

UTERINE MASSAGE AS A MEANS OF TREATING
CERTAIN FORMS OF ENLARGEMENT OF
THE WOMB.

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No one can be long engaged in treating the special diseases of women without noticing the very great frequency with which enlargement of the uterus is found as one of the conditions present in patients whose symptoms point to the generative organs as the seat of disorder. In order to ascertain the exact proportion in which it appears, I some time ago consulted a record based upon observations of 277 gynecological cases, occurring in hospital and private practice, and obtained the following result: Of this number, the uterus was enlarged in 194, — that is, 70.36 per cent. In 11 of the cases the enlargement was ascribed to the presence of uterine polypi and fibromata, 2 to sarcoma, and 2 to carcinoma. Deducting these 15 from the entire number, we have still left 179, or 64.60 per cent., due to other causes. These were denominated respectively, subinvolution, hypertrophy, hyperplasia, chronic metritis, and simple enlargement. I have recorded more or less completely the treatment which was pursued in these cases. There was a good deal of variety about it. It comprised almost everything that anybody has ever advised for the purpose, — the application of alterative, astringent, and caustic substances to every accessible part of the uterus, scarifications, blistering, electricity, pessaries of many patterns, abdominal supporters, the hot-water douche, etc., together with such general treatment as seemed appropriate. Under the head of "Result of Treatment," the statements are meagre; some of the cases are marked "Improved," but in regard to many

of them absolutely nothing is recorded. A few of them were cured, — that is, the enlargement was diminished ; for, failing by other means, I cut part of the uterus off. This is the quickest method I have found for reducing the size of the organ.

Others, as well as myself, have failed in treating these cases successfully by other means than amputation. For example, Thomas¹ says : “The prognosis in hyperplasia of the entire uterus, or of the body alone, is unfavorable with regard to complete cure.” Likewise Scanzoni,² who says : “When the affection is become inveterate, and the organization of effused matters in the parenchyma is already considerably advanced, we must renounce the hope of obtaining a complete cure.” Atthill, too, says : “Treatment seems utterly powerless to relieve the sufferings produced by simple hypertrophy of the uterus. It is, indeed, a nearly hopeless ailment, — one not likely to destroy life, but to render it a burden.”

The late Dr. Washington L. Atlee once told me that, when patients asked him the question (so frequently and so vainly asked by them), “How long will it take to cure me?” he was in the habit of replying, “Two years.” He then explained that this response usually so discouraged the questioner that he got rid of treating an unsatisfactory disease ; and if it did not have this effect, he then felt assured that he had an earnest patient, one who would be likely to aid him properly and persistently in his efforts for her relief.

Really, I know of no writer who speaks hopefully of the prognosis in cases of enlarged uterus ; and, for myself, I feel convinced that, excluding malignant diseases, they are, if not the most incurable, at least the most seldom cured of any with which we have to contend.

I do not expect that anything I may say or do will affect this general and just verdict ; but, inasmuch as I have obtained encouraging results in some cases of this character

¹ *Diseases of Women*, 4th edition, p. 296.

² *Diseases of Females*, p. 185.

by the use of certain manipulative processes, — pressure, friction, squeezing, — to which the term massage has been applied, I deem it proper to submit these results for your consideration.

For the purposes of this paper, I do not need to discuss the pathological questions involved in the subject of enlargement of the uterus. Indeed, these questions scarcely admit of so much debate as formerly. By almost common consent, modern investigators have abandoned the term inflammation as unsuitable for characterizing the condition under consideration ; and, although there still exists among them a difference of opinion as to what name should be substituted for the time-honored one which they have discarded, the want of agreement hardly goes beyond this. All concur in the belief that the enlargement may be referred to one or more of the following causes : —

1. Prolongation of the catamenial congestion ; which prolongation, by shortening the intervening period, and finally preventing the uterus from returning at all to its non-menstrual state, becomes permanent.
2. Imperfect post-puerperal involution.
3. The stimulus produced by the presence of neoplasms developed in the walls or cavity of the uterus.
4. Distortions and displacements of the uterus.
5. Perimetric inflammatory exudations.
6. Insufficiency of cardiac action, and diseases of the liver and other abdominal organs.

