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ON THE VALUE OF KINESITHERAPY IN GYNECOLOGIC PRACTICE.

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BY RICH HOGNER, M.D.
BOSTON, MASS.

The Swedish medical gymnastic was founded, developed and perfected, as is well known, in the beginning of this century by P. H. Ling, and to-day there is not a civilized country where its fame has not spread and where some medical gymnast has not located.

That the Swedish medical gymnastic is firmly grounded on scientific principles is best shown by the fact that regular physicians are beginning to take it up, as a specialty, more and more, and that the public has confidence in its ability in spite of the damaging influence of the so-called massagists, hardly half taught or self-made medical gymnasts, not to mention ignorant male and female administrators of baths, who do all that is possible to disgrace the name and drag down the method. But just as "wise old crones" and midwives have not been able to injure the scientific practice of gynecology and obstetrics, so have their counterparts in the field of medical gymnastics been unable to drag down the kinesitherapy. The labor of these impostors has created a wide gulf between the quack and regular medical gymnast, a gulf which will be widened still more in proportion as physicians study and themselves practice the manual treatment of diseases.

Swedish medical gymnastics reach the desired results by means of active and passive movements, increasing or decreasing the metabolism, regulating resorption in any given part of the body and by in-

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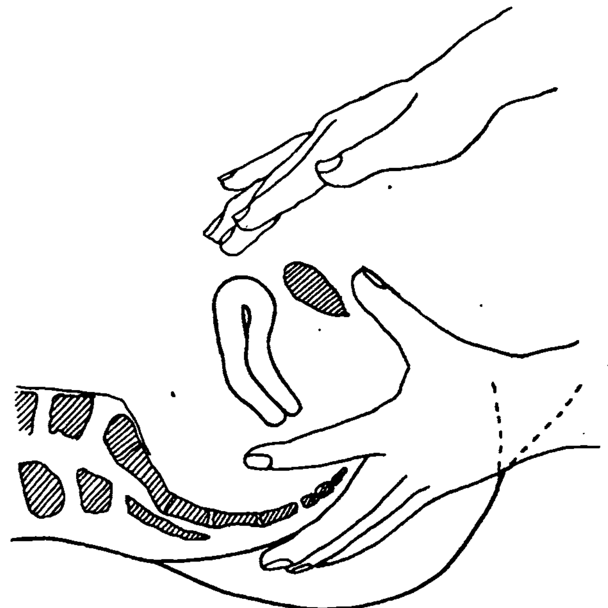
creasing the general tone. Kneading and other manipulations quicken a sluggish circulation, increase the blood supply and local nutrition, and by this means tone up the vessels, nerves, muscles and elastic tissues. In case of great nervous irritability it has a tranquillizing effect. Its proper practice requires an intelligent knowledge of anatomy and physiology, and for the best results a thorough medical education. There are, however, comparatively few physicians who devote themselves exclusively to kinesitherapy, but, on the other hand, there are many skilful, experienced medical gymnasts (especially in Sweden, where they must go through a three years' course of study), whose great daily experience is productive of many facts applicable to new fields of investigation. The good results obtained by these medical gymnasts in treating diseases which many physicians have looked upon as of the *noli me tangere* sort have, therefore, been doubtfully received in the beginning and indeed reasoned away entirely, until some physician of known authority has been sufficiently unprejudiced to test the matter himself and find the cause—previously shrouded in darkness—for the wonderful cures which have, in fact, been made by many medical gymnasts; similarly has been the experience of kinesitherapy in gynecologic practice.

As long ago as 1859, a Swedish officer and medical gymnast by the name of Thure Brandt, employed Swedish medical gymnastics in the treatment of the so-called female diseases, but not till 1877 had this empiric perfected his method. For many years the fame of Brandt's cures had spread abroad, but physicians and gynecologists had remained, as a rule, indifferent to it until Dr. Profanter's initiative. In 1886, Professor Schultze invited Brandt to give a public test of his method at the University Clinic at Jena, and we know of Brandt's brilliant victory. Since that time, physicians from all parts of the world have flocked to Stockholm to learn the method from its master.

