ON THE

TREATMENT OF PELVIC SUPPURATION

BY

ABDOMINAL SECTION AND DRAINAGE.

BY

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I HAVE purposely used the words "pelvic suppuration" in the heading of this paper, in order to advocate a principle which I believe to be capable of much wider application than it has already had at my hands. The cases, six in number, in which I have pursued this new method of treatment have all been, so far as I could discover, cases of suppuration occurring in pelvic hæmatoceles; but the difficulties in these cases have been no greater than I think would occur in pelvic suppuration of almost any kind, and the success has been most exceptionally encouraging. My experience is, of course, limited to suppurations of the female pelvis, but I see no good reason why the same proceedings should not meet with equal success in some cases, at least, occurring in the male.

Like others who follow the surgical speciality in which my practice lies, I have had a wide field for the observation of the various conditions classed under the head of

pelvic abscess, and, like others, I have until recently confined my treatment of it to openings made from the vagina or in the neighbourhood of Poupart's ligament. Experience, however, has driven me to the conclusion of Dr. Emmet that, "I cannot regard the introduction of the trocar into the inflamed tissues of the pelvis as a procedure free from danger under all circumstances." It is perfectly true that in very many cases where an abscess undoubtedly exists in the cellular tissue of the female pelvis, the fluid can be reached and removed by the needle of the aspirator. But, according to my experience, the relief obtained in this way is, in a large number of cases, neither complete nor permanent, and, in nearly all, the convalescence has occupied a time not at all commensurate with the extent of the lesion. This is quite as true of abscesses which have been allowed to open themselves or have been assisted to open in the groin. They continue as fistulous openings for years.

In many cases, even when the abscess can be reached by vaginal puncture, the nature of its contents is such as to make its evacuation an impossibility; and I have seen several where a puncture made at random through an indurated pelvic roof has missed the disease. In these cases the symptoms of the presence of pus were conclusive, but no indication of its seat could be obtained. Dr. Emmet speaks of such in these words:—"I can recall a number of cases, which have been under my observation with thickened tissues, where no treatment had the slightest effect, and finally, they have passed into other hands."

The course of such abscesses is so thoroughly described by Dr. West that his words cannot be improved upon, and therefore I give them at length:

"When suppuration takes place the matter makes its way outwardly through the vagina, or through the intestinal canal, in almost all cases in which the inflammation is limited to the parts contained within the broad ligament. In those cases, however, in which the pelvic cellular tissue is im-

plicated, the matter not unfrequently makes its way round between the muscles and the external surface of the peritoneum, and the abscess points and discharges itself through the abdominal walls somewhere in the course of Poupart's ligament, or a little below that situation.

"Though the size of the abscess is not in general very great, it not unfrequently passes into a chronic state, and emptying itself, for the most part, through some narrow passage of communication into the bowel, the patient continues for months or years liable to occasional discharges of pus per anum, the commencement of which dates back to some attack of inflammation of the cellular tissue years before."

In an instance quoted by Dr. West, "occasional discharges of matter took place from the bowel, and pus was often intermixed with the fæces, five years after the first symptoms of inflammation of the cellular tissue about the uterus, the chronic results of which were still evident in a tumour which was closely connected with the rectum and the womb. These chronic abscesses generally contract, and the fistulous passages that lead to them become by degrees obliterated, but exceptions to this now and then occur, two of which have come under my own notice; and Sir J. Simpson has reported some very interesting cases where permanent fistulous communications have formed between the abscess succeeding to inflammation of the pelvic cellular tissue and the bladder, uterus, or intestinal canal."

In my own practice, such disappointing cases have occurred with but too great frequency, and though I have had some successes by the employment of such means as the elastic ligature ('Lancet,' June 27th, 1874) and counter-opening in the vagina ('Lancet,' April 3rd, 1875), yet the progress towards recovery has been so protracted as to contrast favorably only with those cases in which there was no recovery at all.

I have been, therefore, continually on the outlook for some means of dealing with such cases which would bring them as satisfactorily within our means of treatment as

are collections of matter in most other parts of the body. This has been furnished by the wide, free, and successful application of abdominal section for the treatment of pelvic and abdominal tumours, and I have now to lay before the Society six cases, which include the whole of my experience in this novel proceeding, and in which success has been obtained far surpassing anything I have yet seen or heard of. In this comparison I am of course excluding those cases where pointing of the abscess in the vagina is evident at an early stage of the case, but even in these the recovery has always been, in my experience, more protracted than in the six now to be narrated.

