VAGINAL HYSTERECTOMY

BY

GALVANO-CAUTERY

REMARKS ON THE SCOPE AND LIMITATIONS OF THE OPERATION

BY

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VAGINAL HYSTERECTOMY BY GALVANO-CAUTERY.

REMARKS ON THE SCOPE AND LIMITS OF THE OPERATION.

On July 27th, 1895, I removed the uterus, tubes, and ovaries by means of the galvano-cautery knife alone, neither scalpel nor scissors having been used throughout the entire operation. This is the first time in the history of surgical gynecology, so far as I know, in which the operation of vaginal hysterectomy has ever been done, or even attempted, by any such means.

Though for many years I have been favorably impressed as to the practicability of doing this operation by the delicate cautery knife, I could hardly have hoped for so convincing a proof, not only of the well-known advantages assured by this method over all others, but of the facility with which it could be accomplished. My second case occurred August 14th, but the difficulty experienced here was much greater, as a glance at its leading features will show. There was complete prolapse of the uterus, rectum, and bladder of nine years' standing, and for four years previous to her appearance at my clinic no attempt whatever had been made to return the parts within the pelvis. The mass, which was of the size of a large cocoanut, was hard, almost solid to the touch, and deeply ulcerated from long exposure and friction. Warm applications of carbolized glycerin and water were used for a few days, when the parts were returned with some difficulty. By the use of large, firmly rolled tampons soaked with carbolized glycerotannin, and the free use of hot water kept up for several weeks, it was hoped that her condition would be so much improved as to call for supravaginal amputation by galvano-cautery only, and keeping the vagina on the upward stretch until cicatrization would be complete. This treatment, in cases less aggravated, has been uniformly successful in my hands for many years. In this instance, however, I abandoned the idea and decided on vaginal hysterectomy.

As to the *mode of procedure* in performing vaginal hysterectomy by galvano-cautery, there is really no material difference from that usually adopted where other means are employed.

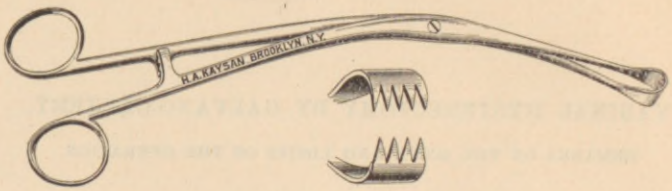

FIG. 1.—Volsella of utero-vesical flap.

The circular incision of the cervix, the careful dissection of the vesical wall from the uterus, opening of the cul-de-sac of Doug-

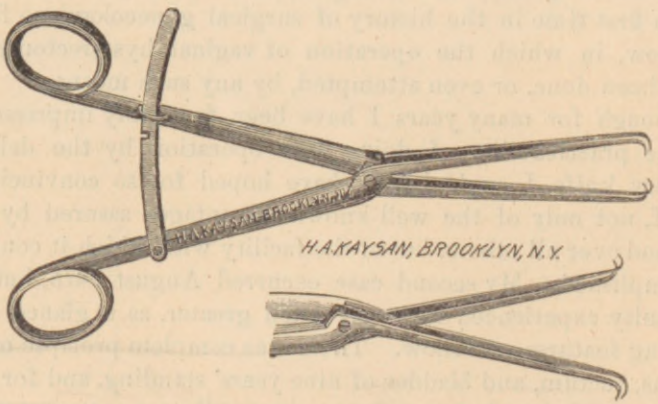

FIG. 2.—Diverging intrauterine volsella.

las, and the severing of the broad ligaments as clamp or ligature is applied, are steps in the operation alike in all methods. In

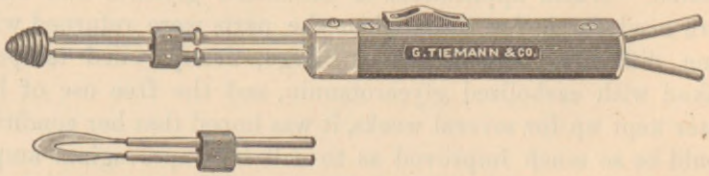

FIG. 3.—Cautery knife. Dome-shaped electrode and universal handle.

