A CLINICAL LECTURE ON OVARIOTOMY.

Delivered in University College Hospital, London.

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GENTLEMEN,—You have recently had under your notice a case of multilocular ovarian cyst, and have had the opportunity of seeing me remove it by the operation of ovariectomy, with, I am happy to say, complete success; and I propose now to make a few clinical remarks upon the subject. The patient was a married woman aged 29, and the mother of four children. In 1873, after a confinement, she noticed that her abdomen remained large. She was confined again in July 1874, the enlargement still persisting, and she wore an abdominal belt for nine months. In the early part of 1876, she noticed a hard lump in the abdomen, and applied for advice at a special hospital, when she was told that she had a fibrous tumour of the uterus, and attended for some months without benefit. She was recommended to me by a medical friend, and was admitted here on December 2nd, 1876, when the following was her condition, as reported by Mr. Smith, the clinical clerk.

The abdomen is greatly distended and of conical shape, the apex being midway between the umbilicus and pubes. There is dullness over the front and sides of the belly, reaching three inches from the umbilicus on the right side, and almost to the flank on the left side, with tympanitic percussion above and to the sides of the dull area. The surface of the tumour, as a whole, is rounded, several sulci marking off distinct rounded portions; these are very tense and fluctuating, but there is no fluctuation from side to side of the whole tumour. Just to the right of the umbilicus, a flat and very hard lump is felt, about the size of an almond in its shell. The abdominal wall is marked with purple lines from stretching; it is thin and freely movable over the tumour. *Per vaginam*, the uterus was found to be normal in size, but pushed over the left side; to the right and in front of it, rounded masses were to be felt through the vaginal wall.

Now, I beg you will understand that the diagnosis of abdominal tumours, presumably ovarian, is by no means easy, and that the most experienced ovariectomists are liable to mistakes. Thus, tumours of the uterus have been confounded with ovarian tumours, and, *vice versa*, cysts of the kidney and liver and enlarged spleens have all been taken for ovarian tumours; and, in fact, in many cases the late Mr. Baker Brown's *dictum* is undoubtedly true, that one cannot be certain about the nature of a given tumour until one's hand is actually upon it. Still, this was a remarkably easy case for diagnosis; the thin abdominal wall allowed the multiple cysts to be very distinctly felt, and the only unsolved question was whether the dullness in the left flank was due to some solid matter or, as it proved, to tightly packed cysts with viscid contents. Under these circumstances, a preliminary tapping could have been of no service, as it sometimes is in cases complicated with considerable ascites by which the tumour is obscured, or cases of one very large cyst, possibly in the broad ligament, where a single tapping will often cure the case altogether.

I, therefore, recommended the patient to undergo the operation of ovariectomy, putting the risks fairly before her and her husband; and, upon her assenting, had her transferred, with Dr. Graily Hewitt's kind consent, to the house close by, which is devoted to the treatment of such cases under his care. My reason for doing this was that undoubtedly cases of ovariectomy do not do well in the general wards of a hospital, and that the only single ward at my disposal is at the top of the general staircase, and liable, therefore, to have noxious matters carried into it from below. I do not believe that the patient would have sustained any harm whatever if I had operated in this theatre, provided she could have been placed in an isolated bed afterwards; but, this being practically impossible in our present building, you had to follow the patient over the way to witness the operation. Now, the operation was done on a Thursday; and, on the previous day, I had made my visit here as usual, and the only restriction I put upon those who attended the operation was that they should not be in actual attendance upon cases of contagious disease. I learn from a paragraph in an American journal, that an eminent ovariectomist requires all who witness his public operations to sign a paper certifying that they have

not seen a dead body or an infectious living case for seven days; but such a sweeping precaution, even if it can really be enforced, seems to me uncalled for, when the operator must, in the ordinary course of practice, be daily placing his fingers in contact with discharges from the uterus quite as offensive, and probably as dangerous, as anything met with even in a *post mortem* examination. I do not think anyone would be justified in making a *post mortem* examination or going to an infectious case just before an ovariectomy; but I have great faith in a night's rest and a morning bath for removing all taint from the living body. Were it otherwise, indeed, I do not see how anyone could practise his profession with safety, and the effect of such a regulation as that given above would be to confine ovariectomy to a very select circle of operators.

