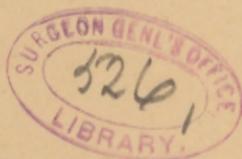
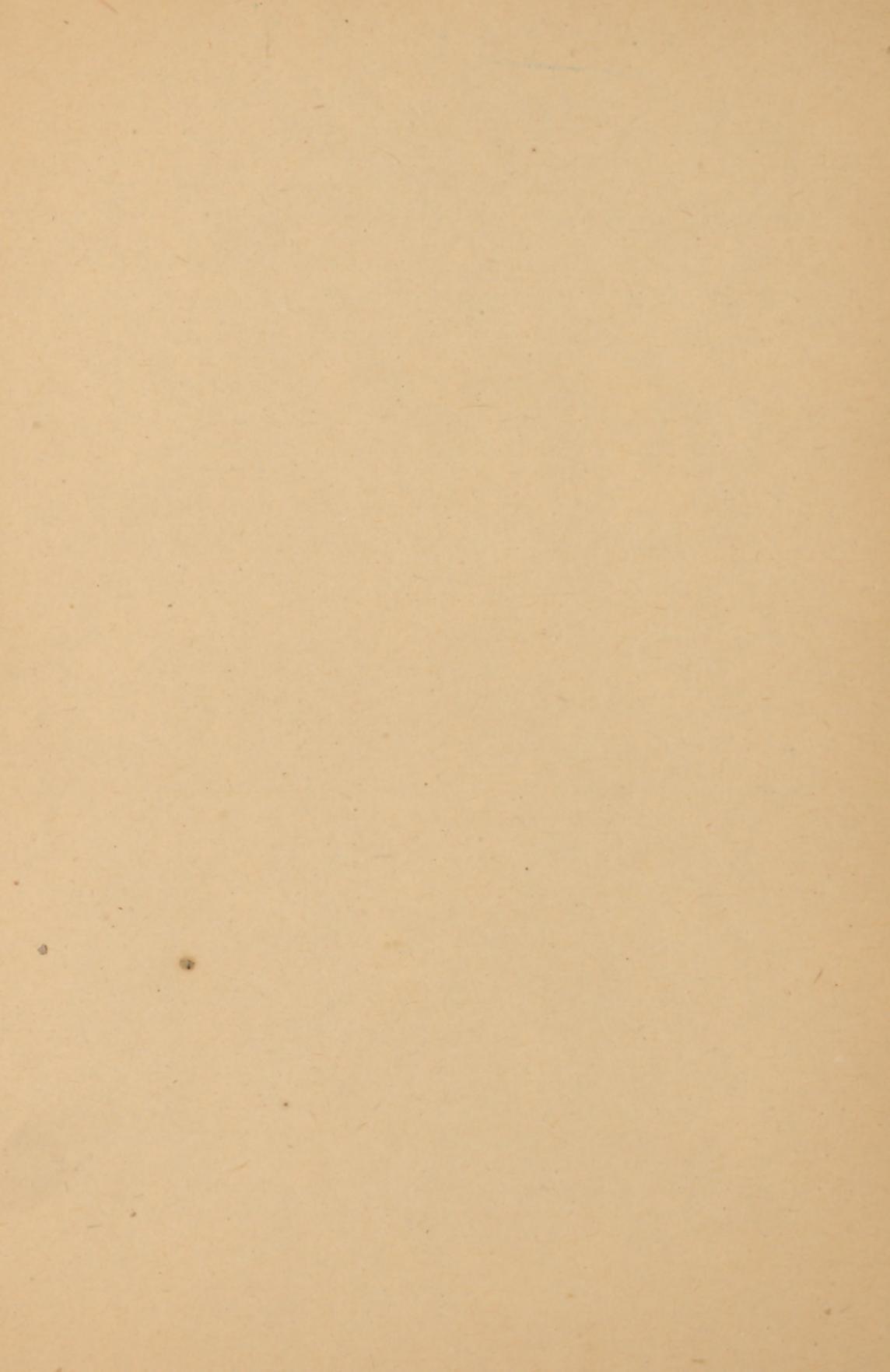


