ART. VI.—*Brief Notes of Four additional Cases of Ovariectomy.* By HENRY MILLER, M.D., late Professor of Obstetric Medicine in the University of Louisville, Ky., &c.

IN the *American Journal of the Medical Sciences* for April, 1859, I recorded two cases of ovariectomy, with some observations on the pathology and treatment of cystic degeneration of the ovaries. In both these cases a perfect and permanent cure was the result. One of the patients, as there stated, gave birth to a healthy child nine months after her return to her husband, and is alive at the present time; and the other, a widow, enjoyed good health for seven and a half years, and died of congestive chills, then prevalent in her neighbourhood.

Since these cases were published, I have performed the operation in *four other cases*, and I will now give brief notes of them, in order that the profession may have my entire experience in this formidable operation. I may say, *in limine*, that I have always regarded the operation with some degree of aversion, and have rather shrunk from than courted its performance, and for this reason my cases have been few and far between. The uncertainty that must hang over the diagnosis, in some cases, notwithstanding our improved methods of investigation, makes me hesitate and ponder long before I can bring myself to the point of laying open the cavity of the abdomen, and sweeping it with my hand to determine the nature of the tumour and the possibility of its safe removal. I hold it to be an impossibility to know of a certainty, before the operation is commenced, whether or not there are adhesions of the tumour of such a nature as to render it hazardous, if not impracticable, to extirpate it. One such case occurred to me out of the four which are to be now related, and although the patient recovered, it was only after months of loathsome suffering, which reduced her to the last degree of emaciation, from which it seemed that she could not be resurrected.

If we look into the records of ovariectomy, we shall find many instances of abortive attempts to extirpate diseased ovaria on account of insuperable adhesions, and of disappointment in the aim of the operator, who finds when he opens the cavity of the abdomen an extra-ovarian tumour or no tumour at all. In an appendix to his translation of Kiwisch's *Clinical Lectures on Diseases of the Ovaries*, Mr. John Clay, Surgeon, Birmingham, has tabulated all the cases of ovariectomy which could be collected up to 1860, amounting in all to 537. In 24 cases out of this number, the tumour could only be partially excised; in 13, the tumour was extra-ovarian, mostly uterine; in 82 the operation was abandoned in consequence of adhesions; in 21, abandoned in consequence of the disease being extra-ovarian; in all, the aim of the operation was defeated in 140 cases. Thus, it is seen, that in one out of not quite four cases, as the surgeon proceeds

with his operation he finds himself balked by errors of diagnosis or unforeseen complications.

I have entitled this article "Brief Notes of Four additional Cases of Ovariectomy," because my records of them consist only of memoranda of prominent points made in pencil in my visiting lists for the years in which the operations were performed. Their brevity I can hardly say that I regret, for in most reports of cases there is a minuteness of detail which is both irksome and unprofitable to the reader.

Without further prelude, I will now proceed to report my cases:—

CASE I. *Large multilocular tumour of the left ovary; the tumour extirpated without an untoward symptom; cure.*—Mrs. T., æt. about 47, of Boyle County, Ky., came to the city in October, 1860, to consult me concerning a tumour of the abdomen, which had been first observed two years ago. It had attained to very large size, extending across the abdomen, and rising up to both hypochondriac regions. There was dulness on percussion over the front and sides of the abdomen, and prominences, corresponding to the cysts which composed the tumour, could be felt and seen. There was besides fluctuation of variable distinctness in different parts of the tumour. The uterus was normal in size, as ascertained by the sound, and not attached to the tumour or much displaced by it. The diagnosis that it was a compound cystic tumour of the left ovary, and that there were no material adhesions, was as satisfactorily made out as it can be in such cases, and I determined to extirpate it.

October 18, 1860, Professors Middleton Goldsmith, G. W. Bayless, and the late John Hardin, and Drs. S. Brandeis and J. Goodman being present, the patient was placed on the table and put under the influence of chloroform. An incision along the linea alba was made, from a little below the umbilicus to two inches above the pubes, and the tumour brought to view. Passing my hand into the abdomen, I found only slight adhesions between the tumour and parietal peritoneum, which were easily broken up. Finding that the tumour was much too large to be brought out through the incision, I punctured it with a trocar and drew off twenty pints of cystic fluid by measure, besides about four pints which escaped in the progress of the operation. The solid part of the tumour, together with the smaller cysts which were not emptied, weighed eight pounds. The tumour was then brought out of the abdomen and held by an assistant, while the pedicle was transfixed with a double ligature of strong silk cord and tied in halves to prevent its slipping. I may here remark, once for all, that is the manner in which I have dealt with the pedicle in my other cases, save one, which will be mentioned in its proper place. The pedicle was then cut across as close to the tumour as possible.

