CASE OF
SUCCESSFUL REMOVAL, PER VAGINAM,
OF A CANCEROUS (AND PREGNANT)
UTERUS.

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THE patient, a well-nourished woman, aged thirty-four, was admitted to the Bristol Royal Infirmary in September, 1886, with characteristic and well-marked signs of uterine cancer. She had had eight children (twins on two occasions), and her frequent and excessive hæmorrhages had been attributed to miscarriages. It is very probable that she had had miscarriages; indeed, it was suspected before operation that she was pregnant, though bleeding had been almost continuous up to the date of admission.

The epitheliomatous growth was for the most part confined to the cervical canal. Hard cauliflower granulations sprouted from the os, and the whole of the posterior lip was occupied by nodular growths, which bled freely on being touched. The vaginal portion of the cervix and the growth in it together were in bulk about as large as a tennis-ball. The contiguous vaginal surfaces were healthy; the uterus was freely movable, though it was considerably enlarged (the sound entered four inches); signs of implication of glands, broad ligaments, bladder, or rectum were absent; and the patient was in good condition, though anæmic. On the whole, it seemed to be a suitable case for operation. The decision was not definitely to remove the whole uterus, but to begin as if for supra-vaginal amputation, and, if this operation did not seem radical enough, to perform total hysterectomy. The first steps of partial amputation, as I perform it, are identical with the first steps of total amputation. When the cervical mucous membrane is detached the finger can reach as high as the internal os outside, and, being in actual contact with uterine fibres, can diagnose the condition with accuracy. Pregnancy would have little influence either way; probably its existence would favour complete removal. After partial amputation abortion would take place, and the bleeding and discharging would add to the patient's risk.

Preliminary cleansing of the parts was carried out for three days before the operation, and immediately before operating the whole of the genitals were washed with 1 in 20 carbolic lotion. The patient was placed in the lithotomy position. The cervix was caught in strong vulsellum forceps, which were entrusted to an assistant, who pulled down the uterus, and manipulated it according to direction. The mucous membrane surrounding the cervix was divided all round by scissors at a safe distance from the new growth, and was dissected upwards by scissors and fingers, catch forceps being placed on bleeding points. As high as dissection could be carried without entering the peritoneal cavity induration was felt in the uterine tissue; it was therefore decided to remove the whole organ. The peritoneum behind was perforated by the finger close to the uterus, and enlarged laterally by tearing. In front the peritoneum was opened by pushing a Lister's sinus forceps through it close to the uterus, and the opening enlarged sufficiently to admit the finger by separating the blades. The finger, inside the abdomen, readily tore the peritoneum from the uterus close down to the broad ligaments. I then endeavoured to hook the finger over the top of the broad ligaments so as to place on them the clamp forceps which I had some time previously devised for the purpose. But the ligaments were so much elevated by the enlargement of the uterus that I could not reach high enough; and, besides, they were so voluminous that the clamp could not have efficiently grasped them; I therefore proceeded to antevert the uterus. This was done by taking successive grips of its anterior surface by means of powerful catch forceps, placing one above the other, and so gradually and completely anteverting the whole organ. A sponge had been previously placed in the abdominal cavity through the posterior opening to keep the bowels out of the way and absorb any fluid that might be effused. The fundus now lay between the labia, distending the vagina. By dragging it to one side and retracting the labia the top of one of the broad ligaments could be brought within reach. A powerful Wells's forceps was made to grasp

as much as possible of the ligament (including the Fallopian tube and round ligament of course) close to the uterus. A corresponding depth of the ligament was then caught in a silk ligature at a distance of about a third of an inch from the forceps and divided between. This division enabled the uterus to be drawn down a little further. Three other ligatures were successively placed in the same way, and one side of the uterus was thus fixed, the catch forceps being left on the uterus. The same proceeding was then carried out on the other side, and the uterus was removed. The vessels in the broad ligament were very large and very numerous, and it was deemed wise to leave the catch forceps attached to the ligaments where the vessels were most numerous, so as to give extra security against hæmorrhage. These were removed after twenty-four hours. The sponge was now removed from the abdominal cavity; a clean sponge re-introduced removed all blood clot, and at the same time pulled the peritoneal flaps downward over the mucous flaps, so that the raw surfaces lay in contact and the serous surfaces were apposed. No stitches were used. The vagina was finally cleansed; iodoform powder was insufflated, and pure boroglyceride smeared all over the external parts. A small plug of iodoform wool in a fold of carbolic gauze was placed in the vagina to fix the forceps. The operation occupied about forty minutes.

