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NOTES

ON THE

TREATMENT OF UTERINE PROLAPSE,

WITH AN

Account of a New Modified Method of Anterior Colporrhaphy.

BY

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TREATMENT OF UTERINE PROLAPSE, ETC.

THE pathology and appropriate treatment of prolapsus uteri, more especially of complete prolapse or procidentia, have exercised the minds of most gynæcologists. Taken as a whole, no other class of uterine displacements gives rise to so much actual discomfort and distress. While errors in differential diagnosis are unlikely, perfunctory insufficient methods of curative treatment are unhappily less rare. To fully discuss the theoretical mechanism of uterine prolapse is meantime unnecessary, but to appreciate the importance of curative measures, it is incumbent to recall the rough *rationale* of the condition. The causes of prolapse as usually stated are,—Intra-abdominal pressure; deficient support from the sacral or pubic segments of the pelvis; and as secondary causes, most frequently resulting from, and aggravating rather than directly causing, uterine hyperplasia, stretching of the round and utero-sacral ligaments, insufficient vaginal tone, from prolapse of the walls, and hence uterine traction from below. Among predisposing conditions may be named—faulty shape of the hard pelvis, obliteration of the perinæum, deficient abdominal muscularity, the changes of senility, hypertrophy of the cervix, habitual constipation, vaginal leucorrhœa, pressure from tumours, etc.

The theory of prime causation from intra-abdominal pressure has become more widely accepted of late years, and while it cannot be denied that there seems ground for its partial acceptance as accurate, curiously enough remedial measures have been directed, and with success, to methods of operation whereby the uterus is supported from below by narrowing of the vagina, or, on the other hand, the uterus is hung up on its own artificially shortened ligaments, and the intra-abdominal pressure left without serious attention.

In cases of senile prolapse, probably no operation which is justifiable, all things considered, will permit the non-use of a pessary; but in younger women the continual use of an intravaginal appliance is necessarily objectionable. I presume most of us have prejudices regarding special forms of pessaries, and, as was

remarked of a man who had invented a new forceps, "he can hardly be seriously blamed—it might happen to any one." So of pessaries. All varieties of pessaries have at least one quality in common—no one is perfect. To borrow an analogy from general surgery, a pessary is not a rigid splint,—it is a plaster of Paris case, which, if badly applied, is worse than any, if well applied, better than any splint. Leaving aside the sad cases too frequently met with in elderly women of the poorer classes, which can only be remedially treated so as to give comfort without hope of cure, my own experience has led me to think that we will derive most good from one or other of two forms of pessary in curable prolapse,—the one form being the expanded pessaries, such as Gariel's and Greenhalgh's, especially useful when vaginal prolapse is a prominent feature and the uterine descent is recent; the other the celluloid, or pliable metal, oval-shaped ring.

About ten years ago I saw a case of post-partum procidentia speedily cured by means of the first-mentioned variety. The patient, a young feeble primipara, with large pelvis and flabby muscles, had a very rapid natural delivery of twins; there was no perineal laceration. Upon rising, ten days after delivery, the subinvoluted uterus wholly prolapsed. After two or three days she came under treatment, suffering from a marked condition of prolapse, more particularly of the anterior vaginal wall, with the concomitant of cystocele. Astringent douches, rest in bed, and the use of an air-pessary, effected complete cure in about a fortnight. But in one or two other cases I have found the presence of an india-rubber pessary very objectionable, and of but little service. The use of the rubber-covered circular spring is widely recommended. In my hands the continued employment of these has not proved very satisfactory, especially in treating more or less recent procident hyperplastic uteri. The uterus will push the pessary out in front of it in some cases; from the very elasticity of its nature it is more easily displaced. But in certain chronic cases, if attention to douching is observed, these do fairly well. The subjoined history perspicuously illustrates the advantages of operation, and the non-success of pessary treatment in a really marked case of prolapse.