With equal unanimity it is conceded that all of these causal conditions act in a similar manner ; that all of them form an obstruction to the venous return circulation ; and that, by reason of the persistent hyperemia thus induced there occurs a perversion of the local nutritive processes terminating in increase of bulk, structural change, and exalted sensibility. So that, whether we name the gross fact — the enlargement — subinvolution, hypertrophy, or hyperplasia, we have essentially the same pathological condition to deal with.

In view of what I have further to say, it is important to

remember that there are two stages of this chronic enlargement of the uterus.

The first is that in which the veins and sinuses of the organ are gorged with blood which is to a certain extent stagnant. This stage is characterized by an increased growth of the connective tissue. In consequence of the turgidity and enlargement of the vessels and the presence of the freshly-formed connective tissue, the walls of the organ are soft and yielding.

After a transitional period of indefinite length, the second stage is reached. Here, owing to a contraction of the new and profuse growth of connective tissue, the blood-vessels are compressed, their calibre is lessened, and the whole organ is reduced in size and becomes indurated. This, which is usually regarded as an advanced stage of the *disease*, should be considered the *cure*, — as much so as the anchylosis and cessation of activity in morbus coxarius; a cure effected by natural conservative forces, and the only one which usually does or can occur, either by natural or artificial means. After the stage of induration has been completed, I believe that no appreciable diminution of size ever takes place, unless as the result of atrophic involution succeeding the menopause, or by ablation. Hence, all our curative efforts should be directed to shortening the length and lessening the degree of the first stage, — that of hyperemia proper, — and so diminishing the amount of new and undue tissue-growth. It is, in fact, only during this stage that any of the remedies employed in the treatment of enlarged uterus are effectual; they all act by lessening vascular fullness, and just in proportion as they have power to do this are they efficient. It is only on this hypothesis that we can explain the action of ergot, hot water, local stimulants, etc.

The remedy to which I desire to call attention acts, I believe, in the same manner, and may be used in conjunction with those already mentioned. But, while I am disposed to regard it as more efficient than any other single means with which I am acquainted, I have to confess that the class of cases in which it is applicable is limited. Not only are all

cases of uterine enlargement not amenable to its curative influence, but in some it might be found positively injurious. Much judgment and tact are therefore necessary in the selection of suitable cases for its employment.

SYMPTOMS. — Enlargement of the uterus is rarely found alone. It is either preceded or followed by disorders of other organs, near or remote ; disorders of structural, functional, or positional character ; or, it may be, a combination of all these. Hence, the varied and multiform character of the symptoms which are found accompanying cases of this kind. Indeed, it is rather uncertain what symptoms are really dependent upon the enlargement alone ; for we know that the uterus may be very greatly enlarged, provided the increase of size be unattended with abnormal change of structure or shape, and yet be wholly unproductive of discomfort. This fact we see verified constantly in the enlargement of pregnancy ; and I know a woman whose case will be fully detailed further on, who has the largest uterus I have ever seen, — the enlargement being dependent upon simple hypertrophy, — who is, so far as she herself can discover, perfectly well in every respect. We must therefore regard the symptoms present in any given case as caused by : (1) some change either in the structure or shape (flexion) of the uterus itself, whereby its circulation and innervation are interfered with ; (2) displacement (retroversion, anteversion, prolapse), causing it to drag or press injuriously upon neighboring organs or tissues ; or, (3) reflex influences upon more distant parts of the body.

Under the first of these divisions may be classed various painful sensations located in the uterus itself, menstrual derangements, leucorrhœa, sterility, dyspareunia, pruritus vulvæ, etc. Under the second we have pelvic, abdominal, dorsal, and inguinal pains, and a sensation of painful character to which the term "dragging" is applied ; likewise, irritability of the bladder, painful or difficult defecation. These symptoms are all aggravated by the upright posture, walking, riding, or the approach of a menstrual period ; and usually they are still further intensified during the first day

or two of the flow. To the third class may be referred the lassitude, debility, anemia, defective nutrition, headache, etc., which are so commonly present.