The full scientific explanation of Brandt's successful cures first appeared in 1888 through the researches of Professor v. Preuschen[1] upon the pelvic muscles, and the influence exerted by contractions of the levator ani upon the axial position of the uterus and upon the vaginal canal.

I will not go into the details of Brandt's method, as it is not long since I have presented it in a paper read before the Massachusetts Medical Society, but will simply remind you that this method does not confine itself to bimanual massage and so-called "liftings of the uterus," with subsequent powerful adductive movements of the lower limbs, nerve pressure, etc., but first and last in every *séance* are given regular gymnastic movements that lead the blood to or from the abdominal organs, and which are determined by careful calculation for each case. I will quote from the above mentioned paper, what I said about the technique and action of the valuable *uterus liftings*, as this is the more difficult to perform and understand. A practical assistant is required and the treatment is only used, as a rule, when the uterus lies forward or, at least, is so placed for the time being. The patient assumes a half-lying position on a gymnastic bench. The physician sits at the left side, passes the left hand under the patient's knee and enters the vagina; places the womb in the normal position, if necessary, and while keeping the left forefinger on the cervix presses it gently backward and upward with this finger; at the same time he lays the outside hand on the middle of the abdomen, in a direction from above downward, pushes the skin gently downward so it does not become rigid but can be pushed upward again when the womb is lifted; the hand rests on the forward, upper surface of the womb, thus showing where it is to be found. The assistant has in the meantime so placed himself that he can with his hands held together in a half supine position, parallel to the abdominal wall, press into the pelvis on the anterior side of the womb with the finger tips down to the os internum; there, if possible, he should meet the physician's forefinger. Without losing his hold around the uterus, the assistant lifts it up, giving delicate, light, vibratory motions to the hands, so that he seems to try to lift the cer-



Brandt's position of the "inner hand." The forefinger in vagina (sometimes in the rectum), and the unused fingers of the hand perfectly straight and firmly together, resting closely against the body, and taking, together with the palm, the shape nearly of the inner gluteal region; the thumb is held a little forward of the os symphysis. When necessary, Brandt has conbined the thumb in vagina and the forefinger in the rectum.

vix or orificium externum lengthwise of the os sacrum's curvature from below, in the median line, upward, so that the fundus uteri follows, though not to the same extent. When at the beginning of the movement the uterus is in a more or less upright ante-position, it can be placed finally in a more horizontal one, with cervix in prolapsus-uteri, even as high as the promontorium, the fundus leaning forward. The uterus is thus lifted more or less high, is held in this position a few seconds, or even a moment, and lowered by the assistant more or less rapidly, according to the desired effect. The movement is repeated in this way three times at each *séance*. The physician always assures himself that the womb lies in proper position forward at the close of the movement. If this should not be the case the uterus is correctly placed before and after each new lifting. If the uterus liftings are not properly done they can hurt the patient very much. After the liftings some strong movements are always given as before stated for the adductores femorum, during which the levator ani contracts, as has been proven by experience.

[1] Die Heilung des Vorfalles der Gebärmutter durch Gymnastik der Beckenmuskulatur und Methodische Uterushebung. Centralbl. f. Gynäk., 1888.

