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ORIGINAL ARTICLES

OPERATIVE TREATMENT OF FIBROID TUMORS OF THE UTERUS.

Read in the Section on Obstetrics and Diseases of Women at the Forty-fifth Annual Meeting of the American Medical Association held at San Francisco, June 5-8, 1894.

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Under three heads may be considered the operative treatment of fibroids of the uterus:

1. Hysterectomy.
2. Removal of the appendages.
3. Vaginal ligation of the broad ligaments.

The only absolutely sure cure for fibro-myomas of the uterus lies in the total removal of the uterus. This may be accomplished when the accompanying tumors are small, by vaginal hysterectomy, but as a rule abdominal hysterectomy alone is reserved for these difficulties.

While in hysterectomy, we have a certain remedy for the removal of fibroids, we also have in the method a definite percentage of danger. While experience, antiseptics and skill have put the method on high scientific grounds, and made it highly justifiable, yet even in the hands of the most experienced, when we operate on each new case, no matter how favorable it may appear, the grave responsibility of that certain mortality of 5 per cent. hangs over us.

There is much in the last few years' work in this line of surgery to encourage us. The old extra-peritoneal method of Péan's of attaching the pedicle immovably in the lower angle of the abdominal wall is giving way to the intraperitoneal methods of Baer, the more elegant vaginal fixation of Byford's, and the total extirpation of Eastman's. The results have given us shorter convalescence, eliminated serious sequela and the development of several well-nigh perfect methods, gives the operator who is wedded to none, a freedom to adopt the one of several well-tried methods which may best apply to the case in hand. During the last year, in my operating I have drawn upon the methods of Péan, Eastman, Baer and Byford indiscriminately, as the particular method seemed to me to best fit the particular case in hand. So far as my experience goes, however, I feel safer after having performed an abdominal hysterectomy when I have found the case suitable for Byford's method and the operation is done according to his technique.

REMOVAL OF THE APPENDAGES.

This is an unsatisfactory operation for fibroids and I seldom resort to it except in a complicated case, where the abdomen has been opened for the purpose of removing the uterus, and where for some reason the latter operation is impracticable.

When the tumor is small and hemorrhage has been a distressing symptom, relief and occasionally a cure may be expected by this method. Frequently, however, the tumor will continue to grow and occasionally the hemorrhage will not be modified. If you *do* remove the appendages for the purpose of establishing an artificial menopause and for the purpose of causing a reduction of the size of a fibroid by modifying its nutrition, remove not only the ovary and the tube thoroughly, but draw these organs sufficiently high, and make your ligature sufficiently low to include the main trunk of the spermatic artery as well as its branches to the tubes and ovaries. It is not difficult to remove both the ovary and the tube of a given side and leave the ovarian artery (its main trunk) entirely outside of the ligature. In removing the appendages for fibroids, if I had to leave the main trunk of the ovarian artery untied or Johnson's menstrual ganglia intact, including the uterine third of the Fallopian tube, I should feel safer in leaving the latter and tying the vessel. It will assist, too, in these cases while the abdomen is open, to place a ligature deeper in the broad ligament as suggested by Dr. F. B. Robinson, in a manner to include the ascending column of the uterine artery.

If the appendages are to be removed then, in the case of fibroids a thorough job should be done, including not only the removal of the tube and ovary but also the thorough tying of the main trunk of the ovarian artery.

VAGINAL LIGATION OF THE BROAD LIGAMENT.

This operation which was original with me and first described in an article read by me before the Chicago Gynecological Society, Dec. 16, 1892, consists in ligating the contents of the base of the broad ligament from the vagina. In suitable cases the ligation may be carried sufficiently high on one side to include the ovarian artery.

OBJECTS OF THE OPERATION.

The objects of this operation may be summarized under the following heads:

1. To deprive by a comparatively simple procedure an abnormally over-nourished uterus of the bulk of its blood supply by ligating the main channel and trunks of the uterine arteries.
2. To still further deplete the uterus in desperate cases by including, where practicable, not only the uterine arteries of both sides but also the ovarian artery of one side.
3. To cut off the nutrition of the uterus by ligating a large proportion of its nerve communication as well as its blood supply.

