

The most important factor, however, is not early metastases, but late diagnosis.

DIAGNOSIS.

Growths from cervix.—If the growth is small, a piece from its edge, together with some of the neighboring normal tissue, should be cut out and sent in moist gauze to the pathologist. If the pathologist can not be reached within a few hours, the piece of tissue should be dropped into 80% or 95% alcohol. Most of the failures to diagnose readily cervical growths arise from the fact that too small a piece of tissue is taken or because the tissue has macerated in 30 to 40% alcohol and will not stain.

Curettings should be sent immediately upon a moist gauze sponge, or should be heaped upon a piece of blotting paper and dropped into 80 to 95% alcohol. Be sure to obtain enough material. The diagnosis depends, in most cases, not upon finding a thickened epithelial or gland layer, but rather upon invasion of the underlying muscle.

ABDOMINAL HYSTERECTOMY FOR UTERINE CANCER.¹

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WHEN I received the invitation from your secretary to read before this society a paper entitled "Abdominal Hysterectomy for Uterine Cancer," I was much gratified by the honor done me, but somewhat aghast at the proposition that anything remained to be said about abdominal hysterectomy. Upon second thought, however, it occurred to me that there was a great deal to be said upon this subject, not especially new things, but that we might stop and take account of stock, and see how valuable an asset had been bequeathed to us by the closing years of the last century. We may also consider in what way we can improve our inheritance.

Abdominal hysterectomy, as applied to the treatment of uterine cancer, is a very recent operation, but yet sufficiently established and already employed in a large enough number of cases, to show quite accurately its value, in both the immediate and remote results.

Fifteen years ago this operation, done in the main for fibroid tumors, was formidable, difficult, unsurgical, and attended with a fatality of at least 40%, but by a gradually improved technique all this has been changed, and abdominal hysterectomy has become, in ordinary cases, a simple operation with a very low rate of mortality.

This statement will not apply to abdominal hysterectomy, of course, in the removal of fibroid tumors that pack the pelvis and extend between the broad ligaments or distort in various directions the pelvic viscera; nor in some cases of extensive inflammation of the pelvic structures, with widespread adhesions; neither will it apply in cases

of cancer of the uterus in which the disease has invaded the parametric tissues and pelvic glands; but in those cases of cancer involving the uterus alone, whether of the body or cervix, it is a very simple and attractive operation. There is simply spread out, under our fingers and before our eyes, with unvarying precision, precisely those structures which we wish to remove and those which we must avoid. It is absolutely free from any unexpected difficulties, and every detail of the operation is so simple and precise that any sort of accident or false step is practically impossible.

From such an operation we would logically expect uniformly successful results so far as the immediate outcome of the case is concerned; and, barring a few out-of-the-way accidents, with cancer simply confined to the uterus, the immediate recovery of the patient always follows.

Under the conditions I have laid down, I believe the operation is attended with less than 5% fatality. Therefore, in the radical treatment of uterine cancer, our one surgical resource in an operative way leaves very little to be desired. It is more precise and more competent to meet the indications than are the operative procedures for cancer in most other parts of the body.

In doing abdominal hysterectomy for cancer of the cervix, there are certain modifications of the details of technique that I have found very useful and have presented on another occasion. They make the operation somewhat easier and more complete, and I feel warranted in giving a repeated description of them at this time. The vagina having been rendered as aseptic as possible, in the preparation of the patient, as a preliminary step of the operation, I amputate the neck of the uterus close to the vaginal attachment; this is done in all cases, whether the disease of the os is extensive or slight; then, if infection has extended along the mucous membrane above the amputation, the uterus is packed; if not, the packing of the cervical canal is unnecessary. Then a thick roll of gauze, to absorb and check any hemorrhage, is applied to the cut cervix, and protrudes from the vulva. This is removed before the vagina is opened from above.

This, you will note, is an entirely different procedure from the so-called combined vaginal and abdominal operation; for in the latter the vagina is separated from the cervix and the uterine arteries are ligated. In my own experience, this preliminary amputation of the cervix has in several ways seemed to be of great advantage.

In the first place, the procedure occupies but two or three minutes, and we are able to remove rapidly and thoroughly the whole or a larger portion of the infected tissues. Then, by packing the cervix, if necessary, we avoid all danger of infection in removing the uterus through the abdominal incision.

The great advantage, however, of this step is in simplifying and shortening the time of the abdominal operation that is to follow. The time required in dissecting out the uterine neck is

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saved, and this very often is much the most difficult part of the operation.

