

GENITAL PROLAPSE

A PLEA FOR AN OVERHAUL REPAIR

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Supporting Mechanism and its Pathology.

Corpus The broad ligaments and the round ligaments are, if anything at all, only check ligaments. They allow the body a fair degree of mobility. When anteverted it is an important factor in the supporting mechanism. Aided by the intra-abdominal pressure falling on its back it acts as a lid over the genital orifice. The more the pressure the more effective is the closure of the lid. When displaced backwards it is an important factor in the breakdown of the supporting mechanism. The more the pressure the greater strain is put by the body on the support below. The weight of the uterus has also an important bearing.

Cervix and the Vault. The Sheet anchor. The suspensory ligaments laterally, behind and in front, the uterine vessels surrounded by the fibrous covering forming the vascular cord acting as slings one on either side, the parametrial packing all round and the intimate relation between the cervix and the base of the bladder, all together keep the cervix and the vault of the vagina in their normal position in the concavity of the sacrum. The slack in these structures means the prolapse

of the vault, descent of the cervix with the corpus and enterocele. With additional slack in the pubocervical musculofascia, the bladder hammocks down resulting in cystocele and urethrocele.

Vault prolapse is necessarily followed by partial or complete inversion of the vagina.

Vagina. Its curve is its support. The curvature forward of the vaginal canal along with the anteverted uterus helps to keep the whole length of the vagina in position. This curvature and the normal axis is maintained above by the intra-abdominal pressure falling on the back of the vault, and below by the wedge-shaped perineal body, pushing the lower vagina forwards away from the rectum. The relaxation of the vault above and tear of the perineum below disturb the normal axis of the vagina and with other contributory factors the vagina is gradually turned inside out.

Diaphragms. The Spring Boards. As the intra-abdominal pressure increases the diaphragms contract. They have the very important responsibility of acting as shelves to

the structures above and as supports to the structures they enclose. So any factor, which will force the structures down, is counteracted by contraction of the Diaphragms. The pubococcygeus muscle as it goes from before backwards sends deccussating fibres towards the middle line. They join at three points and form the anterior raphe or sling between the urethra and the anterior fornix, the middle raphe between the vagina and the rectum (the prerectal fibres) and the posterior raphe the anococcygeal raphe. If the anterior raphe breaks, urethrocele and cystocele are the result, anterior and middle raphe slack would produce prolapse of the vault, descent of the uterus and colpoceles-anterior and posterior. (Theory of three pelvic slings). The posterior colpocele is often followed by rectocele if there is a slack in the ligaments of the rectum.

With this picture of the mechanism in view, our object is to restore the prolapsed genitalia to their original position. The aims broadly are:

1. Restoration of the bladder and the urethra to their normal position and reinforcement of the supporting musculofascial hammock.
2. Carrying the cervix and the vault upwards and backwards to their normal position in the sacral concavity.
3. Shortening of the approachable and available suspensory ligaments taking up the slack as far as is possible.
4. Reduction in the size of the uterus if necessary by amputation.

5. Narrowing of the pelvic floor aperture by approximation of the Levator Ani muscles thereby correcting the rectocele, rebuilding the perineum and restoring the axis of the lower vagina.
6. Removal of redundant vaginal mucosa maintaining and restoring the normal tension.

The repair operations worth mentioning actually started with Fothergill. Since then there have been many improvements and many newer operations in the literature. Keeping the broad principles in mind, every individual gynaecologist has his or her special steps during the process of repair according to experience and convenience. If the function of future pregnancy is eliminated, we have also other operations, starting from the closure of the vagina to the removal of the uterus, for the treatment of this ailment. It is not the object of this paper to discuss them.

Properly done by an experienced surgeon the purpose of the repair operation is well served in a good number of cases provided the healing had been by first intention and a subsequent labour had not been a difficult or a prolonged one.

After eliminating the known ætiological factors as for example, persistent increased intra-abdominal pressure and successive difficult or prolonged labours following an operation, there is a group of cases where recurrence takes place sooner or later even in the hands of a tried surgeon. Very often such patients would come within a few months of the operation to the Outpatients' Department or to your chamber with something coming

down or out of the vulva—a posterior enterocele along with descent of the genitalia. Enterocele has been and is often over-looked during a repair operation, but I would like to mention only those cases where there has been a subsequent development of the enterocele through a weak vault, with recurrence of the repaired genital prolapse. The reason for this failure lies within the patient herself.

Such patients have a syndrome, usually congenital sometimes acquired, often a combination. One can single them out if a pelvic examination is made on them long before the occurrence of prolapse or childbirth or even before marriage. We call them subjects of atonic syndrome. They have practically no muscles or muscle tone anywhere in the body either stripped or unstripped. A thin abdomen with hardly any recti abdominalis, scanty skeletal muscles and a very poor pelvic floor. They have associated atony of all the viscera to the extent of visceroptosis giving rise to all the symptoms of atony some being predisposing causes for genital prolapse, e.g. chronic gastrointestinal conditions. They need not necessarily be and often are not grand multiparas.

