

I recommend chloroform; or, in other words, in which I should not hesitate to administer it.

To enter upon this subject, at present, would extend an article already of too considerable length; so that, I shall reserve my further observations for a future number of this Journal.

My chief object in the present paper is to exhibit the facts published by Dr. George Johnston and myself, taken in connexion with chloroform inhalation during labour, in their true light; and to obviate such erroneous conclusion as might be arrived at, from a hasty perusal of the paper published in May, 1863, by the late Dr. Johns.

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ART. VIII.—*Case of Fibro-Cystic Tumour of the Uterus.* By T. SPENCER WELLS, F.R.C.S., Surgeon to Her Majesty's Household, to the Samaritan Hospital, &c.

ON the 20th of June, 1864, I arrived in Dublin, having been requested by Dr. Stokes to come prepared to operate in a case which he and Dr. Beatty considered did not admit of delay. I saw the patient at once with Dr. Stokes. She was a single lady, forty-five years of age, extremely emaciated, but in excellent spirits. Dr. Stokes had detected two apparently solid tumours in the abdomen ten years before. One appeared to be central, and a little above the umbilicus. The other to the right side, under the anterior superior spinous process of the ilium. They were then, each, about the size of a goose egg. Increase had been slow at first; and no alteration in dress had been called for till a year ago. During the past two months increase had been very rapid. The abdomen was enormously distended, measuring fifty-six inches in girth at the level of the umbilicus, nineteen inches from the ensiform cartilage to the umbilicus, sixteen from umbilicus to symphysis pubis, twenty-three from the right anterior superior spine of the ilium to the umbilicus, and nineteen inches from the same process on the left side to the umbilicus. The greater prominence on the right side was very visible; the skin covering the umbilicus was distended by fluid simulating an umbilical hernia. Above the umbilicus fluctuation was very evident; but the fluid was evidently free in the peritoneal cavity, and covered a solid or semi-solid tumour that could be felt on displacing the fluid by deep pressure. Some of

the superficial abdominal veins were dilated, but were not varicose; the fluctuation below the umbilicus was very indistinct, and the tumour appeared to be adherent. Examination *per vaginam* showed the uterus was high, but central; the os virginal; the cervix absorbed or atrophied, and behind it a small portion of the tumour could be felt through the vaginal wall. The uterine sound passed to three and a-half inches. Menstruation had passed off quite naturally early in June; but there had been no appearance for the previous months. Up to that time she had been quite regular. There was no history either of excess or deficiency. The left leg was slightly œdematous, and she had occasionally felt it weak and painful. She had never been tapped.

The diagnosis which I made and wrote down was:—"A quantity of fluid free in the peritoneal cavity above the umbilicus—ascitic or ovarian? Below the umbilicus a large attached multilocular cyst." In consultation with Drs. Beatty, Gordon, and Stokes, it was agreed that I should tap above the umbilicus, and if the tumour appeared to be firmly adherent do no more; but if the tumour was not attached, to remove it. Accordingly, Mr. Macnamara having administered chloroform, and with the kind and able assistance of Drs. Beatty and Gordon, I tapped, with a very long trocar, above the umbilicus, and removed about thirty pints of clear rather viscid fluid. When all the fluid had escaped, the canula (which is fourteen inches long) was passed in all directions between the surface of the tumour and the abdominal wall, proving that there were no adhesions within reach. Fluctuation was also detected in different parts of the tumour. After removing the canula, and closing the small opening, I made an incision below the umbilicus about six inches long, and exposed what appeared to be two ovarian cysts separated by a deep fissure. I tapped that on the left side, and about ten pints of bloody serum escaped; two or three pints more of similar red fluid escaped after puncturing again within the cyst first opened, by pushing on the trocar without removing the canula. The tumour was then withdrawn, and found to have two attachments—one above to the tumour on the right side, and one below to the uterus. The former attachment was broken through, and two bleeding vessels on the torn surface of the right tumour were secured by silk ligatures. The left broad ligament was then transfixed, tied in two halves with strong silk, and the tumour was cut away. It then became a question what should be done with the tumour on the right side; and looking to its great size, solidity, evident close