Mrs M., aged 36, multipara, married at 17, eight children, youngest seventeen months, came under treatment on 24th June 1886. She stated that her last labour had been a severe one, the child was very large, and had been delivered instrumentally; the puerperium was attended by considerable discomfort; recovery slow. On rising she suffered from dragging pains, and sensations of undue weight internally, had severe backache, difficulty in micturition, etc. Some time after her attendant told her she had "falling down of the womb." For some considerable time no pessary was used, but eventually a simple elastic ring instrument of large size was introduced. This was insufficient to maintain

the uterus in position; "the womb came right out, pushing the instrument in front of it several times a day." Nevertheless, she persevered, from disinclination to speak of her complaint, and being able to re-introduce the pessary herself by lying down and pressing up the womb, continued until seventeen months after her confinement in this state.

On examination, the uterus was found lying wholly external; the lower segment was much inflamed, and the os and parts of the cervix ulcerated. The anterior vaginal wall seemed almost wholly extruded; a large cystocele was very evident; posteriorly, the vaginal prolapse was comparatively slight. The thighs were much excoriated from the profuse leucorrhœal discharges; the pain on walking was considerable. The uterus was considerably enlarged (being fully larger than a good-sized closed hand) and tender to touch. Theoretically, uterine hyperplasia is regarded rather as a consequence than a cause of prolapse. In this case the uterus had never undergone healthy involution. Metrorrhagia had continued from the puerperium, although the patient had nursed her baby for twelve months. The case seemed to demand operative treatment, but the idea of operation being very repugnant to the patient, palliative measures were tentatively adopted. The uterus was replaced, and the pessary used formerly reintroduced. Intravaginal douches of quebascho alternated with warm solutions of alum were ordered. Mrs M. could not be induced to lie wholly in bed; on rising, the uterus, as before, slipped down, driving the large ring pessary in front of it. On 1st July the ulcerated os and cervix were freely cauterized with nitrate of silver, and hot-water douches employed. After a day or two spent in bed an oval celluloid pessary was inserted. These measures were productive of much good; the bladder troubles, backache, etc., disappeared, and the prolapse became converted into one of the first, and at times of the second degree. Up to the middle of August the uterus had never wholly prolapsed, but about then it became procident. The patient managed to replace it, and push up the pessary. On 9th September, after considerable exertion, the uterus again slipped down. Operation was determined on. After resting in bed for three days colporrhaphy was performed. By this time the size of the uterus was very much less; the leucorrhœal discharge had ceased; the cervix was considerably hypertrophied, but the ulcerative erosions were perfectly cured.

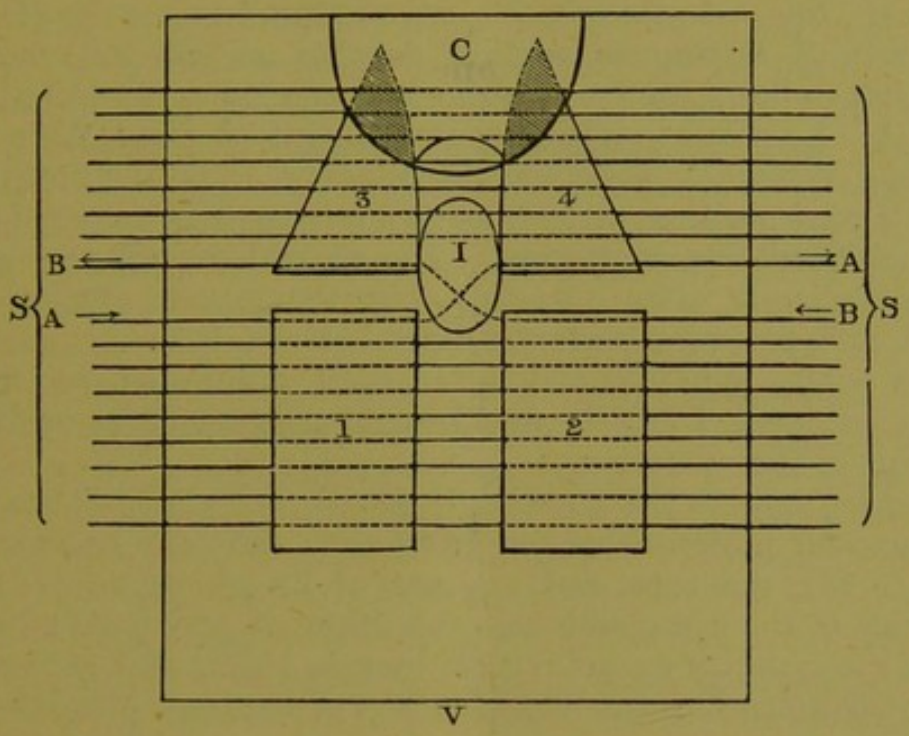
As I venture to think, despite the different methods of colporrhaphy devised, that something special is still needed for certain cases, I will recount the precise operation performed. On thoroughly replacing the uterus, the vagina was found to be distinctly prolapsed; the anterior wall, dragging on the posterior vesical surface, bulged prominently; the posterior vaginal surface was not unduly lax; and the perinæum, although bearing clear evidences of rupture, had healed, so that on the whole there was no perineal

