THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, SEPTEMBER 17, 1868. [VOL. II.—No. 7.

Original Communications.

OVARIOTOMY.

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THE inquiry is sometimes made, whether, upon the whole, ovariotomy has really undergone any essential improvement since it was first ventured upon as a justifiable operation?

A candid answer to another question may suffice for both. Does the history of the operation, as gathered from the published cases of the most experienced operators of the present day, show that in a given number of cases the proportion of recoveries has materially increased within the past few years? To this last question no one will hesitate to give an affirmative answer.

If it be further asked, to what special change, whether in the manner of operating, or in any other respect, the improvement referred to is justly attributable, it may be somewhat difficult to answer.

The distinguished operators of Great Britain—Spencer Wells, Baker Brown, Tyler Smith and Thomas Bryant of London, Mr. Clay of Manchester, and Dr. Thomas Keith of Edinburgh—illustrate pretty fully and decidedly the various methods of operating, not only in England, but all over the world; and we observe that these different methods vary very little from what they were years ago.* The present improved record is not, therefore, properly attributable to any important and especially marked change as regards either special or general rules of operating; it must be accounted for in some other way. Greater skill in diagnosis, habit of operating, a better understanding of the best way of dealing with complications, together with more correct views with regard to meeting difficulties arising subsequently to an operation, seem to afford the most reasonable explanation of the superior success of the distinguished surgeons alluded to.

Even in cases of the simplest, and in every respect of the most favorable character, cases where the method of operating is as precisely determined, and as easily comprehended as it is in amputation, or any other equally common and as easily performed operation, it will be found that the best results are almost invariably with those who count the greatest number of cases.

But the majority of ovarian cases are not simple; that is, absolutely free of every form of condition tending to lessen the chances of a successful removal; moreover, no degree of diagnostic skill can ever predetermine with positive certainty what these conditions may prove to be, either as to their nature or their extent. Under these circumstances, the surgeon derives great advantage from *past experience*. Unforeseen and unexpected difficulties, as they present themselves in the progress of an operation, are thus more correctly appreciated, and of course more likely to be dealt with in a manner best calculated to prove successful.

In view of the many hundreds of cases that have already been published, and with the details of which the profession generally have been able to inform themselves, something, no doubt, has been accomplished to render ovariotomy, even in the hands of the mere occasional operator, a more

* I have been surprised to notice, in the last number of the *American Journal of the Medical Sciences*, an account of what claims to be a new method of treating the pedicle, by Dr. H. R. Storer, of Boston. He calls it "*pocketing the pedicle.*"

Having been myself a witness of the operation referred to in Dr. S.'s article, I have been the more surprised that the mode of procedure so elaborately set forth and commented upon should be regarded, not only as something new, but also as an important improvement upon the ordinary mode of operating.

On the score of *novelty*, the plan described certainly presents nothing new. Even in my own practice, I readily call to mind several instances in which I have done the same thing; they were cases where the pedicle was unusually short, and where, consequently, the use of the clamp would have occasioned too great a strain upon the uterus.

By ovariotomists generally, the "*pocketing*" practice of Dr. Storer will probably never be considered as furnishing anything new or essentially important in practice; much less will it be likely to supersede or materially modify the practice so long and so successfully pursued by Spencer Wells and other European ovariotomists.

successful operation ; so that, although, as comparatively estimated, favorable results are evidently more marked with those of the largest experience, a just and complete statement of all known cases, both published and unpublished, would show, probably, that the record of recoveries, as compared with deaths during the last five or ten years, has been decidedly improved.

In the simpler forms of development, no adhesions or other obstacle interfering, the removal of an ovarian tumor requires but little operative skill. The rules of procedure in such cases are plain, and the proper observance of them may be reasonably expected to secure a favorable result. The same remark, I am well aware, is more or less true with regard to every department of operative surgery ; it is especially so as applied to the one under consideration, where the surgeon may scarcely expect to meet with two cases alike ; and where, consequently, he may sometimes find it necessary to adopt a plan of action wholly new to himself, and for aught he may know never yet tried by any other operator. The advantages of the plan thus pursued may be limited to the particular case in hand, or it may be found applicable to a certain *class* of cases in which the usual method of treatment has hitherto proved insufficient and unsatisfactory. This point I propose to illustrate in the following cases.