DIAGNOSIS. — I do not intend, under this head, to refer to the points of difference between hypertrophy of the uterus and other conditions which might be mistaken for it. I merely desire to indicate the kind of cases in which I would expect to find pelvic massage a suitable and useful remedy. This would be determined by the state of the parts as found on physical examination. If by such examination the uterus be found low down in the pelvis, enlarged, tender, spongy, having a doughy elasticity resembling its state during pregnancy, these conditions would show that the hyperemic stage had not been passed, and that massage would be expedient unless contra-indicated by other circumstances. In this stage the organ is frequently found anteverted or retroverted, — more commonly the latter. When the enlargement affects the body alone, flexion is frequent, owing to top-heaviness; when the entire organ — body and cervix — is involved, flexion is more rare. These displacements and distortions do not preclude massage. But if the stage of hyperemia be passed, and that of induration have succeeded, the uterus — still occupying a low position, and still displaced or distorted — will be found to have lost wholly or in part its tenderness, its spongy feel, and to have become firm and hard like cartilage. It will be reduced in size also, although not to its normal bulk, and sometimes will be found almost globular in shape, like a billiard ball. When this stage has been reached, massage — and, as I believe, all other remedies — will be found useless.

MODE OF PERFORMING UTERINE MASSAGE. — This may be done by three different methods: (1) through the abdominal walls; (2) through the abdominal walls and vagina; and (3) through the abdominal walls and rectum.

1. *Abdominal Massage.* — When the enlarged uterus can be felt sufficiently above the pubes to enable any part of its walls or fundus to be grasped between the fingers, very

efficient massage may be done without invading the vagina; and this method should be preferred in all such cases, provided the vagina is small or unduly tender. The bladder being previously emptied, the patient should lie on her back upon a table or upon a hard, unyielding mattress or lounge. The operator then, using both hands, commences by picking up and rolling between the thumb and fingers portions of the skin and other superficial tissues. The entire abdominal surface, as high as the umbilicus, is thus manipulated. The process is then repeated; the deeper tissues being this time taken up and pressed between the fingers, gradually increasing force being employed. These pinchings are alternated with rubbings of the surface with the palms of the outspread hands and the points of the fingers. After five or ten minutes have been spent in this manner, the fingers are sunk deeper into the hypogastric and ovarian regions, and the uterus—so much of it as can be reached—is brought between their tips. The organ is then alternately squeezed and relaxed and rolled between the fingers in every possible direction for twenty or thirty minutes, or until the patient becomes weary.

All the foregoing processes must be performed in the gentlest possible manner, all increase of force employed being so gradual as to be almost imperceptible.

In whatever manner the massage is employed, this preliminary manipulation of the abdominal walls is advisable, and sometimes indispensable; for in many cases the pains and discomfort complained of by patients who have enlargement of the uterus, and which are likely to be referred by them to that organ, really have their seat in the walls of the abdomen, and unless these latter become accustomed to the massage—which almost invariably lessens their sensitiveness—it would be impossible to act effectively upon the uterus beneath. I have no doubt upon this point; for in some instances several days have elapsed before the tenderness of the abdominal walls could be overcome; yet this having at last been accomplished, the uterus could be grasped and firmly pressed without causing any great amount of discomfort.

As already stated, this form of massage can only be used advantageously in the few cases in which the uterus rises considerably above the pelvic brim. Where it has not attained so great a size it cannot be reached in this manner, and the abdomino-vaginal method must be used.

2. *Abdomino-Vaginal Massage.*— This is performed by passing the first and second fingers of one hand into the vagina, and placing the fingers of the other hand above the fundus uteri in the hypogastrium. A single finger in the vagina is not sufficient; it cannot be introduced so far as two, and is also not so useful for making pressure or counter-pressure.

