A CLINICAL LECTURE ON COLOTOMY.

Delivered in University College Hospital, London.

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GENTLEMEN,—During the last year, you have seen in the wards several cases of disease of the rectum, in more than one of which I have performed colotomy. We again have a similar case, on which I intend to operate on Wednesday; and, therefore, I thought this a suitable opportunity for making some remarks on the operation.

Many of you, no doubt, will remember the case of the man M., who was in the hospital towards the end of last year. He was a man fifty-eight years of age, of blanched cachectic appearance, who had suffered severely for some time from cancerous ulceration of the rectum; and, shortly before he was admitted, fæces had found their way into the bladder. On admission, we found him suffering great pain, with fæces in the bladder and blocking up the urethra; and, if this state of affairs had been allowed to continue, no doubt the fæces would have formed the nucleus of a vesical calculus. The patient was admitted on December 27th, and on the 29th colotomy was performed in the left lumbar region. Immediately afterwards, the fæces ceased to pass into the bladder, and were all passed by the opening in the loin. The patient convalesced slowly, but fairly, and left the hospital in the following February. When first the operation was performed, he was troubled for a time by urine finding its way into the rectum. He was, therefore, placed on a Hooper's bed, so that the urine might gravitate into an utensil beneath. On calling at his lodging to-day, on my way to the hospital, I found that lately the urine had begun to escape by the artificial anus; and, when I passed my finger into the rectum, I found it more obstructed than on the last examination. It is probable that the cancerous mass there has increased and blocked the anus, so that the urine regurgitates through the rectum, and so out at the wound; in fact, the rectum and bladder in this case are one common cloaca. By diverting the fæces from the rectum, we relieved the man of the suffering caused by the obstruction, which, at his time of life, would soon have proved fatal. At best, he cannot live many months; but he will, at all events, end his days in peace.*

The woman now upstairs was admitted last week, with nearly complete obstruction of the great bowel. She is extremely emaciated, having nearly starved herself to death; the pain she suffers from the obstruction being so great that for some time past she has taken next to no food. This is not a case of cancer, but of constriction due to ulceration, probably syphilitic. She is married, and her history is that, ten years ago, she began to be troubled with habitual constipation and pain at defæcation. She noticed that her stools were very small in calibre, and was told she had stricture. There is no family history of cancer. She has had two children since the stricture existed. She has had no miscarriage. Thus, you see, the history is obscure, but at all events not cancerous, and there is no reason why her life should not be prolonged in comfort by the operation.

Of other cases of colotomy you have seen, one was that of a woman who was operated on last year, and who had a great mass projecting in her rectum, evidently cancerous. The only thing remarkable about this case was its unfortunate termination soon after the operation, which was on July 5th. On the following day, symptoms of peritonitis set in and the patient died on the 8th. The operation was easily performed, and there was no unusual pulling about of the intestine. No *post mortem* examination was held, but I am certain that the peritoneum was uninjured in the operation.

Putting together the different cases in which I have undertaken the operation, I find that, out of twenty-two cases, eight proved fatal and the rest lived variable lengths of time, the operation not being the immediate cause of death.† This is a good average, considering that the nature of the cases was so bad, especially those of obstruction. The other cases were for ordinary cancer, without obstruction, and for communication between bladder and rectum. One case was that of a lady with pelvic abscess after a confinement. The abscess seemed to have

opened up a communication between the bladder and rectum, so that fæces entered the bladder, blocking the urethra, and rendering the patient's life miserable. I performed colotomy in the left loin in 1872, and she is now quite well. She has little inconvenience, passing her motions by the opening in her side, and no one about her having the slightest idea that anything is wrong.

The bulk of the operations are performed for cancer, with more or less obstruction. If there be no present obstruction, then you do it for the impending obstruction or for the painful ulceration. Nothing is more painful than this ulceration of the rectum. The patient lives a life of agony, continually suffering from a hot, burning pain. Morphia may be given, but it affords no permanent relief; and the patient dies, either out of health from the constant use of the drug, or from exhaustion. If you divert the fæces from passing through the rectum, you at once relieve the patient's suffering, and undoubtedly prolong life, one of my cancer cases living two years and nine months after the operation.

Of syphilitic ulceration of the rectum, Mrs. K., whom you may have seen in the ward occasionally, affords a good example. In her case, the syphilitic ulceration is not primary, for that form is rarely met with, but tertiary; and tertiary ulceration of the rectum is much more common in women than in men, in the proportion of five or six to one. In them the disease seems to bear some relation to the vagina, as if the poison infiltrated through its wall into the rectum. First, there is painful ulceration, and, after that is well, it is followed by inveterate stricture of the bowel. Thus Mrs. K. had ulceration, with more or less stricture; and everything had been done, but nothing would cure the ulceration. I therefore performed colotomy, and it was followed immediately by great relief. But her's is a peculiar case, part of the fecal matter still passing by the anus. Being anxious to know if this really were the case, I took her into the ward for a few days, to be closely watched by the nurses, and they confirmed her statement. It is difficult at first sight to understand how this occurs, the two openings being so completely apart; but I have noticed the same thing in one or two cancerous cases, and this is, in fact, the only drawback to the operation, and fortunately it is by no means constant.