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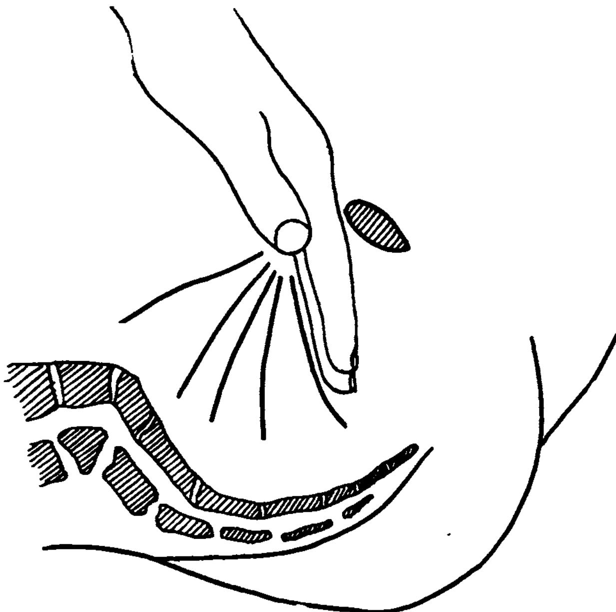
Since Ziegenspeck, and after him v. Preuschen, have drawn attention to what was unsuspected before, the significance of the levator ani in holding the uterus within the pelvis or, in other wòrds, in preventing prolapsus, it may be allowable to enter more specially on its anatomy. The muscle levator ani punctum fixum is, as we know, the forward half of the little pelvis as far as the spinæ ischii; its punctum mobile os coccygis. In the female body the anterior fibers of the levator ani extend down the sides of the vagina; through this muscular base or levator ani the three pelvic canals must push their way down. A contraction of the levator ani has, therefore, says Ziegenspeck, as consequences:

1. A crowding together of these canals from back to front.
2. A change of position of the canals from this point forward and upward toward symphysis.
3. A disturbance through the distance from the spinal line, as well for the portio vaginalis as for the vaginal opening into the diaphragma pelvis which otherwise lies in this line.



A scheme of the "uterus liftings," showing the uterus' axis in different phases during the movement.

In contraction, then, of the levator ani, the vagina becomes really bent with the angle backward, so that part of the vagina which is over the diaphragma pelvis takes a nearly horizontal position when the patient is standing. Both the increase of distance from the spinal line and the changed position of the vagina secure the portio's position in the pelvis.

Professor v. Preuschen continues: The levator ani has a double function; it decreases the width of the vagina and, by causing a horizontal bending, places the upper portion of the vagina in a condition to bear up the portio; it interposes a barrier for the downsinking portio. Whether this barrier can really hinder the descensus of the portio depends, on the other hand, on its relation to the position of the uterus. If the uterus is retroverted, the weight of the bowels drives the portio forward in the direction which comes finally to that point where the horizontal direction of the vagina merges into a downward slant. The first strong pressure from the bowels can then cause prolapsus. It is quite different if the uterus is anteverted and meets the horizontal portio at an acute angle opening forward. As long as this position exists, or as long as the uterus returns to it, and after every change of position, pressure of the bowels brings the portio only more firmly against the barrier formed by levator ani and prevents prolapsus. Now as the uterus in nearly every case of prolapsus takes a retroverted position, the secondary aim of the treatment is to overcome the retroversion and convert it into an anteversion. This indication is filled by the methodical uterus liftings after Brandt's method.

Furthermore: Schultze has shown that the causes of retroversion can for the most part be traced to abnormal fixations depending on inflammatory processes in the cellular tissues of the pelvis, and Freund and Ziegenspeck have shown that it consists mostly of a mass of tissue and muscular fiber, the scarred retractions of the tissues between the bladder and the uterus. Any attempt to bring the uterus into anteversion therefore, tends to stretch the abnormal fixations between the uterus and bladder, as the portio again takes its normal position with relation to the spinal line. This is in the most perfect manner, induced by the "uterus liftings" of Thure Brandt.

The gynecologic kinesitherapy has its fixed indications and contra-indications. The indications are: Chronic or subacute inflammation in the cellular tissues of the pelvis and their secondary changes; exudation, para- and perimetritis and subsequent misplacements (retroflexions, anteversions and anteflexions; diminished mobility of the uterus; misplacements of the ovaries with twisting of the vessels and nerves, adhesions, etc.); oöphoritis and paraoöphoritis; chronic metritis (sometimes endometritis), cervical catarrh, descensus and prolapsus uteri, vagino-cysto-rectocele, swelling of the tubes, hematocele, pericystitis and periproctitis with secondary weakness in the sphincter vesicæ and ani.

As contra-indications are stated: Malignant tumors, acute pelvic peritonitis, newly established inflammations in general, salpingitis, gonorrheal, purulent, tubercular and septic processes in the uterus and its adnexions, tubal pregnancy and finally excessive fat in the abdominal wall.

