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THE DIAGNOSIS AND TREATMENT —OF— UTERINE FLEXIONS.

Read before the Yorkville Medical Association, April 28th, 1887.

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THE DIAGNOSIS AND TREATMENT OF UTERINE FLEXIONS.*

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The normal position of the uterus is somewhat slightly turned forwards, with an evident point of curvature commencing a very little above the os internum. This fact should be well borne in mind, or the natural tendency of the fundus forwards might be mistaken for a moderate displacement anteriorly. When this curve is sufficiently great to produce a decided angle either backwards or forwards, the displacement is termed retroflexion or anteflexion, respectively, and assumes pathological importance in proportion to the degree of special functional derangement, as well as general disturbance created in the system at large.

Schroeder describes a flexion as a displacement "in which the direction of the axes of the two portions of the uterus are not quite normal." This cannot be technically correct, because the organ rests in the pelvic cavity, and is supported in such a manner that freedom of motion is permitted, so that its normal position will necessarily vary with every change of position of the body, and the direction of the axes would thus be continually altered. The above definition of flexion, therefore, is not a good one, and will have to be qualified, at least, in order to clearly indicate what is the physiological and what the pathological degree of change of the uterine axis. I would define a true flexion of the uterus to be a change of relation of the cervix and fundus maintained continuously and unaffected in any respect by the position of the body. A flexion either forwards or backwards under these circumstances would be clearly pathological, and result, if not immediately, at least in a short time, in the manifestation of symptoms characteristic in quality and sufficiently important to require a resort to measures of a more or less surgical nature for their amelioration and permanent relief.

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An allusion to the more common symptoms of flexion is all that is necessary, for the close relation that exists between the uterus and certain other pelvic organs will suggest results of uterine displacements which may be anticipated.

Many constitutional evils have been attributed to womb dislocations which, in reality, were not at all due to such conditions; while, on the other hand, important constitutional defects have been entirely overlooked, when undoubtedly superinduced by displacements, and therefore have escaped the attention which they justly merited.

Scanzoni went so far as to assert that "flexions of the womb do not acquire any importance, nor are followed by any serious dangers, save when they are complicated with an alteration in the texture of the organ;" but Gaillard Thomas does not evidently accord with such extreme views, for he cleverly quotes in refutation of this statement a paragraph from Scanzoni's own work, "that in well-marked flexion the canal of the neck is always more or less impermeable, which opposes an insurmountable obstacle to conception," which is clearly an admission, after all, of the importance of flexion, though uncomplicated with texture alteration.

As the uterus rests in the pelvis in juxtaposition to the bladder anteriorly and the rectum posteriorly, pressure upon either one of these two organs is occasioned when displacement occurs; hence disturbances of the organ impinged upon must be expected.

When the womb is anteflexed incontinence of urine and other symptoms of irritability of the bladder become manifest in due time. When retroflexion exists, various disturbances referable to the digestive organs are observed, resulting in obstinate constipation, though the opposite condition does sometimes obtain. Flexion necessarily constitutes a barrier to the egress of the menstrual discharge, as well as to the entrance of spermatozoa after coition; in each case producing disorders which bear relation to these respective functions.

Lassitude, languor, headache, backache, hot flashes, nausea, pain down the anterior aspect of the thighs, frequent and painful urination, and a sense of dragging pain in the pelvis are among the general symptoms of uterine flexion. Supra-pubic pain in anteflexion and sacro-lumbar pain in retroflexion, amenorrhœa, dysmenorrhœa, menorrhagia, leucorrhœa, and sterility are among the more special symptoms observed, which, with a history of the patient's condition, may serve to aid very materially in arriving at a correct diagnosis, if they do not at once warrant the institution of an examination for the purpose of definitely determining the position which the uterus occupies. In order to make

a satisfactory examination of the cervix either the dorsal or Sims' position may be selected. To facilitate exploration of the several parts of the womb, I have had my vaginal specula modified to meet the want of certain important features in which even the most practical form of speculum now in use seemed to be deficient.* I refer to the necessity of greater conformity to the vaginal canal, especially the posterior curve. The success attained through this device in facility of introduction, in readiness of adaptability, and perfect command of the parts to be examined or treated, has been satisfactorily demonstrated on repeated occasions.

