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Enterocele Therapy Depends on Subjective Complaints

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ABSTRACT

Prolapse of the reproductive organs is a condition that greatly disrupts the normal functions of reproductive health, as well as the functions of the intestines and urinary system, and can have serious consequences for a woman's psychological health. Enterocele represents a herniation of the intestine with the peritoneum into the vagina. In addition to enterocele, rectocele (when herniation is performed by the rectum - the final part of the large intestine), cystocele (bladder), urethrocele (urinary canal) can occur. An enterocele is a true hernia arising from an enlarged, distended pouch of Douglas, which usually contains convolutions of the small intestine. Since, in addition to these changes, there is usually also a fall in the back wall of the vagina, enterocele manifests itself as a hemispherical, soft mass in front of the introitus of the vagina. Sometimes enteroceles can be very large and cause difficulties in terms of vulvitis, colpitis, difficulty standing up, walking, working, and there is a constant feeling as if something will fall out of the genital organs. The aim of this paper is to draw attention to a disorder that rarely occurs. Regardless, patients and medical professionals should be more familiar with this problem.

Keywords: Enterocele, Vaginal Prolapse, Rectocele, MRI, Health.

INTRODUCTION

Enterocele is the loss of support for the apex of the vagina through either a rupture or attenuation of the pubovesicocervical fascia, showed by the descent or prolapse of the vaginal divider and basic peritoneum, most commonly after stomach or vaginal hysterectomy [1]. An enterocele may happen when the uterus is shown, and tissue harm or shortcoming permits herniation behind the cervix and between the uterosacral ligaments. Predominance: 10-15% of ladies; 30%-40% after menopause. 40 years and older, increasing with age.

Enterocele has been characterized as a peritoneum-lined sac herniating through the pelvic floor, usually between the vagina and rectum [2]. There are four sorts, counting traction, congenital, pulsion, and iatrogenic. Traction enterocele is likely the foremost common and happens secondary to uterine and vaginal apical prolapse. Cystocele and rectocele ordinarily coexist with traction enterocele. Congenital enterocele is uncommon and may result from connective tissue and neurologic disarranges

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such as spina bifida. Congenital enterocele may happen autonomously of other sorts of prolapse. Pulsion enterocele comes from delayed increments in intraabdominal weight and may be gone with an enormous prolapse. At long last, iatrogenic enterocele comes about after the postsurgical height of the vaginal hub out of its ordinarily level axis toward the vertical plane, as may happen after colposuspension.

PATHOGENESIS

Loss or rupture of the normal support instruments within the pouch of Douglas [1]. There's true herniation of the peritoneal cavity between the uterosacral tendons and into the rectovaginal septum. Unlike a cystocele, urethrocele, or rectocele, the herniated tissue contains a true sac lined by the parietal peritoneum.

SYMPTOMS

Asymptomatic [1]

Pelvic pressure or "heaviness"

Bulging of tissue at the vaginal opening

Descent of the apical vaginal wall during straining

DIAGNOSTIC APPROACH

Urethral diverticulum [1]

Cystocele

Rectocele

Vaginal prolapse (generally includes an enterocele)

Gartner duct cyst

Pelvic relaxation, vaginal prolapse, other hernias, and bowel obstruction (rare).

VAGINAL PROLAPSE

Prolapse of the vaginal apex includes [3]:

- Uterine prolapse
- Posthysterectomy vaginal cuff prolapse
- Enterocele

All of the preceding clinical conditions demonstrate a failure of the apical back. The strategies utilized to address surgical repair require information on the specific support structures accessible to reestablish typical anatomy.

Uterine prolapse is nearly continuously gone by a few degrees of enterocele, and, as the degree of uterine plunge advances, the size of the hernial sac increments. So also, post-hysterectomy prolapse of the vaginal vault may be the result of poor repair and recognizable proof of cuff back structure at the time of hysterectomy or may create as a result of an enterocele that was ignored (not repaired). Subsequently, it is basic to continuously address the apical sleeve back at the time of surgery in case a hysterectomy is being performed. Less commonly, after hysterectomy, the enterocele is found in front of the vaginal vault, where it may be effectively confused with the normal front vaginal prolapse.

