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HYSTERECTOMY FOR CANCER OF THE BODY.

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Dr. AMAND ROUTH thought that this case was of great importance, if only to remind obstetricians that essential conditions might be the cause of convulsions during pregnancy. He was much interested in the glycosuria found in this patient, and wondered if it were due to the cerebral disease. He pointed out that the glycosuria could not have been due to absorption from the mammary gland.

Dr. HERBERT SPENCER said that this important case emphasised the necessity of great care in the diagnosis of "eclampsia." Absence, or a small amount of albumen, should especially put us on guard. He had seen two such cases in which there was no history of epilepsy and no sign of hysteria. One of the patients had always a severe convulsion with the loss of consciousness during coitus; they ceased entirely after the birth of the first child, and the patient had recently borne a child normally. He also had known septic meningitis give rise to fits in a glycosuric patient, from whom a pyosalpinx had been removed.

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larged in cancer of the cervix, so that in vaginal hysterectomy there was usually no difficulty in removing the body of the uterus on account of its size. Again, there was, as a rule, less general disturbance after vaginal hysterectomy,—less tendency to vomiting, distension, rapid pulse, and less pain,—than in operations involving opening the abdomen in the usual position. In a purely abdominal pan-hysterectomy for cancer of the cervix the vagina had, of course, to be opened into from above, and the incision might or might not clear the malignant growth. Some portion of it was almost certain to be left behind, and the operation thereby be rendered useless. It was true that this objection might be met by performing a combined operation, partly from below, freeing the cervix as in the first stage of a vaginal hysterectomy, and then completing the operation from above. This procedure would, he thought, be generally admitted to be at least inconvenient, owing to the loss of time in altering the position of the patient, and having again to go through the processes for disinfecting the hands prior to opening the abdomen. At least this had seemed so to him in the few cases—some of them for uterine fibroids—in which he had adopted it.

Again, in abdominal hysterectomy it was far easier to remove the upper portion of the broad ligament with the tubes and ovaries than when the operation was performed from below, but in cancer of the cervix this was a matter of little or no importance, since the disease had no tendency to spread in the direction in question, at all events at a stage of the disease when hysterectomy was likely to be performed.

Another point was that if ligatures were used to secure the vessels, these could be tied, as a rule, much more securely in abdominal than in vaginal hysterectomy. Still, as a matter of experience, there was rarely any difficulty in sufficiently securing the vessels in the latter operation, either by ligatures or pressure forceps.

There was one more question to be thought of in considering the operation to be chosen in cases of cancer of

the cervix. He referred to the infection of the lymphatic glands. If it were the fact, as was maintained by some authorities,\* that the glands were always or generally affected in those cases of cancer of the cervix in which, as far as physical examination could ascertain, the disease had not spread beyond the limits of the uterus, no operation would be satisfactory by which these glands were not removed; and hence abdominal hysterectomy with removal of the glands would have to be the routine operation in all cases of cancer of the uterus, whether of the cervix or of the body, when any radical operation was to be done at all. But it was certainly not the fact that the glands were always affected at a stage of the disease when hysterectomy would be contemplated, nor did he believe it to be anything but a very unfrequent occurrence at the stage of the disease in question. The proof of this lay in the after-histories of cases operated on for cancer of the uterus in which the glands had not been removed. Among his own cases he had recorded a series of forty vaginal hysterectomies for cancer in the 'Transactions' of the Royal Medical and Chirurgical Society of London.† The specimens and sections of them were shown at the meeting at which the paper was read, and the malignant nature of each was admitted. Yet among them he was able to point to twelve cases out of forty in which the after-history of the patient was known, and in which the disease had not recurred. Two of these remained well seven years after the operation, one six years, one five years and a half, one five years, one nearly five years, one nearly four years, one more than three years, two nearly three years, one more than two years, and one more than one year. He might instance, also, several cases from an earlier series of operations for cancer of the cervix in which he merely performed the supra-vaginal amputation of the cervix. Some of the patients were

\* *E. g.* by Dr. Jacobs, of Brussels.