The lower blade, A, of the speculum just represented, is constructed to conform, when the instrument is introduced, to the posterior vaginal wall, which, owing to the sacral concavity, is not a straight canal. If the womb is anteflexed the cervix will necessarily be forced backwards, and the posterior vaginal wall elongated. The curved blade of the speculum will aid in bringing the cervix into view far better than an instrument not possessing this feature in its construction.

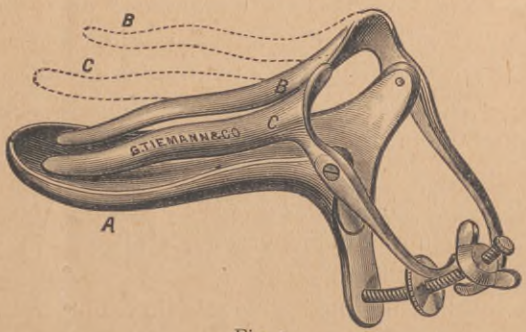

Fig. 1.

Fig. 2.

The two upper blades, B and C, are concavo-convex, permitting fullest dilatation of the vagina superiorly at points where least resistance is offered by the anatomy of the region.

*Medical Record, April 24th, 1886.

The same modification applied to the Sims' speculum renders it (Fig. 2) a more useful instrument when the blade conforms to the requirements of this vaginal curve. Less effort is needed on the part of the attendant to hold it in place, since the amount of leverage required is lessened by the perfect adjustability of the instrument. The curved blade, when the speculum is *in situ*, facilitates the introduction of the uterine sound or sponge tents, and renders more practicable local treatment of the endometrium or the use of the *metratrep* in remedying flexions.

No better classification of the causes of uterine flexion can be found than that of Dr. Gaillard Thomas in his work on the diseases of women, as follows:

I. Any influence which increases the weight of the uterus, as inflammation or congestion; tumors in the walls or cavity, pregnancy, hypertrophy, subinvolution, fluid retained in the cavity, masses of cancer or tubercle.

II. Any influence weakening uterine supports, as rupture of the perineum, weakening of vaginal walls, stretching of uterine ligaments, want of tone in uterine tissue, degeneration of uterine tissue.

III. Any influence which pushes the uterus out of place, as tight clothing, heavy clothing supported on the abdomen, muscular efforts, ascites, abdominal tumors, abscesses or masses of lymph, repletion of the bladder.

IV. Any influence which displaces the uterus by traction, as lymph deposited on peritoneum of pelvic viscera, cicatrices in vaginal walls, shortening of the uterine ligaments.

Diagnosis.—Ordinarily flexions may be readily recognized, upon digital examination, by noting the relation of the os to the vaginal wall, and also by observing the direction of the vaginal wall; both of which have a tendency forwards in retroflexions and backwards in anteflexions. The position of the fundus can be determined by bimanual manipulation quite easily in anteflexion, but it is a much more difficult matter to discover it when retroflexion exists, as tumors in the posterior vaginal cul de sac are not infrequently met with, and as they resemble the body of the uterus very closely they might be readily mistaken for it.

A symptom of great diagnostic importance in retroflexion is pain in the lower part of the spine, which is sometimes mistaken for a symptom of spinal lesion.

Indications of paralysis frequently supervene in retroflexion, and affect the lower extremities more especially. This symptom is occasionally of an hysterical nature, but in some cases it is genuine, and

doubtless due to pressure of the displaced organ upon the pelvic nerves, seriously impairing their motor distribution to the lower extremities, and interfering, also, with trophic function.

A local neuritis may lead to myelitis producing paralysis, or the latter condition may be only the result of reflex influences, without the existence of any actual lesion of the nerve centres.