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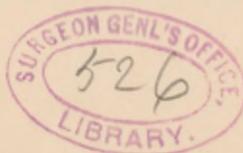
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UTERINE FIBROIDS. HYSTERECTOMY. TREATMENT
OF THE PEDICLE.*

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As we learn more and more of the pathology of uterine fibroids, we limit the application of the removal of the appendages (Tait's operation) to relieve the symptoms produced by their presence, and to check their further development. The pathologist and clinician have repeatedly demonstrated that it is of not infrequent occurrence for fibroid tumors to undergo sarcomatous degeneration. This is especially true of that form of uterine neoplasm known as a fibro-myoma, or as Mr. Tait terms them, myomata. This form of growth develops like sarcoma, at any age, but is most likely to appear before the age of thirty, and is usually a single growth, soft, semi-fluctuating, rapid in its development, and unattended by the usual hemorrhages so often accompanying the multinodular or hard fibroid. These growths (myomata) do not cease their development at or after the menopause, but may grow with increased rapidity after this period is past. They are liable to undergo mucoid, colloid or sarcomatous degeneration. They are composed principally of muscular tissue. They may grow rapidly for a few months, then remain quiescent for a number of years, start up from their lethargy and develop rapidly. Owing to the rich blood supply of this form of uterine tumor they are not as likely to suppurate as the hard, compact, fibrous growths, but let this nourishment be cut off by the ligation of the vessels leading to it (Tait's operation) or the ligation of uterine from below (Dorsett-Martin operation) and the danger from necrosis is real, not imaginary. Any small tumor of the uterus may become an enormous growth filling the abdomen, hence all small tumors that show a disposition to become

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steadily larger should be dealt with surgically. Electricity, ergot, etc., are agents that have been tried and discarded in most instances for some procedure that is reasonably certain in its results, and that is some form of surgical operation, removal being by far the most exact, and in the aggregate, safest.

Chicago-St. Louis has given us a new procedure (ligation of the uterine arteries *per vaginam*) that to the unwary and inexperienced seems reasonable, safe and certain, but to one who understands the pathology and clinical behavior of these growths, the Dorsett-Martin operation is a most inexact, dangerous and incomplete piece of surgery. The blood supply is not alone the sole supporter of the growth and development of any structure, and this is as true of uterine growths, as of any other part of the body. The nerve supply is of much import to the vitality of any structure, and in the uterus, Mr. Tait long since called attention to the necessity of the ligature including a nerve (Johnson's nerve) near the cornu in the broad ligament, in order that the menopause be completely brought about. Some one up in the Northwest, recognizing this fact, ligated both uterine arteries, then opened the abdomen and ligated both ovarian and included this nerve (?) and his case was a success, as the growth ceased its development, as did the woman her earthly existence. Uterus sloughed.

The appendages have been found diseased in my cases with a frequency to warrant the conclusion that there exists a causal relation between inflammatory diseases of the appendages and the development of uterine fibroids. If this fact is recognized by the surgeon, I am sure he would be neglectful of his duty, and unsurgical in his methods should he resort to any procedure that had not for its object the removal of the diseased appendages, breaking up of adhesions, the liberating of sound imprisoned surrounding organs, and the removal of the growth, if large or of that variety liable to continue its growth after the appendages are removed.

Many growths produce by their presence, pressure on the bladder, rectum and ureter. Such a growth should always be removed by the surgeon, and not left for Nature to absorb (?) or for its presence to produce irreparable injury to surrounding organs.

I do not desire to be misunderstood in my position as regards the removal of these growths. I would not operate on dying patients, because they will continue to die in spite of the surgery, and not as a result of the surgery. Operations on dying people bring reproach to this class of life-saving work.

I mention this fact to impress some one, possibly, who may hear

this read or see it in print, of the necessity of early surgery in all cases where past experience has demonstrated that at some time in the progress of any given case surgery becomes necessary in order to save the life of the sufferer. Early surgery means completed and satisfactory work. I am no advocate of abandoning a procedure when once begun, for any surgical operation that is done in an imperfect manner must of necessity, in most instances, beget disaster and disappointment.