After carefully sponging out the cystic fluid which had escaped into the abdomen, the wound was closed by the interrupted suture of annealed iron wire, and the ligature of the pedicle brought out at the lower angle of the wound.

The usual dressings and bandage were applied. Sutures removed on the ninth day. The wound well united. Ligature of the pedicle came off the nineteenth day.

The after-treatment consisted in securing quiet by opiates, and in moderately nourishing diet, which she took with appetite. In four or five weeks

she returned home cured, and has since enjoyed better health than she had for many years before. She is now (January 15, 1869) alive and well.

CASE II. Cystoid of the left ovary; tapped once; ovariectomy; clamp used for pedicle; death in less than twenty-four hours; fatal termination attributed to clamp.—Mrs. A. of Tennessee, æt. 52, a delicate, spare lady, affected with chronic bronchitis, was sent to me to undergo the operation of ovariectomy. Her family physician had correctly diagnosed the disease to be cystoid degeneration of the left ovary, and had tapped her shortly prior to her leaving home. When she first came under my observation she was thin and delicate looking, had a harassing cough, with dyspnoea and pain in the chest. The operation was deferred several weeks on account of the cough, but on the 10th of May, 1865, it was performed in the presence of Professors Ireland and Bayless, and Drs. Perkins and Goodman.

Chloroform was administered, and the cavity of the abdomen was opened by the usual sub-umbilical incision. The tumour was now brought to view, and the inferior posterior part of it found to be adherent to the small intestine. The adhesion was broken up with the finger, the cyst was tapped to reduce the size of the tumour, which was then brought out through the incision. A strong double ligature of silk was then applied to the pedicle, as in the previous case, but when the pedicle was cut, the ligature slipped, and a clamp was applied instead of the ligature. The pedicle was thin and membranous, and so short withal that the clamp could only be brought externally by considerable traction. The wound was closed by the interrupted suture of silver wire, and dressed in the usual manner.

No sooner had the patient been put to bed than she began to complain of pain in the lower part of the abdomen, which soon became constant and agonizing. Opiates were administered in full doses, and stimulants were had recourse to, but to no purpose; she sank rapidly, her countenance became cadaverous, her features pinched; she soon passed into a comatose condition and died in twelve or fifteen hours.

Post-mortem examination.—Not expecting her to survive during the night, I had requested Professor Ireland to meet me the next day to assist me in making a post-mortem examination, but he was prevented by a call into the country. With no other aid than the nurse I made such an examination as I could, and found the clothes over the abdomen soaked in blood, and dark fluid blood issuing from the nose and mouth. On removing the sutures to expose the abdominal cavity, the pedicle was seen to be lacerated, the clamp holding on to some of its tatters, and about a half pint of dark thin blood was effused into the cavity of the pelvis. There was also inflammation of the uterus and contiguous small intestine.

In this case, the cause of the severe pain which followed so soon after the operation and of the hemorrhage and inflammation appeared to me to be the traction made upon the uterus and pedicle by the clamp. I am strengthened, not to say confirmed, in this opinion after carefully reading Mr. Spencer Wells' volume (*Diseases of the Ovaries*, vol. i., London, 1865), in which not a few cases are recorded in which severe pain, requiring the free use of opium, came on soon after ovariectomy, and in such cases the clamp was applied to very short pedicles, and much traction was used to bring it without the cavity of the abdomen. This implies, of course, dragging the fundus of the uterus two inches above the pubes and fixing

it there, which cannot be done without great violence to that organ. Indeed, Mr. Wells, in discussing the cause of death in one of his cases (the fourth) in which a short pedicle was treated with a clamp, inquires whether the sudden collapse of his patient was an example of that condition so well described by Dr. Simpson as an occasional occurrence after any operation implicating the uterus and its appendages. "I am not sure," says Dr. Simpson, "but that in amputating the cervix uteri, by obviating the necessity of forcibly dragging down the uterus from its position in the pelvis, we do something towards the prevention of this alarming and dangerous complication." If dragging down the uterus from its position in the pelvis, as a help to any operation upon it, be attended with the risk of alarming consequences, surely, dragging it out of the pelvis into the abdomen cannot be less fraught with hazard. In some of his cases, where he applied the clamp to short pedicles, very close to the uterus, Mr. Wells found it necessary to remove it and substitute the ligature in its stead. For my own part, I shall never think of employing the clamp again, except in a case of long and strong pedicle, which will admit of being brought externally without traction that might displace the uterus.

After all, what evidence have we that the clamp, or any other of the numerous methods of treating the pedicle which have been devised, is preferable to the ligature as used by Dr. Ephraim McDowell, of Danville, Kentucky, who first conceived and executed the operation of ovariectomy.