Mrs. H., of Danbury, N. H., 57 years old, mother of several children, and till recently pretty healthy, consulted me late in April, 1866, on account of an ovarian tumor which she says she had carried 23 years. Latterly, it has increased rapidly in size, till now it is enormously large. Her constitution is also giving way, as shown by great emaciation, prostration, difficulty of breathing, œdema of lower limbs, with various other symptoms incident to the advanced state of the disease.

Finding no relief from medical treatment, she resolved, at last, to take the risk of an operation. The tumor was accordingly removed on the 1st of May, 1866. The disease being evidently cystic, and apparently of unilocular character, the operation was begun in the hopes of effecting its removal without extensively exposing the abdominal cavity. With this view, an incision only four inches in length was first made through the parietes, midway between the umbilicus and pubes. At this point, however, it was found that the cyst walls and the parietes were firmly adherent. A second incision, higher up, showed the parts in the same condition. Upon making a third incision, between the umbilicus and sternum, the parts were found still united, but less firmly. With a good deal of force, the adhesion at this point could be overcome ; but before doing so to any considerable extent, the three incisions were reduced to a single one, whose entire length was now about ten inches.

After first evacuating the cyst of its contents (consisting of 75 pounds of a chocolate colored albuminous fluid), the next thing was to separate it from its connection with the parietes. This was effected only with much difficulty, and consequently with great laceration of tissue. The extent of adhesion embraced an area of about twelve inches in diameter, and was limited to the anterior and lateral portions of the parietes. The bleeding that followed was very profuse, and from so many points that to control it by ligatures was found quite out of the question. Compression was equally ineffectual, though continued unremittingly for nearly an hour.

I now determined to adopt a new plan of procedure, one I had never before attempted, and for which I had no precedent. This I did for a twofold purpose : first, to restrain bleeding, which was now rapidly ex-

hausting my patient; secondly, to prevent, if possible, the seemingly inevitable inflammation naturally resulting from so extensively torn tissue, and which, by closing the incision in the usual way, could scarcely fail to prove fatal.

Both of these purposes were accomplished in a manner both simple and effectual. It consisted in closing up the abdomen in such a manner as to entirely *exclude* that portion of the parietes from which blood was flowing—literally turning it inside out, and then, with the bleeding surfaces wholly everted, bringing the parietal walls together at a point where the peritoneum was in a perfectly sound state.

To do this effectually, it was necessary to resort to what is termed the *quilled suture;* in the present case, however, substituting for quills two cylindrical pieces of wood, ten inches in length and a third of an inch in diameter. These, with the broad everted lips held firmly between them, were held in position by six through-and-through sutures.

To complete the operation, it only remained to bring together the everted lips, carefully adjusting them face to face, and finally securing their free edges with eight or ten superficial stitches. By this simple arrangement the abdominal cavity was not only made to correspond, as to capacity, more nearly to its natural condition, but it was also rendered comparatively secure against inflammation and all danger consequent upon future bleeding. In short, the case was made to resemble, to all intents and purposes, one of a perfectly uncomplicated and simple character, and consequently most favorable for recovery.

The result was in every respect most satisfactory. The operation was followed by no signs of inflammation or other disturbing circumstance. On the fourth day, the two pieces of wood were removed, and immediately the parts embraced between them began to separate; so that in proportion as the once overstretched tissues re-gained their wonted contractility, the broad seam occasioned by the above-described manner of closing the incision gradually lessened in width, and at the end of four weeks became almost entirely effaced.

I saw the patient again, a year after the operation, when she represented herself in perfectly good health. The abdomen was examined, and there was no peculiarity in the appearance of the cicatrix indicating that the case had in any respect been treated otherwise than in the usual way.

About one year ago, I had occasion to operate in a second case, in all essential particulars the same as the one just described.

Mrs. W., of Hyde Park, Mass., 27 years old; disease of three years' standing; health good till within the last three months; latterly, the rapid increase in size of tumor reminds her that medical treatment is of no avail, and that something further is necessary to get relief.

I was first consulted in the early part of February, 1866. I then found the abdomen occupied by a very large tumor, evidently ovarian, and of compound character—cystic and solid. During its development, there had been occasional attacks of severe pain in certain portions of the abdomen, indicating peritonitis. This fact, with other circumstances, justified the suspicion of adhesions. The patient was a good deal emaciated, and otherwise gave unmistakable evidence of much constitutional suffering. On the whole, I regarded the case rather unfavorable for an operation. The measure, however, was considered as fully justifiable, seeing that no relief could be reasonably looked for in any other way. The tumor was accordingly removed on the 11th of February, 1866, Drs. Miller, of Dorchester, and Bennett, of Hyde Park, assisting.