my second case, however, more than ordinary difficulty was experienced, and great care needed in separating the uterus and bladder because of the deformed shape of the former and the

abnormally extensive and irregular utero-vesical attachment. The cone-shaped cervix measured fully two inches in diameter below and tapered in a curved manner toward the os internum, at which point the body of the uterus bent abruptly forward. This part of the operation was, therefore, proceeded with in a slow and cautious manner, and the vesical wall was kept on the stretch by a suitable volsella and otherwise protected by an assistant as the dissection progressed. Though the uterine artery had been secured at an early stage by compression forceps, I deemed it best to include the middle third of each

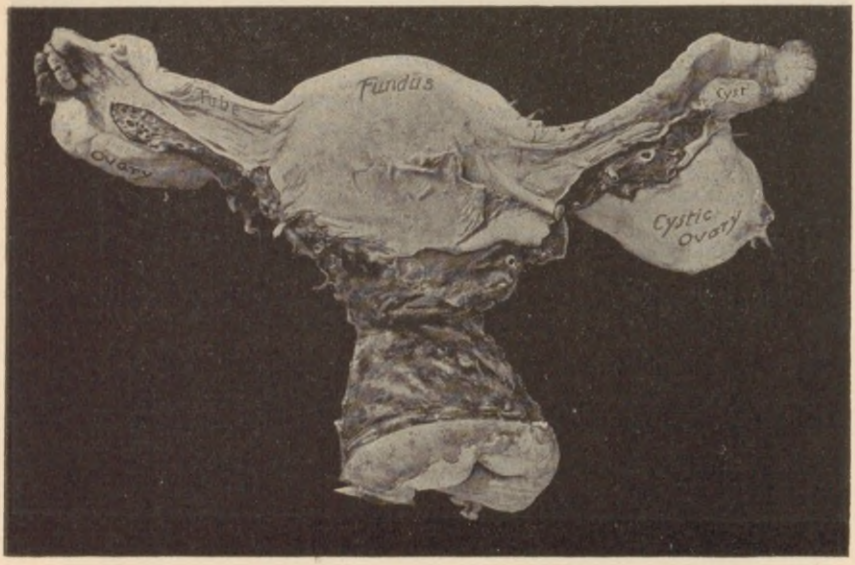

FIG. 4.—Anterior view of uterus and adnexa removed by galvano-cautery.

broad ligament in a second forceps. The peritoneal cavity being now accessible, the ovaries and tubes, which were found to be adherent to a considerable extent, were released, and these with the fundus were turned out posteriorly. The ovarian arteries were ligated by silk, which was cut short, and the vagina treated in the ordinary manner.

With regard to this new departure in vaginal hysterectomy, I have only to say that from my experience in two cases, and also in a third in which I secured the uterine arteries, released the vagina, and severed a large part of the broad ligaments preparatory to opening the abdomen for the removal of an enormously

large myomatous uterus, I am fully convinced that in galvano-cautery the hysterectomist will find an agent of incalculable value. Ablation of the uterus by this means is, in its very nature, an antiseptic operation, and all tissues severed are left in an absolutely aseptic condition. Moreover, in a reasonably early stage of cervical cancer, and before fixation takes place, if gynecologists could only be persuaded to leave the beaten track and give this ideal method a trial, they would no longer find it politic to evade plain questions touching periods of recurrence in their cancer cases, by replies such as "I have not been able to