THE PHYSIOLOGIC EFFECTS OF THE PROCEDURE.

The deprivation of the tumor of its blood supply causes starvation and rapid atrophy of the growth, and has a direct and immediate effect in checking uterine hemorrhages. The severing of the nerve

communication to the hypertrophied uterus modifies profoundly its nutrition and favors atrophy, and also renders the uterus powerless to communicate its blood draught; thus retarding collateral circulation.

The technique of the operation has been described frequently; I will, therefore, but briefly summarize it here:

1. Patient should be prepared exactly as for a vaginal hysterectomy.

2. Place in an exaggerated lithotomy position and insert two retractors so as to expose the cervix.

3. Transfix cervix with a strong handling ligature.

4. With curved scissors incise the mucous membrane of the vaginal vault to the right and left of the cervix to the extent of about one and one-half inches on each side.

5. Draw the cervix strongly to one side and with the finger dissect the tissue of the base of the broad ligament of the opposite side, free from the bladder in front, and from the rectum behind, until it can be grasped to the height of one and a half to two inches free from all attachments.

6. With a strong handled, curved, pedicle needle armed with a double No. 12 silk ligature, the exposed ligament should be transfixed at its center, the lower ligature tied firmly and the upper one carried to the limit of the exposed ligament and also tied. They should be cut short.

7. Close the vaginal vault incision with a running catgut suture.

8. Treat the opposite side in the same manner.

9. After douching the vagina thoroughly with an antiseptic fluid, pack it loosely with iodoform gauze.

As this operation is new, and still on trial, I will take the liberty of reporting briefly my last two cases and giving a general summary of my first cases:

SUMMARY OF CASES.

I have now operated on eight cases of uterine fibroids by this method.

Case 1.—Was a tumor of considerable size extending to or above the umbilicus. The hemorrhage was exhaustive, and the patient greatly reduced in consequence. She was operated on Nov. 15, 1892. Considerable time has therefore elapsed since the operation. The tumor has decreased in size, but is still easily outlined, the patient writes me. The hemorrhage is now much modified and is no longer a source of alarm. She has had a severe attack of la grippe since the operation; is a chronic dyspeptic, and having these disagreeable complications I feel that I can pronounce the case a success. The patient considers her condition greatly improved—hemorrhages cured, tumor materially reduced and pressure symptoms have subsided.

Case 2.—Is a perfect cure. I have had an opportunity of seeing this patient almost every month since she was operated on (Dec. 3, 1892). "The hemorrhage has ceased completely. There has been very scanty flow at menstrual period. All pain has ceased." The patient's health has improved so that from a state of almost complete invalidism she is transformed into a strong and healthy woman. The improvement was progressive from the day of the operation. The enlargement of the uterus, or tumor, is now scarcely perceptible.

Case 3.—I have heard from but once—four months after the operation. She was operated on early in January, 1893. The flowing which had been, previous to the operation, excessive, had decreased in duration and amount one-third.

Case 4.—Was a large adherent myo-fibroma extending above the umbilicus, profusely hemorrhagic, for which laparotomy had been unsuccessfully performed—neither the appendage nor the tumor being removable. The case was a desperate one. The patient had not been out of bed on account of the loss of blood and general weakness, for several months. She was operated on Jan. 5, 1893. The hemorrhage ceased immediately and has never been excessive since. The tumor has decreased until it is not now more

than three inches in diameter. The woman is strong and vigorous, in good flesh and in perfect health. Menstruation is regular but scanty and there is no pain. The case in its course and behavior has been gratifying in the extreme.

Case 5.—Has not been under observation since June, 1893. She was operated on Jan. 8, 1893. Four months after the operation Dr. F. H. Geer reported "the menstruation only lasted two days; very scanty; no pain. Fibroid diminished in size until the uterus is about normal. Patient claims that she is cured."