A patient was sent to me in February, 1879, by Mr. Gwinnett Sharp, of Walsall, suffering from a pelvic tumour associated with very severe symptoms. She was twenty-two years of age, and had been married nine months. Her menstruation had always been too frequent and too profuse, and six weeks before I saw her it had stopped suddenly during its course, and this was associated with the onset of violent pelvic pain—the leading features of extra-peritoneal hæmatocele. A few days afterwards she shivered, and became very ill and feverish, and these symptoms had become intensified when I saw her ten days after their occurrence. She was then emaciated and hectic looking, with a high night temperature, intense pain and tenderness over the lower abdomen, and when examined a large fluctuating tumour, adherent to and behind the uterus, and going on either side of it, was found to occupy the pelvis and rise about half way up to the umbilicus. The roof of the pelvis was fixed and hard, and no fluctuation could be felt there.

The nature of the tumour could be open to only two suggestions—that it was a suppurating parovarian cyst with peritonitis, or a suppurating hæmatocele. I leant to the latter view, as it was in consonance with the history, and I have never known a parovarian cyst suppurate, whilst hæmatoceles frequently do.

In any case I determined to open it from above, and

this I did. I found a large cavity containing about two pints of fœtid pus with decomposing blood-clots. This I carefully cleansed out, and after having united the edges of the opening into the cyst carefully to the abdominal wound, I fixed in one of Koeberle's glass drainage-tubes, five inches long. Seven days after the operation I placed a three-inch glass drainage-tube, and in another week this was replaced by a soft rubber tube. The patient got up on the twentieth day after the operation, and in ten days more went home perfectly well, with the abscess healed, and she remains now in perfect health (March, 1880).

The second case was sent to me by Dr. Flynn, of Birchills. She was forty-five years of age, and had never been pregnant, save one doubtful miscarriage soon after marriage, nineteen years ago. Symptoms resembling those of hæmatocele had occurred eight months before I saw her, and since that time she had been losing flesh, had lost her appetite, was troubled by constant thirst, and night sweats, and she had a rising night temperature. The uterus was fixed in a mass of effusion occupying the left broad ligament, and partly the right one also, and the mass on the left side encircled the rectum, forming a pronounced stricture, as hæmatoceles of the left broad ligament frequently do. No point of fluctuation could be felt in the pelvis, but the symptoms pointed clearly to the presence of pus. I therefore determined to open the abdomen, and readily obtained the consent of my colleague to this proceeding.

On reaching the peritoneum the two layers were found to be adherent, so that the cavity was not opened. A large abscess was opened just behind the base of the bladder, between which and the uterus it principally lay, but stretching round behind the rectum. The floor and posterior wall of the abscess were found to consist of organised blood-clot, so that its origin was in a blood effusion into the broad ligament. A glass drainage-tube was inserted, and this was changed for one of Chassaignac's wire tubes on the eleventh day after the operation. She

sat up on the twenty-first day after the operation, and the tube was finally removed on the twenty-sixth. She went home on the thirtieth day perfectly well, and has remained so ever since, now nearly ten months.

The third case was a patient of Mr. Hall Wright's, in whom he had diagnosed hæmatocele some four weeks before I saw her. Symptoms of suppuration set in, and I performed exactly the same operation as in the first case, that is, the peritoneum was opened, and the abscess emptied and cleansed, and then the edges of its opening fastened to the edges of the parietal wound, and a glass drainage-tube fastened in. This case also was an undoubted hæmatocele of the broad ligament. Eight days after the operation the glass tube was changed for a wire one, and this was removed in twelve days more.

She left the hospital perfectly well only thirty-three days after her admission, and has since remained in good health.

Mary Ann B—, æt. 30, has been married eight years, and has had four children, youngest fifteen months old. Seen first by Mr. Hall Wright on December 12th, when she stated that she had become unexpectedly unwell about five weeks ago, that this was accompanied by violent pain which has never since been absent. She was seen by Mr. Hall Wright, who diagnosed the occurrence of hæmatocele from the presence of a large hard tumour behind the uterus. About a fortnight previous to my seeing her the nocturnal exaltation of temperature, night sweats, thirst, and increased pain, led Mr. Hall Wright to suspect that the effusion was suppurating, and when I saw her I had no difficulty in confirming his opinion. I therefore admitted her to hospital, and on December 22nd I performed abdominal section, as I found the intensity of the symptoms increasing, and on examination under ether I found that the mass of the effusion seemed too high up to be opened safely from the vagina. I found the tumour to be a large effusion of blood in process of disintegration, contained in a cavity formed by the lifting up of the

posterior layer of the broad ligament, the rectum being carried up in front of it, together with the large vessels of both sides, as high as the bifurcation of the aorta, whilst anteriorly the peritoneum dipped to a most unusual depth, so that had I tapped the tumour from the vagina I must have gone through the peritoneal cavity. The cyst was opened and emptied, and a drainage-tube fastened in, and the peritoneum closed in the usual way. Her recovery was neither so easy nor so rapid as any one of the others, probably because the cavity was the largest of all, and her condition before the operation was very bad, though another case to be related was in the latter respect much worse. The temperature in the present case was 38·4° before the operation, and it rose to 40° on the second day. It did not fall to 37° till the tenth day, December 31st. The drainage-tube was removed on January 10th, and on the 17th the wound had perfectly healed, and she left the hospital on the 26th. I saw her on February 26th, when she was hardly to be recognised, so astonishing was her restoration to health. From a thin, emaciated, and apparently dying woman, she had been transformed into a perfect picture of health, and she stated that she was able to do her work and to get about as well as ever she did in her life.