The fingers should be passed first into the space behind the vaginal portion, which is pulled gently forward, and then permitted to return to its former position. This is repeated a half dozen or more times, when the fingers are pushed higher up, so as to reach the supra-vaginal portion of the cervix and lower part of the body. The upper part of the uterus being now steadied by the hand on the outside, it is pressed between the fingers of both hands, repeatedly, for a few seconds at a time, and then relaxed. Every portion of the organ which can be reached should be subjected to these momentary squeezings. Then the manipulations should be reversed. The intra-vaginal fingers should be drawn in front of the cervix, and the latter pushed backwards several times as far as possible short of causing pain. Then, their ends being passed into the space between the bladder and cervix, and their pulps turned against the latter, the fingers of the outside hand should be so adapted that the uterine body may again be brought between the compressing forces, when the squeezings and imparted movements are to be repeated as before. Alternating with the processes described, the uterus should be frequently elevated in the pelvis and held for a few seconds.

The entire procedure should occupy from ten to thirty minutes, according to the sensitiveness of the pelvic structures and the degree of tolerance on the part of the patient. It is better not to attempt too much at one time, or

we may, by producing pain in, or aggravating tenderness of the parts, find ourselves obliged to suspend the treatment for some days, and thereby lose time.

3. *Abdomino-Rectal Massage*. — This is, unfortunately, the least available of all the forms of uterine manipulation. I say unfortunately, because, owing to the greater ease with which the uterine body can be reached through the rectum than by the vagina, pressure movements by this method would be much more useful. But here, too, as in the vagina, one finger does not present sufficient surface, and the introduction of two fingers causes too much pain. Indeed, the daily introduction of a single finger into the rectum is likely to be followed by irritability of the part. Hence, this form of massage, if expedient at all, — which I greatly doubt, — must be confined to a small class of exceptional cases, in which the vagina is so small or so tender as to make it entirely unavailable for the purpose.

HISTORY AND MODUS OPERANDI. — Massage is not a new remedy ; in some of its forms it is as old as surgery itself. But it had well-nigh sunk into utter obscurity, when, a few years since, its use was revived by Dr. Mezger, of Amsterdam, who soon became renowned for his success with it in the treatment of various chronic conditions of the muscles, bones, and joints. His example was followed by some of the Continental surgeons, and in a short time the remedy was receiving all the attention it deserved, — and possibly more. But just as persons sometimes are made to suffer through the over-kind offices of their friends, so a remedy, though possessing real merit, is occasionally decried or allowed to fall into desuetude, because it does not fulfill the extravagant expectations which have been raised by enthusiastic and injudicious experimenters. This has been the case to some degree with massage. Many persons who have given it a trial, and who have failed to achieve by its use the brilliant results of Mezger in Europe, in a certain class of cases, or of Mitchell in our own country, in another class, seem unwilling to accord it any virtues whatever. These objectors forget, or overlook the fact that, in the case

of the persons named the remedy was only one of several that were conjointly employed to produce the curative effect ; and the other equally important fact, that they both possess a degree of personal, so-called, magnetism which does not fall to the lot of many men, and by which they are enabled to command all those psychical aids on the part of their patients which are sometimes quite as essential in the cure of disease as are remedies of a more material character. But, after due allowance has been made for these facts, there can be no reasonable doubt of the efficacy of massage as a remedy in certain conditions. We know that a mass of blood effused beneath the skin as the result of external violence may be made to disperse by means of kneading and pressure. The same may be done with infiltrations of serum and semi-organized new formations. In each of these cases the process is the same. The exudations are resorbed by permeable lymphatics, which are active and capable of performing this function just in proportion to the energy of the circulation in the neighboring blood-vessels, especially the small veins. In hypertrophy of the uterus — at least prior to the stage of induration — there is an undue supply of blood to the organ, and owing to some impediment to its return it remains there in larger than normal quantity ; this is equally the cause of the enlargement, whatever textural element be increased. Hence, any remedy, to be efficient, must either remove the impediment to the out-flow of blood from the uterus, or must force it out, notwithstanding the impediment. The indications are to lessen the undue and partially stagnant supply of blood ; to overcome the stasis ; to promote resorption of the excess of tissue. The habitual hyperemia — the foundation fact — must be removed, and its recurrence prevented. What can be more likely to effect these objects than the movements, frictions, pressures, and kneadings which are comprised in the term massage? And experience has not failed to justify the expectations which so reasonably come from a consideration of the action of this method of treatment.