The crucial test for flexions is, as tersely stated by Gaillard Thomas, to place the patient in position for examination, introduce a Sims' speculum, and gently probe the uterus to the fundus. A curve should be given to the sound which, by vaginal examination, the uterus has been found to have. The curve must be altered, and an attempt to pass it should be made each time that the instrument does not appear to enter the uterine canal with facility. This operation is more easily described and understood than practiced with the ordinary uterine sounds, but with the *metratrep** the curve can be readily formed while the instrument is being introduced, and the character of the flexion, with its degree, can be most accurately determined.

The bimanual method of examination is sometimes attended with so much difficulty that recourse must be had to the sound, or some instrument much more flexible than the ordinary uterine sounds. To meet what appeared to me to be a requirement for a suitable instrument for diagnosis and replacement, I devised and had made, by Tiemann & Co., 107 Park Row, the following instrument which I have denominated the *metratrep*, from the two Greek words, *μήτρα* the womb, and *τρέπειν* to guide.

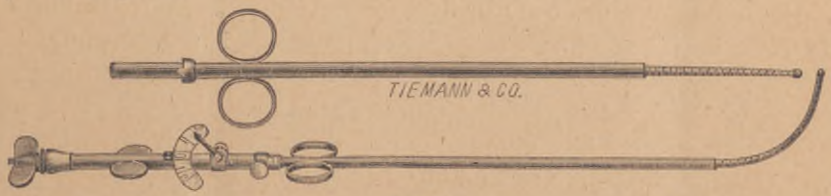

Fig. 3.

The instrument is composed of two parts: One is a straight tube of fine calibre, narrower at one extremity than at the other, and made of highly polished metal. At the larger end two rings are attached, to enable the operator to steady and guide the stem when using the instrument. At the tapering end of this tube there is a highly flexible and elastic spiral attachment, pervious, like the tube it forms a part of, which terminates in a blunt probe point. The spiral extremity is graduated to the depth of a normal womb, not exceeding two inches

* *N. Y. Medical Journal*, April 10, 1886.

and a half in length, and, being extremely pliant, can be made to follow, without the slightest effort, a most devious flexion without producing pain.

The second part, which may be combined with, or disunited from, the first part at will, by means of a catch, consists of a split metalic spring, made to fit the calibre of the tube already described, precisely as a sword would slide into its scabbard, and is furnished with a separate handle, upon which is attached a graduated dial plate and a moveable index. The point of the spring, which is within the spiral inclosure when the two parts are combined, can be made to turn upwards or downwards by means of a governing screw at the handle; the index meantime records faithfully every change of direction impressed by the will of the operator.

Treatment.—The indications for treatment are clearly as follows: 1. Replacement. 2. Retaining the uterus in place. 3. Removing all causes of flexion as far as it is practicable to do so. 4. Prevention of a recurrence of flexion. The accomplishment of the first indication is simple enough in many instances, but there are cases where flexions are maintained by influences of such long standing that it is a difficult matter to correct them so effectually as to prevent their recurrence.

I have no doubt that it is for this reason, especially, authorities speak so despairingly of realizing permanent good results after restoring the uterus to its normal position when it has been displaced any length of time. I have little doubt also that the somewhat imperfect and irrational method of replacement has had much to do with the unsatisfactory results realized.

Recent anteflexions can usually be corrected by the introduction of the finger into the vagina, thereby fixing the cervix; meanwhile, by pressing with the other hand between the pubis and fundus, the uterus may be elevated and pushed backwards into place. In retroflexion the reduction is effected by fixing the cervix with one or two fingers of one hand in the vagina, and endeavoring, with the other hand, to raise the fundus uteri from behind through the abdominal wall.

This operation can sometimes be readily performed through the rectum, by placing the patient in the knee-chest position. When it is found impossible to effect reduction of the uterus in the different ways described, recourse must be had to a suitable instrument for the purpose of elevating and replacing the fundus.

