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FIBROID TUMORS OF THE UTERUS.[1]

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THIS paper is not, in any sense of the word, a treatise or an essay on fibroid tumors, but simply an account of their natural history as I have watched them, their effect on the women that have had them, the means that may be employed when necessary to remove them, and the condition in which patients are left after operation. Nor have I thought it necessary to enumerate and tabulate all my own cases, although this might be interesting to the Association and instructive to me, but I have simply illustrated my remarks by citing a few descriptions applicable to the subject mentioned.

I suppose it is unnecessary for me to define a fibroid tumor of the uterus. We all know them to be aggregations of normal uterine tissues in abnormal situations and masses. They may cause symmetrical enlargement of the uterus, or more or less one-sided enlargement; they may be in the walls of the uterus, or protruding toward its outside, or toward its inner cavity; they may be incorporated with the uterus, or connected with it by a broad attachment, or by

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a pedicle; or they may be entirely separated from it, and get their nourishment from the vessels of the omentum or mesentery, to which they are adherent; they may grow under the broad ligament, or they may grow directly out into the general cavity of the peritoneum. Certain of them that grow near the cornu of the uterus are sometimes gradually extruded until they are merely connected with the uterus by the Fallopian tube and broad ligament, and have a pedicle as distinct as that of an ovarian pedicle. I have seen this state of things three times, and always on the right side.

Uterine fibroids may be dense or edematous, or filled with lymph-spaces, or they may, in very rare instances, be fibro-cystic, having true cysts as distinct as those in an ovarian tumor, not the dilatations in the substance of the tumor—already mentioned, which are filled with clear yellow or bloody fluid and are simply dilated lymph-spaces, but fibroid tumors, having true cysts on their outer surfaces, with thin walls, and filled with fluid of different densities. I am of the opinion that a certain number of tumors that have been described as fibro-cystic belong to the class I have mentioned as fibroids with dilated lymph-spaces. True fibro-cysts are very rare, and I should say that a frequent operator would not meet with more than one or two in many hundred cases of uterine tumors.

In size these tumors vary from that of a mere dot to masses weighing fifty or more pounds. Their rate of growth is generally slow, by which I mean that several years' growth will be required to produce a tumor the size of one's fist. They are very com-

mon. In order to settle this question for myself, I have gone over my records of office-patients. I find that I have seen in my office during the past fifteen years 370 cases of fibroid tumors of the uterus, and, as I have seen many at the hospitals and in consultation, I think I may fairly add 150 more, making in all 520 cases. When one surgeon has seen that number in fifteen years, I think they may be called common. These tumors are said to occur more frequently in the black than in the white race, while ovarian tumors are said to be more common in the whites than in the blacks.

Operations to relieve women of fibroid tumors are rarely necessary, judging from my own experience. Of these 520 cases, I have operated only on sixty, or about 11 per cent. The conditions that should guide us in recommending the removal of the tumors are: when they threaten life by hemorrhage; when they are unbearable from their weight, or from the inconvenience they cause, particularly in the act of stooping or bending, or from their position when they prevent a woman from sitting down; when in a young woman they cause distress, chagrin, and shame, from the alteration they have made in her figure; when they cause so much pain as to make life a burden; when by their presence they so obstruct the circulation as to cause swelling and edema of the limbs, or interfere so much with the action of the digestive and eliminative organs as to cause emaciation and weakness; when they block up the pelvis so as to cause obstruction of the bowels; or when they have caused strangulation of the bowel; or when their pedicles have become twisted—and sometimes the whole uterus becomes

twisted on its axis exactly as the pedicle of an ovarian tumor does, and presents the same symptoms, and requires immediate operation.

Death by hemorrhage is very rare. I have knowledge of only three instances. Many women are blanched, and anemic, and feeble, but they live, and most of them are relieved by curetting, or at times by electrolysis *à la* Apostoli, or by the removal of a pedunculated fibroid from the interior of the uterus, or by enucleating a half-extruded one.

