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VAGINAL  
HYSTERECTOMY,

*A Paper read before the  
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## VAGINAL HYSTERECTOMY.\*

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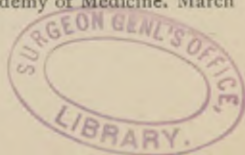
Cancer of the uterus, that dread disease which yearly claims so many useful lives, is the most common condition demanding a vaginal operation. A few surgeons still prefer high amputation of the cervix, in preference to total extirpation; among others, Baker, Byrne and Reamy in this country, Spencer Wells and Wallace in England, Gusserow in Germany, as well as other Continental operators. But the great weight of authority favors entire removal of the uterus for several reasons.

First, because in certain cases, with an apparently limited carcinoma of the portio vaginalis, isolated nodules of carcinomatous degeneration of the mucous membrane of the fundus have been observed. Such a condition has been reported by Karl Ruger, Binswanger, Terrier, Sturtz, Abell (two cases), Krysinski, Paul Ruge, Leopold, Prof. John Williams, Schauta, G. Winter, Coe and Boldt, of New York (two cases reported before the last meeting of the American Gynecological Society). Since that meeting I have operated upon one such case myself, and present to-night the uterus for your observation.

Second, because the best surgical treatment for cancer in any other part of the body demands the removal of as wide a section of healthy tissue as

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it is ordinarily possible to make; for instance the removal of the entire breast and the axillary glands, when only a part of the breast is diseased.

Third, because total extirpation seems to give the greatest number of permanent recoveries, with about the same proportion of immediate mortality. This is shown by comparing the combined statistics of Hoffmire, Gasserow, Baker, Reamy, Wells and Wallace, as tabulated by Pozzi, giving 221 cases of amputation of the cervix, with 26 deaths, 11 5-10 per cent. While, on the other hand, the statistics in the last two years in France, since the technique of vaginal hysterectomy has been improved, and unsuitable cases have not been subjected to this operation, has fallen to 5 8-10 per cent. Leopold has also operated upon 80 cases, between the years 1883 and 1886, with only 4 deaths, or 5 per cent. Dimitri Ott, of St. Petersburg, has 30 cases without a death. Kalt-enbach, in 53 cases, 2 deaths, 4 per cent. Boldt, 44 cases, 3 deaths, 6 8-10 per cent.

Pozzi says: "These examples are eloquent; they prove that by attacking cancer at the first and performing hysterectomy, in cases which used to be treated by partial excision, we obtain a mortality which does not surpass that of cervical amputation."

The statistics of Byrne, as given in his Presidential address before the American Gynæcological Society last year, cannot be passed without serious consideration. He reports nearly 400 cases without a death following high amputation of the cervix with the galvano-cautery knife, with a large proportion of permanent cures. His results are truly

wonderful, and if time proves that others can do even almost as well, I for one shall certainly give his method a trial. But at present, I must say with Pozzi, that such results are almost "too fine," and do not accord with our experience of the surgery of cancer in other parts of the body.

In this connection it is also well to consider the experience of A. Martin, who was a pupil of Schröder's, and in his early cases of epithelioma of the cervix, which seemed suitable, he performed high amputation of the cervix with a galvano-cautery loop. He operated upon 28 cases, with 6 deaths from the operation itself. In all the remainder a recurrence of the disease sooner or later took place. Of late he has adopted total extirpation in every case of cancer of the uterus, with a great improvement in his ultimate results.

It is well also to consider that total extirpation prevents a future conception; for, as has been often shown, pregnancy becomes very dangerous when associated with cancer of the uterus. Of course, when carcinoma or sarcoma of the fundus is discovered, which Martin says is not such a very rare disease, all operators, excepting Byrne, agree as to the advisability of vaginal hysterectomy. Certain other conditions rarely demand this operation. For instance, procidentia, otherwise incurable, hemorrhagic endometritis, where numerous curetting operations have failed to effect a cure, recurrent uterine fibromata and adenomata of the corporeal mucous membrane, because it sooner or later assumes a malignant nature. American surgeons will hardly agree

with Pean, that this operation is indicted in bilateral pelvic suppuration.

I trust that you will pardon this digression from my subject as assigned to me by our Secretary. I will now go on to describe the method of performing the vaginal operation.

When cancer of the uterus has been diagnosed, and the microscope is the only certain proof in the early stages of this disease, what class of cases should be subjected to this operation? As Martin says: "The greater the experience in vaginal total extirpation, the more has the rule been proved that we shall perform the operation only when the vicinity of the uterus is entirely free from carcinomatous infiltration. This statement he further explains to mean the broad ligaments, peritoneum, rectum, ureters and bladder.

If the infiltration in the vaginal mucous membrane be superficial, considerable of this membrane can be removed with the uterus, and even a small portion of bladder wall can be resected, and the opening treated immediately, or, at a subsequent sitting as an ordinary vesico-vaginal fistula. But when cancerous infiltration has extended to the broad ligaments, the operation is then rendered very dangerous and practically useless, the patients are probably not benefited or even temporarily relieved thereby, and the operation is brought into bad repute. When the uterus is too large to be delivered through the vagina, it is best to first liberate the cervix from its vaginal attachments, then complete the operation by performing laparotomy, rather than to divide the uterus in half or remove it piece-meal through the vagina,

as has been advised, on account of the increased danger of infecting either the peritoneum or the raw vaginal wound.