I have not seen any serious consequences result from careful and skillful efforts to overcome moderate adhesions with the *metratrep*, and therefore believe that Schroeder's* cautions, that free mobility of the

*Schroeder, Ziemssen Cyclopædia.

organ should exist before any attempt be made at instrumental replacement, may be modified in respect to the use of the *metratrep* in skillful hands. The ordinary uterine sound is certainly not without danger when used in such cases for replacing the fundus. This instrument, when introduced in conformity with a flexion to be corrected, is turned over so that it shall occupy with the uterus its natural position. To accomplish this it will be noted that the uterine portion of the sound is obliged to describe a very long curve, which not only subjects the organ to the liability of serious injury, but actually contorts the longitudinal muscular fibres with the other tissues and vessels of the womb so that congestion is promoted, and the symptoms, for which the operation was deemed necessary, instead of being relieved, are aggravated, and the displacement almost immediately recurs.

This method of reduction has always seemed unscientific and unnatural to me, and so it must have appeared to the immortal Sims, who devised a more suitable uterine repositor, a full description of which may be found in Thomas' work on diseases of women, page 314. This is an admirable instrument, and is serviceable in some cases of flexion, but, although the *modus operandi* is simple and in accord with reason, its use will not meet with the requirements of all cases. The uterine staff is too straight to admit of its easy introduction in cases of marked flexion, and the elevation of the fundus is somewhat too hastily and abruptly effected. The objection as to the straightness of the staff has been partially met by making it jointed, thereby increasing the value of the instrument, but not wholly meeting all useful indications.

It should be borne in mind that when the uterus becomes flexed it does not assume its abnormal position by describing a circle with the fundus and twisting itself out of position, but the organ simply is dragged or falls out of place, curving backwards or forwards, in the direction of the influences at work. It is true that it may be pushed out of its axis by morbid attachments, in which case it falls in the direction opposite to that of the morbid agent; but its flexion is, nevertheless, in the direction of its weakest support, producing the same physical defect as if directly dragged from its normal position in the pelvis. If retroflexion or anteflexion is permitted to remain for any length of time, the uterus becomes congested and heavy, and drags upon its various attachments, which are stretched and rendered irritable. The fundus, pressing continuously upon some adjacent organ or intervening tissue, excites a local inflammation which results in lymph exudation, and, becoming organized, binds the body of the womb to this unnatural position.

The only way to correct such a flexion must, therefore, be a resort to some instrument which can return the body of the organ to its natural position without injury, and by the same track it followed in becoming displaced. This is to be effected by carefully introducing into the uterine canal a flexible staff which can be made firm at will, and operated so as to cautiously elevate the fundus, and at the same time gradually permit the surrounding soft parts to reassume their respective relations in the pelvic cavity. This operation can be best and most safely performed by the *metratrep.** If this instrument is introduced into an anteflexed or retroflexed uterus, its spiral extremity, yielding to the maldirection, would follow the precise degree of flexion existing, and faithfully record it on the dial. The restoration of the uterus to its normal position is effected by operating the governing screw at the handle, while the combined instrument is held steadily and firmly in place. As the screw is slowly turned in the opposite direction to the existing flexion, the body of the womb is gradually and painlessly lifted into its proper place, and the fact announced by the index when it is accomplished. The instrument may be then withdrawn carefully, and the uterus left in its redressed position.

To prevent the recurrence of flexion I have been in the habit of placing a tampon of carbolized glycerine around the cervix, packing it anteriorly or posteriorly, with especial reference to the pre-existing flexion, and this may be permitted to remain for two or three days. The recumbent posture should be particularly enjoined for two or more weeks, during which time the carbolized tampon should be renewed every two or three days, and moderately warm vaginal douches regularly administered.

General tonic treatment should not be overlooked as a valuable, if not necessary, means of restoring tone to the flaccid uterine tissue. Some strengthening influence may be expected from the internal administration of iron, ergot and ext. cannabis purificat. When the patient is permitted to leave the couch chalybeate tonics should, of course, be continued, and cold hip baths, medicated with sea salt, regularly taken. An artificial Kreuznach bath may be devised with advantage according to the following formula: One half a pound of Kreuznach salt, two pounds common salt, to three gallons of water. Let the patient remain in this bath from ten to twenty minutes once or twice daily. Some of the same solution, warmed, may be used with good effect as a vaginal douche once or twice daily.