† At the meeting in November, 1900.

known to be well many years after the operation. In each case the specimen and sections were exhibited at the meeting\* of the Royal Medical and Chirurgical Society at which the paper recording the cases was read, so that there could be no doubt as to the disease being cancer. It was clear that the after-histories of these cases sufficiently proved that the glands were not by any means always affected in cases of cancer of the uterus at an operable stage. His own belief was that when the glands were affected the disease had usually already advanced beyond the limits of the uterus, either to the vagina or connective tissue round the cervix, and any operation having for its object the cure of the disease, or even prolonged freedom from recurrence, was already *ipso facto* contra-indicated.

We might therefore conclude that for cases of cancer of the cervix requiring removal of the uterus the operation of election should be vaginal hysterectomy.

When, however, we came to consider cases of primary cancer of the body of the uterus, we were on much more debatable ground. In cancer of the body of the uterus the cervix, and especially the vaginal portion of the cervix, was generally altogether unaffected. At times, in rare instances, the malignant growth had spread a variable distance down the cervical canal, and it might even show at the external os uteri. This was a very rare event, and even when it occurred the outer surface of the vaginal portion was not involved. Hence in performing abdominal pan-hysterectomy, when the vagina was opened into from above, so long as the incision cleared the cervix—and it was a matter of no particular difficulty to make sure of this,—there was no risk of leaving some of the malignant growth behind. Again, the body of the uterus was considerably enlarged, and, on the other hand, as the subjects of this disease were for the most part elderly women, and between fifty and sixty, or older, the vagina was narrow from the contraction due to the

\* At the meeting in December, 1892.

senile atrophy occurring after the menopause. As many of the patients were sterile, the vagina had, even before the menopause, not been dilated to the capacity found in parous women. Both on account of the size of the uterus and of the narrowness of the vagina, removal of the uterus from below was a more difficult matter than from above. In abdominal hysterectomy, also, the fact that it was an easy matter to remove the ovaries and tubes with a good width of the upper part of the broad ligament on each side of the uterus was, in primary cancer of the body, a distinct advantage. An objection to the abdominal route deserving mention was the risk of fouling the peritoneum with the discharge escaping from the os uteri as the uterus was brought upwards. This might, however, be avoided by passing a stout ligature through the vaginal portion of the cervix, so as to encircle the os, and tying it tightly.

One more important question was the relative mortality of the two operations. Soon after Czerny had re-introduced vaginal hysterectomy in 1879, Freund began to remove the uterus by abdominal section. The mortality, as stated in Greig Smith's work on abdominal surgery, was nearly 70 per cent. The mortality of vaginal hysterectomy for cancer about the same time, or within the next five years, was in the neighbourhood of 30 per cent. Thus, the abdominal method being so much the more dangerous, gradually fell into complete disuse, and for some years vaginal hysterectomy was alone practised. Though the operation for cancer had been abandoned, the technique of abdominal hysterectomy for fibroids continued to receive the closest attention from many operators. In this way were evolved the two operations for fibroids now in favour: first, abdominal hysterectomy, with intra-peritoneal treatment of the cervical stump, the essential point in the operation being the ligature of the uterine arteries outside uterine tissue; and next, abdominal pan-hysterectomy, or removal of the whole uterus by an operation conducted entirely from

above. Both these operations had now a very low mortality, probably not exceeding 5 per cent. He was led to perform abdominal pan-hysterectomy for fibroids by reading Martin's paper in the 'Transactions of the Edinburgh Obstetrical Society for 1896,' and he had adopted it in five cases, all of which made uneventful recoveries, though in most of his hysterectomies for fibroids he had been quite content with abdominal hysterectomy, with intra-peritoneal treatment of the stump. Of course, it must not be forgotten that during the period in question the mortality of vaginal hysterectomy for cancer had also been greatly reduced. In his own series of forty cases, already referred to, the mortality, for instance, was  $7\frac{1}{2}$  per cent.

It was probably not far from the truth to say that at the present time, in the case of an operator who had had experience in both operations, there was not much difference in the mortality of abdominal pan-hysterectomy and vaginal hysterectomy for cancer.

On the whole, therefore, it seemed to him that for cancer of the body of the uterus abdominal pan-hysterectomy had in many cases preponderating advantages.