Dr. Charles Clay, of Manchester, the pioneer of ovariectomy in England, unmoved by the prolific ingenuity at work around him, in devising new methods of treating the pedicle, continues to employ his *hempen* ligature, too well satisfied with it to try any of the substitutes that have been proposed for it. If we look into Mr. Wells' book, we shall find that out of 114 cases of completed ovariectomy, in nearly all of which the clamp was used, 75 recovered, 39 died; 65 per cent. recoveries. Dr. Clay's cases, up to the latest date I have access to, numbered 110, of which 76 recovered, 34 died, 69 per cent. recoveries, 4 per cent. in favour of the cases in which the ligature was employed.

CASE III. *Twin cysts of the ovary or ovaries; diagnosis unsatisfactory; operation insisted on by patient; the abdomen opened but the Cysts could not be extracted; unexpected recovery.*—Mrs. B., of Ohio, æt. about 27, came to Louisville to consult me in respect to the propriety of an operation for the removal of a large tumour of the abdomen, which had begun to incommode her, though her general health was good. She was a sprightly, active woman, of a cheerful disposition, and had been married two or three years without conception having taken place. She had been an office patient of mine previous to her marriage, while she resided in Louisville, and had a tumour then as large as an infant's head, which had slowly grown until now it reached to the upper part of the

abdomen. The tumour fluctuated rather obscurely and could be traced into the pelvis. On vaginal examination only the neck of the uterus could be felt, the body of it appearing to be fixed to the tumour, for it could not be moved by the uterine sound. I gave it as my opinion that the disease was cystic tumour of the ovary, but I was averse to an operation on account of the adhesions which I believed to exist between it and the uterus. I tried to persuade her not to have an operation performed, but she was so intent on getting rid of the tumour at all hazards, that after repeated examinations, influenced no doubt by a desire to gratify her wishes, I at length agreed to operate.

Accordingly on the 30th of October, 1866, having placed her under chloroform I operated in the presence of Professor M. Goldsmith, and Drs. W. B. Caldwell, J. Goodman, and E. Miller. On opening the cavity of the abdomen by the usual incision, two large cysts were brought to view occupying the two sides of the cavity, one on the right and the other on the left side, and reaching to the hypochondriac regions. Below they were joined together, and hence I have called them twin cysts. They were tapped, but finding that they could not be delivered, the incision was extended two inches above the umbilicus. On turning out the cysts, it was found that there was adhesion between the posterior face of one of them and a convolution of the small intestine, perhaps ten or twelve inches in length, which was broken up by the fingers. The cysts were then drawn upwards to get at the pedicle; no pedicle could be found, but instead of it the conjoined cysts were intimately united by a broad attachment to the uterus and bladder, and when they were raised up they covered the pelvic viscera as with a canopy.

Here was a dilemma: to forcibly break up such an adhesion would assuredly destroy the patient; to close the incision and leave these immense cysts included in the abdomen to inflame and suppurate and perhaps to become gangrenous would be scarcely less hazardous. But after a short consultation it was concluded to close the wound as the safest of the alternatives.

My apprehensions for my patient speedily began to be realized. Within the first twenty-four hours after the operation, she had an acute attack of peritonitis, for which she took pills containing 3 grains of calomel and $\frac{1}{2}$ grain of morphia every two or three hours until ten pills were taken, besides several enemata of McMurran's elixir of opium. On the third day bowels were freely moved by purgative medicine, and on changing the dressings it was found that there was a copious discharge of a dirty, highly fetid matter from the wound. On the ninth day the sutures were removed and the wound was united except at its lower part, where there was an opening that might receive the point of a finger, through which the offensive discharge was issuing in such quantity as to require many layers of cotton batting to absorb it. There was swelling, tenderness and pain of the abdomen, with constant hectic fever, sweats, and progressive emaciation. Suppurative inflammation with sloughing of the right cyst took place, and a new opening was formed at the upper part of the wound, through which a large quantity of pus and sanies was discharged, which gave great relief for the time and the swelling subsided. After a time the other cyst appeared to be the seat of suppurative inflammation and discharged itself through the same opening.

In this condition she lay through the winter, wasting away with the hectic preying upon her, without appetite—though she was persuaded to

take beef-tea, cream and other nutrients sent her by kind friends—the black, horribly 'offensive discharges pouring from both openings in the wound, as if from inexhaustible fountains, and at length, to add to her disgust and mortification, gas began to escape with a hissing sound through one of the apertures, showing that a minute perforation of the bowels had taken place. This continued for many days.