The details of this operation correspond so exactly with those of the one already described that it would only be a mere repetition to state them. In point of complications, the only difference between them was, that in the latter, besides the extensive and exceedingly firm adhesions of the tumor to anterior and lateral portions of the abdominal walls, there were also numerous omental attachments, the separation of which occasioned a very troublesome hæmorrhage. This was controlled, however, by ligatures, some of them cut short and allowed to remain inside, while others were brought out and confined at the upper angle of the wound.

As regards the portion of the parietal walls damaged by breaking through adhesions, they were dealt with precisely after the plan described in the foregoing case; so that upon the completion of the operation, the entire cavity of the abdomen, so far as the peritoneum was concerned, was put in a condition as absolutely perfect as if no adhesions had existed. The additional complication of omental adhesions rendered the case, of course, less promising as to the result, yet, even with this additional disadvantage, everything went on surprisingly well, not a single unpleasant symp-

tom occurring from the date of the operation till the cure was complete. The weight of the tumor was just fifty pounds, rather more than half of it solid. In this, as well as in the former case, the pedicle was secured outside with a clamp.

The plan of procedure as set forth in the preceding cases will of course be found specially applicable only to such cases as are of a particular character—to instances where the adhesions are limited to the anterior and lateral portions of the parietes, and where, too, from the size and duration of the tumor, the walls of the abdomen have been rendered comparatively thin, and sufficiently ample to allow of their being readily everted, and that, too, without strain or risk of diminishing the cavity of the abdomen to an undue degree.

I am well aware that the presence of adhesions, especially if they are comparatively limited in extent, and at the same time involve only the peritoneal lining of the abdomen, may not, as a general rule, be regarded as of any great importance in their bearing upon the chances of recovery. Such cases demand no special or extraordinary plan of treatment. So, too, with regard to certain other cases, where adhesions are more extensive and laceration of tissue of course correspondingly great. The process of cure in such instances has sometimes been quite as rapid and complete as if no complication existed.

In the two cases above given, it is not pretended that the difficulty to be overcome was in any respect peculiar; it was remarkable only in degree.

In one or two cases of similar character, the plan of treatment I pursued proved unsuccessful. I now determined to try a new course of action. The one I saw fit to adopt was followed, as has been shown, by most gratifying results. Theoretically viewed, I am sure it will commend itself as reasonable; practically, its advantages have been put beyond question.

Third case. Mrs. D., of Hampton, N. H., aged 56 years, mother of three children, the youngest 18 years old, always healthy, excepting that four years ago she had a severe attack of peritonitis; since then her health has been generally good, but for the tumor in the abdomen, which she says she has carried for full seventeen years. Slow of growth for many years, within the last ten or twelve months its increase has been rapid. It is now very large, and occasions great discomfort in various ways, especially from embarrassment in breathing, and difficulty of locomotion occasioned by excessive œdema of lower limbs. Her physician, a sensible man, has not made matters worse by vain attempts to relieve her by debilitating medication. She is now resolved to submit to the removal of her disease by an operation. The tumor was accordingly removed on the 24th of June; present, Drs. Lewis, the attending physician, Tilton of Newburyport, Huse of Georgetown and Brown of Chester. The incision was commenced in the usual way, in the median line, between the umbilicus and pubes, and not more than three inches in length, it being my purpose first to make but a limited exposure of the cyst, and then draw off its contents through a canula, as is my usual habit. In this, however, I was defeated; the cyst and parietes in the line of incision proved to be blended by close adhesions, so that inadvertently the cyst was penetrated directly by the knife. The tumor was now thoroughly evacuated, and the incision further extended upward near to the sternum and downward to the pubes. In front and on each side the attachments were extensive and strong. In breaking through them a good deal of force was necessary, and consequently the lesion of tissue was very considerable. The bleeding was profuse, and from a surface not less than ten inches in diameter. The viscera were not involved. I had now before me precisely the same difficulties previously encountered in the two instances already described. In those two cases I had resorted to a new and peculiar plan of treatment, and with results so satisfactory I had no hesitation in adopting the same practice in the present case.

