first lumbar vertebra. Great pain and tenderness over that part; she could not be touched or moved without crying out. General health very bad.

LUMBAR ABSCESSSES (*continued*).

Treatment	Remarks
An incision was made into the abscess above the crest of the ilium, and six pints of clear fluid were evacuated. The fluid in the buttock was evacuated by the same incision. Wound stitched up.	The fluid reaccumulated in the buttock, and in the beginning of August, 17 oz. of serous fluid were removed by the aspirator. There was again reaccumulation, and 18 oz. were withdrawn on August 22. On September 4, the old cicatrix was opened and a drainage-tube inserted. The tube got blocked, and there were reaccumulation and high temperature. (The patient was also menstruating at the time.) As soon as free exit was provided for the fluid, the temperature fell. The case then followed a typical course and the wound healed during April 1879. She went home quite well and strong in the beginning of June. When the fluid was let out on September 4, it had a peculiar odour and contained numerous bacilli. These, however, disappeared in a few days, being apparently either dead already or incapable of developing in the serous discharge from the wound. (See T. Chart LXII.)
Opened like No. 17. Drainage-tube inserted, 14 oz. of pus with pieces of bone escaped.	Aseptic course. Wound healed on March 4, 1879. Patient was in excellent health throughout the whole treatment. (See T. Chart LXIII.)
Opened above the crest of the ilium about its middle; 50 oz. of thin pus escaped. Drainage-tube inserted.	Aseptic course. Healed completely on February 25, 1880. Patient improved in general condition from the day of the operation. (See T. Chart LXIV.)
Opened like No. 17, 8 oz. of thick mortar-like pus escaped containing pieces of bone. Drainage-tube inserted.	For some days this mortar-like stuff containing fragments of bone could be pressed out. By February 24, the discharge was serous and the case thenceforward followed a typical aseptic course. The elevation of temperature on February 9, and the following days coincided with the patient's first menstruation. Healed during July 1880. (See T. Chart LXV.)
Opened. Drainage-tube inserted.	Aseptic course. In the summer of 1880, as there was no discharge, even though the sinus had not healed, the patient was allowed to walk about. When the hospital was closed in July 1880, the sinus was still unhealed. He was sent home to be treated aseptically by his own doctor. (See T. Chart LXVI.)
Abscess opened and 24 oz. of pus containing a piece of bone evacuated. Drainage-tube inserted.	Aseptic course. The pain in the back disappeared in a few days and the patient's health rapidly improved. Found healed on June 16, 1881. Patient then well and strong and quite free from pain or tenderness. (See T. Chart LXVII.)







Another case was admitted during these years, a little child with psoas abscess. This was opened aseptically, but the parents insisted on removing the child 3 days after the operation, for no apparent reason. As of course such a case could not be of any value in regard to the effects of treatment, I have not included it in the list.

We have thus 37 cases of abscess connected with disease of the spine treated by free incision and the insertion of a drainage-tube under strict aseptic precautions. Of these 23, or 62.1 p. c., were certainly cured. This figure does not however represent all the cases which recovered, for several of the patients left hospital continuing the aseptic method, and I see no reason why these did not also recover. I would thus consider that 4 other patients (Nos. 3, 7, 18, and 36) were probably also cured, giving a total of 27 cures, or 72.9 per cent. of cures.

Of these 37 cases 4 died in hospital, and 1 is known to have died soon after leaving hospital, giving 5 known deaths in 37 cases, or a mortality of 13.5 p. c. But it may be said: 'The cases which putrefied and were discharged also died;' and no doubt some of them did. Reckoning these cases therefore as also cases in which a fatal result ultimately occurred, we should have 9 deaths in 37 cases, or a mortality of 24.3 per cent. We know however that this percentage is too high, for the boy No. 28 was improving in general condition when he was last heard of, and he very probably recovered, and the result in No. 16 was by no means certainly fatal.

If we enquire into the causes of death we find, that some of them must necessarily be present in a certain number of these patients. Thus Nos. 12 and 24 died of phthisis, while No. 21 died of exhaustion, and on post-mortem examination there was found most extensive disease of the spinal column, so extensive and of such a nature that the chance of recovery under any circumstances was exceedingly minute, if indeed it can be said to have existed at all. No 5 died of a cause quite independent of the lumbar abscess; indeed this case ought to be reckoned as one which was cured of the lumbar abscess, but which died from another cause before leaving hospital. The case shows very well the dangers of a septic as compared with those of an aseptic wound; for for months the patient had had an open

wound treated aseptically without any bad result, but he did not have a septic wound many days before it was attacked by erysipelas, of which the patient died.