connexion with the transverse colon, and with the omentum which contained some enormously distended veins, it was decided, with the full concurrence of Drs. Beatty and Gordon and Mr. Macnamara, that no attempt to remove this tumour should be made, especially as the patient was becoming very feeble. The wound was accordingly closed, and the patient placed in bed. She was extremely feeble, and brandy was administered freely; but she never rallied, nor recovered consciousness, continued to sink, and died about three hours after she had begun to take chloroform.

The following description of the tumour which I removed is the report of Dr. Ritchie, who examined it with great care twenty-four hours after removal:—

“The tumour is an irregularly flattened oval, weighing about twenty pounds, and composed almost entirely of solid matter. Its greatest length is 18 inches; breadth, 12 inches; thickness, 7·8 inches. For purposes of description it may be divided into an anterior and posterior surface, a right and left side, and an upper and lower extremity; but it must be remembered that its position before removal was oblique, the posterior surface being turned considerably to the left side of the body.

“The posterior surface is comparatively smooth and flat, of a dull grey colour, marked here and there with crimson traces of inflammation. It is entirely invested with peritoneum, and through that layer shines a fibrous tissue which, in the centre of the tumour, forms a dense net-work, but towards the superior extremity is arranged in open meshes, some of them one inch in diameter. Inferiorly the surface loses the glistening appearance which its upper portion presents, and is of that dull grey colour so characteristic of the presence of adipose tissue.

“The general shape of the posterior surface is that of the body of a guitar; and from the narrow constricted part hangs, on each side, a semi-detached tumour, that on the right side being about the size of a small orange; that on the left four or five times as large, and more irregular in shape. Immediately above the irregular tumour is to be found the pavillion of the Fallopian tube (left), which runs downwards a distance of  $6\frac{1}{2}$  inches, and is lost on the surface of the tumour—at least it was impossible to follow it farther. Just before breaking up into its terminal fimbriæ the Fallopian tube dilates into a transparent cyst the size of a small bean; this cyst does not communicate with nor obstruct the canal of the tube.

“The anterior surface, which looks also somewhat to the right,

is much more irregular than the posterior, and is covered with several layers of false membrane, which are deeply injected, and in some places quite black. Inferiorly, and a little to the left, is the spot at which the tumour was amputated—an irregular surface, consisting of two circular facets, about  $3\frac{1}{2}$  inches in diameter, joined by a bridge 2 inches long by  $\frac{3}{4}$  broad. Below, and to the outer side of the cut surface, is found the left ovarian ligament, about 3 inches long, and terminating, without any well-marked line of separation, in an ovary, which, although flattened and drawn out, appears normal, and contains a corpus luteum. The superior extremity of the tumour is convex, and consists of a large cyst whose contents have been evacuated. The inferior extremity is rounded off, and presents nothing worthy of remark.

“*Structure of the Tumour.*—On making a longitudinal section the tumour was found to consist of fibrous tissue, arranged in different fashions and in different states of perfection, and split up by little cavities of various sizes, containing serum more or less transparent. In some places the fibrous tissue was arranged in concentric lamellæ, and it was then possible to isolate, by the fingers alone, little masses varying in size from that of a nut to that of an apple, and resembling much the round fibroids of the uterus. These little masses, however, were never removed entirely whole; their connexion with the surrounding tissue was much more intimate than it is usually in an uterine fibroid. In other places the fibres were interwoven without definite arrangement; towards the inferior extremity they seemed to be in process of fatty degeneration, and in several places little calcareous masses, without any well-defined structure, were discovered. Just at the inferior extremity the surface was rendered irregular by some little hard nodules, which, on being cut into, presented the appearance of tubercle. The solid tissue was everywhere permeated by large blood-vessels, and in several places blood-cysts, the size of a barleycorn to that of a pea, were demonstrated. The largest cyst was at the superior extremity; it was about the size of an adult head, and its internal surface presented traces of having primarily been divided into several compartments. The thinnest part of the cyst wall was  $\frac{1}{4}$  inch; its lining was smooth and glistening, having much the appearance of a serous layer. At one point there projected into the cavity a yellow nodule the size of a bean, and spherical in shape. With a little trouble this nodule was taken away entire, and found to consist of a smooth investing fibrous capsule, and contents which were partly granular partly oil