The operation of Mr. Tait is applicable to a few cases, to check hæmorrhages and cause the growth to cease its development. The growth must be small, of the hard variety, and in a patient near the natural menopause, and unaccompanied by any polypoid growths within the uterine cavity. Enucleation is applicable in a very limited degree to small, single, hard fibroids in the front wall of the uterus. The appendages must be normal, or should be removed at the same time. Any extensive enucleation is attended with more danger than a hysterectomy, and leaves behind a poor piece of surgery, and a useless uterus, in most instances. It is possible for some fibroid uteri to become impregnated, and a recognition of this fact should form an operative indication, in these cases, for the mortality to both child and mother is very high.

We have arrived at a period in the history of pelvic surgery where we can not yield to the plea for *ideal surgery*, as far as a theory is concerned, but must submit to the more intelligent entreaty for good results and low rates of mortality—really the goal of truly ideal surgery. If a skilled operator has a preference, or is partial to a particular method, he is certainly entitled to do his favorite operation, provided his results are equally as good as those of others doing the same work in another way. If a large series of cases be reported with a mortality of five per cent. after a given method by one surgeon, and on comparing this percentage with the work of another doing the operation with some modifications, you find a death-rate of twenty per cent., you may rest assured that the fault, in the majority of instances, will not be found in the operator so much as in the faulty principles underlying the procedure of his choice. I find many operators who are constantly changing their technique, trying a new stitch here, and a buried ligature there; or a different instrument is applied, all, possibly, at the expense of the abandoning of an old, faithful and efficient procedure. Usually the old have been abused, hence the seeking of something new to try. All that is necessary, in the majority of instances, for a procedure to receive their unqualified indorsement, is a foreign stamp,

or a so-called conservative imprint by some illustrious and superannuated book writer, or professor. Unfortunately, the outlines of much abdominal surgery are mapped out by turning a revolving bookcase, while the topography is dictated to the office stenographer.

The surgery of some abdominal operators reminds me very much of the rapid transformation of a piece of butcher's meat, in an average boarding-house—roast to-day, soup to-morrow, and hash the next day, not recognizable at all; a species of surgical omelet, so to speak. While my comparison may seem a little absurd to some of my hearers, I am sure others will agree with me, in the main. I am fully in accord with any surgical advances, but do not believe in abandoning a good procedure, one that is all that could be desired, for an uncertainty.

Péan's method being the one of my choice is one I shall describe in full. Mr. Tait, Drs. Price, Bantock, Keith and McMurtry all perform the Péan operation.

Operation.—The preparation of the patient for a suprapubic hysterectomy is one of much import, and too much care and attention can not be given the details of the same. Cleanliness should be the watchword, and the eyes of the operator the sentinel, that no unclean nurse, sponge, instrument, or assistant, cross the aseptic halo.

A larger number of instruments are necessary in doing a supravaginal hysterectomy than is required in an ordinary "section." The operation itself demands a variety of instruments, and to be ready to meet unexpected complications requires more to be added to the list—one dozen hæmostats, two hysterectomy pins, Koeberlé serre-nœud, with delta metal wire, (this wire may be obtained from Krohne & Sessemann, London,) an extra Koeberlé, in case of a break, should be on hand, a knife for the abdominal wound, a large scalpel to cut away the tumor, four large tissue forceps to clamp the broad ligaments while making the pedicle, strong straight needles to sew the abdominal incision; silkworm-gut sutures, silk two sizes, for ligatures—bladder and intestinal injuries require a fine silk suture—a strong, straight needle to sew through the pedicle to reduce its size and keep the peritonæum from retracting; large flat sponges, smaller round sponges; irrigator, drainage-tubes, piston syringe to empty tubes; dressing material, iodoform gauze, etc. I prefer ether as an anæsthetic in all abdominal operations.

Time is an important item in the performance of a hysterectomy, and the operator who recognizes this, and completes his work quickly will, everything else being equal, have the lowest mortality.