Apical vaginal repair may be accomplished transabdominal or transvaginally. A review of vaginal operations incorporates, among others, sacrospinous tendon suspension, iliococcygeal obsession, and tall uterosacral ligament suspension (high McCall culdoplasty).

Since the typical vaginal axis is coordinated a few separate posteriorly (nearly on a level plane when the patient is in an erect position) over the levator plate, agent rectification by any implies, whether by the vaginal or the abdominal course, ought to reestablish a typical vaginal axis. This is often finished by suspension of the vaginal summit distant back on the uterosacral ligaments, the presacral fascia, or the sacrospinous ligaments.

A basic way to evaluate pelvic organ prolapse is by considering the vagina as having three compartments [4]. In a few instances, generally, in women who have had past prolapse or anti-incontinence procedures, enteroceles may happen in either the anterior or back compartment rather than the middle compartment. Even though a standard prolapse classification framework exists, it was created for utilization by gynecologists, urologists, and urogynecologists. A practical approach for the essential care supplier is to think of prolapse as mellow (first degree) with the leading edge of the prolapsing organ descending halfway to the vaginal introitus, direct (second degree) with a plunge to the introitus, and extreme (third degree) with prolapse past the introitus. Consistent conditions for evaluating are vital. Most analysts do the grading with the quiet within the lithotomy position doing a Valsalva, and even though typically the foremost useful way for the scheduled office assessment, it may not distinguish a few prolapses and lead to the underestimation of the degree of prolapse.

A review of the introitus at rest may appear as an expanding introitus with anterior and back bulges to or past the introitus. The speculum is at that point inserted to the summit and pulled back gradually with the quiet bearing down so that the inspector can survey the apical back and possible descent of the cervix or vaginal vault. The beat of the vagina may stay well upheld despite noteworthy prolapse at other destinations. Half of a speculum or a Sims speculum is at that

point embedded and footing is coordinated to the floor. Once more, the persistent is inquired to perform a strong Valsalva, and the front divider back is assessed. The understanding is at that point asked to hack, and the urethra is watched for the misfortune of urine. The speculum edge is at that point rotated 180°, and the front vaginal divider is withdrawn upward to permit evaluation of the back vagina whereas the quiet rehashes the bearing down. The bimanual examination is at that point performed with the patient intermittently bearing down so the analyst can palpate the prolapsing parts and superior evaluate the small bowel prolapse in an enterocele. A rectovaginal examination permits superior appraisal of rectal bulging and rectovaginal septum thickness as well as a conceivable tall enterocele component to a large rectocele.

POSTERIOR COMPARTMENT PROLAPSE

Posterior compartment prolapse incorporates rectocele, rectal intussusception, rectal prolapse, enterocele, and perineal descent [5]. Indications that can be related to these disarranges incorporate deterred defecation, such as inadequate departure, straining at stool, and vaginal digitation. A few modalities have been utilized to identify and quantify posterior compartment prolapses. To date, defecography has been the gold standard for assessment of this condition. Be that as it may, energetic TPUS (Transperineal ultrasonography) has appeared to illustrate rectocele, enterocele, and rectal intussusception with images comparable with those of defecography. Rectocele is measured as the maximal profundity of the bulge past the anticipated margin of the typical front rectal divider. On radiological imaging, a profundity of < 2 cm is considered inside typical limits; rectocele ought to be considered direct in case the depth is 2 - 4 cm, and huge on the off chance that it is > 4 cm. On sonographic imaging, a herniation of a profundity of over 10 mm has been considered symptomatic. Rectal intussusception may be identified as an invagination of the rectal wall into the rectal lumen during the maximal Valsalva maneuver. The intussusception may also be watched to enter the anal canal or be exteriorized beyond the anal canal. Enterocele is analyzed ultrasonographically as a herniation of bowel loops into the vagina. It can be reviewed as little when the foremost distal portion slips into the upper third of the vagina; moderate, when it descends into the center third of the vagina; or large, when it descends into the lower third of the vagina. Enterocele may too coexist with rectocele. A comparative clinical study found poor agreement between defecation proctography and TPUS within the estimation of quantitative parameters. In any case, when ultrasound imaging uncovered a rectocele or rectal intussusception, there was a high probability of this diagnosis being confirmed on proctography. Other things have appeared as superior assertions between sonographic and radiological assessment.