Mechanical means for retaining the uterus in place may prove neces-

* *New York Medical Journal*, April 10, 1886.

sary when a selection may be made of a suitable pessary. I will not test your patience unnecessarily by reviewing in detail the various pessaries which are more or less beneficial, as you are already familiar with the most approved patterns. A mere allusion to two or three which I have found useful will suffice. The intra-uterine pessary, various modifications of which are described in works on diseases of females, is sometimes required; but great care should be exercised in resorting to them, as serious inflammation has resulted from their use.

The employment of eccentric rings has in some cases proved successful in retaining the uterus in place, by keeping the cervix in a position which tends to prevent the body from falling out of its normal axis.

The variously modified Hodge's lever pessary, constructed of hard rubber or copper zinc covered with soft rubber, which is quite flexible, will do well in supporting the uterus in many instances. Thomas' horse shoe modification of Hedge's pessary may be used with advantage, and Schultze's retroflexion pessary will be found to answer its purpose admirably in the class of cases for which it is best adapted.

The following case, which I saw in consultation with my friend Dr. De Lancy Carter, will prove interesting, as it illustrates the value of the *metratrep* in restoring a long standing flexion, with permanent good results.

Miss G—— about eight or nine years prior to becoming a patient of Dr. Carter took care of an invalid father whom she often was obliged to lift unassisted, this requiring great muscular effort in each instance. For seven years she was more or less of an invalid, when she had a fall seriously injuring her arm. After this accident she was confined to bed for a time, and more particularly had her attention called to symptoms referable to the pelvic organs, as dysmenorrhœa, obstinate constipation and vesical irritability, resulting in frequent and painful urination. On recovering from the acute effects of the accident, though able to be about, she was never free from headache, backache, hot flashes, lassitude, languor, irregular and painful menstruation, ovarian neuralgia, more or less leucorrhœa, occasional nausea and vomiting, and continued vesical irritability.

So persistent and distressing were these symptoms that she visited two or three distinguished gynæcologists, who recognized the presence of an acute anteflexion of the uterus, and corrected the condition in the usual way; but the displacement immediately recurred. One of the gentlemen she consulted advised Tait's operation as a means of relief. When she was examined by Dr. Carter and myself, a complete anteflexion of the uterus was discovered. Replacement was thought

advisable, and hope entertained of ameliorating some of the most distressing symptoms.

The angle of flexion was so acute that the ordinary sounds could not be introduced without great difficulty, and efforts to do so were accordingly abandoned.

On inserting the *metratrep* it was necessary to cause the spiral extremity to conform to the uterine curve by the agency of the governing screw, while the instrument was in process of introduction. When the instrument was inserted to the fundus, the uterine curve was found to have reached its fullest extent, as indicated by the index. Very gradually and carefully the staff was raised and carried backwards and downwards, so as to place the uterus in a retroverted position, when the instrument was withdrawn and a tampon of carbolized glycerine packed about the cervix, anteriorly, as already described.

The operation caused no immediate reaction, but for several days subsequently some pain was experienced. The patient was advised to remain in the recumbent position, and a moderate dose of codeia administered at intervals.

Three weeks after the operation the patient was examined, and the uterus was found in its normal position.

A Simpson sound, with the natural curve, was readily admitted to the fundus without causing pain. Again six weeks afterwards she was examined by Dr. Carter, who found the organ in place.

It is needless to add that much relief has been realized from the operation. The successful reduction of long standing flexion, without immediate recurrence, is thus fully proven, and the undertaking established as a safe procedure. It is, moreover, demonstrated that it is a practical thing to prevent the recurrence of flexion when reduction has been effected in the manner advocated, and the case subsequently treated as advised.

Similar good results have occurred in my experience, but I will not consume more of your time with the details.

I cannot close these remarks without expressing my grateful appreciation of your patience and interest in a subject which has afforded me some interesting study.

941 *Madison Avenue.*