The abdominal incision should be (to begin with) a little nearer to the umbilicus than is usually made in a "section" for the removal of diseased appendages. This precaution is made necessary to avoid wounding the bladder in the first incision, as this viscus is frequently pulled up by the growth of the tumor. Having entered the peritoneal cavity and settled the error or correctness of the diagnosis, proceed to sweep the fingers or the whole hand over the growth, going first above, then to either side, finally examining very closely for the location of the bladder; satisfying yourself that the growth can be removed (it is very rarely that one can not be removed) your incision is carried downward to the full limit of safety, and if need be, upward above the umbilicus. The growth is now brought forward through the abdominal opening. If omental adhesions are present they are "sponged" off, or double-ligatured, and cut until freed from the growth. In delivering the growth be careful that no undue force is used with the fingers in the region of the broad ligaments, where you will find enormously enlarged and tortuous blood-vessels. The same precautions should be exercised posteriorly, for here in many cases you will find large and vascular adhesions, which if torn across bleed profusely, and are found and ligated with difficulty.

In the globular œdematous myomas you will often find that it is with much difficulty that they can be removed from their snugly fitting pelvic mold. They can be easily dislodged if you can succeed in getting air to the bottom of the pelvis by pressing the finger or a clean catheter alongside of the tumor to the bottom of the pelvis. If you fail in this, then the corkscrew of Mr. Tait will be of much assistance to you. This instrument is screwed into the "fundus" of the growth, and traction made slowly and steadily until the tumor is delivered. Examine again closely for the location of the bladder, which is usually marked by a difference in color and the course of blood-vessels, and a faint line may be seen marking its limit when made out. If still in doubt, have an assistant quickly introduce a catheter, and its limit is then easily made out. If the bladder is pulled up too high to admit of the wire being applied, carefully dissect it from the walls of the tumor, and permit it to drop out of the way. If the pedicle is small the wire can now be applied, the pins having been placed in position before the wire is tightened. The pins should be placed parallel and exactly across the abdominal incision and on a level with the surface of the body.

If the pedicle is too large to admit of being constricted by the

wire and fastened in the lower angle of the wound, pass a large tissue forceps on either side on broad ligaments, two to each ligament, and cut between them down to the tumor, and from side to side in front and behind, having previously caught the peritonæum with hæmostats, in many places around the tumor, just below the proposed line of incision in the capsule, and *above the bladder attachment*. This last precaution guards the bladder and prevents the peritonæum and capsule retracting beyond the proposed location of the wire. Having divided the capsule, rapidly dissect it down to just above the location to which the wire is to be placed. You have almost practically enucleated the tumor, and have reduced the pedicle from the size of the thigh to that of the wrist, and that, too, with very little loss of blood and time. The pins are now pushed through the capsule and tumor, and the wire tightened by the nœud and the remains of the tumor and capsule are cut away an inch from the pins, and the wire tightened again until all oozing stops. At that stage of the operation when the tumor is delivered, a large flat sponge should be placed over the intestines, and two or three sutures passed through the parietes and grasped by heavy forceps and crossed over the line of the incision. This protects the intestines, and keeps them in place.

The hæmorrhage being controlled by the wire, the cavity of the cervical canal is cleansed, and a piece of gauze packed in it to prevent infecting the peritonæum during the completion of the operation. The peritonæum is washed or cleaned by sponging, if it needs it, especial care being given the location of the bladder, as here blood-clots are liable to be left behind. Two strong strings are placed around the pins to be used in pulling the stump into the lower angle of the incision, and to hold it steady while the *peritonæum is being stitched to the pedicle below the wire*. Fine antiseptic silk is used for the sewing.

Union takes place quickly between the parietal and pedicle peritonæum, and soon seals that cavity from any outside source of infection. You now introduce your sutures, then remove the large flat sponge and irrigate or clean out the recesses of the peritonæum, especially the pelvis, and, if the tumor is a large one, in the "flanks" also. Silk-worm-gut sutures should be used in closing the abdominal incision. You now take a strong, straight needle, armed with stout silk, and sew back and forth through the pedicle to reduce its size, to aid in controlling hæmorrhages, should the wire break during your absence, and to prevent the peritonæum retracting below the wire (not likely to occur) and to reduce the size of the stump.

A drainage-tube can be used if the usual indications for its use are present, such as oozing from adhesions, free fluid in the peritonæum at the time of the operation, or escape of pus from a pyosalpinx. (A complication of frequent occurrence in fibroids of the uterus.)