Although, as above mentioned, he had performed abdominal pan-hysterectomy for fibroids, he had as yet only performed the operation for cancer of the body of the uterus in two cases, the notes of which were as follows.

CASE 1.—Mrs. R—, aged 54, came to see me on February 12th, 1900. She had been married fifteen years, but had never been pregnant. She had been quite regular up to the age of fifty, when she had synovitis, and stayed in bed for some time, after which menstruation ceased altogether. In July, 1899, she began to have some vaginal discharge. It was at first colourless, but afterwards sometimes yellow and sometimes of a brown colour, and continued up to the time I saw her. She had had no pain at all, and did not think she had lost weight. The discharge had at times had an unpleasant smell.

There was nothing else in the history of any special interest. Nothing abnormal was detected on examining the abdomen. On vaginal examination the external genitals were redder than normal, and slightly sore-looking, and there was some yellow discharge at the vaginal orifice. The vagina was extremely narrow, and examination with one finger caused a good deal of discomfort. The examination was not very satisfactory on this account, but as far as could be made out the uterus was freely movable, and the internal os rather small. There was nothing abnormal as regards the vaginal portion of the cervix. The extreme narrowness of the vagina was shown by the fact that the patient could not bear the smallest Fergusson's speculum to be passed. A small rectal speculum was, however, passed into the vagina, but as it was rather less than half the length of an ordinary Fergusson's speculum it only showed the lower two inches of the vaginal walls, which were thickly covered with the yellow discharge above mentioned. I advised the patient to have the cervix dilated sufficiently to allow the interior of the body of the uterus to be examined with the finger. She consented to have this done, but as she wished to return to the North of England for a fortnight, it was not till March 1st that she entered Fitzroy House. The next day, March 2nd, with the usual antiseptic precautions, a specially prepared laminaria tent was inserted into the cervix. To do this, owing to the narrowness of the vagina, it was necessary to have the patient anæsthetised. Speaking from memory, I believe I have only once before found it necessary to have a patient anæsthetised for the insertion of tents, so that it would be seen that the narrowness of the vagina is such as to cause real difficulty in dealing with the case. On the next day, March 3rd, the dilatation of the cervix was completed under an anæsthetic with Hegar's dilators. A growth was found high up in the endometrium; a portion of it was removed for microscopic examination, though I felt little doubt after the



digital examination of the endometrium that the growth was malignant. The portion of growth removed was sent to the Clinical Research Association, and Mr. Targett reported that it was carcinomatous. The patient was accordingly advised to have the uterus removed, and to this she consented.

*Operation* (April 11th, 1900).—The preliminary dilatation of the cervix for diagnosis had been so difficult on account of the narrowness of the vagina, that I decided



to remove the uterus by abdominal pan-hysterectomy. The method was the same as that I adopted in four cases of pan-hysterectomy for fibroids, an account of which was published in the 'Lancet.'\* In this case the vagina was douched with 1 in 1000 perchloride of mercury just before the operation, but I did not make any attempt to occlude the cervix by a suture, or to pack it, before beginning the abdominal section. The right

\* 1899, vol. ii, p. 82.

uterine appendages were removed with the uterus, but the left appendages were not removed. The ligatures on the uterine arteries and on vessels in the cut edges of the vaginal walls were left long and drawn down into the vagina by long Wells' forceps passed up from the vagina by an assistant. A gauze drain was drawn down from above into the vagina, about an inch of it being left projecting into the peritoneum. The abdominal wound was completely closed. The patient made an uninterrupted recovery, and the ligatures came away at the end of the fifth week.

*Description of the specimen in Case 1.*—The uterus has been laid open by an incision from the external os to the fundus through the anterior wall. The extreme length of the uterus is 3 inches. At the extreme highest point of the endometrium, and extending downwards for an inch and a quarter on the posterior wall, is a new growth projecting only slightly above the general surface of the endometrium. Its surface is faintly papillary. A sagittal section has also been made through the growth and the wall of the uterus from which it springs. This shows that the growth penetrates deeply into the uterine wall, the limit of its penetration, to the naked eye, being marked by a sinuous, irregular, whitish border.