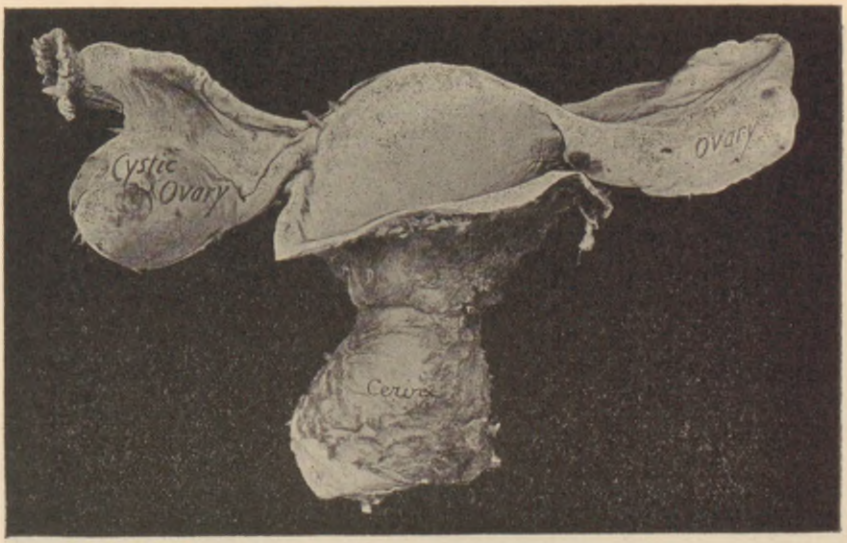

FIG. 5.—Posterior view.

follow my cases," or, as in the laconic if not polite response of a Western hysterectomist of many uterine trophies, "*I have no time to look up my records.*"

When fixation has already been reached and the lymphatics and cells in the broad ligaments have doubtless arrived at a primary stage of degeneration, there is but one operation of any lasting value, and that is *supravaginal excision by the cautery knife*, NOT LOOP, *and thorough additional cauterization of the bottom, sides, and edges of the excavation—in other words, a dry roast.*

This conclusion has been reached through a careful study of the subject and a large clinical experience running through a

period of over a quarter of a century. Besides, it fully harmonizes with my review of the subject of three years ago, and

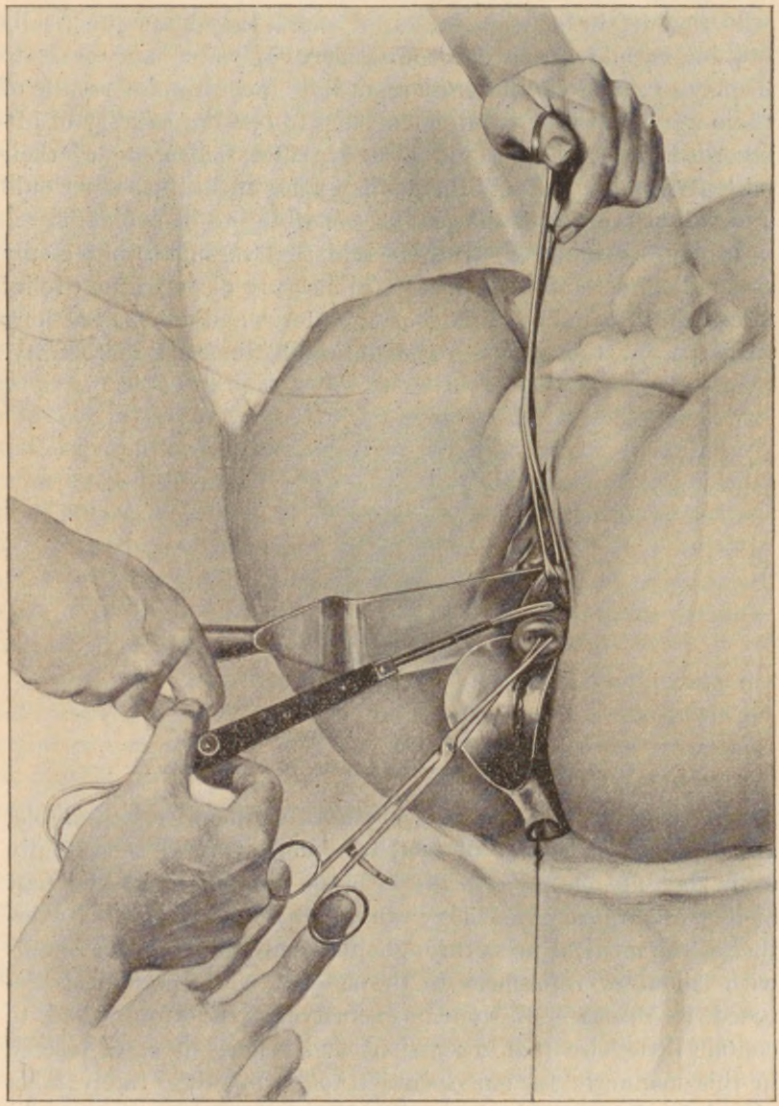

FIG. 6.—Cut of operation, illustrating hysterectomy by galvano-cautery. (From photograph at time of operation.)

