FERGUSON.

FLEXIONS OF THE UTERUS

And Their Treatment with a Painless Self-Supporting Intra-Uterine Stem

WITH REPORT OF CASES

BY

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NO DISEASE of a chronic character involving the reproductive organs of woman, is capable of causing more enduring pain and discomfort, of producing more obstinate reflex disturbances, mental and moral obliquities and more persistent chronic invalidism than flexions of the uterus. The distressing backaches, tormenting headaches, annoying uterine discharges, gastric disturbances, dysmenorrhea, pelvic and ovarian pain, hysterical and sometimes epileptic seizures, and a multitude of other minor symptoms conspire to make the patient's life one linked misery long drawn out.

Notwithstanding the marvelous advances made in late years in the treatment of diseases peculiar to women, the treatment of flexions of the uterus and the multiform symptoms to which they give rise, has not kept pace with the advances in other departments of gynecology, so that the average doctor can not treat these distressing cases

to-day with any better success than his predecessor of twenty-five years ago.

The treatment of flexions has always been one of the most difficult problems confronting the physician. The relation of the uterus to the surrounding organs and tissues, its periodical function and the atrophy of its walls produced by the distortion, all conspire to perpetuate the difficulty in spite of the various methods heretofore proposed and practiced for their alleviation and cure.

The treatment of flexions recommended by authorities is as varied as their ideas of the pathological significance of these distortions. Those who regard them as mere sequences of metritis, para-or peri-metritis, devote their main treatment to combating the inflammation and adhesions arising therefrom, giving very little attention to the distortion of the organ. On the other hand those who look upon the flexion as the *fons et origo* of the symptons, give too little attention to the accompanying inflammation, believing that if the flexion be corrected all other symptoms will vanish. Thus on the one hand the phy-

sician forgets that a flexed uterus, no matter how produced, causes a profound disturbance in the pelvic circulation by pressure upon arteries, veins, nerves, lymphatics and surrounding organs, and from the very nature of the case must perpetuate the inflammation and and the symptoms that flow from it.

On the other hand it is forgotten that much can be done to hasten the cure even after the distorted uterus is straightened and anchored in its normal position.

The best treatment, therefore, of these distressing cases, is that which considers both the flexion and the inflammation as factors in the production of the symptoms, gives to each the importance which it merits and strives to correct the distortion as well as to cure the inflammation. Divulsion of the cervix, curettage, and the application of stimulating solutions, such as carbolic acid and iodine, the use of boroglyceride tampons, due attention to the bowels and the proper regulation of the patient's habits, will do very much to relieve the symptoms and improve the general health. Nev-

ertheless if the flexion be not corrected and the uterus be not restored to its normal position, the symptoms soon return and another curettement becomes necessary; and so the case drags its slow length along, sometimes better, sometimes worse, but never cured. In the light of my experience during the last two years in the treatment of these obstinate cases, I do not hesitate to say that if I were compelled to confine my treatment to one or the other of the above methods, I would unhesitatingly choose the latter and, with a Sims' speculum, a uterine dilator, a Thomas's Smith pessary and a properly constructed uterine stem, I should accomplish a great deal more for my patients than he who confines himself to the treatment of the coexisting inflammation.

Leaving out of consideration for the present the various surgical operations that have been invented by Dudley, Schüking and others for the cure of flexions, I think I am warranted, from long personal experience, in the statement that a bent uterus cannot be treated more successfully without the use of a splint or stay worn within

the uterine cavity than a fractured or distorted limb without immovable dressings. But the greatest obstacle that always confronts the physician in his efforts to permanently straighten the flexed uterus is, that there has never been invented a uterine splint, except the intra-uterine stem which I have recently perfected, and which I shall show you presently, that is worth the material out of which it is made.

The various stem pessaries that have been invented for the purpose of being worn as intra-uterine splints may be divided into two classes:

1. Those which are intended to be used alone.

2. Those which require a vaginal support.

As commonly constructed, these instruments are cylindrical in shape and of the same diameter throughout their whole length, and possess the following defects, which are fatal to their successful use:

1. They make injurious and painful pressure at the internal os, the site of the flexion.

2. They do not make adequate provision for drainage. Therefore

the uterine secretions are liable to be dammed up in the cavity of the uterus, whence they may find their way into the tubes and pelvic peritoneum, producing salpingitis, pelvic peritonitis, etc.