Case 6.—Upon which I made a preliminary report in the *American Journal of Obstetrics*, Nov. 1, 1893, on which I operated Aug. 2, 1893, is still under observation. The last report from her husband (who is a physician of unusual ability), contained in the article referred to, was for Oct. 26, 1893. The amount of menstrual flow was normal in quantity, lasting but a few days. The pain was slight. By referring to the preliminary report it will be seen that this patient had been an invalid. She flowed excessively and almost constantly. The tumor was about the size of a four months' gravid uterus. The pain at and following the excessive flow was excruciating. The next report was, in January, 1894: "I have to report," the husband says, "that Mrs. X. menstruated from December 19 to 24. That the amount was about the same as before, *i. e.*, slightly above normal. Pain rather excessive for two days (possibly due to rheumatism and neuralgia). After flow had ceased I examined, and found ligature in vagina and also small sinous opening to left side of cervix. Since then there has been slight discharge from same. She had been suffering some pain at that point, no pain since ligature came away." He adds enthusiastically: "Taken all in all, the result so far is a grand success. Jan. 17, 1894, he writes: "Mrs. X. is up to-day (the fifth day) after the easiest menstruation she has had in her life—pain moderate and on one day. This in face of the right side still discharging. In the next two months I expect to have a well woman. The uterus is now practically normal."

Dr. Wm. H. Humeston, of Cleveland, Ohio, reported to me in private correspondence the following interesting case bearing on this subject. The case was afterward published in the *Western Reserve Medical Journal*, of Cleveland. He says:

"I had an extreme case in a lady 47 years of age. The tumor is as large as one's two fists—an interstitial fibroid. She was reduced to the lowest extremity, exsanguinated, frequent attacks of syncope and constant flowing for three months. It was out of the question to do any other operation. I ligated the left uterine artery and a good portion of the broad ligament. I had some difficulty but not a great deal. I believed, on account of her bloodless condition, that if I ligated both sides she might have had subsequent sloughing. She has done exceedingly well. Flowed a little for two days following the operation but none since. Her condition is rapidly improving, appetite, strength and blood returning. I shall not do the other side unless occasion demands. I endorse your operation heartily. It is reasonable and practical."

LAST TWO CASES—(NOT PREVIOUSLY REPORTED).

Case 7.—Mrs. S., aged 35, from Denver, Col., with a uterus about double the normal proportions, containing two or more centers of development and of an extremely hemorrhagic tendency was the seventh case operated on. The case had been treated unsuccessfully by curettement, electricity and the ordinary remedies for checking uterine hemorrhages. The uterus was retroverted but free from adhesions. The patient was prepared carefully, and at the Woman's Hospital, on Nov. 11, 1893, I ligated the base of both broad ligaments, and shortened the round ligaments. The uterus was drawn well down, and each broad ligament after incising the mucous membrane covering them in the vault of the vagina, was dissected free from the bladder and rectal attachments and then ligated with two strong silk ligatures. These ligatures were placed high enough to include the uterine artery and all its branches, and all of the contents of the base of each broad ligament. The ligatures were cut short after they were tied, the mucous membrane of the vagina was re-united with a running catgut ligature, the vagina packed with iodoform gauze. The round ligaments were then shortened and the uterus left in a position of anteversion. Three days later the gauze was removed from the vagina, an antiseptic douche was given and a Smith-Hodge pessary was inserted. The antiseptic douches were then continued daily. The first menstruation was due four days after the operation. It did not appear. The second menstruation also failed to

appear, notwithstanding the fact that menstruation had ordinarily been exhaustive.

One of the wounds caused in the operation for shortening the round ligament suppurated, and necessitated the patient remaining in the hospital until the latter part of January. The patient complained of dizziness about the time when the menstruation was due. This symptom continued with different degrees of severity for some time, gradually disappearing. February 13, three months after the operation, the first flow appeared. The patient writes: "First menstruation came on the 13th of this month, without pain, but quite profuse for first two days. Since then, has continued including to-day (the 18th). Discharge light."

March 19, 1894, the patient reports: "Am feeling fairly well this month. Had pain in back with last menstruation which commenced March 13. First three days quite profuse; last four days very little. No dizziness this month." April 18, she writes: "Menstruation came four days in advance of scheduled time; continued one week. Am in fairly good health."