The operation was performed on December 6th, the patient being under the influence of ether. I made an incision exactly in the middle line, three inches and a half long, beginning about midway between the umbilicus and pubes, and carrying it down towards the pubes. Having opened the peritoneum, I divided it to the same extent on a director, and the bluish cystic tumour at once came into view, there being no ascitic fluid. I then passed my hand in to make sure that there were no adhesions, and afterwards tapped the presenting cyst with a large trocar. Through this cyst, I tapped other cysts, but was unable to reach the large cysts in the left flank; and, therefore, having drawn the empty cysts forward, I tapped at a fresh spot. Having emptied two or three cysts through this opening, I was then able to draw the entire tumour out; Dr. Williams, who assisted me, carefully guarding against any prolapse of the intestines. The fluid of these cysts was thin and ran readily through the cannula; but not unfrequently one meets with such dense cyst-contents that it is necessary to scoop them out with the fingers, the aperture in the cyst being enlarged with scissors so as to admit the hand, and the greatest care being exercised to prevent any escape of the contents into the peritoneum. The only adhesions were two of the omentum to the tumour, and these I tore through, afterwards putting fine silk sutures upon a couple of bleeding vessels.

Next came the important question of the treatment of the pedicle. Having tried all the modern plans, I gave the preference to that of "tying and dropping"; *i.e.*, I tied the pedicle with silk and cut the ligatures short, so that I might close the wound completely. In doing this, it is important that there should be no risk of the ligatures slipping, and the best way is to use a double ligature, passing it through the pedicle with a probe, and then tying the two halves separately; and then, as an extra precaution, one of the ligatures is made to encircle the entire pedicle again on the uterine side of the other ligatures. I then divided the pedicle half an inch beyond the ligatures, and removed the tumour, which weighed three pounds and three quarters after the removal of five pints of fluid by the tapplings. The tumour involved the left ovary; and I proceeded to examine the opposite one, and, finding cystic disease commencing there, I removed it with the same precautions. The edges of the incision were brought together with five silk sutures, which were passed deeply through the entire thickness of the abdominal wall, including the peritoneum. Mr. Spencer Wells settled the question of including the peritoneum by experiments on animals (the specimens from which are in the College of Surgeons' Museum), and showed that, if the edges of the peritoneum were brought together, they united rapidly by lymph, and thus effectually closed the peritoneal cavity again and prevented the access of inflammatory products. The same rule would hold good in cases of accidental wound of the peritoneum. No superficial sutures were used, but the abdomen was padded with cotton-wool and carefully strapped with plaster, so as to give support to the abdominal wall and contents, and thus to obviate vomiting to a great extent.

I need not trouble you with the details of the after-treatment, which consisted simply in careful nursing, a dose or two of morphia to relieve pain, a simple injection on the fourth day, and a dose of castor-oil on the fifth day. The sutures (one of which set up a little suppuration) were removed on the seventh day after the operation; and the patient went home on December 23rd, seventeen days after the operation, in order to spend Christmas with her family.

Although ovariectomy was first performed in 1809 by McDowell of Kentucky, who was a pupil of John Bell, the operation in modern times has been entirely of British cultivation. Mr. Lizars of Edinburgh was the first to attempt ovariectomy in this country, and by the long incision, *i.e.*, from the umbilicus to the pubes; his example was followed by a few other surgeons, and from time to time a success was recorded. The short incision, with withdrawal of the contents of the cyst, was adopted in 1836 by Mr. Jeaffreson of Framlingham, but the pedicle and ligatures were still allowed to hang out of the wound and to set up suppuration in the peritoneal cavity. The late Mr. Duffin, in 1850, first called attention to this danger, and proposed to keep the strangu-