During the first and second day following the operation, the patient continued remarkably comfortable, no suffering of any kind; indeed, every symptom was as favorable as could be desired. On the third day, there was beginning to be felt a sense of tightness across the upper portion of the abdomen, indicating, of course, a degree of tympanitis. Instant relief was given by cutting the sutures and removing the clamps of wood, thus allowing the parts confined between them gradually to separate. The distention went on increasing, however, to a very considerable degree, and in twenty-four hours the broad seam, four inches in breadth and extending from sternum to pubes, entirely disappeared. The appearance of the abdomen at this time was precisely that of a patient suffering from severe peritonitis. Other and more positive symptoms, however, were wanting. A pulse not exceeding 88 or 90,

a clean tongue, absence of thirst, quiet and refreshing sleep, and a desire for food, gave assurance that, on the whole, the case was doing well. On the fifth day, the bowels were moved by means of an enema administered through a rectal tube. In connection with a pretty free fœcal discharge, there was also an escape of a large amount of flatus; following this, there was a rapid subsidence of tympanitis, and in less than twelve hours it was wholly gone.

Excepting the occurrence of an attack of indigestion, brought on by a too free indulgence of the appetite, the patient has been ever since regularly improving; and now that three weeks have elapsed since the operation, there is every reason to expect an early and complete recovery. The tumor was cystic and solid, weighing sixty-five pounds.

Fourth case. Mrs. K., of Haverhill, Ms., 23 years of age, married five years, and always healthy till the birth of her only child, now four years since. At this time she first noticed some enlargement of the abdomen, but not enough to lead her to a suspicion of anything of serious importance. The enlargement, however, went on slowly increasing till March of the present year. She then consulted her physician, who at once informed her that she had ovarian dropsy. I first saw her the same month; she was then suffering greatly from distended abdomen, and also in various other ways common in such cases. An operation had already been decided on, and the decision would have been acted upon at once, had there not been reason to suspect the coëxistence of pregnancy. Notwithstanding the possible harmlessness of this complication, previous experience had taught me that its bearing upon the result of surgical interference was a matter of no trifling importance. For the purpose, therefore, of temporary relief, the patient was tapped, and thirty-six pounds of albuminous fluid drawn off from a single cyst. Two days after, measures were taken to procure abortion. They were effectual, though attended with some delay and considerable suffering. Pregnancy had existed about four months. Peritonitis followed the abortion, and the patient was brought very low in consequence; meantime the cyst refilled rapidly. Before convalescence was sufficiently established to justify a more severe operation, another tapping became necessary. After this, notwithstanding a still more rapid re-accumulation in the cyst, there was a marked improvement in the general health, and in three weeks the patient submitted to the final operation of extirpation.

The manner of operating and the special features of this case need not be specifically stated. It was only another striking instance of extensive and firm adhesions in front and on either side, between the cyst and parietes, in part of recent origin, and consequent upon peritonitis following abortion; mainly, however, they were of long standing and very strong, extending upward at one point so as to involve a portion of the diaphragm. The pedicle was unusually broad and thick; also too short to allow the use of the clamp. It was therefore tied in two parts before separating it from the cyst, and the stump drawn forward and "pocketed" between the lips of the incision. In dealing with the difficulty arising from the adhesions, I pursued the same general plan which has been set forth in the preceding cases. In detail, the only difference consisted in omitting the clamp of wood, and confining the everted parts with sutures merely. The bleeding portion of the parietes being drawn forward and held snugly between the hands of an assistant, the same were transfixed by a series of *through-and-through* stitches, an inch apart, and on a level with the line of incision. These stitches were passed through double, so that the loop on one side was made to embrace a miniature roller of cotton cloth, while the free ends were tied tightly over a similar roller on the opposite side. Thus the abdomen was closed with the torn and bleeding surfaces of the parietes entirely excluded, excepting, of course, the slight lesion of the diaphragm, which could not be reached.

Other dressings were applied in the usual way, care being taken that there should be a sufficient *levelling up* on either side of the ridge along the median line, to prevent undue pressure from the application of adhesive strips and bandage.

A steady, but not wholly uninterrupted convalescence followed this operation. At the end of two weeks the patient was seized with a pain in the abdomen, followed by vomiting—owing, doubtless, to indigestion merely. Immediately following this attack there appeared in the line of the incision several small abscesses. These, for a time, occasioned considerable discomfort, but not sufficient to seriously interfere with a steady progress toward recovery. There is every reason to believe that in due time the cure will be complete.

[To be concluded.]