The cases in which putrefaction occurred show very well the contrast between the course of cases where the aseptic method has failed (in other words the course of septic cases), and of those where the aseptic method has been successfully carried out. If we look at the causes of failure we shall see that in one or two cases there was good reason for it. Thus in No. 1 the abscess was opened at the upper and inner part of the thigh quite close to sources of putrefaction. It was this case which showed the danger of incisions in this situation, and led to the much better plan of opening psoas abscesses in all cases above Poupart's ligament. The immediate cause of putrefaction in this instance was that the menstrual discharge soaked the dressing and conveyed putrefaction to the wound before the accident was detected. Here also it must be noted, that the application of an elastic bandage along the margin of the dressings had not yet been introduced, and hence the edge of the dressing was not always in apposition with the skin. That putrefaction occurred under these circumstances is not a matter for surprise. No case will go wrong from this cause in future. Then in No. 28 the dressings slipped owing to the extreme deformity of the patient and the difficulty in retaining them in position, but this will probably also be avoidable in the future by careful management. In No. 31 we had the complication of carbolic poisoning—a complication happily extremely rare—and by the use of one or other of the powerful antiseptics now at our disposal we may, I think, reckon that if a similar case should occur again, there will be no necessity for such treatment as would involve the risk of putrefaction of the abscess. Then we have two cases in which no explanation is given (Nos. 16 and 20). These were likely due to the carelessness of the dressers; one (No. 20) occurred during the Christmas holidays, when most of the dressers were away, and when those who were left had generally more work than they could do without hurrying over it. Altogether, I believe that in future the chances of a case going wrong are very small, as indeed we already see from the more regular progress of the last cases. For, if we



look at the results since 1875, we find that 73·3 per cent. of the cases were certainly, and 80 per cent. probably, entirely cured, as against 59 per cent. of certain, and 72·7 per cent. of probable, cures in the preceding four years. But this does not yet give a true idea of the present probabilities, for of the two cases which proved fatal since 1875 one died of an unavoidable cause—phthisis—while in one putrefaction occurred under circumstances which would not now happen, viz. the absence of a fairly trustworthy substitute for carbolic acid. The results of the last few years, both in hospital and private practice, shew that in a patient not affected with phthisis or other dangerous malady a cure is in the highest degree probable.<sup>1</sup>

If we look at the cases which recovered, we see that what I stated at p. 519 is true—that the effect of opening a large abscess aseptically and keeping it freely open by means of a drainage-tube is not a severe attack of fever, nor profuse suppuration, nor hectic fever, but is the relief of the patient from any hectic symptoms from which he was previously suffering, and his rapid return to a normal state of health without any suppuration from the abscess cavity. The change wrought in these patients is very remarkable. Some have been brought into hospital in a very feeble and emaciated condition, apparently rapidly dying, and yet in a few days after the abscess was opened they recovered their appetite, they rapidly put on flesh, and soon gained an appearance of robust health. The cases which were cured were not cured after a weakening confinement to bed, but, when they left their beds, they were in

<sup>1</sup> With reference to all the cases mentioned, I need hardly point out that the results obtained during a number of years in which a method is being developed do not give the *present probabilities* of success. The aseptic method is much more perfect at the present time than in 1872, and therefore the failures in the earlier period reduce the average results. It is only by failures that advance is made, and the failures in the earlier period have led to improvements which avoid these errors in future. For a very simple example of this look at Case 1 of the psoas abscesses, where the failure led to the selection of a better position for making the incision. In the same way other failures led to the wetting of the deepest layer of gauze, to the use of an elastic bandage, &c., and it is only the results since these improvements which shew the present state of matters and which now give those who employ this method great confidence in it.

good health and strong, while when they were admitted they were in some cases miserable, weak, emaciated creatures.

This success after opening spinal abscesses aseptically has been obtained by several surgeons who have used the method carefully, while, on the other hand, surgeons who have been apparently successful with other wounds have failed in these. This is the case in which perhaps of all others faulty manipulation becomes evident. For in an ordinary wound, as we have seen, the healthy tissues may destroy causes of fermentation should they accidentally enter the wound, but in an abscess cavity like this, such destruction will not occur, and therefore a slight error which might not matter and might escape notice in the case of a wound, will entirely upset the result here. These cases are really tests as to whether a surgeon is thoroughly versed in the details of the aseptic method; and till a surgeon is able to reckon on success in these instances, he ought not to venture on operations of convenience, such as many operations on joints, &c., in which failure is apt to be followed by grave consequences, nor ought he to bring forward his own experience as telling for or against the aseptic system.

When I come to look for comparative statistics on this subject I find none. During the Edinburgh period I do not find mention by Mr. Spence of a single case of this kind, nor do I find reference to them by other statisticians. I have, however, in the history of this subject referred at length to the views of surgeons on the dangers of opening these abscesses, and we have seen that when they were freely opened and kept open, death was looked for in the vast majority of cases. The only methods which yielded any sort of satisfactory results were the valvular method and the method by aspiration.

At the meeting at St. Thomas's Hospital, to which reference has been already made, Sir James Paget said, 'A few years ago I believed that I had never seen a patient recover after the opening of a lumbar or a psoas abscess with a free incision; I could not remember one who had not died before the opened abscess had healed. Of late years I have known such abscesses opened with complete impunity under antiseptic treatment; and there has seemed nothing but this treatment to account for the difference of results.'