lated pedicle outside the peritoneum; and this method was improved upon in 1858 by Mr. Jonathan Hutchinson, who devised the clamp now in common use in some form. Mr. Spencer Wells, who has had the largest experience of any ovariologist, had his first case in 1858; and since that time the operation has been performed by numerous surgeons, both in this and other countries, and is now a thoroughly established proceeding. My own experience has been comparatively small; the case you have seen being only my fifteenth; but the mortality has been small also, viz., three deaths, or one in five cases—this being, I believe, about the rate in Mr. Wells's much larger number of cases. One of my deaths was accidental, *i.e.*, it resulted from slipping of the clamp some hours after the operation, when internal hæmorrhage occurred before the pedicle could be secured. On the other hand, I have never had occasion to abandon an operation, though one or two cases have been rather desperate ones, one case having been already attempted by another operator, who gave up and closed the wound successfully; and others having been already declined on account of adhesions. In the first of these, the parts were so matted together that I unawares divided a coil of small intestine; but, by making an artificial anus, the patient recovered, and is now in perfect health, with only a small fecal fistula, which gives her no inconvenience. (The case is recorded in the *Clinical Society's Transactions*, vol. v.)

The method of treating the pedicle I adopted in this case, viz., "tying and dropping", was brought into practice by the late Dr. Tyler Smith, who had a series of most successful cases, and it appears to me to possess two great advantages—1. That it is applicable to all pedicles, whether long or short; and 2. That it admits of immediate closure of the wound in its whole length. My personal experience of the clamp is limited to the case already mentioned, in which a fatal result ensued from the slipping of the pedicle through the clamp, for I never again employed it; but I have seen it used frequently, and it does very well when the pedicle is long. But in many cases the pedicle is so short that very considerable traction upon the uterus is exercised in order to get the clamp outside the abdominal wall, thereby causing pain. Another objection is that the stump sometimes gives trouble if it become adherent to the cicatrix, a regular menstrual discharge taking place occasionally every month. Still, it is right that you should know that Mr. Wells has employed the clamp in the greater number of his cases. Mr. Baker Brown introduced the practice of dividing the pedicle with the actual cautery, and devised a cautery-clamp, which I show you here. I have employed it in several of my cases with good effect, but I do not think it so safe as the ligature; for, however careful you may be to cut the pedicle slowly with an iron not too hot, so as to sear the cut edges thoroughly, there is always the risk of some small vessel bleeding and requiring a ligature, and sometimes the burnt edges become separated and the bleeding is free. It is exactly the difference between applying torsion to a large artery and putting on a ligature; with the last, one feels perfectly safe, whilst with the former something may go wrong.

You may ask what becomes of the ligatures left in the abdomen. They become rapidly coated with lymph and buried completely, so that it is impossible to find them a few months afterwards. Possibly silk, being an animal product, may undergo partial absorption, as has been suggested; but twine ligatures do practically just as well, and are as completely hidden.

A CASE OF ALBUMINURIA WITHOUT ECLAMPSIA.

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As the condition of albuminuria in pregnant women is often complicated at the time of labour with eclampsia, it is of importance, I think, that cases where the connexion does not exist should be put on record, to assist somewhat in elucidating the pathology of puerperal eclampsia. Briefly, my case is as follows.

Mrs. C. called on me last February and engaged me to attend her in her first confinement, expected in May. She did not complain of being out of health; and, except that she looked rather pale, I did not notice anything particular about her to suspect that anything was wrong.

On March 30th, I was sent for, as she was supposed to be in labour. I found her in a very nervous and restless condition, complaining of pain over the abdomen, lumbar region of the spine, and back of the head. The skin was hot and dry. Temperature 101. There was no oedema of any part of the body. The pulse was hard and wiry, 110 beats per minute. The heart-sounds were very distinct, yet normal. The lung-sounds were normal. She had no action of the bowels for three days. The quantity of urine passed in the last twenty-four

hours did not exceed two fluid ounces. It was dark in colour, of specific gravity 1025, and loaded with albumen; so much so that, on boiling with nitric acid, the contents of the test-tube became nearly solid. There were a large number of blood-corpuscles and casts. There was no uterine action. The foetus was alive.