In this case I am quite satisfied that the delay of the operation for a few days would have been fatal, and no vaginal tapping, even if it had missed the peritoneal layers, would have emptied the cyst of its clotted contents.

Ann S—, æt. 28, placed under my care in January of the present year by Dr. Gordon, of Walsall. She is the mother of three children, the youngest being three years of age. About four months ago she had symptoms resembling those of sudden effusion of blood into the broad ligament. For a month she was able to get about, but during the last three months she has been entirely confined to bed, the subject of symptoms clearly pointing to the occurrence of suppuration. Dr. Gordon had discovered the presence of a pelvic mass behind the uterus,

in which no fluctuation could be discovered, and which was fixed.

I admitted her into hospital, and suspecting the case to be one of suppurating hæmatocele, I opened the abdomen on January 5th, and found the case to resemble the preceding one, save that the disintegrating effusion was not so large. It was dealt with in the same way, and the patient made a much more easy and rapid recovery, leaving the hospital on January 17th, and being restored to perfect health before the end of February.

Mrs H—, æt. 29, was married at 18, had a child within the year, and has never been pregnant since. I saw her, at the request of Dr. Millington, of Wolverhampton, under whose care she had been, in conjunction with Dr. Blackford, of Cannock, whom I met in consultation over the case on the 15th of last January. The history given to me was that about nine weeks previously, when driving in an open carriage with her husband on a very cold day and during a menstrual period, she was suddenly attacked by very violent pelvic pain, and coincidently with this the discharge ceased. This pain had continued ever since, and had of late increased in severity. Menstruation had occurred at two irregular intervals since the beginning of her illness with great profuseness, and during these periods her pain had been much easier. A pelvic tumour had been discovered by Dr. Millington some weeks before my visit, and this he had regarded as an effusion of blood. She had suffered for about three weeks before I saw her from night sweats, almost constant sickness, utter loss of appetite, intense thirst, with various other symptoms of pronounced hectic. The tumour, when I examined it, involved all the pelvic organs in a fixed mass of cartilaginous hardness, with the uterus embedded in it; the bladder spread over it in front, and the rectum encircled by a ring of hard effusion. The mass could be felt above the pelvis as a round and non-fluctuating tumour, with intestine in front of it. The patient had reached almost the final stage of exhaustion and emaciation. There was

no difficulty in diagnosing the case as one of suppurating hæmatocele. With Dr. Blackford's concurrence we had her removed to Birmingham, and on the 21st I opened the abdomen and found matters quite as I had anticipated. The posterior layer of the broad ligament was lifted completely up out of the pelvis, and so was the anterior layer, as far as I could make out; at least, the only structure I could identify was the base of the bladder, and that seemed to form the anterior boundary of the tumour. From this point it spread backwards, on a level with the brim of the true pelvis, and its posterior boundary was the bifurcation of the aorta. The contents were clearly fluid, and therefore I tapped it with an aspirator needle, and evacuated about half a quart bottle full of curdy blood-coloured pus. I then laid the cyst open from the point of puncture, in a direction from before backwards, and found its floor to consist of a thick layer of laminated clot, hard and rigid. I could make out the uterus rising out of this mass, but I could not discover the rectum.

I stitched the edge of the opening into the abscess to the edges of the parietal wound, and then closed the rest of the peritoneal opening, and fastened in a wide drainage-tube of glass. After the operation the patient's temperature never rose above 37°, she had no more night sweats nor sickness, and her appetite was really keen on the third day. A small-sized wire drainage-tube replaced the glass one on the twelfth day, as the discharge had become healthily purulent and free from clot *débris*. The smaller drainage-tube was removed on the fifteenth day after the operation, and on the twenty-fourth the sinus was quite healed, she had gained greatly in flesh and colour, she was able to walk about, and on the twenty-seventh day she went home perfectly well, the uterus, however, being still quite fixed, as I expect it will remain for years. I have just had a letter from her (March 30th), in which she reports herself as being in perfect health.

In all of these cases I am satisfied that vaginal tapping

would have been useless. In most of the cases, if the abscess had been opened by natural processes, it would have been into the rectum. In the last case it would probably have been in one of the groins; but I think in every one of the cases, unless it be in the second, death would have occurred long before a natural outlet could have been established.

My general conclusion from these cases is that the opening of such abscesses by abdominal section is neither a difficult nor a dangerous operation; that recovery is made in this way more certain and rapid than in any other; and that in future I shall always advise an exploratory incision where I am satisfied there is an abscess, which cannot be reached nor emptied satisfactorily from below.