Next day the vaginal plug was taken out and the forceps removed. In the track of the forceps an ordinary glass drainage-tube was carried inside the abdominal cavity, the end lying outside the vulva. By means of an irrigator the cavity was washed out through the tube with warm boroglyceride solution every six hours. Before each cleansing the urine was drawn off; then the genitals were washed, the tube isolated with sal. alembroth wool, and plugged with a roll of wool, which at once acted as a capillary exhauster and as an antiseptic. After four days the tube was removed, as there was no discharge; but vaginal irrigation was continued for a few days longer.

The patient's recovery was most easy and straightforward. On the second day there was some tympanites, which was relieved by a turpentine enema. On the third day a saline purge was given, followed by another enema, and thereafter tympanites gave no trouble. There was no sickness. Her progress was, in fact, as rapid and as satisfactory as that seen after an ordinary ovariectomy.

The uterus, on bisection, was found to contain two foetuses and their membranes, about six weeks or two months old. But its measurements were larger in proportion, as might be expected. The cancerous growth in the cervix was much crushed by forceps, and the fundus and sides were also compressed and flattened by instruments, so that the measurements were inexact. Roughly its length was about seven inches, the other dimensions being proportionate. The disease extended up the whole of the cervical cavity, and abutted on the foetal membranes.

Appended is a drawing of the forceps which Weiss made

for me some months ago for the purpose of clamping the broad ligaments. It consists of two grooved blades, which lock over the top of the broad ligaments, and are tightened by a screw at the end of handles which lie in the vagina and pass outside the vulva. On the inner aspect of the clamp grooves are placed to carry a small knife, with its edge set obliquely to the handle. When pushed up the grooves it cuts the broad ligament away from the uterus. The clamps, one on each side, are placed and tightened, and when the circulation is thus completely stopped the uterus is cut loose by simply pushing the knife up the grooves on the clamp, first on one side and then on the other. The compressing edges of the clamps are deeply slotted to prevent the possibility of their slipping; elsewhere they are rounded and smooth so as to avoid irritation of peritoneal surfaces. It matters little whether the anterior or the posterior blade is first placed; only the grooves must be placed towards the uterus.

It has been abundantly proved that crushing or compression maintained for forty-eight hours on vessels the size of the uterine arteries is efficient and trustworthy for per-

manent hæmostasis. The instrument is intended to avoid the chief difficulty in kolpo-hysterectomy—the application of ligatures to the broad ligaments. It also renders the operation an extremely easy one. On the dead body it is possible to remove the uterus in five minutes and leave the parts in a satisfactory surgical condition.

Remarks.—The latest statistics of kolpo-hysterectomy show, in a total of 350 cases, a general mortality of about 26 per cent. This mortality is steadily decreasing. In the hands of specially skilful operators the percentage of deaths is under 10; indeed, a hundred cases could be gathered as representing the whole of the operations of four men, with a death-rate of only six. Brennecke and Schede can show records of 18 and of 16 operations respectively, all successful; Fritsch has lost 2 out of 24; Martin is well through his second 50 operations, with a mortality under 9 per cent.; and Sängner, with a few others, have almost equally brilliant results.

The amount of literature which has accumulated around the operation is truly enormous. The variations in details are very numerous and very confusing; but unessential details are being eliminated, and the methods are now settling down to a few definite practices which are followed by the most noted operators. The essential details in the operations I would shortly describe as follows:—1. Thorough preliminary cleansing of the accessible genital parts. This ought to include the vulva and labia, as well as the vagina and cervix, and ought to be particularly exact in the deep sulci of the external parts, which are so liable to harbour filth. 2. A bladder and rectum perfectly empty and collapsed. A sound in the bladder is quite unnecessary. The forefinger, after a little practice on the cadaver, can readily feel and recognise the bladder wall, and easily diagnose its relations. 3. Circular denudation of the mucous membrane surrounding the cervix, and separating it, close to the uterus, as high as it will go without force. 4. Perforation with finger or blunt instrument of the peritoneum behind and in front of the uterus, and close to that organ. If a blunt instrument is used the bowels cannot be wounded, and if perforation is made close to the uterus, the rectum cannot be wounded behind nor the bladder or uterus in front. The peritoneum is to be separated from the uterus laterally as far as the broad ligaments, and no further. 5. Efficient surgical hæmostasis of the vessels in the broad ligament: This may be done by temporary forcipressure, or by compression instruments such as those I propose, the uterus being cut away between them. If deligation be decided upon, inversion of the uterus renders the method easier. Silk is a trustworthy ligature, and simpler of application than any other. 6. Apposition of serous and of raw surfaces. This may be effected by simply pulling out of the abdomen into the vagina a sponge placed there at an early stage of the operation; stitches are unnecessary, as the parts lie naturally in apposition. This arrangement of flaps permits of free drainage from the peritoneum, and from the denuded surfaces back into the vagina. 7. Abdominal drainage per vaginam for a few days is expedient, if not necessary. If clamp forceps are used drainage may be dispensed with. A simple straight tube is quite efficient.