Throughout the dreary winter she was confined to a small room, heated by a stove, and despite the utmost attention to cleanliness and the employment of disinfectants, the bedding, and even the furniture appeared to be permeated by the nanseous odor of the discharges. To remove her from this infected atmosphere was urgently necessary, but in her exhausted state we durst not expose her to the inclement weather. When winter had passed she was removed to St. Joseph's Infirmary, where under better sanitary conditions improvement was soon visible. Her appetite returned, her strength began to return, she soon sat up, and was presently able to walk about her room; the discharge from the wound began to diminish and become less offensive, and in April, 1867, she returned home.

In the autumn of the same year I received a letter from her husband, in which he informed me that his wife had entirely recovered her health and was stouter and healthier than she had ever been. In this case, the cysts would appear to have been utterly destroyed by the process of sloughing, and there is little likelihood of their reproduction.

CASE IV. Cystoid of the left ovary complicated with chronic bronchitis; extirpation of the tumour; death.—Mrs. J., of Henderson County, Ky., æt. about fifty, consulted me in November, 1867, on account of a tumour of considerable size in the abdomen, and a severe cough which had long troubled her, and which she regarded as consumption. There were, however, no signs of tubercles in the lungs, only the bronchia were affected. She remained with me only a short time, and I prescribed some remedies for the cough, considering that as the most urgent symptom at the time, and she returned home.

In February, 1868, she came back, with the cough much better, though it had not left her entirely. The ovarian tumour had made rapid progress and now completely occupied the abdomen, with great tension of its walls, and embarrassing both her respiration and digestion. The appetite, which had been poor for months, was nearly gone, and the little food which she took oppressed the stomach until it was ejected. She was much emaciated, and her complexion extremely pale. I did not deem her case a suitable one for ovariectomy, and I, therefore, advised tapping for the relief of her sufferings, which was performed on the 24th of the month. The fluid which was drawn off, amounting to two or three gallons, was so glutinous that it was squeezed through the canula by manipulating the abdomen, and the operation occupied upwards of an hour. Her respiration and digestion were much improved by the operation, and she could now take food without discomfort. Directing her to take an occasional dose of active cathartic medicine, I sent her home.

The relief afforded by the evacuation of the fluid was of short duration. The cyst refilled rapidly and she came back in two months with a view of having it removed by operation. Her respiratory and digestive organs were as much oppressed as ever, she was totally without appetite, greatly debilitated, countenance anxious, distressed, features pinched, and everything about her made the impression that life was rapidly drawing to a

close. I could not, I did not advise the operation. On the contrary, I represented to her that the chances of her surviving it were greatly against her. But the love of life or the desire to be released from her sufferings, was so strong, and she begged so earnestly to be permitted to take whatever chance the operation might hold out, that I finally consented to perform it.

On the 21st of April, 1868, in the presence of Profs. L. Powell and G. W. Bayless, and Drs. J. Goodman and T. P. Satterwhite, I performed ovariectomy at St. Joseph's Infirmary. Chloroform having been administered by Dr. Goodman, the abdomen was opened in the usual way, *i. e.*, subumbilical incision; few adhesions, and none of them firm, were encountered; the pedicle, which was unusually thick and broad, was tied with a double silk ligature as in previous cases; wound closed by interrupted suture of silk; wound dressed as usual and bandage applied.

She suffered but little pain after the operation. She was, however, restless and anxious, and could be only partially quieted by opiates. There was no appetite whatever, and the little food she was persuaded to swallow was rejected. Without inflammation or hemorrhage, so far as could be determined, she became more and more feeble, and died on the third day after the operation, apparently from sheer exhaustion.

Thus ended my sixth lesson in ovariectomy, and nothing could induce me to repeat it. I mean to say that when one of these unfortunates is in such a state of utter prostration as Mrs. J. was, and the digestive organs cannot prepare material to build her up again, there is no ground for a reasonable hope that the operation will succeed, while by it we add to her sufferings and deprive her of the few remaining days of life which might otherwise have been allotted to her.

ART. VII.—*Cases of Rare Cystic Tumours.*

By WM. R. WHITEHEAD, M. D., of New York. (With a wood-cut.)

DURING the past year I have observed two rather unusual cases of hæmatic cysts, one of them presenting very rare pathological features. A short account of these cases with an allusion to some others which I have seen, will, I believe, prove interesting. A part of the history of the first case is extracted from the minutes of the New York Pathological Society, before which I exhibited some of the contents of the cyst.

CASE I. *Hæmatic Carcinomatous Cyst*.—John D., æt. 26, barkeeper, came to Northern Dispensary, August 13, 1868, with a tumour on the left shoulder, about as large as a medium-size orange, situated over the clavicle and resting on it, but not adherent, as the mass could be slightly displaced laterally at its base. For several years the patient had a small tumour, about the size of his index, of a brownish colour, indolent and painless, which remained about the same size until eight or ten days before coming to the Dispensary, when, as he states, after roughly feeling the