Care must be exercised in approximating the cut surfaces about the pedicle, for fear too much tension is placed on the integument surrounding the stump and cause stretching of the skin. Pledgets of iodoform gauze are applied under the edges of the stump and under the pins to prevent pressure on the skin, and the stump is covered with iodoform to hasten the drying process. The usual dressing should be applied with gauze, and the many-tailed bandage. The Koeberlé is permitted to project from the dressings that it may be tightened as often as may be necessary without disturbing the patient or her dressings.

If the pedicle is a large one, the dressings will soon be soiled by the discharge. *There should not be a large one.* The nurse is instructed how to tighten the wire if oozing of blood is detected. The wire is tightened by a turn or two of the clamp each day until the stump drops off, which usually occurs from the eighth to the twentieth day. The dressings are changed as often as it is necessary. Every aseptic precaution should be carried out in its fullest detail in doing the operation, and in the treatment of the pedicle afterward. If suppuration about the stump takes place, it is due to want of aseptic care on the part of the surgeon or nurse. If this accident has occurred it is best treated by keeping the groove around the stump lightly packed with iodoform gauze saturated with pure listerine or campho-phenique. After the pedicle drops there remains a shallow cavity that is soon filled up by healthy aseptic granulation tissue.

This description of the technique of a supravaginal or suprapubic hysterectomy is one applicable to all uncomplicated cases. The inventive ingenuity of the surgeon will find here a broad field in which to extend in meeting unlooked-for complications.

If I have succeeded in making the various steps of this, the choice operation for the removal of uterine myomata, clear and plain to those unacquainted with its technique, the object of writing this paper has been attained, and my desire gratified.

I beg to submit to your consideration the following deductions:

1. All rapidly growing fibroids of the uterus should be removed.
2. Procrastination, tinkering, and electrical darts convert many a simple case into one of great magnitude, with many complications,

making the work of the operator very difficult, and hazardous to the patient.

3. Small, stationary, hard fibroids, without dangerous symptoms, may with safety be allowed to remain, especially in women nearing the menopause.

4. Rapidly growing œdematous myomas may not present any dangerous symptoms, may occur at any age, may and do continue to grow after the climacteric, removal of the appendages does not check their growth.

5. Edematous myomas should be removed by a hysterectomy as the entire uterus will usually be found taken up in the body of the neoplasm.

6. Fibroids undergoing mucoid or colloid degeneration should be removed by a hysterectomy.

7. Suppurating fibroids, when not extruded into the vagina, should be removed by a hysterectomy.

8. Pediculated fibroids, if the pedicle is small, may be removed with safety by taking all due precautions to guard against hæmorrhage.

9. All hysterectomies (with Dr. Price's qualification) should get well.

10. Oophorectomy or salpingo-oophorectomy, as a means of relief for tumors of the uterus is being more and more limited in its sphere by a more thorough understanding of the nature of these growths.

11. Medicinal agents and electricity may in many instances relieve the symptoms for a short time, but the uncertainty and the dangers attending their use more than outweigh the expectations for good.

12. The operation of Bantock as described is quick, safe, efficient and is followed by the lowest mortality.

13. The liability to post-operative hernia is not increased by the ventral-fixation method.

14. The convalescence is of very little if any longer duration than that following the other procedures.

15. The "drag on the pedicle" and unsightly cicatrix are objections raised by some to the wire method, that disappear after a short time and *actual experience* in handling these cases.

16. The suppuration about the pedicle so much dreaded by those who have never performed the operation, is an objection that is easily set aside in the face of a recognition of the fact that when it does occur it never kills and that the same objection may with justice be

raised against the other procedure—i. e., suppuration in the vaginal vault.

17. Fistulæ in the Bantock operation are of rare occurrence and are due in most instances to a faulty technique during the operation or want of surgical cleanliness and good judgment in managing the case afterward.

18. In the Bantock operation there is less danger of ureteral and bladder injuries, the dangers from sepsis are reduced, the likelihood of secondary hæmorrhage minimized and time of operative procedure shortened.