warrants the further conclusion that the field for vaginal hyster-

ectomy in its application to uterine cancer, if indeed such there be at all, is an extremely narrow one.

If gentlemen who are prone to indulge in pseudo-criticism, and who would fain belittle methods of which they know practically nothing, would adopt the course here indicated and cease to display so much indifference regarding the ultimate results of their work that they refuse or neglect to test the validity of oft-recorded facts, they would probably find that more of their patients would "follow" them—nay, bless them too—nor would a glance at records of the past be something to be avoided.

It may, I think, with truth be said that vaginal hysterectomy as a radical yet safe and successful measure of permanent relief in certain diseased conditions of the uterus and adnexa has long since passed the period of doubt and timorous incredulity.

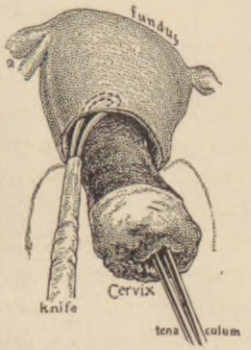

FIG. 7.—Illustrating supravaginal excision or amputation.

That it is often resorted to for ailments otherwise remediable, and which, as a matter of fact, are being treated successfully every day, no one *au courant* with the existing drift and past history of surgical gynecology can doubt for a moment. Nevertheless the medical press throughout the civilized world abounds with laudatory references to the subject, while periodicals devoted to diseases of women exclusively are often found to contain little else than discussions and reports of cases treated in this manner. In our societies, too, a meeting rarely takes place, in fact would seem devoid of interest, without the exhibition of one or more "specimens." It would thus appear that gynecologists generally, however trammelled by ultra-conservative notions, and while justly deprecating unnecessary resort to this operation, freely yet reservedly indorse it.

Some years ago operators merely vied with each other in devising novel, if not useful, modifications in technique, the choice of instruments, the material for ligatures, etc.; in fact, the various means and ways by which the same result practically could be and had been attained over and over again. No sooner, however, had these details been disposed of by each one resolving to adopt that plan which suited his own notions best, than they ceased to wrangle and applied themselves industriously toward piling up their lists of cases—in some instances already far above high-water mark. Thus it has come to pass that not a few gynecologists, whose daily clinical work and means of observation could hardly be said to be very limited, are often amazed at the number of vaginal hysterectomies reported by many of their confrères. Moreover, if we consider the many instances within the knowledge of most of us of cases withheld from publicity through professional modesty or other motives, it is quite possible that the number of recorded or reported cases would be found to fall far short of the whole. Be this as it may, it is earnestly to be hoped that an operation of so much promise, yet one which carries with it a certain amount of sanguinary glamour and a reputation for progressive and up-to-date gynecology, may not be allowed to suffer through individual ambition or misdirected enthusiasm.

In various utero-ovarian diseases of a chronic inflammatory or other *non-malignant* origin or nature, neoplasms, and displacements of long standing and not otherwise curable, the consensus of opinion is that vaginal hysterectomy is a safe, a judicious, and usually a successful operation.

It should never be forgotten, however, that with this general approval there must always be associated at least two very important conditions—namely, first, that due care be observed in the selection of proper cases, and, second, that the operation should as far as possible be confined to competent hands.

There is no denying the fact that the frequency with which vaginal hysterectomy has been resorted to of late years is justly chargeable with a certain degree of unrest and a fear on the part of many that the interpretation of these conditions has been too liberal and too elastic.

It seems to me eminently proper, then, to carefully reflect on the possible cause or causes of this abuse and see whether there exist any reasonable grounds for so serious a reproach.