The cases of stricture are the most formidable when the disease gives rise to complete obstruction. Now, obstruction may be acute or chronic. Acute is caused by some twist or band in the small intestine; but it is in chronic obstruction that colotomy is called for, because it is most frequently due to cancer of the sigmoid flexure. It is important, when called in to a case of this kind, to diagnose the state of affairs at once, and the great thing is to ascertain if there has been a gradually increasing difficulty of defæcation. That is sometimes not easily made out, especially in women; but, if you question closely, you will generally find that there really has been gradually increasing difficulty. Do not think that fæces "like tobacco-pipe" are absolutely necessary evidence of the state of the bowel. A very frequent condition is that of constant diarrhoea, in which small lumpy motions, with more or less liquid, are passed; therefore, the calibre of the motion affords no certain indication of stricture. From what I have said, you will have perceived that, in cases of chronic obstruction, the disease is most likely to be situated about the rectum; and it is often possible for you to feel it on examination with the finger, and in females you have the advantage of examining by the vagina. I find that, by using the fore and middle fingers, I can reach higher up the bowel than with the fore-finger alone, for then the middle finger is apt to be in the way. With two fingers, also, you can sometimes draw down the mucous membrane, and so reach a little higher. Still, the evidence thus obtained is often negative. Then the next best method is to pass a tube up into the bowel. A tube such as is attached to a stomach-pump is the most useful; but it is dangerous if not carefully used, for you may do harm by pushing it through a softened part of the bowel. If it be oiled previously, it may pass up readily enough; but when the finger is introduced by the side of it, you may find the end of it bent down. Thus, in a case of stricture, although you may apparently succeed in your examination, still you do not pass the obstruction. The best plan is to introduce the tube filled with warm-water; then distend the bowel slightly by injecting a little, at the same time pushing the tube a little further. By repeating the manoeuvre again and again, you may either reach the obstruction or introduce the tube for its entire length. Generally speaking, you meet with obstruction at the sigmoid flexure, which prevents you going any further. Then, having made your diagnosis, the road is clear. But sometimes, on the other hand, you may push the tube up for its whole length and find no obstruction. Then, if you cannot obtain any evidence of the locality of the obstruction, you may perform the operation on the right side.

On one occasion lately, I performed the operation on the right side. It was in the case of an old lady with symptoms of obstruction of three

* The patient died on March 13th.

† Since the delivery of this lecture, I have had three operations with two deaths.

weeks' standing. All the tube had entered the bowel, and no guide to the position of the disease had been discovered. As I said before, I performed the operation on the right side, and the patient survived for six weeks, and died mainly, I believe, from a bed-sore. In that case, I met with a peculiar condition which I do not think is mentioned in any of the books, and which I have only seen on two occasions: I mean the presence of gas in the peritoneal cavity. On cutting down upon the bowel, I found the peritoneum considerably distended; but, there being good sunlight at the time, I was able to avoid opening the cavity, and the gas soon disappeared, and did not influence the patient's recovery in the least. I noticed something similar to this in a case in the hospital in 1874. There, again, the peritoneum was enormously distended, so much so that it was impossible to operate without pricking it, and the case terminated fatally from peritonitis. The explanation of this condition, no doubt, is that the bowel above the obstruction having been distended for some days, a certain amount of gas transudes into the peritoneal cavity. The practical bearing of it is, that you are liable to mistake the distended peritoneum for distended intestine.

And now as regards the operation itself. It is performed by preference on the left side, or on the right side under exceptional circumstances. The patient is placed on the right side, with a pillow under the loin, in order that the left loin may be thrown into greater prominence. You then measure a point midway between the anterior and posterior superior spines of the ilium, and from that point draw a vertical line upwards to the last rib. This line will give you the position of the bowel. Then make an incision four inches long, somewhat obliquely between the crest of the ilium and the last rib, half of the incision being on each side of the vertical line marked out. There is some difference of opinion as to the precise direction of the incision, some preferring it horizontal, others oblique. I myself prefer it slightly oblique, running parallel to the last rib. In making the incision, you divide the skin, subcutaneous fat, the external oblique and latissimus dorsi muscles, thus exposing the internal oblique. Having divided that for the whole length of the wound, the fascia lumborum comes into view, and you carefully divide it on a director. You have now exposed the loose fat about the kidney and colon in the anterior part of the wound, and the edge of the quadratus lumborum behind. Keeping the edges of the wound open with spatulae, you displace the fat with the finger and seek for the bowel. In cases of obstruction with distension, you have no trouble in doing this, the bowel presenting at the wound covered only by fascia transversalis. This fascia varies in thickness in different cases, and has sometimes been mistaken for peritoneum. But, if the bowel be empty, you tear through the fascia transversalis carefully with the finger-nail just in front of the quadratus lumborum, and, on introducing the forefinger, you will generally succeed in hooking the intestine. If you do not succeed in doing this, by turning the patient over on to his back the bowel will, in all probability, fall on to your finger. Bringing the bowel into the wound, you roll it round and expose the posterior surface, which, as you know, is generally uncovered by peritoneum, and, when the bowel is distended, this surface is much larger. With a large curved needle, you then pass a stout silk thread through the skin to one side of the ink-mark, across the bowel, and again through the skin at a corresponding point on the other side of the mark, repeating the proceeding at the other end of the incision. Thus the colon is held to the margins of the wound before being opened. A transverse incision is now made into the bowel between the threads, and the finger being introduced, the two loops can be drawn out, and, on dividing them, you have four threads to fix the bowel to the wound only requiring to be tied. The rest of the incision on each side of the bowel is then closed by ordinary sutures, and the operation is completed. The complications are very small. The greatest difficulty is in reaching the bowel when it is empty, but, with a little experience, this becomes quite easy.