3. They do not conform in shape to the uterine cavity.

4. They are not self-supporting, i. e., they have to be retained within the uterus by vaginal supports.

5. They do not permit the normal movements of the uterus during inspiration and expiration.

For these and other reasons they are exceedingly dangerous and useless instruments, and their use has been abandoned by the best gynecologists. The makers of these instruments of torture sometimes give them the anterior curve found in the normal uterus, as in the Wiley hard-rubber drainage tube. Others have made feeble attempts to construct self-retaining stems, as in Dr. Chamber's modification of the late Dr. Henry G. Wright's stem, Clement Godson's stem retained by a spring within the tube which projects at appertures near the extremity and within the uterus, and

Mr. Lawson Tait's abomination, with slight projections of rubber to act as a retaining agent. But whatever the form or modification, all possess the common defects of not conforming in shape to the cavity of the uterus, making injurious pressure upon the point of flexion, producing pain and discomfort, and obstructing drainage.

Basing my opinion upon the anatomy of the uterus and its relations to surrounding organs, I think I am warranted in the statement that an instrument designed to be worn in the uterine cavity should possess the following characteristics:

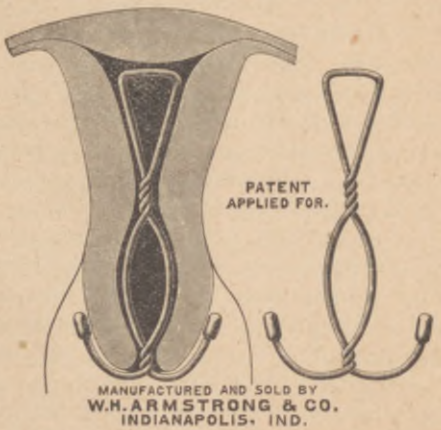
1. It must be free from all sharp angles, corners or projections.
2. In shape it should correspond to the general contour of the uterine cavity.
3. It should provide for efficient drainage.
4. It should be self-retaining.
5. It should permit the normal movements of the uterus.
6. It should not easily corrode.
7. It should be as light as possible, consistent with sufficient strength to maintain the uterus in its normal shape.

8. It should be capable of being worn during menstruation.

Previous to the time of the illustrious Dr. Hodge, of Philadelphia, a vast amount of ingenuity, misapplied, was spent in the construction of vaginal pessaries. But that justly celebrated man conceived the idea that these instruments should be made to conform in shape to the pelvic curves. His invention has stood the test of time and experience, because it is based on the common sense principle that a vaginal pessary to be worn with comfort and without pain should not press unduly upon any part. But gynecologists have failed to make practical application of this principle in the construction of intra-uterine stems. If badly fitting shoes makes sore feet, and a badly fitting vaginal pessary produces excoriations and ulcerations of the vagina, we would naturally expect the same thing or much worse from an intra-uterine stem made without regard to the size and shape of the uterine cavity, and possessing all the other bad qualities specified above.

Disappointed and disgusted at my repeated failures in the treatment of

flexions, some two years ago I conceived the idea of making if possible an intra-uterine stem free from danger and at the same time possessing all the good qualities enumerated above. The result of my work is shown in the accompanying cut. The instrument is made of aluminum. It is therefore exceedingly light, but at the same time possesses sufficient strength. The upper extremity is triangular in shape, and rests within the triangular cavity of the body of the uterus.



The lower part is spindle-shaped and rests within the spindle-shaped

cavity of the cervix. These are connected by a small stem, having circumferential channels to facilitate drainage, which rests within the narrow internal os. The uterus rests upon the two arms which rise upon either side of the cervix and are surmounted by nuts fastened on by a screw thread to prevent injury to the cervix or vaginal mucus membrane. The internal and the external os prevent the escape of the instrument, while the arms prevent it from ascending too high into the uterus.