An impartial observer could hardly fail to note the glowing reports, both here and abroad, and the confident manner in which all objections on the score of danger are flippantly met and disposed of by successful operators. We are constantly assured that the "primary" mortality, already encouragingly small, must continue to grow steadily less as we become more familiar with the details of the operation. When to this is added the prevailing opinion that the operation is by no means a difficult one, nor does its execution demand a very high degree of skill or dexterity on the part of a surgeon, it is not surprising that any and every gynecological amateur, or the general practitioner without any special qualification, would often be only too willing to assume the responsibility. Indeed, one cannot fail to see that in this very assurance as to the safety and simplicity of vaginal hysterectomy lies the great danger of its being abused. If, as is quite possible, this persistent attempt to minimize the danger and the difficulty of a grave operation has been a potent factor in tempting any and every physician, though his gynecological knowledge be barely sufficient to tell him which end of a retroversion pessary should go in first, to assume such responsibility, the tendency of this teaching has not been beneficent.

Again, if its effect with the profession at large has been to increase and multiply these operations unnecessarily and without a reasonable equivalent to suffering women, then hysterectomy, stripped of its seductive glitter, can hardly be viewed in the light of an unalloyed boon.

Herein we have the pith and much of the ethics of the case, and the sooner the profession at large begin to realize the fact that hysterectomy is neither a simple operation nor one devoid of danger, and that Péans, Ségonds, Pozzis, and Prices are not to be found in every community, the better it will be for afflicted humanity.

I cannot help thinking that the prominence given to the question of "primary mortality" is largely accountable for many unnecessary and sometimes disastrous hysterectomies. To the well-known inherent resistance of some patients to surgical mauling and manipulation often unavoidably rough and prolonged, no less than the skill and dexterity of the surgeon, are we to look in explanation of low "primary mortality."

The truth is, too much time has been spent and over-much pains taken to dazzle and allure the unwary by this fascinating

"will-o'-the-wisp" and the delusive watchword of "no danger from the operation." The class in which this no-danger cry has wrought most evil—I might almost say havoc—consists mainly of the unfortunate victims of uterine cancer in an advanced stage, and who have been led to believe that this supposed immunity from danger of death in the operation carried with it a hope of relief from suffering and a prolongation of life.

I regret to say my efforts thus far to obtain reliable data on this particular phase of the question have not been very successful, and for reasons already intimated. The returns from the various sources through which I had hoped to obtain some positive and trustworthy information come slowly in, and with few exceptions are wholly valueless in enabling us to get at the facts touching the main question, which is, not whether any or how many patients operated upon for cancer succumb to vaginal hysterectomy, but to what extent has suffering been relieved and life prolonged through the instrumentality of the operation.

We would naturally suppose that one or other, if not both, of these not unreasonable requirements would be the prime motive, aim, and object of any rational human being in submitting to a serious or radical operation, and it is hoped those who have urged and resorted to vaginal hysterectomy for the relief or cure of uterine cancer have been actuated by the purest motives and have aimed at results no less beneficent and reasonable. Nevertheless, and while good intentions are commendable enough, if the alarming proportion of rapid recurrences after vaginal hysterectomy as heretofore conducted, and which leading operators make no attempt to conceal, mean anything, it would seem to indicate pretty conclusively that the end—*i.e.*, the results—so far from justifying, would rather be condemnatory of the means.

In my annual address before the American Gynecological Society in 1892 I took occasion to analyze and sift the published statistics of vaginal hysterectomy for cancer. I endeavored then to expose the deceptive character of these adroitly compiled records and the *sang-froid* with which many leading authorities took unwarrantable liberty with the word "cure." To what extent my effort to filter some truth from that mass of ambiguous and mystified figures may have influenced the subsequent course of my professional brethren I cannot say. I must frankly admit, however, and with becoming humility, that I am unable

to discover any. The baneful influence of gilded statistics so eagerly devoured for several years previously seems to have become too deeply rooted to be neutralized by any antidote so comparatively feeble and at variance with settled opinions.