A portion of the growth was sent to the Clinical Research Association. The report on it is as follows:—“The wall of the uterus is deeply invaded by a very soft columnar-celled carcinoma. The growth is much degenerated, and therefore stains badly. It is a primary carcinoma of the body of the uterus.”—(Signed) J. H. TARGETT.

CASE 2.—H. J—, aged 57, was admitted under my care into the London Hospital on October 5th, 1901, at the request of Dr. Taylor, of 285, Victoria Dock Road, E.

*Previous history.*—She had been married thirty-six years, and had had six children, the last twenty-one years ago, and two miscarriages, the last nineteen years ago.

*Menstruation* began between sixteen and seventeen, and occurred regularly every four weeks without any pain. Two years and a half ago menstruation ceased for ten months, then the periods came on at monthly intervals for three months. Each of these periods was like what she had always had, except that she lost a larger quantity than formerly, and clots were passed.

*Previous health.*—She had been subject to bronchitis



and asthma up to last year ; she used to have quinsy twenty years ago. There was no history of syphilis. She had never had any severe illness. Her family history was good.

*Present illness.*—Two years and a half ago the “periods” ceased for ten months. Then they recurred at monthly intervals for three times ; after that, however,

the loss of blood became more or less continuous. Sometimes clots were passed, but the discharge had never been offensive. The discharge during the last three months had not been quite so profuse as before, but she had constantly had to wear a diaper. Since April this year (1901) she had had pain on the right side running from the back to the right groin, and also aching in the right thigh. It was not constant, sometimes she was free from pain for twelve hours. When present it was aching, with an occasional severe shooting or cramping feeling. Sometimes the pain had made her sick and caused her to perspire, especially at night. It was relieved by sitting up or by walking about, and sometimes by alcohol.

She had had no trouble with micturition. The bowels had been constipated, and she took aperients frequently.

During the eight months before admission she had lost 2 st. in weight.

From the above account it appeared that there had been a more or less constant blood-stained discharge for about seventeen months, and that she had had pain for six months prior to her admission to the hospital.

*State on admission* (October 5th, 1901).—She was not anæmic; she had a rather worried expression; her weight was 9 st. 2 lbs.

October 7th.—She was anæsthetised, and a careful examination was made with the patient in the lithotomy position. With Sims's speculum it was seen that the vaginal portion of the cervix was healthy, except for a slight erosion of the posterior lip. The cervix when drawn upon with a volsella did not come down well. Bimanually the uterus was found to be enlarged, but only fairly movable; the sound passed  $3\frac{1}{2}$  inches. The cervix was dilated up to No. 19 Hegar without any difficulty, there being only slight resistance as each dilator was passed, and that at the external os. The finger passed into the uterus came upon a growth chiefly on the posterior wall; it was not of the soft papillary variety. It terminated below by a raised, somewhat rounded

border. The growth extended so low in the body of the uterus that it was not quite certain at this examination that the growth had not extended into the cervical canal. (Subsequent examination of the specimen, however, showed that it had not involved the cervix.) There was no offensive smell about the examining finger.

*Operation* (October 14th, 1901).—The patient was anæsthetised and put in the lithotomy position. After disinfecting the vagina as well as possible with 1 in 1000 perchloride of mercury lotion, the cervix was exposed and seized with a volsella. A stout silk ligature was passed through the vaginal portion with a strong needle in a handle, from behind forwards on the left side of the os uteri. The needle, unthreaded, was then passed similarly on the right side of the os, threaded with the anterior end of the ligature already passed, and withdrawn. The ligature was then tied as tightly as possible, thus occluding the external os.

The patient was then put into the Trendelenburg position, and abdominal pan-hysterectomy was performed. The right uterine appendages were removed, but the left appendages were not removed. There were some adhesions on the left side which had to be separated before the uterus could be drawn up freely. The limited mobility of the uterus observed at the previous examination was no doubt due to these adhesions. When the uterus had been removed, all the ligatures were drawn into the vagina, and a strip of iodoform gauze was also drawn from above into the vagina. About one inch of it was left projecting into the peritoneal cavity. The abdominal wound was then completely closed. The subsequent progress of the case was uneventful. The ligatures were not loose when she left the hospital; they were cut a good deal shorter a few days before she went away, so that it would be impossible for any of them to project from the vagina. She went to a convalescent home on November 9th.