deficiency, or, if any, but of little consequence. It being clear that posterior colporrhaphy would neither relieve the cystocele nor the uterine descent, I decided to operate anteriorly. The lines of incision recommended by different surgeons on the posterior wall, if represented diagrammatically, are almost as intricate as the mazes leading to Rosamond's bower. On the anterior surface less ingenuity has been expended; the operations of Sims and Emmet have been usually adopted. Sims' original incision whereby the anterior wall was shortened, not narrowed, was distinctly wrong in principle; his latter incisions, by means of which the vaginal lateral surfaces are brought into closer apposition, must remain as the basis for all successful plastic vaginal surgery.

The operation, during which I had the sole but very efficient assistance of Dr Mearns, of Gateshead, was thus carried out:—Chloroform having been administered, the patient was placed in the Sims' position, and a large-sized duck-bill speculum introduced. A uterine sound, bent to a decided curve, was passed into the bladder, and by turning it, as in the replacement of a retroverted uterus, the urethra and bladder were kept well out of the way, and the anterior vaginal wall kept tightly stretched. The mucous membrane was pinched up at about an inch from the outlet, and two equal-sized quadrangular strips dissected upwards, firstly by knife, and subsequently by scissors, for fully ¾ of an inch—one on each side. The membrane was again raised, and two other patches, triangular in form, with the bases of the triangles meeting the upper margins of the lower rawed surfaces, and the apices carried as high as possible in front of the cervix. To facilitate the last procedure the vulsellum was used to fix and slightly drag on the cervix, and at the same time the sound in bladder being pulled on upwards, stretched tight the tissues, permitting a rapid and thorough rawing to be effected. An island of undenuded membrane was left between the four rawed surfaces, and the appearance, which it is difficult to do justice to diagrammatically, was something like the following diagram.

Stitches were introduced laterally, silver and chromicised catgut being used alternately. The island was now made use of as a resting point, the upper stitches of the lower rawed surfaces being passed through one of the lower surfaces, then through the island, and brought out at the base of the triangle on the opposite side—this was done from each side (A and B, Diagram). By this procedure the edges of the four denuded patches were brought into close apposition with an extra degree of security, as the small pouch formed by the island permitted the sutures eventually to be drawn on tightly without the risk of cutting their way through, thereby obtaining an extra degree of security. The triangles were then brought into apposition, and afterwards the oblong patches. The needle holder used was one frequently employed by Dr Thomas Keith in deep peritoneal stitching, and in it different curves of

needles were placed. The stitches were tightened by fingers and forceps. As may be supposed, the highest stitch was the most difficult to bring quite close, but here again the sound dragging on the bladder enabled it to be easily accomplished. Only some eight silver and a few catgut sutures were used. As an additional precaution, although I confess it seemed hardly likely to be of great