Bristol.

NOTES OF A

CASE OF ACUTE DIFFUSED MYELITIS; RECOVERY.

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DISEASES of the spinal cord are now attracting so much attention that the notes of the following remarkable case may be perused with interest. It is probably seldom that recovery—complete recovery—takes place in so severe an attack as that which is the subject of these notes. The absence of the complications in the chest and on the surface, which so commonly occur in cases of myelitis, was greatly due to the high character of the nursing which the patient was fortunate in receiving. She was unable to lie on her side on account of the pain which it occasioned. She was therefore kept with her shoulders raised as much as possible, and moved frequently. The nates were carefully protected with pads of cotton-wool, and the utmost cleanliness was

observed. At one time the paralysis was so complete that she was unable to move any part of her body, and the respiration was of the shallowest possible character. Careful inquiry elicited an exposure to cold as the cause of the mischief. But there was no reason apparent why the spinal cord should specially suffer. Much care was taken with the use of galvanism, and its effect on the patient was carefully watched; I have seen much mischief occasioned by the too early use of it in cases of myelitis. The notes appended by Dr. Clifford Allbutt, who saw the case with me, and by Dr. Gowers, who has been kind enough to criticise the case from my notes, will be read with interest.

Miss —, aged sixty-five, was first seen on Oct. 25th, 1885. A short, spare woman, hair white, of a kind disposition, cheerful, and thoughtful for others. Has enjoyed good health; father suffered from gout. Called me in to see her for pain in the lower end of the œsophagus on swallowing, “as if something had stuck in her throat.” There were symptoms of subacute gastritis. In the course of three days the gastric symptoms were relieved, but the pain on swallowing remained. Right sciatica now came on, followed next day by extension to the left side, and the day following she faltered in rising from her seat. I sounded a note of alarm, and requested a consultation with Dr. Clifford Allbutt. She rapidly became much worse. The legs became paralysed, the arms painful down the course of the main nerves, the breathing shallow, and there was a feeling as of a cord being round the waist and also round the legs. When her legs were lifted from the bed they “flopped about.” There was great weakness of hands and arms. Bowels confined; urine escaped involuntarily. The pain in the limbs was much worse after movement. There was considerable cerebral excitement. My diagnosis was “spinal meningitis—myelitis.” I gave her bichloride of mercury, iodide of potassium, and cinchona. This was her condition when on Nov. 3rd I saw her with Dr. Allbutt. We then examined her together. She was able to say which leg was touched, and felt the difference in succession when touched with sharp points. When seen it was afternoon, and she expressed herself and appeared slightly better than she had been in the morning. This suggested to Dr. Allbutt the idea that the case *might* be one of peripheral neuritis, and inquiry was made as to the patient's habits, with negative results. But for this he would have diagnosed acute ascending paralysis. The improvement was, however, most transient. She rapidly got worse and could not raise her head, and when it was raised it moved powerlessly about. The patient's breathing was shallow in the extreme, and hurried. The pains in the limbs subsided as the paralysis increased. The fæces had to be scooped out of the rectum by the nurse. The urine would only flow through the catheter when the body was firmly pressed by the hand. When either knee was touched she could tell the difference, but if one was touched after the other she was not aware of the change. When at the worst, she appeared unable to see the night through on account of the inability to breathe. She was then entirely powerless from head to foot. There was extreme emaciation. I gave her dilute phosphorus acid, ammon. carb., and cinchona, with a draught of hydrate of chloral with bromide of ammonium at night, as she could not sleep. Reflex contraction was lost at the knee and the sole of the foot. From the worst point she gradually improved. The breathing gradually became deeper, then she could swallow a little better, then move a finger. Her hands, as she improved, were held straight (unbalanced action of extensors), and were stiff and tremulous, and felt soft and puffy. She gradually got power of control over the bladder; first she could empty it herself when the catheter was introduced, then she could control the action of it. The urine had become muco-purulent; this improved. The legs could after a time be moved, “after the nurse had worked them about freely first.” Power returned in the flexors of the legs before the extensors; the reverse in the hands. I changed the medicine to bromide of ammonium with oxide of zinc, with sleeping draughts of morphia and belladonna. There had been no indication of lung mischief apart from the paralysis. The temperature had not exceeded normal. There was no facial paralysis. This report is to Dec. 11th, 1885.

On Dec. 21st the report was as follows:—Can move her left hand above her head. Able to sit on the edge of the bed with assistance. Has not passed urine involuntarily for the last fortnight; it has been drawn off by catheter. More control over the rectum; fæces have not now to be scooped out. Can raise her thighs to a right angle. Has very