The introduction of the stem is not difficult. The instruments needed for its introduction are a Sims's speculum, uterine dilators, a double tenaculum, a sharp curette and an applicator, all made aseptic by previous boiling. The vagina should be irrigated with some good antiseptic. Place the patient in Sims's position, retract the perineum with Sims's speculum, catch the posterior lip of the cervix with the tenaculum if it be a retroflexion, the anterior lip if it be an antiflexion, and draw it down within easy reach. Then gently insert the dilators and dilate the cervix to the extent of from one-

half to three-quarters of an inch. If the case be complicated with endometritis, as nearly all of them are, the uterus should be thoroughly curetted. After bleeding has ceased, which will be considerable in some cases, mop the cavity dry with absorbent cotton, and apply to the whole cavity equal parts of tincture of iodine and carbolic acid. The instrument, which should be about one-quarter of an inch shorter than the uterine cavity, previously measured, is then introduced, and the operation is complete. The patient should remain in the recumbent position for two or three hours, at the expiration of which time the internal and the external os will have contracted sufficiently to prevent the escape of the instrument. As a rule, an anesthetic is unnecessary; but if the patient be very nervous or hysterical, or the parts extremely tender, it is proper to give an anesthetic. The stem should be worn indefinitely, months if necessary. It does not interfere with menstruation nor prevent sexual intercourse, and in suitable cases gives no pain or discomfort. If the case is a retroflexion, the uterus must

be brought forward to the position of anteversion, and a Thomas's Smith pessary suitably adjusted. This should be removed, cleansed and re-adjusted at least once each month. After three or four months it may be removed permanently.

The patient is instructed to return at stated intervals for examination, and to use once each day a vaginal injection of hot water medicated with some astringent or antiseptic, if there are indications for their use. No other local treatment is required. If the case is a retroflexion the stem should be curved forward sufficiently to somewhat exaggerate the normal anti-curvature of the uterus. The exaggeration of this curve, in cases of retroflexion, is a point of great importance, inasmuch as the uterus will require much less support from behind to maintain it in the position of antiversion, and is much less likely to fall backward again when the vaginal support is removed. The lower part of the instrument, where the arms project, should be bent forward somewhat in order to prevent too much friction against the posterior lip of the cervix.

When properly adjusted the lower spiral should set squarely within the center of the external os, the arms projecting upward along the side of the cervix. Many of these cases will give a history of years of suffering. They are broken down in general health; they are weak, nervous, irritable, hysterical and sometimes almost on the verge of insanity. Such cases need, in addition to curettement and the stem, a general supervision of their habits. They need tonics, electricity, massage, cheerful company, outdoor exercise, good food and refreshing sleep.

There can be no question that in some cases the uterus will be found more or less immobile from adhesions; but judging from my experience, they are not so frequent as claimed by many authorities. Within the last three years I have had under my treatment more than thirty cases, and out of the whole number I found but one case of well marked adhesions, and this was complicated with cancer of the rectum. Two of these had been diagnosed as adherent by other gynecologists, who proposed the operation of hysteropexy for their relief. In both cases I suc-

ceeded, without difficulty, in raising the uterus out of its abnormal position. Both have been cured. One year ago I delivered one of twins, and she is now pregnant again. The other is passing through the menopause, and her opportunities for exercising the maternal function are at an end. It should not be forgotten that a uterus which for years has been crowded down in the hollow of the sacrum, may be so firmly fixed that seemingly it is adherent when no adhesions exist. If in any case adhesions are found to exist, they must be got rid of before we can hope to restore the uterus to its normal position. But the consideration and treatment of adhesions and other pelvic complications is not called for in this paper, and I shall therefore pass them without further notice.

Laceration of the cervix is another complication sometimes accompanying flexion of the uterus; and if from its extent and condition we are satisfied that it stands in a causative relation to the flexion or the associated symptoms, trachelorrhapy should be performed before the stem is introduced.

If the cervix is greatly hypertrophied or very much elongated, or the perineum lacerated, the proper plastic operations should be done before introducing the stem.

Anteflexion, as a rule, is congenital in its character. But to this there are a few exceptions. When congenital the flexion is usually associated with a more or less infantile condition of the uterus. These cases usually menstruate scantily and suffer great menstrual pain. In such cases the introduction of the stem is all that is necessary. It relieves at once the painful menstruation, increases the flow and stimulates the development of the uterus to its normal size. Acquired anteflexion is usually associated with endometritis. These cases need the curette, followed by the introduction of the stem. No vaginal support is necessary. Now one word as to the use of vaginal pessaries as the only support to maintain a flexed uterus in its normal situation. I am very much surprised to find in some of our latest text-books cuts of ring pessaries, horse-shoe pessaries, and other pessaries having the shape of nothing in