V, vagina; anterior wall on stretch, seen from sacral aspect. C, cervix; 1 and 2, lower quadrangular rawings; 3 and 4, the upper triangular rawings (the shaded parts being in front of cervix). S, sutures; A and B bring upper edges of 1 and 2 into apposition with lower edges of 4 and 3. Puckering permitted this to be much closer than can be shown on flat surface. I island, wholly diagrammatic.

service, perineorrhaphy was performed; only three stout silver sutures were inserted. The bleeding from the anterior vaginal surface, which threatened to be pretty free, was exceedingly well controlled by very hot water. After operation the vagina was protected by a pad of salicylic wool and bandage applied. The patient suffered a good deal from chloroform sickness; it was feared the strain of vomiting might affect the stitches, but subsequent examination disproved this. Four days after operation the patient was examined; the vaginal calibre was so much lessened that only two fingers could be inserted, prior to operation it was very easy to introduce the whole hand. An enema was ordered on the fourth day; the upper perineal suture was removed on sixth day, and the last on tenth day; the upper stitch had been removed too soon, as the upper margin of the perineal wound did not heal by first intention. A fortnight after operation the last vaginal suture was removed. A small oval celluloid pessary was inserted as a precaution, and the patient allowed to rise. Early in October one of her children had typhoid fever, and she nursed him throughout

the illness. The subsequent history calls for little remark except that on 1st Dec., "after having done a very heavy washing," she had some feeling of descent. She "pushed up the front part of the instrument and had no trouble since." At this time I ascertained that she had been menstruating profusely every fourteen days, so that I prescribed liquid pitch pills, and enjoined abstention from heavy work. I regret to add, that with the fatuity often met with in females, she had utterly neglected to attend to her bowels, or to make use of astringent vaginal douches as ordered; nor had she thought of any interruption to her marital obligations as an essential. I got her to promise amendment of conduct in these respects. When last examined, in January 1887, the uterus was found in good position, and although the size was unquestionably abnormal, there was no descent. The vaginal calibre was greater than immediately after operation, but the former cystocele and vaginal prolapse were perfectly cured. Even then I understood that her wifely functions had never been unfulfilled, so that, all things considered, I felt she and I might congratulate ourselves on the result of the operation.

Reverting now to the question originally raised of treatment, we must consider prolapsus as requiring very different treatment in regard to (1), the time and manner of its occurrence; (2), the chronicity of the complaint and condition of the parts; (3), the state of muscularity as influenced by age, habit, and occupation; (4), the complications tending to induce or aggravate the downward displacement.

Prolapse of whatever degree which occurs very shortly after parturition is vaginal as well as uterine. Any neglected injuries to the perinæum, vaginal walls, or cervix, in consequence of which the latter may have its involution interrupted and become hyperplastic, will predispose uterine prolapse. Normal uterine hypertrophy is provided for, but if there should be undue stretching of abdominal walls or uterus, as from twin pregnancies or very large children, abnormal weight will be imposed on the supporting segments, abnormal strain on the suspending ligaments, and the too early resumption of the erect posture may, without other cause, occasion the condition. A suddenly occurring post-partum prolapse is, as has been exemplified by first case referred to, very amenable to treatment if taken in time. Astringent douches, air or celluloid pessaries, will usually establish a cure. A more gradual displacement of a subinvoluted uterus, when the local condition is accompanied by general muscular relaxation and constitutional weakness, will derive more benefit from prolonged rest in bed and astringent douches than from any vaginal pessary. In some of these cases we meet with retroversion and prolapse, and in these an air pessary introduced collapsed per rectum and then inflated will be found serviceable. This method of treatment is really less objectionable in practice than it may appear to those who have not tried it. The