Case 8.—Mrs. Z., Muscatine, Iowa. About 35 years of age. No children. Multiple fibroid of uterus approximating in size a four months' pregnancy. Hemorrhage profuse, followed for a week by excruciating pain. Patient became extremely ensanguinated at each menstrual period. Frequently the flowing would last for two weeks. The uterus had been curetted. Electricity failed to control the hemorrhage and only partially modified the pain. The irregularity of the uterine canal undoubtedly accounted for the failure of the electricity. Nov. 28, 1893, the patient submitted to my operation for ligation of the broad ligaments. The tumor was developed more to the left side into the left broad ligament. I succeeded in separating the broad ligament for a height of two inches. On the right side a large double ligature was employed, while on the left side first a double and finally a second one higher and farther away from the uterus was applied. The ligatures were cut short, the vaginal vault closed with catgut, and the vagina packed with iodoform drain. The first menstruation was due three days following the operation. A slight watery discharge occurred instead of blood. Two days following the operation the patient complained of pain similar to that which ordinarily occurred after menstruation. Feb. 1, 1894, the patient's husband writes: "She commenced her menstruation January 25, and it has continued until to-day, February 1. One day less than last time. Had one day of some pain,—not bad. She is getting stronger and can get around the house without being very tired, although she has not yet ventured out." February 26, the report is: "Mrs. Z. was sick this time six days, the same as last time. Had considerable pain, two days of which was very severe, the same as she complained of before the operation. She is getting along very nicely. She is now able to go out, and takes a walk every day." March 26, the husband writes: "I am ready to make another report but not as good a one as I would like. Mrs. Z. was sick on time and the flow was very little compared to what it has been, lasting but three days; but she had a great deal of pain—some before she was sick, and it was quite bad for two days after the menstruation. . . . Everything seems to be working very well if she could only get rid of that pain." April, menstruation still decreasing in quantity. The pain decreasing. "There was one day of pain," the husband writes, "and the flow did not amount to but very little." May 6, he writes: "Mrs. Z. has been feeling splendidly all this last month. Last week was her time to be sick again. The flow did not amount to anything, just enough to show. . . . In regard to her general health it is excellent. Eats well, sleeps well and goes out every day the same as other women. Has gained her natural amount of flesh and a little more." I examined the patient May 19. The uterus was reduced in size one-half. Patient in perfect health.

GENERAL CONCLUSIONS.

1. In hysterectomy we have an operation which is bearing the test of time well; in selected cases in the hands of well trained men it is the only absolute cure yet demonstrated for a certain class of fibroids.

2. The objections to hysterectomy as a cure for fibroids are, the long training necessary to safely equip an abdominal surgeon for this most formidable of pelvic operations, the great rate of this operation in the hands of the tyro, the long prostration, accompanied frequently with nervous symptoms fol-

lowing otherwise successful hysterectomies, its inapplicableness to extremely exsanguinated and otherwise reduced patients, and finally its inevitable death rate of at least 5 per cent. in the hands of expert surgeons.

3. Removal of the appendages as an operation for fibroids is usually unsatisfactory, and should not be resorted to except as a last resort in a complicated case where the abdomen has been opened for the purpose of removing the uterus, which operation for some reason has proved impracticable.

4. If the appendages are removed for the purpose of establishing an artificial menopause and for the purpose of reducing small fibroids by modifying their nutrition, make sure to include in the ligature the main channel of the ovarian artery.

5. Vaginal ligation of the base of the broad ligament for fibroid of the uterus is an operation still on trial. As far as we have history of cases to back the theories of the operation it has stood the test.

6. Vaginal ligation of the broad ligament is a minor operation from the standpoint of mortality, and it is a minor operation from the standpoint of immediate and remote shock to the patient. It can be performed on any patient without risk, in almost any condition of physical prostration or weakness, so long as she is capable of taking an anesthetic.

7. The operation is prompt in saving blood. It succeeds in cutting off one-third more blood to the uterus than does the Battey-Tait operation. Theoretically and practically it immediately checks uterine hemorrhages, and at once begins the diminution of the myoma by depriving it of its nourishment.

8. The operation of ligation of the broad ligament does not leave an abdominal scar, does not unsex the woman, as does both hysterectomy and the Battey-Tait operation.