The advantages of this procedure are very great, especially in those cases where the cervix has become enlarged and fills the whole vagina. After the broad ligaments on each side have been divided and the uterine arteries ligated, the dissection closely hugging the vaginal walls on all sides should be extended down for a considerable distance; then, by a steady and forcible traction upon the uterus, one can draw the vagina well up within the pelvis, and in this way we can remove a large portion of the vagina. The importance of the free removal of the vagina at once occurs to us when we recall the frequency with which recurrence first shows itself in the vaginal scar.

Three years ago I reported twenty-five cases of abdominal hysterectomy for cancer of the cervix, my entire experience from Oct. 1, 1893, to May 1, 1898; to that list I have now ten cases to add, making the whole number thirty-five. Of this number the operation was not completed in three cases, on account of the extent of the disease. There were three deaths from the operation; in two cases death followed an extensive dissection of parametric tissue and infected glands up to the pelvic walls on both sides. In the third case the patient died suddenly of acute mania at the end of seven days after the operation, which was a simple and early one. It was one of those accidental deaths which occur occasionally in abdominal surgery, and for which the operation does not in any way seem responsible.

Counting in this death, which ought to be omitted, the rate of fatality is about 9%. As to the immediate result, this is a somewhat higher percentage of deaths than vaginal hysterectomy would give. But, on the other hand, the list includes at least a half-dozen cases in which the latter operation would not have been undertaken, and two of the three deaths occurred in patients with very advanced disease; therefore, we may correctly claim, so far as this small number goes, that the death-rate by the abdominal operation is no higher than that which attends the vaginal.

It was formerly claimed that in cancer of the cervix the disease very rarely invaded the pelvic lymphatics or glands, except in its last stages.

Out of the thirty-five cases in this report, I found cancerous infection of the parametrium or pelvic glands, or both, in thirteen instances, and my experience in this matter is entirely in accord with the recent investigations of other observers. I suppose we find the explanation of this error in the fact that, when vaginal hysterectomy was the only radical operation done for cancer of the cervix, these infections extending out toward the pelvis were rarely discovered, as they were in the main hidden from view. In seven of these cases of infection of the pelvic glands, the disease of the os and cervix was not apparently extensive or of long duration; in fact, both their history and clinical aspect would have classed them in the list of early operations.

Oftentimes, in cancer of the breast, with a small, movable bunch, without any distinctive characteristics of malignancy, the axillary lymphatics and glands will be found to be involved.

In cancer of the cervix, the invasion of the pelvic lymphatics and glands is analogous; this extension of malignancy may occur in the early as well as in the later stages of the disease. In over one-third of my thirty-five operative cases, parametric tissues, lymphatics and glands were involved, and in seven of these the disease of the cervix, as judged by the history of the patient and clinically, had been of short duration and apparently of very limited extent. In these seven cases it was absolutely impossible to determine before operation whether or not the disease had extended beyond the cervix.

Now, if the pathological conditions of my cases in miniature represent the conditions that exist in general in this disease, it is at once apparent that vaginal hysterectomy is an operation entirely inadequate to deal radically with cancer of the cervix. I believe, therefore, in this connection, that vaginal hysterectomy should be entirely discarded, and that abdominal hysterectomy is the only logical resource left to us.

Of the thirty-five cases, in three the operation was not completed and there were three immediate deaths, leaving twenty-nine who recovered. The after-history of these patients, only in a very imperfect manner have I been able to follow; still, I know enough of the ultimate results to positively deny that cancer of the cervix is such a hopeless disease with regard to permanent cure as several distinguished surgeons are now claiming. From some of the papers and discussions before medical societies within the last year or two, one would be almost led to believe that cancer of the cervix was practically incurable; in fact, Dr. Baldy says this, and attempts to show by statistics that the permanent cures are less than 5%, and affirms that 2% would come nearer the truth. While the after-history of these patients is discouraging enough, it certainly is not so bad as that, unless my small personal experience is exceptionally fortunate. What success I have had may not be entirely due to good luck, either, for I very carefully and laboriously dissected out the parametric tissues and pelvic glands along the internal iliac and ureter when they were perceptibly involved. In two or three cases the invasion was so extensive that I was unable to complete the dissection. Although I have never ligated the internal iliac arteries, I have still done a pretty radical operation; but it has been criticised by Dr. Pryor as not being sufficiently so.

Of these twenty-nine cases, there are four that I know are now living and well, who were operated upon from five to eight years ago. Ten cases were operated upon between Jan. 1, 1896, and May 31, 1898, that is, from four and one-half to six and one-half years ago. Two of these I know are living and well today, with no recurrence. Three have died from recurrence of the

disease. Present condition of the others is not known.