globules. From the large cyst a little passage, through which might be passed a common lead pencil, led down into the little tumour which was described as attached to the right side of the tumour. The corresponding one on the opposite side was also hollowed, but had no communication with the large cyst. The cysts contained in the solid substance of the tumour were of various sizes, from a mere trace to several inches in length; their lining membrane could not be separated from the surrounding tissue; some of them communicated together by means of slender tubules."

The body was examined after death by Dr. Gordon, and the following is a description of the tumour which we did not attempt to remove:—It consisted partly of a cyst and partly of a fibro-cystic tumour. The cyst was spherical, about a foot in diameter, empty (its contents having escaped through a smooth-margined opening, an inch in length), and it adhered to the anterior abdominal wall; with this exception, the whole surface of the cyst was free and unattached, except inferiorly. The walls were extremely thin superiorly, so that at first sight they appeared to consist exclusively of peritoneum, marked, however, by the course of large vessels. Inferiorly the cyst wall was capable of being split up into three layers, the outer serous, the middle one apparently muscular, and the internal one epitheliated. A little to the right, and inferiorly, the tumour was attached by a pedicle,  $3\frac{1}{2}$  inches long, 2 inches broad, and  $\frac{3}{4}$ -inch thick.

This pedicle was covered with a serous layer, and consisted of fibrous tissue, hollowed out here and there into little cysts, similar to those described as having been seen in the tumour removed by operation. The extremity of the pedicle had been connected with the anterior portion of the solid tumour, but was detached by the weight of the latter, when being taken out of the body. The cyst, at the operation, was seen collapsed, and lay immediately above the transverse colon, in front of which the pedicle descended. The inferior border of the cyst was further attached to the transverse colon by strong adhesions, in which were found several large blood-vessels and some lymphatic glands; two of the latter being enlarged and infiltrated with tubercle.

A part of the omentum was attached to the colon, and in it the veins were enormously distended and much convoluted. They were full of air, and resembled rather the small intestines of a fowl or of a rabbit than the blood-vessels of a human being.

On examining the uterus and the enormous fibro-cystic tumour

which was springing from its fundus, the vaginal portion of the uterus was found to be altogether atrophied—the vagina terminating in a virginal os uteri; and the sensation conveyed to the finger was that of a very light movable uterus. On looking for the body of womb, its place was found to be occupied by a long flexible tube, crackling under pressure, like thick parchment. From the upper, somewhat dilated, extremity of this tube, sprang the right Fallopian tube and the right ovarian ligament. This was in normal relation to the right ovary, which also appeared healthy. The vagina and the elongated uterus were now slit open, and the length of the entire cavity of the womb was found to be 7 inches, that of the cervix alone  $3\frac{3}{4}$  inches. The greatest width of the uterine cavity was close to the fundus, but did not exceed  $\frac{3}{4}$  of an inch. The left Fallopian tube had been cut through half an inch from its uterine extremity.