9. There are no good reasons why ligation of the broad ligament should not be an early procedure in all conditions of uncomplicated fibroids of the uterus in which the operation is practicable, even though in a few cases, subsequently, a more radical operation might be necessary.

10. The operation of vaginal ligation of the broad ligament is practicable in all interstitial or moderately subperitoneal fibroids in which it is possible by careful dissection to expose the base of the broad ligament high enough to include in a ligature the uterine artery and its branches.

Venetian Building, Chicago.

DISCUSSION.

DR. McCALL of Mich.—I have watched the evolution of this subject with a great deal of interest from the early methods of removing fibroids to the ideal and complete method, as described by the gentlemen here to-day. If that method can be made a success in all operations, it certainly is as nearly ideal as we could wish.

The method I have pursued mostly has been the abdominal method, although I felt at all times that that was not an ideal perfect method. I have in a few instances removed the entire uterus by complete ligation of the broad ligaments. That operation has probably been done by Dr. Martin, of Berlin, more frequently than by any other of this class of operators. I saw Dr. Martin perform that operation a great many times, and on very large tumors, and very difficult ones; ligating the whole of the broad ligaments from above downwards, and removing the whole of the uterus. His success in that operation was, perhaps, as good

as we could expect in the character of cases he had to deal with. Still the mortality was large.

Our President, in removing the whole uterus without using any ligatures except on the upper part of the broad ligament, leaving the uterine arteries entirely in the pelvis, gives us the ideal operation. Still I suspect in a great many of the cases that we have to operate upon we will not be able to do that as nicely as our President has done in the cases he has reported to-day. I know it must be a very difficult operation where there are large masses in a broad ligament—very difficult to get around those, and very difficult to enucleate the whole mass without opening the tissue of the tumor or without disturbing the capsule of the tumor. If we do that we get hemorrhage, and in either way there is difficulty.

The time has not been sufficiently long to say anything with regard to ultimate results in my own cases. Present results are very good. I think I shall make use of this operation much more frequently than any other, where we get our cases early, provided the results prove to be as good as described by Dr. Martin to-day. It is certainly the best conservative method we have.

As Dr. Martin has said, the great difficulty has been that we have not tied deep enough and close enough to the uterus. It would be well in many cases to tie as close as possible to the uterus; tie deeply so as to involve the whole of the ovarian artery. In a certain number of cases an operation will arrest the menstruation and arrest the development of the growth of the tumor, and be a success.

Dr. Martin's operation is more simply and easily performed, and certainly will diminish the quantity of blood going to feed the mass in its growth, and I think by that operation performed very early, in a large number of cases it would save the trouble we might have afterwards.

Dr. BEVERLY MACMONEGLE, of California—I feel that it is necessary to bring out all we can on this important subject. All the modes of treatment known to us have been gone over by these distinguished gentlemen. I regret that I was not here in time to hear the paper of our distinguished President. Therefore I can not say what I think of his operation, as I do not exactly understand it. However he made a small report in one of the journals, which I had the pleasure of reading, which leads me towards the direction in which he is working. I can say that an operation which leaves no ligature in the abdominal cavity, an operation which causes no more hemorrhage than his does is most commendable, and as safe an operation as can be done in the abdominal cavity.

I want to bring before you the question of malignant degeneration, which has not been brought out, that I have heard. I have enjoyed very much Dr. Martin's paper on his operation for tying the uterine arteries and not resorting to total extirpation. It is our duty to consider our patients always, and in order to do that we must give those patients the benefits of the least dangerous treatment; we must combine the different methods of treatment and give such medicines as seem to add to the good results of the case. We want to have at our disposal an operation which shows no deaths. I think it is possible that we might combine the three methods and get a result even better than what our friends here have attained.

But the question in my mind is whether there will be malignant degeneration after tying the arteries. The operation is more or less experimental. What the result will be we will have to wait and see. The reason I raise this point of malignant degeneration is that I have had the misfortune to continue with my electric treatment so long that I have turned, as near as I can judge, a fibroid tumor into a malignant type. I have recently operated on a girl whom I have treated for a good while. I treated her with electricity for

a period of two or three years, giving her always benefit and comfort and relieving her hemorrhage. The tumor appeared to grow softer. Eventually she became so ill that she came to me to perform a radical operation. The electricity had possibly been applied too strong. I removed the uterus entirely. I tied the ovarian and uterine arteries and drained through the abdomen.