In order to illustrate the effect of uterine massage, I have

selected a few cases in which its beneficial agency has seemed most marked. In several others the improvement has not been either so great or so rapid; while, in still others, where the uterus was hard as well as enlarged, no perceptible change occurred.

CASE I. — Anna E., a German woman, thirty-seven years of age, had been married seventeen years. She had four children, the youngest being six years old. She had in addition two abortions, both at about three months. She dated the commencement of her illness back to the first of these, — about three years ago. After its occurrence she was obliged to quit her bed on the second day and undertake a journey, which lasted several days, in railroad cars and stage coaches. For seven or eight weeks she had a continuous bloody discharge, accompanied by a sense of weight and dragging in the pelvis, backache, and profuse leucorrhœa. Menstruation became abundant, and recurred at shortened intervals. However, under rest and treatment the symptoms improved somewhat, and at the end of a year she again became pregnant, had another abortion, and this was followed by an exacerbation of all the former troubles. I first saw her seven months after the date of the last miscarriage, during a very profuse menstrual flow, which lasted ten days. When it ceased I made careful investigation of the pelvic organs. I found the uterus large, soft, retroverted, and tender, — the tenderness being especially marked at the lower portion. The vaginal walls were turgid, relaxed, and corrugated, the anterior being easily forced through the vulva by the voluntary efforts of the patient. A laceration of the left side of the os uteri extended to the vaginal junction, permitting a slight degree of eversion of the cervical lining membrane. A sound indicated a depth of three and a half inches. The uterus was readily, though temporarily restored to its normal shape and position by means of the instrument. I do not remember having ever seen such soft and flabby uterine walls as were present in this case; and I felt obliged to use the sound with the utmost care, lest I might pass its end through the fundus.

I gave ergot and hot-water injections. Subsequently she wore large cotton pessaries saturated with solution of alum in glycerine. This latter device gave her much relief. She also took quinine and strychnia. At the end of six weeks there seemed

to be a slight reduction in the size of the uterus, — perhaps a quarter of an inch in the depth of the cavity. The tenderness seemed likewise lessened, although still the cause of much complaint.

I now determined to try the effect of massage, and omit all other local means. It was commenced October 18, and used daily, — at first fifteen minutes at a time, and gradually increased to forty-five minutes. On December 1 the uterus measured two and seven eighths inches, was firm in texture, and so free from tenderness that it could be moved in any direction without discomfort. The vesicocoele was so annoying, however, that I subsequently retrenched the anterior vaginal wall for its relief.

CASE II. — Mrs. H., thirty-two years old, consulted me in the spring of 1879. She had first menstruated at fourteen, had become regular at once, and the function had never shown any peculiarity or abnormal condition. She had been married six years, and had never been pregnant. Two years after marriage she noticed a leucorrhœal discharge, found herself getting weak and tiring easily, and intercourse became painful. A physician who examined her at that time found the uterus enlarged, and expressed the fear that it might be the site of a fibrous tumor.

At the time of my consultation with the patient she was pale, but quite stout from abundance of adipose tissue. She complained of headache, constipation, leucorrhœa, and pelvic pain and pressure. I found the uterus greatly enlarged, and so regular in outline that I at once considered the patient pregnant, although no positive signs of that condition were discovered. The fundus could be felt at a point one inch above the navel, and the organ was inclined to the left side. I did not advise any treatment beyond the use of an abdominal supporter, feeling quite sure that time would demonstrate the existence of pregnancy, notwithstanding the assurances of the patient — a very intelligent lady — that my suspicions were groundless, and that she had menstruated regularly, although scantily.

At the expiration of six weeks, finding no increase in size or other change in the condition of the uterus, and having satisfied myself that the patient had menstruated twice, I ventured to introduce a sound, which, passing without difficulty and in a direction somewhat to the left of the median line, marked a depth of five and a half inches.