feeling of rectal irritation and discomfort may be greatly mitigated by previous application of a solution of cocaine applied to the rectum through a speculum, or more simply by means of belladonna suppositories. It is, of course, essential that the bowels should be kept empty by enemata every second or third day. With a chronic prolapse we generally find so great vaginal relaxation that a plastic operation will yield the best results. No particular lines of incision will be found universally applicable. The narrowing must be made of the most relaxed parts. In the operation I have described above, the ordinary cordiform incision of Emmet would not have been so likely to bring the anterior wall into the closed state aimed at, the ideal collapsed tubal vagina. I think the plan of denuding freely from below upwards, going as high as possible, and leaving an undisturbed central island of tissue, wherefrom to obtain a secure resting place for sutures, a method of operation worthy of extended trial. To obtain the normal vaginal calibre, to reduce its distended parietes, so that the naturally closed yet distensible elastic tube may be regained, we must hope for speedy union; a granulating surface will not contract in loose vaginal mucous tissue in the same manner as will a wound of the external skin. Cicatrization will certainly give us narrowing, but not narrowness with elasticity. With the chronic displacement, the condition of uterine fundal, and more especially cervical hyperplasia or hypertrophy, always exists except in certain senile cases. I cannot well understand the greater propriety of amputating an enlarged cervix than of performing hysterectomy for prolapse; it seems to me unnecessary, meddlesome, and unscientific. The hyperplastic uterus will, with rest and support, eventually become normal or practically normal, then why should we impatiently cut off the cervix, which is more accessible to treatment, quite as likely to be well influenced by douching, cauterizations, and such like measures? I do not question that in women who have any tendency to malignant disease cervical amputation is better practice than leaving a cervix outside the vagina; nor does it much matter in women past child-bearing whether it is done or no; but on the whole the practice cannot be commended. When we find chronic prolapse associated with a normally or almost normally sized uterus, with vagina of moderate size and seemingly natural distensibility, and unruptured perinæum, not curable by pessary, the operation of Alexander and Adams seems most worthy of selection, at least theoretically. To shorten the round ligaments is not always an easy operation—perhaps, for its magnitude, one of the most difficult in gynæcology; and the after results, while unquestionably good in the hands of the originators, have not been invariably satisfactory in the hands of various skilled operators. My experience does not yet warrant my expressing an authoritative opinion regarding the merits of this operation, but I fancy its varying popularity may be explained by the selection of suitable cases.

Prolapse is seldom found with normal uterus and vagina. In retroversion and prolapse the operation might be esteemed more widely applicable. In event of ulceration or bad erosions of the os or cervix, free cauterization with chromic, carbolic, or nitric acid, or application of solid nitrate of silver, will be found highly serviceable. Erosions are often met with as concomitant to prolapse. Quebascho (a tablespoonful to a pint of hot water), alum, sulphate, or carbolate of zinc, boracic acid, perchloride of mercury, or simple carbolized douches, are then indicated. It is worse than useless to attempt to cure prolapse without relieving the congestions and inflammations of the parts involved in the first place.

As regards the muscularity and general tone of patients as influenced by age, personal peculiarities, occupations, etc., we have to remember that the poor over-worked, insufficiently nourished, flabby, prolific woman, who is most subject to prolapse, is on an altogether different platform from her more fortunate sister, who, although possibly constitutionally no better, is, from her position in life and associated idleness, not only less likely to acquire the infirmity, but, should she do so, much more likely, from her possibilities of rest and attention, to obtain speedy and permanent cure. In all cases of chronic procidentia, when a woman is likely to have hard work to do, although a pessary may effect good for a time, it cannot be depended on continuously, so that I would recommend operation. After the climacteric a Cutter's or Napier's pessary may be worn; in many senile cases these are sufficient; yet, although the uterus may not visibly descend, cure is not effected until the organ becomes atrophic and shrunken. Different belts have been devised to take the place of or augment the supporting power of the abdominal walls. A belt often gives much comfort, but I cannot recollect having ever seen or heard of a case cured by belt *sine* pessary or operation. It is almost impossible to fit a belt so that the intra-abdominal pressure is not in some measure increased, as instead of lifting up the superincumbent intestines, we find that the great majority of belts will only act by giving anterior support to the flabby abdominal muscles. The whole theory of intra-abdominal pressure as the prime factor of prolapse seems to require more practical observation ere we can accept it as perfectly accurate. But there is no doubt that retention of urine and constipation undoubtedly aggravate the displacement. For the latter I prefer bi-daily enemata of cold water, with a weekly or bi-weekly dose of compound liquorice powder, to more decided purges. I have never seen or practised the entire closure of the vagina recommended by some gynæcologists. Packing the vagina with tow, or, for that matter, with anything else, except as a purely temporary measure, savours of a bygone age.