Now understand me that I mean the possibility of malignant degeneration is an argument against Dr. Martin's operation, but I think we should have this point in view. Therefore I ask Dr. Martin to give us another report later on, whether or not after reducing the tumors by the abdominal method there is simple degeneration of the tumor or malignant degeneration.

I can not criticise the President's operation in any way, and from what I know of it I have nothing but praise for it.

The fixing of stump outside of the abdominal wall is an operation that is still supported by our best men and should give us the best results. Dr. Keith, whom we ought never to forget to mention, has done most of his surgery in this way. His results are better than mine, I am sorry to say. But they are enough to justify us in following this method if we are not accustomed to working inside the abdomen. I don't want to disregard that operation entirely, because I feel that it has been the means of letting me out of a tight place and saving my patient's life.

If we have a uterus the tumor of which is growing and the hemorrhage is so great that we are about to lose our patient, it is necessary to remove the tumor by the abdominal section and total extirpation. The operation and results of Dr. Baer are good. He leaves an aseptic stump, and opens a canal so as to prevent drainage into the abdominal cavity and create poison. That operation I have not done myself.

We have neglected to mention an operation (which I tried once or twice and found very satisfactory) called the extraperitoneal method, and which is described by Dr. Gough. In my cases I had good results. The objection I have had to it is the time it requires, and exposing the patient during the operation.

I want to ask a question of Dr. Smith in regard to the use of electricity, and that is if in his treatment he punctures the tumor. I do not do so.

I also have a question to ask Dr. Martin, and that is, if a woman can become pregnant after this operation of tying the uterine arteries. We have still remaining the ovarian arteries and the Fallopian tubes supplied with their natural amount of blood. If the woman does become pregnant will injurious results follow?

Dr. MARCY, of Boston—I labor under a disadvantage in not having heard these speakers, and yet it is possible there is something to be gained. Sidney Smith once declared it was better for him to review a book before he had read it as he was then entirely unprejudiced. Therefore I am in a state for discussion. I have thought and written a good deal upon these subjects, and an experience through two decades has caused me to have some pretty positive ideas as to the treatment of fibroid tumors. We have all been co-working in these directions for a good many years.

A word in regard to electricity: In a very early day when Dr. Cutter, of New York, used electricity in the treatment of tumors, I had my own experience. I saw patients go to their deaths that I had myself put in the hands of these masters, and I became satisfied that the use of electricity as thus applied was not a wise procedure.

Some of you may remember that when the International Congress was held at Washington I presided over the Section on Diseases of Women. Some of the strongest advocates of this system were present, and all were anxious to give their experience. It was an experience meeting day

to those who were present and will never be forgotten. I returned home a convert to this new method of treatment I used this treatment and I had an experience that I might summarize in two or three sentences. I do not declare that patients were not benefited, and that means a good deal; but I will also say that I discourage the application of electricity in the arrest of the growth of fibroid tumors almost without exception. We may regard these cases from one or two standpoints:

1. If the case is or is not operable. If it is an operable case, we may divide it into several classes. In a case where the tumor is small and the patient is young the probabilities are that small tumor will be larger; that patient will become an invalid, and by and by there will be regret that we have neglected an opportunity most favorable for her relief or her cure. This class of cases I believe are best treated by abdominal operation; by ligation of the vessels and the removal of the appendages. I think we have a large consensus of opinions in this direction and that it is wise teaching. It is an operation that should be encouraged. This operation of Dr. Martin's is in this direction. In small fibroid tumors it is not dangerous to remove the appendages. In larger growths from my own experience I am positively of the opinion that this operation ought not to be performed without the removal of the appendages. If the patient is a well woman and comparatively young and the growth is increasing, then I am sure the President of this Section, and the men whom I face in discussion will agree with me that it is wise to remove it. But why is it that this has so slight a hold on the profession? It seems to me that we do not have the ability to treat the wound as we would like to, for the reasons that we are fearful of hemorrhage first, and that there may be something left in the abdominal cavity which will prove injurious.