The feeling of weight and inconvenience caused by these tumors is sufficient in some cases to call for their removal, and the sufferer has a right to demand operation, even if life is not threatened, for surgery is not only to save life, but to contribute to its comfort; and there is no class of cases in which the decision of the patient has more weight than in these cases of fibroid tumors. "I do not want to carry this thing any longer; it annoys me. I cannot stoop to button my boots, and I want it removed," said a woman to me. I had put her off several months, and she had abundant time to think the matter over. I thought she had a right to decide the question of operation. I removed the tumor, and she got well.

A growing tumor in a young woman of from fifteen to thirty years old, which has distended the abdomen and is prominent and unsightly, and causes remark, may with propriety be removed, if the sufferer cannot bear to know how she looks, even if the tumor gives rise to no symptoms. It is *her* tumor and *her* life, and *her* body and appear-

ance, and she has a right to look like other women if she wants to.

Some large tumors interfere very little with respiration and nutrition, and cause but little edema and emaciation; while others, not so large, cause great debility. Those tumors that have become entirely separated from the uterus are dangerous from the opportunities they afford for strangulation of the intestine, and should be removed. I have seen a case of death caused by some loops of the bowel becoming strangulated by slipping in between points of adhesion formed between a fibroid that had became wholly separated from the uterus and other loops in a tumor nourished solely by its adventitious adhesions. Such loose-lying fibroids should be removed.

Again, a fibroid may threaten to render delivery impossible by the natural passages. At the same time, Nature will generally get these fibroids out of the way if you will give her a chance. I remember a case of this kind in the practice of Dr. John Benson, of Chatham, New Brunswick. It was a first labor; the tumor was so obstructive that Cæsarean section was seriously considered, but at length the tumor receded and allowed the head to pass. A few weeks after delivery, Dr. Benson sent the lady to me. I opened the abdomen, turned the body of the uterus and both ovaries forward upon the pubes, split the capsule of the tumor and enucleated it from its bed, sewing up the rent in the uterus where its pedicle had arisen from the posterior part of the body near its junction with the neck. Recovery was uneventful. The tumor was

about six inches in diameter and weighed two and a half pounds; it was growing, and if it had been allowed to remain would undoubtedly have rendered the next delivery impossible.

At the same time, as I have said, Nature will generally lift these tumors out of the way when the attending accoucheur would think natural delivery impossible. I remember a case in which a large fibroid tumor filled the vagina at the beginning or just before the beginning of labor. I could not move it by pressing on it with my hand, even with a purchase against the wall of the room with my feet, and yet in twenty-four hours Nature had pulled that tumor up and had pushed the cervix, through the orifice of which one could feel the child's head, down into the vagina.

I remember another case of pregnancy at five months in which I advised non-interference, but another gentleman said that the tumor must be removed, as delivery at term would be impossible. This was done and the woman died in two hours. In another case that I remember, a practitioner induced labor somewhat prematurely and ruptured the uterus, and the woman died. Both of these cases could not have done worse if they had been let alone, and they might have done better.

Sometimes these tumors, when quite small, by their position make it impossible for a woman to sit down with comfort. One of my patients said she felt as if she was sitting on a spool, and that she had to stand or lie down to have any comfort. She was sent to me by Dr. W. G. Kimball, of Worthington, Mass. A fibroid about the size of a horse-

chestnut, on the posterior and left side of the fundus, was tied and burnt off. Another near it, the size of a boy's marble, was torn off. There was no drainage. Rapid recovery and complete relief followed.

The solid fibroid tumors rarely have any adhesions, and are removed without much difficulty after a little practice. The true fibro-cystic tumors are very rare. In the 520 cases mentioned I am only sure that 8 were fibro-cystic—only about 1.3 per cent. Of these, I did not remove any successfully. In all the operations I was unable to separate the cysts from the bowel and other peritoneal structures. One woman recovered from an incomplete operation. The others all died. Of course, there may have been a carcinomatous element in some of these tumors, as very few of them were followed by autopsies. Most of these operations were attempted many years ago, when my manual dexterity was not as much developed as it is to-day; but I still regard true fibro-cysts of the uterus as very rare, and, as a rule, very dangerous of removal.