As to the complications likely to induce or aggravate the dis-

placement, we have already incidentally mentioned some—the coexistence of cystocele or rectocele is generally, if not always, a consequence, not a cause, of uterine prolapse. A certain proportion of cases of prolapse, which occur later post-partum than those already referred to, may be accounted for on the assumption that, after a severe labour, a metritis occurred, terminating in enlarged hyperplastic uterus; in addition to metritis, parametritis existed, which for a time occupied the retrovaginal septum posteriorly and the vesico-uterine septum anteriorly. After a time the cellulitis resolving, the enlarged uterus, having undergone hyperplastic degeneration, becoming too heavy, drags on its ligaments, and having lost its supporting cushions, forces the passage of the lax, partially closed vaginal avenue wholly open, ignoring the relaxed sacral segment, and becomes procident. If the perinæum is imperfect, the sacral segment becomes in great measure a minus quantity. In such a case perineal repair must be effected, and vaginal tampons of glycerine will do much to reduce the size and temporarily maintain the position of the enlarged uterus. When uterine prolapse happens in conjunction with a descending fibroid or with polypus, it is of secondary importance to the tumour. At present I have two cases of considerable interest in one family. The mother, a lady of 76, has a large single subperitoneal fibroid, which was only noticed two years ago. She suffered from irregular attacks of cystocele and cystitis with retention. Different forms of pessaries have been tried, but from the existing condition it has been found that any pessary large enough to give support interferes sooner or later with urination, and is more influential for evil than good. Rest in bed for a few days from time to time relieves the curious congestive attacks of the tumour, and for many months she has been perfectly free from cystitis or other troublesome symptoms, and enjoys good vigorous health. This lady's daughter is single, and now about the menopause; she has suffered from large multiple fibroids for nine years. Formerly she lost enormous quantities of blood at the periods. In her case the uterus was forced low down in the vagina and much retroverted. An elastic ring pessary introduced through a circular unruptured hymen has given very great comfort, and the hæmorrhages and feelings of weight are vastly improved. This lady has been several times examined by eminent gynæcologists, who all declined operation. The relief of downward pressure experienced since wearing the pessary is, in her own words, "the greatest blessing she ever received from the profession."

I have not thought it necessary to enter upon the required constitutional treatment, which is generally of primary importance, nor will I occupy space by weighing the relative merits of the different plans of treatment outlined, but in conclusion would only again ask gynæcologists, who are not wholly satisfied with anterior colporrhaphy as usually performed, to give my recommenda-

tions a fair trial, and record their experiences. The importance of preparation to relieve congestion, the use of the sound or curved probe in the bladder to drag on or lift up the bladder (by acting on its fundus) and the anterior vaginal wall, the making of four denudations (two oblong, two triangular), and the preservation of an undenuded island as a base for sutures, are the essentials of the operation. I would counsel every patient to wear a suitable pessary for some months after colporrhaphy, however excellent the seeming results. Both this operation and Alexander's are tried by time; "the proof of the pudding is in the eating," and the success of reparative surgery can only be correctly judged by the examination of our patients after a lapse of six or twelve months from the date of operation.

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