I concluded the case to be one of congestion of the kidneys, possibly from pressure of the gravid uterus, and I feared eclampsia. The indications for treatment were to get the skin and bowels to act well, and also to allay as much as possible the nervous condition. I did not hope to obtain much benefit until after the confinement.

The bowels I kept moved daily with the compound jalap powder and calomel. For the first three days I gave her a mixture containing tartar emetic, hydrate of chloral, and bicarbonate of potash, which had the effect of promoting the action of the skin, removing the high arterial tension, and increasing the quantity of urine to about twelve ounces daily. The diet consisted of three pints of milk and two eggs daily. This treatment was continued, with the exception of omitting the tartar emetic, until April 8th, when labour came on without any convulsion and terminated naturally in about eight hours. The child was born alive. Up to this time, the urine had contained very nearly as much albumen as at first, and was very scanty, but within twenty-four hours after confinement the amount had increased to thirty-six ounces *per diem*, and three days afterwards she was passing about two pints and a half. The albumen gradually diminished, and at the end of three weeks the urine was normal.

Here was a case, then, in which one would fully expect eclampsia, if intense albuminuria were always the cause, which fortunately it is not, although the kidney condition is, no doubt, an important factor in producing it. When I first saw my patient, she was evidently suffering from slight uræmic poisoning, and, had labour come on then, I fear the results would not have been so good; although the rapid improvement after confinement would tend to show that, in the face of serious symptoms, the most likely course to benefit the patient would be to induce premature labour.

CASE OF RHEUMATIC FEVER SUCCESSFULLY ARRESTED IN FIVE DAYS BY THE USE OF SALICIN.

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J. M., a printer by trade, aged 28, of dark complexion and spare habit of body, enjoyed very fair health up to September 1873, when he was seized with an attack of rheumatic fever following an eruption of boils in the axillæ, on which occasion he was confined to his bed for nine weeks with severe pain in all his joints, accompanied by shortness of breath and pain in the præcordial region, which, his then medical attendant assured him, implicated the heart. He made, however, a good recovery, and, with the exception of some dyspnoea, he resumed his occupation without suffering further inconvenience, until February 10th, 1877, when, on exposure to cold and damp after a hard day's work, he was seized with rigors, pains in the joints, and general constitutional disturbance, similar to what he experienced in his former attack. These symptoms increased on the 11th, and I was called in on the 12th, when I found him in the following condition:—Severe pain and swelling in the knee, ankle, wrist, elbow, hip, and shoulder-joints, with the head and neck immovably fixed; temperature, 102 deg.; pulse, 120; furred tongue, high-coloured urine loaded with urates, restlessness, sour-smelling sweat, suffusion of the eyes, and general malaise. I immediately put him upon ten-grain doses of salicin every four hours, and ordered a saline mixture, containing twenty grains of bicarbonate of potash, three times a day, and ten grains of Dover's powder at bedtime, the joints in the meantime being wrapped up in cotton-wool covered over with oiled silk; an aperient, and light farinaceous diet, with milk.

February 13th. He slept for two hours after taking the powder, but complained of intense headache, with little or no abatement of the other symptoms. Temperature, 101 deg.; pulse, 120 (as at yesterday's visit). The head and neck were still immovable. He felt the weight of the bed-clothes, which had been relieved by the use of a cradle to protect the knee and ankle-joints. He had pain in the region of the heart, over which a slight systolic murmur, loudest at the apex, was distinctly audible. The treatment was continued as before, with the addition of a mustard plaster over the region of the heart, followed up by hot fomentations, and two grains of calomel to be added to the powder at bed-time.

February 14th. He passed, if anything, a better night; but was