I have also on various occasions during the past twenty years minutely described a safe and exceptionally successful method of treating these unfortunate cases, and which I know, from the fact of having "followed" quite a number of my cases, insures a longer respite from recurrence than any other operative measure.[1]

Of the many peculiar benefits to be looked for from excision of the cancerous uterus by galvano-cautery as already described, by far the most important is the long period of exemption from recurrence of the disease. Though I have never hoped to "follow" all or even a majority of my cases, yet I have succeeded in doing so with a sufficient number to put this fact beyond all doubt. Even now there are in our midst a number of living examples where several reputable physicians of this city have had personal knowledge of their condition prior and subsequent to being operated. Equally reliable proof exists of several who, after many years of complete immunity, have died from other diseases. I would also state that the condition of four patients now living, from nine to twenty years after operation, was so unpromising at the time that no permanent benefit could be reasonably hoped for.

Now, facts like these cannot be ignored, and in my opinion are not difficult to explain, independently of the hemostatic and antiseptic attributes of the agent employed.

This singular immunity from relapse, so often observed, can in no other manner be explained than by attributing it to (1) the avoidance of operative or traumatic infection of exposed surfaces, and (2) the destructive effects of the heat on outlying tissues and cells already, doubtless, in a transition stage of degeneration and far beyond the line of excision.

[1] In the face of all this, what, I would ask, are honorable and fair-minded members of our profession to think of a statement like the following? "High amputation has gone by, just as we heard to-day, and it is more dangerous than hysterectomy. None of us did it better than Schröder, and he lost eight per cent of his cases" (Transactions of American Association of Obstetricians and Gynecologists, 1894). Though unworthy of notice, I shall merely say that all such attempts to ignore my work, or by implication to discredit my records, are disingenuous, unmanly, and unworthy our profession.

This well-grounded opinion, briefly stated, but emphasizes what I said more fully three years ago, and may bear repetition now:

"I am of the opinion that in the parametric tissue of many cancerous uteri, and much beyond what might seem to be the limit of disease, there exist some morbid cell changes due to faulty nutrition, or cancer germs, but in so undeveloped a state as to be inappreciable even by the aid of the most powerful microscope. Under such circumstances there is surely nothing unreasonable in surmising that cell proliferation, hitherto slow, or almost dormant, would be hastened, and that formative processes, so responsive to any kind of irritation, would be roused into active life through the traumatic stimulus of an operation and the exposure of more or less extensive raw surfaces. On the other hand, in the progress of an amputation by cautery, and where the heated knife is so long, and repeatedly applied (for such operations must be slow), the effects of the heat on outlying structures may be imagined by the shrivelled and comparatively small size of what had been, before operation, a voluminous cervix. In no other manner do I think it possible to explain certain phenomena following these operations by galvano-cautery, *e.g.*, (1) absence of fever and almost all pain, pelvic or peritoneal; (2) the almost universal immunity of the scar tissue after cauterization from secondary attack in the event of recurrence of the disease; and (3), in the case of relapse, the long respite obtained from reappearance of the disease in remote parts, even in the more unpromising cases of undoubted circum-uterine infiltration."

From this cursory review of the subject in its clinical aspect it would appear evident that utero-vaginal structures which have been severed by galvano-cautery, or from which diseased portions have been excised by such means, are left in a state more favorable for restoration to a normal, or at least a healthy condition, than where scalpel or scissors have been employed. Therefore this new departure in the technique of hysterectomy, whatever the condition demanding it, must necessarily be followed by results even better than the best yet obtained. How much greater, then, and far-reaching must the success be, whether in supravaginal excision or total ablation, for a disease so terrible and of a nature so prone to recurrence as cancer!

In conclusion, I have only to say that, having now demon-

strated the entire practicability of performing these important operations by the aid of the galvanic cautery, and to the exclusion of all ordinary cutting instruments, gynecologists who fail to take advantage of a method so safe, and yet so promising, assume the grave responsibility of withholding from the afflicted the most reliable means through which a cure, or at least a long respite from suffering and death, may be reasonably assured.

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