The organ, as at the former examination, was soft, smooth, and

regular in outline, and tender in every part. The singular and puzzling feature of the case was the entire want of evident cause for such unusually great enlargement.

In the way of treatment, I tried hot vaginal injections, ergot, and weekly scarifications of the cervix. The ergot had to be abandoned after a fortnight, on account of its producing headache and disorder of the stomach, both of which ceased on the discontinuance of the drug. I replaced it by the use of massage. This was first used April 3, and repeated daily until the 18th, when a menstrual period set in and lasted three days, interrupting the treatment. The manipulations, although performed in the gentlest manner, were at first attended by so much pain that they could only be used for four or five minutes, but, after nine or ten days, they could be continued to fifteen and twenty minutes.

Massage was resumed on the 23d, and from this time onward was the only remedy used. It was used daily, with only three or four interruptions, until May 16, when menstruation again occurred. The period ceased after three days, and on the 20th I introduced a sound which entered to the depth of four and a quarter inches. The fundus uteri was now about one and a half inches below the umbilicus. The subsequent improvement was neither so great nor so rapid. During the following two months the uterus continued to diminish slowly, but after that time, during the subsequent month, I could not feel sure that any further change took place. On August 8 the sound entered nearly four inches; and the fundus could still be felt two inches above the symphysis pubis.

Now, notwithstanding the presence of this enlargement, the health of the patient is perfectly good; menstruation is normal; she has no leucorrhœa, no pelvic pain or tenderness, and no vesical or rectal disturbance.

CASE III. — L. M., forty-one years of age, was an out-patient of the Woman's Hospital of the State of Illinois. Menstruation first appeared at fourteen, and became regular six months thereafter. The discharge was always attended with pain, which commenced two or three days prior to the appearance of the flow, and continued until the latter was fully established. She was married at twenty-two; had one child eighteen months afterwards; and had been a widow fifteen years.

Three years before consultation she had an attack of sickness,

resulting from the introduction of a sponge tent for the purpose of inducing an abortion, the patient supposing at the time that she was unlawfully pregnant. After an illness of more than two months' duration, menstruation became more profuse, and she had occasional attacks of metrorrhagia. She had leucorrhœa of brownish color, sometimes fetid.

I found her pale, feeble, and exceedingly nervous. The uterus was large, tender, and drawn to the left side. Its normal motility was much lessened. The os uteri was felt low down in the pelvis, while the fundus reached as high as the level of the upper edge of the pubes. It seemed enlarged fully one third above normal size. By the rectum the enlargement was found to affect especially the posterior wall, giving the impression of the presence of an intra-mural fibroma, which I concluded she had, although I refrained from verifying this opinion by the use of the sound, because of the great tenderness of the parts.

After some preliminary measures, I advised the use of massage, the performance of which was intrusted to the resident physician. From the latter I received occasional reports of the progress of the case, but had no opportunity of examining the patient personally for nearly seven months. All treatment had then been suspended for more than two months. Massage had been used three to four times a week for nearly the whole time.

I found the uterus greatly reduced in size and of normal shape. Menstruation had become regular and of proper amount. The sound, which was now introduced without causing pain, showed the length of the uterine cavity to be three inches.

As already intimated, the foregoing cases have been selected for the purpose of presenting the *best* results which have been obtained by pelvic massage in certain cases. They do not represent the average of success which may be expected, — an average which, from what we know of the nature of the chronic parenchymatous diseases of the uterus, must always be low.

There are a good many cases of enlarged womb in which I should not expect any treatment to be beneficial, so far as regards diminution of size. The class containing the largest number of these, namely, those in which the stage of induration has been reached, has been already referred to. But

there is another class, also very large, in which the hyperplasia depends upon some local condition outside of the uterus itself; for example, inflammatory exudations in the pelvic cellular tissue. The existence of these is always to be suspected when the uterus is found drawn to one or other side (latero-version or latero-flexion). In these cases, the broad ligament of that side is likely to be shortened, thickened, and tender, — conditions much more readily detected by rectal than by vaginal examination. Hence, the rectal touch should never be omitted in the investigation of these cases.