A regular pregnancy is not always to be considered as a contra-indication and Brandt himself, with his marvelous experience, has many times prevented miscarriages by lifting movements, immediately relieving labor pains and hemorrhage; usually after the first or second day he follows the treatment by gentle massage or short tangential strokes from fundus downward to the isthmus.

In spite of the fact that gynecologic kinesitherapy is a laborious method, fatiguing to the physician and patient, requiring daily seances for weeks or even months, it is practiced more and more by European physicians and clinical gynecologists besides, whose time, mind, and strength surely would not be sufficient to devote to unnecessary and fatiguing manipulations. The fact that such men as Schultze, Profanter, Schauta, Dührssen, v. Preuschen, Jentzer, Stapher and others, introduce kinesitherapy into their great operative gynecologic practice, shows best what worth they place on Thure Brandt's method.

It would be too much to enumerate here all the cases of successful cures which have been published in the gynecologic journals of the world up to date, or to compute statistics; I will only state that the latest presentation of the subject was made at the

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as t International Medical Congress at Rome by Professor Jentzer, of Geneva, when among others he submitted a brief statistical account of 145 cases treated by himself personally, namely:

1. Two cases of prolapsus with lengthening of collum uteri. Age, 23 and 29 years. Treatment and cure from twenty-three to thirty-five days. No relapse. In the second case the uterus fell again into retroflexion.

2. Fifty-seven cases of partial involution after confinement or miscarriage, without retention of placenta. All cured after twelve days to two months.

3. Twenty-two cases of parametritis, one of which was the width of two fingers below the navel. All healed after two to six months treatment.

4. Nineteen retroversions. Cure in two cases only. As he saw Brandt had very fine results in this class of cases he explained his lack of success by his inexperience in Brandt's technique. He adds that in fifteen of the cases, retroversion was complicated with adhesions and the massage caused by lessening the latter a considerable subjective improvement, in spite of the continued unfavorable position.

5. Eleven cases of weakness in the neck of the bladder after several confinements. Cure in eight cases. Treatment one to four weeks. One case improved. Two cases unchanged.

6. Seven cases of hydrosalpinx. Cure in four cases. The other three unchanged. Two of the latter have been cured by Dr. Vuillet by vaginal puncture.

7. Menorrhagia in twenty-seven cases, nearly all in connection with the climacteric period, in eight cases of which "curettage" was resorted to, but without result. Cure in twenty-three cases after one to three months; two cases improved; two unchanged.

The above statistics are almost a perfect type of all those given by different physicians of their experience with Thure Brandt's method, and my own experience corresponds to this entirely. As for certain retroversions which *quod situm* show results with little encouragement, but, *quod salutem subjectivam* are very satisfactory, they depend, as already above named, most frequently on the drawing together of a scar after inflammation in the tissues between the bladder and uterus, but also not infrequently on a relaxation, a lengthening of the ligamenta Douglassi. To treat these changes of position with pessaries or operations, with medium fixation in the opposite direction, fills, it seems to me, *indicatio causalis* just about as often as a man could fix the "head erect" in torticollis with bandages or "an operation on the other side;" moreover it should be remembered that as Ziegenspeck demonstrated, even the decreased mobility of the uterus is a form of displacement.

It may look very well to be sure, in such a case as retroversion, to make an incision of an inch in length in the abdominal wall, draw up the ligamenta rotunda with sutures and in this way fix the fundus uteri forward; but the fundus does not constitute the whole uterus and it is not certain that the cervix, isthmus and the lower portion of the uterus lie any more normally after such an operation because the fundus does—so much more uncertain, since we know that the ligamenta rotunda signifies little to the uterus in maintaining its position; so little in fact, that they can be loose and sinuous as the intestines after, for example, repeated confinements and still the uterus will lie anteverted. Turn the fundus as much as you will and let the cicatrice drawing between the bladder and the uterus remain, then the mobility of the organ will be abnormally diminished and will remain.