the heavens or the earth, designed and recommended for the purpose of straightening the flexed uterus and maintaining it in its normal position. I wish to say that no vaginal pessary, of whatever shape or size, is capable of maintaining a sharply flexed uterus in its normal shape and position, unless the distortion be first corrected by a surgical operation or by a stem worn within the uterine cavity. The retroflexed uterus will invariably straddle the bar of the instrument, which, pressing upon the point of flexion, will in time complicate the case by producing inflammation and ulceration at this point, and possibly setting up a pelvic inflammation. But if the retroflexed uterus be permanently straightened by other means, a properly adjusted retroversion pessary worn for a few months is of the greatest service. In other words, a retroflexed uterus must be converted into a retroverted one before it can be held in its normal position by retroversion pessary.

In conclusion I beg leave to report the following cases: Mrs. D., aged 32, mother of three children, the youngest aged four years, consulted

me in January, 1890. Since the birth of her last child she had suffered from menorrhagia, mettrorrhagia, dysmenorrha, constant backache, violent headaches and leucorrhea. She was anemic, greatly emaciated and hysterical. Indigestion, insomnia and loss of all interest in her affairs completed the picture of chronic invalidism. The uterus was prolapsed, sharply retroflexed, the os gaping widely and discharging a tenacious mucous tinged with blood. The sound entered three and a quarter inches. Since the birth of her last child she had had three miscarriages at the second or third month of gestation. During the following fifteen months the uterus was divulsed and curetted several times, followed by boroglyceride tampons, hot douches and such other local and general treatment as was indicated. Although the physician who preceded me in the case had diagnosed adhesions and proposed a laparotomy, I succeeded without much difficulty in restoring the uterus to its normal position, but found it impossible to maintain it there by a retroversion pessary on account of its persistent straddling

of the bar of the instrument. In the course of three or four months the patient made much improvement, but invariably grew worse when the treatment was suspended.

In March, 1891, I again curetted the uterus, introduced my stem and adjusted a retroversion pessary. From this time her improvement was rapid and permanent. The retroversion pessary was permanently removed three months afterward. In six months the stem was removed, the patient having completely regained her health. In November, 1892, I delivered her of twins at full term, and I was recently engaged to attend her in another labor which is expected to take place some time in July.

Case II. Mrs. S., aged 40, mother of several children, consulted me in January, 1891. This was the most distressing case of *pruritis vulvae* that has ever come under my notice. It made its appearance soon after the birth of her last child six years previously, and had continued with occasional remissions in its severity up to the time that I was asked to take charge of the case. The skin cover-

ing the lower part of the abdomen, the vulva and the inside of the thighs was in a chronic state of inflammation, and a plentiful crop of small boils were scattered over the surface. The constant itching and burning, always aggravated at night, rendered sleep well nigh impossible. Constant pain and loss of rest had made her a physical wreck. Examination revealed a sharply retroflexed uterus, apparently bound down by adhesions, the os gaping widely, from which issued a yellowish, acrid discharge. I dilated and curetted the uterus, and once each week treated the endometrium with equal parts of carbolic acid, iodine and glycerine. Boroglyceride tampons, hot douches with gentle efforts to restore the uterus to its normal position completed the local treatment. Under this treatment the patient improved somewhat, but not until I succeeded in restoring the uterus to its normal position and holding it there with the aid of my intra-uterine stem did her improvement become permanent. She then, without further treatment except daily hot douches, rapidly regained her health. She has been per-

fectly well for over two years, still wears the stem and will not permit its removal. As it gives her no discomfort whatever I am content to let it remain.

Case III and IV. Miss T. and Miss W. These cases were so alike in symptoms that I reported them together. Both were natives of Illinois and unmarried. One aged 22, the other 24. Both had suffered intensely during their menstrual periods since the first menstruation at the age of 15. One had anteflexion, the other retroflexion. Both had epileptic seizures with each menstruation. One was admitted into my Sanitarium in September last, the other in December. I divulsed the cervix in each case and introduced my stem. Neither one has since had a painful menstruation, and the epileptic seizures have vanished.