Inasmuch as the uterus depends, both for its blood supply and depletion, upon vessels which pass through the pelvic cellular tissue, it is obvious that any obstruction in the latter must result in congestion of the former. Therefore, when spots of undue tenderness, or indurated bands drawing or fixing the uterus in malposition, or ridge-like deposits of inelastic tissue, are found in the immediate vicinity of the uterus, and the latter is at the same time enlarged and tender, we may feel quite confident that the excess of uterine bulk will remain so long as the surrounding hardness continues; and also that this latter must be removed by appropriate means before any material diminution can be effected in the size of the uterus.

DISCUSSION.

DR. REAMY. — I have had no experience in the use of uterine massage and therefore will not discuss it; but one or two questions occurred to my mind while the doctor was reading his paper. Massage, as used by Weir Mitchell and others, is employed to increase the size and strength of the muscular tissue in the limbs and elsewhere, not to reduce it. Where the muscles are flabby, the nutrition bad, nervous function perverted, and the patient worn out, massage conjoined with electricity is successfully employed by Mitchell, and his discoveries in this direction are the most marvelous therapeutic contributions of the age. In a bad case the patient is not even allowed to sit up in bed, or to read

a letter from a husband, mother, or sister. In other words, the brain is perfectly at rest. She is not allowed to think at all, or to see any of her friends. The brain that has perhaps been disturbed absolutely rests. The muscles absolutely rest.

I have seen three cases in the last month where the average gain was thirty-one pounds. As I understand Dr. Jackson, he intends to accomplish reduction of the uterus by rubbing and squeezing its muscles. His clinical proof of the results stands, and we must accept it, but the theory is not correct. It may be that the practice promotes contraction of the muscular structure of the uterus. It is more plausible to me than that it is in any other way. One other thing, I should think it would be extremely important that a correct diagnosis be made, to know positively that no pelvic cellulitis exists; for if it be present even to a slight degree the treatment might so aggravate it as to lead to serious results. Once more, I should think there are few nurses possessing the skill and knowledge requisite to successful uterine massage, and it would certainly take much of a physician's time. This, however, is a minor consideration.

DR. CAMPBELL. — As a mode of practice I have had no experience in the use of massage as it has been used by Dr. Jackson. I have been led to believe that in the greatest number of cases this chronic enlargement of the uterus is due to subinvolution following either miscarriage or labor at full term. Now, in the management of such cases I have had much experience in the use of quinine, both as a preventive and for relieving the engorgement after it has taken place, even after it has existed for some time. Under the use of quinine I have seen subinvolution gradually disappear, and I am confident from the influence and the interpretation of the *rationale* of its action that quinine is, above all others, the remedy we may look to for remedying subinvolution. I do not wish to anticipate my paper upon this subject, but I may here state that the *rationale* of the action of quinine in these cases is that its effect is expended in producing contraction of the capillary blood-vessels. It acts upon the same principle, and it is because of that effect that we can explain the rapid reduction in the size of the spleen which it produces in cases of malarial fever.

Dr. Reamy says that the conditions are entirely different and the results, as interpreted by him, are entirely different, when obtained by Dr. Mitchell and Dr. Jackson, both practising the

same mode of treatment. Dr. Mitchell takes a weak flabby muscle and by kneading it until its circulation is rendered healthy and then a healthy normal muscular growth is produced. That is, it was an enfeebled circulation that was cured, or a healthy circulation made to replace it.

Now, I hold that the condition of engorgement, resulting in enlargement of the womb, as in the cases described by Dr. Jackson, is the result of such an enfeebled circulation, and the effect of massage is to restore the circulation to its normal condition, thus bringing the organ back to its normal size. In both instances it is replacing a feeble obstructed circulation by one that is healthy ; and when a healthy circulation is established the absorbents are stimulated and the deposit is removed. This is why one muscle may be enlarged, and another be rid of morbid material and reduced in size, by the same process.