*Description of the specimen in Case 2.*—The uterus has

been laid open from the front. Its extreme length is  $3\frac{3}{4}$  inches. The cervix, to the naked eye, appears quite healthy, and is very short. Almost the whole of the endometrium is occupied by a new growth. This is raised about a quarter of an inch above the general level, and its edge distinctly overhangs the adjacent apparently healthy endometrium. In the downward direction the growth extends very nearly to the internal os, and terminates by a semicircular border, convex downwards.

A portion of the growth was sent to the Clinical Research Association. The report on it is as follows:—  
“This is a columnar-celled carcinoma of the body of the uterus, originating in the endometrium and invading the muscular coat. The tubular arrangement of the cells is very distinct.”—(Signed) J. H. TARGETT.

*Note.*—Sections of the growth in each case were exhibited under the microscope at the meeting at which the uteri were shown.

Dr. McCANN referred to the case of a patient upon whom he had operated for cancer of the body of the uterus who gave a history similar to that of Dr. Lewers' patient, viz. brown vaginal discharge for some months with complete absence of pain. At the operation a hæmatometra was discovered, together with a cancerous growth situated in the upper part of the body of the uterus. He thought that in operating for cancer of the body of the uterus the ovaries, tubes, and broad ligaments should be removed in every case in order to minimise the chances of recurrence.

Dr. AMAND ROUTH much preferred the combined abdomino-vaginal route for cases of cancer of the uterus, which was too large to be removed *per vaginam*, freeing the cervix from below, tying off the bases of the broad ligament, separating the bladder, and opening Douglas's pouch, thus leaving very little to be done from above, and making sure that all vaginal disease was removed. He thought the tubes should always be removed if the growth had invaded the uterine cornua.

Dr. HERBERT SPENCER asked Dr. Lewers for the name of the authority who stated that the glands are always affected in operable cases of cancer of the cervix. He (Dr. Spencer) was not aware that anyone had made such a statement. What Lameris and Kermauner had shown was that in 57.5 per cent. of such cases the hypogastric and iliac glands are affected

(‘Centralblatt für Gynäkologie,’ 1901, p. 590). Wertheim also has found cancerous glands in 31·7 per cent. of all cases operated on, and in 15 per cent. of the early and moderately advanced cases (‘Archiv für Gynäkologie,’ vol. lxxv, Heft 1, p. 1). These important observations received support from the cases in which occasionally growth appeared in the iliac glands soon after the removal of the cervix or uterus for cancer, which appeared to be in the early stage. It did not follow that abdominal hysterectomy with removal of the ligaments and glands was to be performed in every case. That operation had a high rate of mortality, and excellent results followed high amputation with the cautery; but it was to be hoped that the researches alluded to would lead to some means of recognising the cases in which the glands were infected, for which abdominal hysterectomy with removal of the glands was the only rational operation. He feared, however, that it was a hopeless task to completely remove the iliac glands, and, as far as he knew, no case had yet been operated on by this method and watched afterwards for a period of five years. He had removed the uterus by the abdomen, after preliminary separation of the cervix *per vaginam*, for cancer of the body in three cases, and he thought the operation should be done in preference to vaginal hysterectomy in all cases where the uterus was large or the vagina small. He had always closed the cervix with stitches, but thought the ligature as used by Dr. Lewers was preferable; it was advisable, in addition, to pack the uterus with dry gauze. He (Dr. Spencer) advocated the abdominal route in preference to the vaginal in the cases mentioned, because, although the vagina could be easily enlarged by Schuchardt’s incisions, the uterus was very difficult to remove absolutely entire through the vagina, and any laceration of the organ would give rise to risk of cancer implantation on the cut surfaces; the operation was, however, certainly more dangerous when performed by the abdominal than by the vaginal route. He was in favour of completely closing the peritoneum in abdominal pan-hysterectomy; leaving a piece of gauze in the peritoneum would be more likely to give rise to intestinal adhesion and obstruction than complete closure of the peritoneum by suture.