In the preparation of the patient for operation, it is of the utmost importance to thoroughly disinfect the vagina and the necrotic cervical stump, so that the peritoneal cavity and the fresh wound may not be infected by the septic germs or cancerous cells. I believe that this can best be done a day or so before the operation. Give the patient a bichloride douche of 1-1000; etherize her, and thoroughly remove all necrotic and broken-down tissue by a sharp curette, extending the curettement well up into the cervical canal. After this has been thoroughly done, apply some mild astringent, or perhaps better, the actual cautery, to control the hemorrhage. Give another bichloride douche, and then tampon the vagina with iodoform gauze. The patient's bowels should be thoroughly emptied before operation, by giving a cathartic for two or three nights. The diet should be mainly fluid in character.

At the time of the operation, after the patient has been etherized, again carefully examine the patient to make sure that the disease is confined to the uterus, and has not infiltrated the broad ligaments. We may then proceed, after thoroughly disinfecting the vagina and shaving the labia, to one of two methods of operation, namely the clamp or the ligature operation. The clamp operation has been, and probably is to-day, the most popular operation with American surgeons, probably because it can be more rapidly performed. My first five hysterectomies

NAME.	PHYSICIAN.	DATE OF OPERATION.	DIAGN
1. Mrs. E.	Dr. Miller.	June 21, 1889.	Epithelio the cervix
2. Mrs. L.	Dr. C. E. Lee.	December 4, 1890.	Rapidly ring intra fibroma. cious. Re three time
3. Mrs. S.	Dr. C. A. Wheaton.	January 31, 1891.	Carcinom vix.
4. Mrs. W.	Dr. C. A. Wheaton.	May 9, 1891.	Procient curable b tic surgery
5. Mrs. E.	Dr. C. S. Hayes.	December 1, 1891.	Epithelio cervix.
6. Mrs. H.	Dr. C. S. Hayes.	December 1, 1891	Complete dentia.
7. Mrs. A.	Dr. J. McLaren.	December 13, 1891.	Carcinom cervix.
8. Mrs. S.	Dr. Camp.	June 3, 1892.	Carcinom cervix and ior vagina
9. Mrs. H.	Dr. Groves.	October 10, 1892.	Carcinom cervix.
10. Mrs. C.	Dr. P. Ritchie.	October 31, 1892.	Carcinom cervix.
11. Miss L.	Dr. Robillard.	December 4, 1892.	Carcinom cervix an anal m. m.
12. Mrs. F.	Dr. Martell.	March 8, 1893.	Cauliflow cinoma of one-half vagina.



	OPERATION.	RESULT.	PRESENT CONDITION.
of	Vaginal hysterectomy. Clamps. 30 min.	Recovery.	No return.
u r- line spi- ved	Vaginal hysterectomy. Clamps. 45 min.	Recovery.	Perfectly well.
er-	Vaginal hysterectomy. Clamps.	Died on sixth day. Septic peritonitis.	
in- as-	Vaginal hysterectomy. Clamps.	Recovery.	Perfectly well.
of	Vaginal hysterectomy. Clamps.	Recovered.	No return.
oci-	Vaginal hysterectomy by Dr. Hayes. Sutures.	Recovered.	
of	Vaginal hysterectomy. Clamps.	Died on tenth day from secondary hemorrhage.	
of ter- all.	Vaginal hysterectomy. Silk ligatures.	Recovered.	No return.
of	Vaginal hysterectomy. Ligatures. 1 forceps.	Recovered.	No return.
of	Vaginal hysterectomy. Silk ligatures.	Recovered.	No return.
of agi-	Vaginal hysterectomy. Silk ligatures.	Recovered.	No return.
car- vix ing	Vaginal hysterectomy. Lower ligatures silk; deeper, cat gut.	Recovered.	No return.

I performed entirely with this method, and in a paper which I read before the State Medical Society two years ago, I very strongly recommended this operation. Lately, however, I have been led for various reasons to adopt the ligature operation about as has been described by Martin. I believe with Boldt that each method of operation is indicated in certain cases, but that when the uterus is fairly movable and can be brought pretty well down towards the vulva, the ligature operation is preferable because it allows of perfect closure of both the peritoneal and vaginal edges of the wound, which materially shortens the period of convalescence and lessens the danger of ileus or intestinal adhesion. When, on account of inflammatory adhesions, the uterus cannot be drawn down, the clamp operation is the best, but under ordinary circumstances the ligatures are preferable, both on account of the better surgical closure of the wound and of the lessened danger of hemorrhage.