An extraordinary case of twisting of the uterus as the pedicle of a large fibroid tumor of many years' existence was reported by me in the *American Journal of Obstetrics*, 1892, vol. xxv, No. 3. The uterus was twisted one and one-half times on its axis, and the blood-supply was cut off from the tumor and from the ovaries and tubes. The case was fatal, no operation having been done. There was general peritonitis and lobular pneumonia. How this twisting of a great solid tumor and of the uterus could have happened is incomprehensible to me. Here

was a solid fibroid tumor, weighing at least six pounds, and this, with the body of the uterus, and with both ovaries, tubes, and broad ligaments, was twisted around one and a half times.

The natural history of 90 per cent. of fibroid tumors is to grow to a size to reach the umbilicus, or to reach higher or lower than this point, and then to remain stationary, and after the menopause to become cretaceous and atrophied. Some of them, I think, shrivel up almost entirely, while others remain as large as a cocoanut without giving rise to great inconvenience. About 10 per cent. of them require removal for one of the various reasons I have mentioned in the earlier part of this paper; others atrophy of themselves, without any treatment being employed. A large number of them are discovered by the attending physician, the women being totally unaware of their presence, though they may have been in the womb for many years.

Patients with fibroid tumors present themselves between the ages of twenty and sixty years, rarely before or after these periods of life. The average age of those on whom I have found it necessary to operate is thirty-nine years. One-quarter of them were about thirty-four years old. The youngest patient on whom I have done abdominal hysterectomy for a fibroid was eighteen, and the oldest sixty-five years of age. Of 60 cases, 1 was sixty-five, 1 sixty-three, 10 were between fifty and fifty-two, 1 was eighteen; only 3 were between twenty and thirty, while 44 were between thirty and fifty years of age.

The treatment of these cases may be by drugs or

by surgery, or by both, or by letting alone. The most common drug used is ergot. Alone, as a rule, it is ineffectual; combined with curetting, it helps to stop hemorrhage. The treatment by high doses of electricity sent through the uterus and tumor *à la* Apostoli, I have written upon at length elsewhere.[1] Suffice it to say that it sometimes arrests hemorrhage, almost always relieves pain and gives strength, but rarely diminishes the size of the tumor.

Removal of the ovaries for the cure of fibroids, particularly bleeding ones, was at one time extensively practised. I have practised it but four times. In one woman, forty-four years old, the tumor disappeared in a few weeks, and menstruation ceased at once. In another, thirty-three years old, the catamenia gradually ceased after three years, and the tumor remained about the same when I last heard, in 1887. In another woman, thirty-four years old, the operation was done on August 5, 1885. By May, 1886, she had gained twenty-four pounds in weight, and was well and strong. From the time of the operation until November 10, 1885, a period of three months, she flowed incessantly, but slightly, nothing in amount to what she had done before the removal of the ovaries and tubes. From November 10, 1885, until February 24, 1886, the flow wholly ceased. Since the latter date until May 13, 1886, she flowed continually, but not one-tenth as much as she used to. The tumor was somewhat diminished. I have not seen her for six years. Another, thirty-six years old, was not at all relieved by the

[1] Boston Medical and Surgical Journal, vol. cxxiv, March 5, 1891.

operation. The tumor reached to the umbilicus, and the flooding was severe. I removed the ovaries and the tubes on January 21, 1886. Two years later the tumor had descended into the cavity of the uterus, and was removed *per vaginam*. Of course, after this the hemorrhage ceased. In another case, not my own, I have seen the tumor grow enormously after removal of the appendages, and I am inclined to regard the method as unreliable.