Now, of the ten cases done between May 1, 1898, and Jan. 1, 1902, the after-history, so far as I have been able to obtain it, stands as follows: One case done Feb. 5, 1899, no return March 1, 1901. No report from the patient since that time. Recurrence has taken place in four cases. After-history of one unknown. No recurrence as yet in four cases. These instances, however, are too recent to be of any value as to the remote results of the operation. Of the entire twenty-nine cases we have six that have lived from five and one-half to eight and one-half years, without any recurrence. That is, we have about 21% cured, that we may fairly claim as permanent recoveries. Now, if all the remaining twenty-three had died of recurring cancer, our percentage of permanent cures would still be 21; but, as a matter of fact, during this period of eight and one-half years, some of these patients have died of other diseases without any recurrence of cancer; the after-history of others is unknown, and in ten of them the operation was done so recently that we take no account of the result. Now, would it be unreasonable to presume that one, two or three of this number may have been permanently cured so far as cancer is concerned? If such were the case, this percentage of permanent recoveries would be very considerably increased to the credit of abdominal hysterectomy for cervical cancer.

I am presenting these statistics in as favorable a light as I can, in protest against the pessimistic trend of much authoritative teaching today, that cervical cancer, with rare exceptions, is an incurable disease. This remonstrance is the one main object of my paper tonight. This teaching, I believe, is seriously erroneous, and I know it is very unfortunate. If the profession at large become persuaded that cervical cancer is practically incurable, all radical operations would be discouraged. Physicians will even forget the months and years of comfortable life that a radical operation affords these unfortunates, even when it fails as a permanent cure. Thus, the progress in the treatment of cervical cancer that abdominal hysterectomy has already attained, and all that it gives promise of for the future, will get a serious set-back. During the same period of time (namely, from Oct. 1, 1893, to Jan. 1, 1902), which includes the thirty-five operations for cancer of the cervix, I beg to call your attention to fifteen cases of abdominal hysterectomy for cancer of the body. Thus, of the fifty operative cases for malignant uterine disease, fifteen, or nearly one-third, were instances of cancer of the uterine body. In one case the cancer was associated with fibroid tumors. In four cases fibroid tumors themselves had become malignant. One of the five died from the operation. One, two years after, from recurrence. One, about one year later, from recurrence. One died five years after operation from some brain disease; no recurrence. One, well four years after operation. Of

the remaining ten, one died from operation. One died of cancer of the cecum six years after operation. One died two years later from recurrence of disease. One, subsequent history unknown. Six now well; no recurrence. Therefore, in the ten uncomplicated cases of carcinoma of the body of the uterus, there was no return of the disease in 80%. This ratio of recovery corresponds closely with the experience of other surgeons; but adding those five cases complicated by uterine fibroids, the percentage without recurrence would be sixty-six.

Hence, in uncomplicated carcinoma of the body, there is given about 75% of permanent cures. These results, so exceptionally favorable when compared with operations for cancer in other parts of the body, are due to the anatomical relations of the uterus, and to the fact, except when the malignancy begins in an existing fibroid, that it attacks the endometrium, which is isolated from everything else by the thick uterine muscle.

The disease, therefore, is at first very much localized and only extends its infections late in its course. The relative frequency of cancer of the body as compared with cancer of the cervix is much greater than has been supposed, if my own experience indicates generally the ratio that obtains between the two. That is, in fifty operable cases of uterine cancer, the disease in fifteen instances was located in the body.

Now, from the standpoint of our results in the treatment of uterine cancer of the body, abdominal hysterectomy fulfils all operative requirements, and whatever advance we make in treatment must be in some direction outside of operative procedures. And I believe the same may be said, too, of this one radical resource of ours when applied to the treatment of cervical cancer. Certainly the only improvement we can hope for in an operative way will be in a wider dissection of pelvic lymphatics and glands than many surgeons, including myself, now make.

Therefore, any increased success in the permanent cure of uterine cancer will come from earlier diagnoses and earlier operation, rather than from any improvement in surgical procedure.

THE SURGICAL ASPECTS OF CARCINOMA UTERI. COMPLICATING PREGNANCY. LABOR AND THE PUERPERIUM.¹

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OBSTETRICIANS have in the past formulated the rule that a pregnant woman afflicted with carcinoma of the cervix was practically lost to all resources of medical art, and they argued that as the pregnancy would in most cases go on to

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