In my last four operations, all of which have been made for cancer of the uterus, I have operated according to the following method: The patient is placed in the lithotomy position, and the posterior vaginal wall drawn back with a Sim's speculum; the cervix is then seized with a volsellum forceps and drawn well down to the vulva. I then girdle the cervix all around with scissors, cutting through the vaginal mucous membrane, keeping well away from the edge of the cancerous ulceration, picking up and tying each arterial branch with cat gut. I then carefully separate the bladder from the uterus, keeping close

to the uterine wall to avoid wounding the bladder; this step is best accomplished with a round pointed pair of scissors and a blunt dissector. I then open the peritoneum between the bladder and the uterus, enlarging the peritoneal wound by tearing laterally with the fingers. In the next step I draw the cervix well forward toward the pubic symphysis and open Douglas' cul de sac, enlarging the peritoneal wound by tearing with the fingers as before. Thus far, both the clamp and the ligature operation are the same. I now pass the index finger of the left hand into the posterior peritoneal opening, to draw the broad ligament forward and also to protect the intestines from injury, and introduce a silk ligature through the base of the broad ligament, first upon one side, and then upon the other. This first ligature is made to include the insertion of the utero-sacral ligament, so that it may be sure to secure the uterine artery. After it is securely tied the uterus is cut away, dividing the tissues close to the uterine wall, when we will find that the uterus can be drawn further out. In the same manner small portions of the broad ligaments are sutured and cut away until the uterus is entirely free and can be delivered.

Boldt and Dudley, of New York, and Mann, of Buffalo, use cat gut in preference to silk, which they say can be sterilized just as perfectly as silk, and is not as apt to produce suppuration, and in this way delay the convalescence. Martin advises the passage of all ligatures so that they may include the vaginal mucous membrane to prevent their slipping, and so that he can afterward re-

move them. Boldt objects to this procedure, because of the increased pain which this constriction of the mucous membrane causes.

In my own experience I have only had trouble with one case from the buried silk ligatures; in this case two of the ligatures came away some months after the operation, without causing the patient much of any annoyance.

Practically I believe that only four ligatures are of any use in this operation, i. e., the first two which should control the uterine arteries upon either side, and the last two including the summit of the broad ligaments and the ovarian arteries. I have, in fact, completed one operation by the application of only two ligatures on one ligament, the tissues being then divided at some distance from the uterus. This operation was not followed by hemorrhage and the patient made a perfect recovery.

After removing the uterus I close the peritoneal cavity by uniting the vesical edge of the peritoneum to the rectal, including the peritoneal edge at the summit of each broad ligament, with a continuous suture of fine silk. By this proceeding the stumps are drawn out of the peritoneal cavity preventing intestinal adhesion, and later infection of the abdominal cavity.

I believe that at this point it might be well to follow Baker's suggestion, and sear with the cautery the cut edges of the stumps and the vaginal wound, although this would prevent primary closure of the vagina. But if Byrne's theory is correct that the heat of his cautery knife inhibits or kills cancerous cells deep in the tissues, a possible source of

later malignant infection might be prevented. Heretofore I have completed my operation by giving a bichloride douche and then closing the vaginal wound with a continuous cat gut stitch, and then introducing into the vagina a tampon of iodoform gauze.

My own experience with operable case of cancer of the uterus has been too small to give any particular aid in the settlement of the vexed question of the best method of treatment of this disease. But as every case is of some value, and as it is has influenced me, I offer it to you, trusting that it may guide you in the line of the true conservatism of human life and suffering.

I can now recall only six cases of cancer of the cervix, which were treated by high amputation of the cervix, the after results of which I was able to follow. I have never performed this operation myself. One by Dr. Thomas Addis Emmet, one by Mundè, one by Cleveland, of New York, one by Dr. Ohage of our Society, two by Dr. A. J. Stone, as you see, all surgeons of unquestioned ability. In five of these cases the disease recurred in the stump in a period of from three to twelve months, and one died from the immediate effects of the operation.

It is just such results as these which have led the medical profession to abandon amputation of the cervix, and accept only too gladly the hope offered to them by vaginal hysterectomy. I do not believe it is the desire of the medical profession to perform "unjustifiable" and "shocking" operations, according to Byrne, which has led the entire medical profession the world over to

discard as useless amputation of the cervix, but the hope and the wish to prolong the lives of these wretched patients. I have no doubt that many skilled and conscientious operators have been led by Byrne's statistics during the last twenty years to give his method an honest and a fair trial, only to discard it. It is strange at least that he has so little following. But until we have more evidence, I for one will not feel that I am justified in advising anything for cancer of the uterus except vaginal hysterectomy.

In June, 1889, I performed my first total extirpation of the uterus. The patient was seen by Dr. Beebe, of St. Cloud, Dr. Blackmer, of Albert Lea, Dr. C. A. Wheaton, as well as by several other members of our State Society. They all agreed that she was suffering from carcinoma of the cervix. I am sorry to say, however, that a section of the diseased tissues was not made to corroborate the clinical diagnosis. This woman is well and strong to-day, having had no symptoms of recurrence, two years and nine months after the operation.

I have performed in all twelve vaginal hysterectomies, with two deaths; one from septic peritonitis due to a faulty cleansing of the cervix, or to the failure to properly tampon the uterine cavity. The second death occurred on the tenth day, from moist gangrene of the stump and secondary hemorrhage, and it is since this last operation that I have given up the use of the clamps, and have every reason to be very much pleased with the immediate, as well as the secondary results of the ligature operation.