During the dissection of such a ballooned vagina in a repair operation, one is faced with the very difficult problem of absence of adequate muscles, fascia or ligaments for approximation. It looks like and often is an apposition of strands of fibrous tissue only. To compensate this, a high perineum operation is often unprofitably done. Some others would remove the uterus and attempt to

build an artificial support of doubtful duration with the available tissue. The rationale of removal of the uterus lies only in post-menopausal cases or when the uterus has a pathological condition. The popularity of removal of the uterus to build up an artificial shelf in a case of genital prolapse is challenged if we consider those atonic cases when they are still in the childbearing age with a healthy uterus functioning normally. After all, in the accepted techniques of plastic surgery, we cannot utilise all or even the whole of all the suspensory ligaments to correct the slack. The main anchor the cardinal ligaments are not wholly available. The pelvic floor muscles even are often very scanty.

A mild degree of prolapse in such an atonic case is always tackled from below but a more advanced case, not to speak of a procidentia, always gives a premonition to a surgeon during the actual operation about the future prospect. A combined operation at the same sitting of a plastic repair from below and a ventral fixation or suspension of the uterus from above naturally ensures success. A ventral fixation of the uterus, though a surer step, necessarily involves ligations of the tubes. If the function of future pregnancies has to be preserved, a suspension operation with the help of the round ligaments after Gilliam could be substituted. In Gilliam's operation our purpose is to keep the uterus anteverted but here we want to raise the descended uterus and keep it raised. So the nick in the rectus sheath has to be higher than the level of the internal abdominal

ring, as high as is necessary to take up the slack somewhat similar to the original Gilliam. Many years back when I was young a combined operation in two sittings was the operation of choice in almost all advanced cases of prolapse and the result of the then laborious and prolonged operations was not very disappointing although the technique was not convincing and functions of pregnancy had to be eliminated always. As the technique of the plastic operation improved, the surgeon rightly depended on plastic operations from below, and as mentioned above a good number of cases showed satisfactory results. The ventro-fixation of uterus for prolapse became obsolete.

The author suggests revival of the old regime with certain modifications and improved technique in a particular group of cases, where removal of the uterus is the only other alternative. The option of ventral suspension in place of fixation is also suggested where future pregnancy remains an important factor.

The belief that in such cases the uterus will again come down and this time taking the abdominal parasites along with it, is far-fetched. I do not remember a single case of that nature amongst the number of cases done by my predecessors.

The next plea for an abdominal approach is raised for a different group of cases—the posterior enterocele. This hernia of the pouch of Douglas is sometimes very annoying. The usual method of tackling such cases is exposure and opening up of the hernia sac, reduction of the

hernia, excision of the sac followed by a purse-string suture, approximation of the deep tissue and the reflected mucous membrane after removal of the redundant portions. If there is also a rectocele or colpocele, which is often the case, a colpoperineorrhaphy extending from the cervix upto the perineum is suggested. But unlike hernias in other regions we have no strong facial sheaths to cover up and strengthen these hernias in the pouch of Douglas. So an attempt has been made to approximate the uterosacral ligaments from below. The sponsors of this step often admit the difficulty in identifying and even apposing them from below.

In these cases suggestion is made to approach the uterosacral ligaments from the abdominal cavity and close the hiatus in the pouch of Douglas after reducing the sac following a repair operation from below. Most often in such cases necessity arises for opening the abdomen not only for the closure of the hiatus in the pouch of Douglas, but also for fixing or suspending the uterus from above. According to Campbell the utero-sacral ligaments may be absent on one side or when present on both sides may be very thin. But when prominent on both sides, they are important structures in supporting the posterior vault as well as in pulling the cervix upwards and backwards to its normal position.

Strangely enough some of the suspensory ligaments though relaxed have a tendency to hypertrophy, as the number of pregnancies increases even in an atonic subject.

Conclusion.

Taking a typical case of atonic syndrome in the childbearing age with normal functions and a healthy uterus having an advanced degree of prolapse with probably an associated stress incontinence and an enterocele, the following overhaul repair seems rational and fool-proof.

1. Dilatation and curettage.
2. Anterior colporrhaphy with special steps to correct the descent of the bladder neck (Bonney, Warrall).
3. Amputation of the cervix if necessary.
4. Colpoperineorrhaphy with correction of the enterocele (Harrison and Macdough or Weed and Tyrone).
5. Opening the abdominal cavity.
6. Approximation of the uterosacral ligaments as far back as possible.
7. Ventrofixation or suspension of the uterus with ligation of the tubes when imperative.
8. Fixing the neck of the bladder taking the muscular and serous coat only, with the fibrous periostium of the Os Pubis by ligatures ensuring protection against stress incontinence (Williams).
9. Closure of the abdomen.
10. A self-retaining catheter.

Though an overhaul operation, it need not take a very long time in an experienced hand. The degree of shock does not compare unfavourably with a Ward-Mayo's operation.

In conclusion, the author emphasises the fact that such measures are necessary in a limited though not a negligible group of cases, particularly in the tropics.

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