You and I know full well that the class of cases we can thus treat are the exception, and that we must have some device that shall enable us to remove those growths that fill and crowd in such a way that the functionary organs can not go on. And we are driven to one or two extremes in treating those cases. One is advocated by your President. I give it full approval in certain cases. I believe the results are admirable. I believe ideal surgery is the one that gives the greatest number of cases the greatest possible relief.

I have for a long time felt it was not necessary to open the vaginal cavity for a variety of cases. In this method advocated by the President the abdominal incision is at once closed, and that ends the operation, and drainage tubes may be avoided.

This subject is so large that I hardly know what to omit in the discussion. In these cases a great many things have to be taken into account. But when it is determined that there is a foreign body in the abdominal cavity I think it is better to remove it. I know there are dangers; and yet that is the reason why we discuss these questions to-day, so that we may minimize our dangers. As we look back we see that every year adds very materially to success in treating this class of cases, and the percentage of cures increases.

DR. MONTGOMERY—I feel we are greatly indebted to the President for his excellent presentation of his method of operating. He has shown us how to do away with the ligatures, but I must confess that in performing operations of this kind I feel much safer in having ligatures applied to the uterine and ovarian arteries. I have used two ligatures, and cut away the uterus without any subsequent hemorrhage or trouble.

There are a number of cases in which it is impossible to perform an operation and leave a stump, the uterus has been so taken up by the large growth of the organ. In my ex-

perience I have found it better to have a cervix left. We are then certainly much better able to sterilize and render clean the vagina, and to insure thorough and complete drainage. When we consider those cases in which we may be able to leave a small stump, we find that those patients who have had the uterus removed through the vagina subsequently experience no inconvenience for want of support.

This operation of Dr. Martin's has many advantages in cases where hemorrhage is a source of danger; those cases where it may not be thought desirable to resort to so severe an operation as the removal of the entire organ. In such cases it may serve a very useful purpose. In such case, however, it would be a question with me whether the patient would be safe in an operation by ligating the uterine artery upon either side and ligating an ovarian artery upon one side; whether the removal of so large a supply of blood from a tumor of considerable size would not be dangerous. But the fact that it has been done and the patients have recovered is certainly a better demonstration than any theories upon this subject.

With regard to the application of electricity, I am very glad that Dr. MacMonegle has spoken of the danger of malignant degeneration. In my experience I do not think that the application of electricity to the uterine canal is a safe method of treatment; it causes irritation of the mucous membranes, it seems, which is not beneficial.

I would like to ask Dr. Martin if he has had experience in the use of electricity in treating fibroid tumors.

PLACENTA PRÆVIA—A PLEA FOR ACCOUCHEMENT FORCÉ.

Read in the Section on Obstetrics and Diseases of Women, at the Forty-fifth Annual Meeting of the American Medical Association, held at San Francisco, June 5-8, 1894.

BY LLEWELLYN ELIOT, A.M., M.D.

WASHINGTON, D. C.

At the last meeting of the Section of Obstetrics and Diseases of Women, I presented a paper, "Accouchement Forcé in Certain Obstetric Complications," and mentioned placenta prævia as one of the complications. (See JOURNAL, Vol. xxi, September, 1893.)

It will not be necessary to speak of the causes or the symptoms of placenta prævia, nor shall I refer to statistics to show the relative frequency of centralis, marginalis, and lateralis, or the mortality of the mother and the child, since statistics collected upon this subject are misleading. All varieties are usually included under the general heading, placenta prævia. Next to a case of puerperal convulsions, this is the most appalling accident to be met with in the lying-in room. Called, as we are, only at or after the occurrence of hemorrhage, there is little time to draw the lines of fine distinction. Time is only for action, and upon that action frequently depends the lives of two human beings. To tampon will stop the hemorrhage so far as external appearances go and will lull the medical attendant into a feeling of false security, while delivery frequently increases the hemorrhage, during the time of delivery. Many perform version, bringing down the feet, so as to tampon with the child's body; others proceed to immediately dilate the os and force delivery.

I believe no woman should be allowed to continue to suffer from these hemorrhages after the child has reached the age of viability, but that she should be delivered in accordance with the severity of the hem-