Statistics show, it is true, that pain ceases after such an operation but how long? Here they most frequently maintain silence. It is comparatively seldom that displacement itself needs to be attacked, just as in case of chills it is not the shivering one must deal with, but as a rule it is the cause to the secondary displacement which must first be treated. A proof of this lies in the fact that many displacements exist without causing the least inconvenience to the patient, and why? Because the cause of the abnormal position of the uterus is too slight to occasion pain, but sufficient to cause displacement. This is why many retroversions do not cease through treatment a la Brandt, because the ligamenta Douglassi, which are important in the normal position of the uterus forward, have become so lengthened and relaxed that they can not be made to resume their elasticity and normal length, but pains and many other symptoms disappear, nevertheless, because the kinesitherapy could take away the *causa morbi*, *i. e.*, infiltrations or cicatrice contractions. On the other hand, it must be confessed, there are displacements which are the direct cause of pain, etc., which cease almost simultaneously on the correction of false position. I recall, for example, a patient in the third month of pregnancy who was relieved of many inconveniences by a replacement of the uterus which was leaning backward, pressing against the promontorium; also another case, a severe dysmenorrhea which suddenly appeared after two and one-half days painless catamenia, and two hours after eating fried pork and cabbage, which caused great indigestion, cramps and pains with augmented abdominal pressure and which tipped over the neutrally lying uterus; this was changed by replacement, *i. e.*, after a return of free circulation.

The causes of displacement are manifold, and their treatment at present, unfortunately, not less varied. If for one reason or other we can not treat them pathogenetically then it must be symptomatically. Then we must have recourse to pessaries or in preference, operative methods; but this must not be the case in and out of season, but with great discrimination, and not as a rule but as an exception. In a gynecologic practice covering nearly fifteen years, I have seldom used pessaries and then when I did not possess full confidence in Thure Brandt's method; since then the pessary has been laid entirely aside.

To exemplify the value of kinesitherapy still further, the following case of dysmenorrhea yet under treatment may be cited:

Mrs. S. A., 27 years old, married three years, without children, was seized with abdominal pains five years ago, followed by severe catamenia, which so increased from time to time, that during the past year or two she has been compelled to lie in bed five days each month, because of "almost unbearable suffering." On examination two weeks after the last menstrual period, which was as usual, excessively painful, the uterus was found somewhat enlarged, hard and tender, with decreased mobility backward, also in a half retroverted position, the left ovary also somewhat enlarged and slightly tender to the touch. No symptoms from the bladder. The patient had, it may be added, been attended two years by a good gynecologist without result. She was now treated with uterine massage and "uterus liftings," also

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strong movements leading the blood from the abdomen. Fourteen days after the beginning of the treatment the menses came, perfectly painless, so that the patient only discovered her condition by accident, "scarcely believing her eyes." The treatment has been continued without interruption and will go on until the uterus becomes as free and mobile as desirable.

Next to a sharp instrument there is surely no gynecologic method so effective, so universally available and yet so reliable as kinesitherapy. When one has become master of the method he can not do harm by its use and all who have tested the methods, choosing their cases with discrimination, agree in their opinion that gynecologic kinesitherapy is of the same benefit as massage and medical gymnastics in their place. Yet it is true that all these diseases are not cured by kinesitherapy. In gynecologic practice it has its own great special field, just as the knife, which it should never over-reach. It may be added that kinesitherapy may be used very often with our other gynecologic methods.

If gynecologic kinesitherapy is used only according to its indications and then only when a thorough knowledge of the method shows it to be the surest and swifest means to the desired end and when it is applied by physicians only, as a rule, who are gynecologists, then it is certain that even the most prejudiced physicians would be convinced of its advantages. One and all who have, after making themselves competent, tested it, gladly coincide with this opinion.

Professor Jentzer's closing words to the above mentioned paper were: "We call upon our colleagues to exert their influence to have this new therapeutic method introduced into the course of instruction at universities;" though I think at present one must "make haste slowly," and be better content with the admonition to gynecologic specialists not to delay acquainting themselves with a method which has been tested in at least 10,000 cases in different countries, and has never yet been known to injure, but instead, it has only improved and most frequently healed the sick.

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