The walls of the uterus, like the Fallopian tube, were of normal thickness. From the fundus sprang a fibrous column, 5 inches long, 3 inches deep, and  $1\frac{1}{2}$  inch broad, encircled at its upper extremity by a ligature. The left side of this fibrous column presented a roughly cut surface, 5 inches long and 3 inches broad or deep, being the point which the tumour first described had been cut through at the operation. The tumour which was left was an enormous mass, 18 inches in length, 16 inches in breadth, and near its centre fully 7 inches thick. The posterior surface was of a greenish colour, from commencing decomposition, and its smooth external glistening tunic here and there raised by rounded projections, of all sizes, from the head of a pin to that of a child. Some of these projections evidently contained fluids, others were hard, and their fibrous nature sufficiently apparent without the aid of dissection.

Here and there were traces of adhesions. On the anterior surface the walls were intensely congested with occasional rounded projections. The lower two-thirds of the tumour were, however, separated by a deep sulcus from its upper third, so that the two bodies appeared distinctly separate. The upper tumour was 11 inches broad by 6 inches long, and 6 inches in depth; its general shape strongly suggestive of an enlarged liver. In structure the tumour was precisely similar to the one removed by operation, and described by Dr. Ritchie.

*Remarks.*—One of the soundest objections raised to the admission of ovariectomy among those surgical operations which have been

generally looked upon as "legitimate"—(or, in other words, which it is the duty of the surgeon to perform if he is called upon to try and save the life of a patient when threatened by a dangerous disease)—is the difficulty of diagnosis. And the supporters of the operation, while they assert that many of the mistakes which have brought discredit on surgery ought not to be repeated at the present day—and can only be repeated by the ignorant or the careless—admit that, in some rare cases, it must be almost impossible to arrive at a perfectly correct diagnosis before the commencement of the operation. Still advancing knowledge makes such exceptions rarer and rarer; and it seems probable that even such cases as that described, will soon be eliminated from the list of those in which an exploratory incision must be made, or the operation of ovariectomy commenced, before the surgeon can be positively sure as to the precise nature of the growth with which he has to deal.

In the fourteenth volume of the *Transactions of the Pathological Society of London*, page 204, may be found a short account of a fibro-cystic tumour of the uterus which I removed from a single lady, aged 53, on the 30th of April, 1863. One large cyst had held 26 pints of fluid and 4 pounds of fibrine; and a solid mass, which weighed more than 16 pounds, resembled very closely the mass just described by Dr. Ritchie. The patient sank, from shock, four hours after operation, although the tumour was completely removed; and there was so little difference in the pedicle from that often seen in ovariectomy, that it was not until after *post mortem* examination that the true nature of the case was discovered. Given, a large semi-solid tumour, fluctuating in some parts, containing cysts holding upwards of 20 pints of fluid, moving beneath the abdominal wall, the uterus being movable, and not enlarged so far as measurement by the sound can detect, no sound or arterial impulse to be heard which is not often heard in ovarian tumours, and no history of hemorrhage leading to a suspicion of uterine disease—and it will be admitted that these characters of the two fibro-cystic tumours of the uterus which I removed, so closely resemble those of semi-solid ovarian tumours, that diagnosis must be very uncertain. Even after an exploratory incision, I know of nothing but a rather darker—less pearly blue—aspect of the tumour which would put the surgeon on his guard. In any doubtful case it would be well to tap the largest cyst and examine the fluid. In both my cases this was peculiar—not the viscid mucoid fluid of multilocular ovarian cysts, but a thin serum, with 5, 10, or 15 per cent. of blood intimately

mixed with it, and not separating until after standing for some hours. In this way I have satisfied myself, in at least four cases, that tumours, which others considered to be ovarian, were really fibro-cystic uterine growths. If the operation has been commenced, and the dark aspect of the tumour is observed, it would certainly be advisable not to do more than tap one or more of the largest cysts before examining attentively the connexions between the uterus and the tumour. If these should prove to be very intimate, it will be the unpleasant duty of the surgeon to desist from any attempt to do more, and to close the wound as soon as possible. At least, the two cases in which I made the attempt to do more, have convinced me that I tried to do more than can be done with a fair and reasonable hope of saving life.