Last week, with Mr. Erichsen, I saw an interesting case of total obstruction in a gentleman who had been treated homoeopathically for three weeks. The small intestine was distended to three times its normal size, and there was a clear history of obstruction of the large bowel. We decided on colotomy, and I performed it as usual in the left loin. After I had finished the operation, on putting my finger into the lower opening in the bowel, I found a mass of disease, evidently cancerous, at the upper part of the sigmoid flexure; for I may say that it is not really the sigmoid flexure that is opened in colotomy, but the junction of the transverse with the descending colon; since, on putting your finger into the upper opening, you find that it goes horizontally in front of the kidney.*

These being the principal points concerning the operation, you will watch the one on Wednesday with greater interest.

* This patient survived the operation seven months.

REMARKS

ON THE MORTALITY OF PLEURISY CONSIDERED IN RELATION TO THE OPERATION OF PARACENTESIS THORACIS.*

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[Dr. Fox desires to correct an error in the portion of his paper published in our last issue. It relates to M. Lebert's statistics of complicated and uncomplicated pleurisy (page 723, col. ii, lines 14 and 15). The sentence should have been: "Out of 28 deaths occurring in 201 cases, only 10, or 5 per cent., were free from grave complications."]

[Concluded from page 725 of last number.]

AN analysis of the cases in which purulent transformation has occurred further shows, that tubercle of the lung has only a minor influence in its production, inasmuch as these form only 34 per cent. of the whole of the cases in which it occurred; but tubercle, in addition to other grave general or local lesions, collectively increases this percentage to 43. Conversely, the presence of tubercle *per se*, though probably not without some influence, does not show any marked tendency to the production of this change after paracentesis, if we regard the number of probably tubercular cases in which it has been performed. These are limited, but they are conclusive. Out of Tutschek's six deaths, three were tubercular, and only one of them underwent purulent transformation. Out of twenty-four cases operated on by Zeroni, six died, four being tubercular, and none underwent this change. Out of thirty-six cases by Oeri, there are twelve or thirteen of probable phthisis, and in only two did the effusion become purulent. Finally, it may be recalled that an analysis, by Attimont,† of twenty-nine *post mortem* examinations of fatal purulent pleurisy, shows that tubercles were absent in twenty and present in only nine.

It is tolerably certain, on the existing evidence, that the change is not due simply to the wound in the pleura; but I cannot resist the conviction that, in some instances, a change in the nature of the inflammatory process is induced by the withdrawal of the fluid. Time does not permit me to discuss whether the diminished pressure allows the escape of an increased number of leucocytes. I think this explanation improbable, and that suppuration in the pleura depends on other and more deeply seated parenchymatous changes in the structure of the membrane. There is, I think, a fair body of evidence that this artificial withdrawal does at times intensify congestion, as is shown by the hæmorrhagic character occasionally observed in subsequent reaccumulations; and further, that in some cases it directly increases the inflammatory action, as shown by the higher degree of fever occasionally (though not constantly) observed after its performance. Further, although purulent transformation may occur when the emitted fluid is clear, M. Moutard-Martin's argument, to which I have already alluded, would, if true, tend to show that intensification of the inflammation may follow the operation when the fluid is lactescent; for it is at least open to doubt whether this change would have occurred in such cases without surgical interference.

I think also that it may be asserted that there is but little natural tendency in serous effusions to undergo this change. Were it so, either the mortality of pleurisy, as a whole, would be much greater than it is, or the natural absorption of empyemata would be more frequent than is now very commonly taught. Looking at Table v, the transformation occurred in 14 per cent.; and, as shown in Table iv, it proved fatal in 9 per cent. of all operations.‡

I think also (though this is not susceptible of actual proof) that, in the vast majority of cases of pleurisy where suppuration occurs, it probably does so *ab initio* at early periods of the disease; that its occurrence depends on the special character of the inflammation; and that it does not result from a slow and gradual change in

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

† *De la Pleurésie Purulente, Thèse de Paris*. Attimont analyses 130 cases, of which 80 recovered. *Post mortem* examinations were only made on 29.

‡ The difference between these two tables consists in the fact, that fatal cases only are given in Table iv.