Curetting the interior of the uterus often cures hemorrhage completely, and this curetting I follow by wiping the interior of the uterus with tincture of iodine. At the present time the surgical treatment is almost wholly by removal of the tumor, with or without the uterus. The kind of operation to be adopted has varied, and will vary with the particular case and the particular operator. In general, the two varieties of the operation are described as intra-peritoneal and extra-peritoneal treatment of the pedicle.

Of course, if the tumor has been gradually extruded more or less into the cavity of the uterus, it should be enucleated and removed under the most careful antisepsis. Such protrusion will invariably be preceded by great hemorrhage, and will give abundant warning of the necessity of interference. Quite large tumors are extruded in this way.

Tumors that have carried the fundus of the uterus to the umbilicus may occasionally, in the course of two or three years, descend into the cavity of the uterus, and be removed *per vaginam*. But tumors requiring removal, which do not thus become extruded, must be removed by abdominal section.

There are several ways of finishing this operation. Sometimes one can close the wound in the uterus by stitches and leave no pedicle, but simply a sutured wound, and then close the abdominal wound. Sometimes the base of the tumor and the body or neck of the uterus are compressed by a small écraseur or serre-nœud, and a long pin, passed through the stump, holds it outside the skin of the abdomen ; this is called the extra-peritoneal treatment of the pedicle by Kœberlê's serre-nœud, or some modification of that instrument. Sometimes the stump is simply tied around as the pedicle of an ovarian tumor is, and is dropped back. Sometimes the stump is turned into the vagina after being ligated ; this is called the intra-vaginal treatment of the stump, and is, of course, extra-peritoneal.

All the different modes of treatment depend for their fundamental success on asepsis, and on securing the vessels of the broad ligament, no matter in what way the pedicle or body or neck of the uterus is ultimately disposed of. I will not enumerate the different methods. The members of the Association are referred to the ingenious methods of operation described in the *American Journal of Obstetrics*, particularly in the contributions from Chicago during the past few years, and to the foreign journals, particularly the German ones.

The condition of most of those from whom fibroid tumors have been successfully removed by laparotomy is very comfortable. Some of them—I do not know exactly what proportion—suffer from what they call "hot flashes," by which they mean a sensation of heat rushing to their heads. This is ex-

tremely uncomfortable. In some cases it takes place every few minutes, in others at longer intervals. I do not know any way of relieving this distressing symptom. Others get extremely fat. A certain proportion, particularly those in whom the pedicle has been treated extra-peritoneally, suffer from ventral hernia. In all cases, however, in which the operation was really necessary the state of health is much improved, and the individual is very comfortable.

Sometimes the bladder is cut off by the wire écraseur, owing to its not having been sufficiently dissected off from the tumor; but in the only case of the kind occurring to me, the injury healed in a few weeks by keeping the bladder drained by means of a Sims's catheter, and the accident has caused no subsequent trouble, the bladder having remained perfectly normal since the operation, some ten years ago.

The length of an incision does not complicate an operation, provided there are no adhesions. I remember one extending from the sternum to the pubes, in which a tumor weighing fifty-three pounds was removed. The scar remained sound, and there is no hernia.

Very rarely, insanity follows the operation of removing a fibroid by laparotomy, as it sometimes does other surgical operations. Attacks of insanity that I have seen after surgical operations—such as ovariotomy, for instance—come on with normal temperature when recovery is taking place, and the insanity becomes more fixed and established as convalescence merges into health. One of my patients

was an elderly person, sixty-eight years old, who recovered rapidly from ovariotomy; another was much younger, being only twenty-five years old. I have never seen insanity after hysterectomy.

I have seen tetanus twice in cases of other operators, but have never myself had an instance of it after hysterectomy. I have, however, had one case after an ovariotomy.

I invariably see that my patients that have recovered from abdominal hysterectomy are fitted with a firm abdominal supporter, and impress upon them the necessity of being careful about carrying heavy loads or straining themselves.