Case V. Miss D., aged 25, living in an adjoining county, consulted me in August, 1893. She had suffered from the most intense dysmenorrhea since her first menstruation at the age of 15, frequently having to take her bed at the onset of menstruation and

remain there during the flow. She had been under the care of various physicians, but had failed to get relief. Her general health was fairly good, but she was often annoyed by leucorrhea, backache, excruciating headaches, vesical irritation and ovarian pain. Examination revealed a sharply anteflexed uterus, and a thick tenacious discharge from the cervix. On August 30th I divulsed and curetted the uterus and introduced my stem. Menstruation came on in a few days without pain or other inconvenience. She has continued to menstruate painlessly, and all other distressing symptoms have vanished. She has been wearing the stem nearly nine months with perfect comfort. I examined her May 10th, 1894. The stem gives her no pain whatever, and the uterus was in its normal position.

Case VI. Mrs. S., aged 23, married three years. Had suffered from intense dysmenorrhea since her first menstruation at the age of fourteen. I saw her in consultation with Dr. Martha J. Smith, Sept. 18, 1893. In addition to the dysmenorrhea she was subject to violent headaches, pain in the right

ovarian region, leucorrhea, menorrhagia, vesical irritation, backache, constipation and dyspepsia, besides many other ailments of a minor nature. She had never been pregnant. Digital examination revealed an anteflexed uterus. The sound entered two inches and a half, giving her considerable pain. I divulsed, curetted, and applied equal parts tincture of iodine and carbolic acid to the endometrium and introduced the stem. The next menstruation was painless. On October 13th, she came to my office complaining of paroxysms of pain located in the subumbilical region. The pain was excruciating, making its appearance each evening and lasting for three or four hours, when it would cease, only to appear again the following evening. Presure upon the abdomen revealed a considerable degree of tenderness. Digital examination of the uterus and upward pressure upon the stem revealed no tenderness whatever. She was ordered a brisk cathartic and told to report in two or three days. However, the pain reappeared the next day, and kept recurring for several days in spite of treatment. Finally I removed

the stem, thinking that it might be the cause of the pain. But the following day the pain recurred as usual. On the day following I discovered an impaction of the colon. This was relieved by a thorough irrigation with hot water. The evacuations were enormous, and the pain did not recur. On November 18th, the patient having had another painful menstruation, I again introduced the stem. She has not had a painful menstruation since, and all other symptoms have disappeared. She has worn the stem six months, and feels so perfectly comfortable that she does not care to have it removed. I examined her on May 10th, and found the uterus in its normal position and the stem giving her not the least annoyance.

Case VII. Mrs. N., aged 32, married and the mother of two children, the younger born eight years ago, consulted me in September, 1892. She had not been well since the birth of her last child. She was emaciated, nervous and hysterical. Suffered from violent headaches and backaches, a constant dragging sensation in the pelvic region, dysmenorrhea, constipation,

gastric disturbance, difficult locomotion and insomnia. In short, she was a confirmed invalid. Had been for eight years under the treatment of the best physicians in this and other cities. Examination revealed a subinvoluted and retroflexed uterus apparently bound down by adhesions. At the second visit, however, I succeeded in lifting the uterus from its abnormal position, curetted and introduced the stem. The uterus was brought forward to the position of anteversion and a retroversion pessary adjusted. I should say that every physician who preceded me in the case had attempted to hold the uterus in its normal position by a retroversion pessary, but they invariably gave her so much pain that she could not tolerate them. The reason is plain; the uterus straddled the bar of the instrument, making painful and injurious pressure upon the point of flexion. However, after straightening the organ with the stem, she wore the retroversion pessary with perfect comfort; menstruation was painless and her improvement was rapid. Six months afterward I removed the retroversion pessary permanently. The uterus now

remained permanently in its normal position. I removed the stem one year after its introduction. I examined the patient a few days ago. The uterus has its normal conformation and position. The patient is well.

But this paper has already grown too long, and the report of other cases that have come under my treatment would be a mere repetition of the preceding. Suffice it to say that during the last two or three years I have treated thirty-two cases of flexion without a single failure.

But please understand that I do not claim that this stem is applicable to all cases. I do claim, however, that it is applicable to all cases in which there exists no serious pelvic disease outside the uterus; that it will in many cases obviate the necessity of Alexander's operation for shortening the round ligaments, and the opening of the abdomen to suture the *fundus uteri* to the abdominal wall, and all other operations for straightening the flexed uterus. And finally that it will cure almost every case of painful menstruation where the cause lies within the uterus.

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