RECTOCELE

Rectocele may be a result of weakening of the rectovaginal septum, leading to “herniation” into the posterior vagina [6]. The bulging at straining, along with the entrapment of stool within the rectocele, forbids effective evacuation. Disconnected rectoceles can happen, but frequently they are a sign of pelvic shortcoming. The complex of rectocele, rectal intussusception, enterocele, and front compartment prolapse is known as ‘descending perineal syndrome’.

In the enteroceles, little bowel or sigmoid (sigmoidocele) gets to be caught between the vagina and rectum in a developed pouch of Douglas. The part of enterocele in ODS (Obstructed defecation syndrome) is far from being true, as two studies found no impact of satisfactory enterocele repair on indications of ODS.

Outside rectal prolapse can be gone with indications of ODS, but fecal incontinence is frequently more articulated. Bowel mucosa and pudendal nerves can be harmed as a result of extend. Repetitive or persistent full-thickness prolapse widens the sphincters and anal canal. Tedious incitement of the rectoanal inhibitory reflex can result in a lack of care for the reflex. In expansion to this, the intussusseptum blocks the lumen of the rectum causing mechanical hindrance. Inside prolapse or intussusception appears to be the antecedent of outside prolapse and is progressively recognized as a cause of ODS. Early studies illustrating inner intussusception in asymptomatic volunteers have been negated by others appearing that high-grade full-thickness intussusception is kept in symptomatic patients. The great comes about of laparoscopic ventral rectopexy in both outside and inner intussusception, where anatomical correction is accomplished without resection of the hypersensitive mucosa, contends in favor of the important part of prolapse in ODS.

MRI

The gastrointestinal diagnostic evaluation should be performed intriguingly, ideally at a pelvic floor center by a devoted group, and appropriate testing [7]. The foremost habitually performed examinations are adaptable recto sigmoidoscopy or colonoscopy, pelvic ultrasound, anorectal

endosonography, and anorectal manometry combined with anal electromyography (EMG) and balloon expulsion test. Three-dimensional anorectal ultrasound has ended up as a crucial promptly accessible device for the particular proctologist. Perineal ultrasound offers the advantage of sphincter imaging without the inclusion of the transducer into the rectum.

Magnetic resonance imaging (MRI) in conjunction with MR defecography has become the foremost important imaging method to survey anorectal work powerfully. Attractive reverberation imaging thinks about diagrams at the same time and the life systems of the pelvic floor and visualizes diverse structural and useful pathologies, by applying energetic groupings after filling the rectum with a thick contrast medium (e.g., ultrasound gel). The taking-after pathologies can be envisioned: pelvic floor descent, an abnormal anorectal point whereas pressing and straining, rectal intussusception, rectocele, enterocele, and cystocele. In any case, confinements of MR defecography are the cleared-out horizontal position and the restricted space for the understanding, which may decrease the capacity to strain and therefore diminish the affectability of the strategy, thinking little of the size of entero- and rectoceles as well as the sum of interception.

Surgical meetings ought to be accessible for all patients, as well as referral to a urogynaecologist or urologist when indicated. Biofeedback treatment, botulinum toxin A injection, percutaneous tibial nerve stimulation (PTNS), and sacral neuromodulation (SNM) ought to be accessible as a complementary helpful alternative to medical and surgical treatment.

REPAIR

An enterocele repair is ordinarily performed employing a vaginal approach comparable to that of back colporrhaphy [8]. The vaginal epithelium is dismembered off the enterocele sac, which is at that point secured utilizing two or more polyglycolic (Vicryl, Ethicon) or polydioxanone (PDS, Ethicon) purse-string sutures. It isn't fundamental to open the enterocele sac, even though care ought to be taken not to harm any circles of small bowel that it may contain. The back vaginal divider is at that point closed as described for posterior colporrhaphy.

An abdominal approach may also be utilized, even though usually much less common. The Moschowitz method is performed by embedding concentric purse-string sutures around the peritoneum within the pouch of Douglas, in this way preventing enterocele formation.

SURGERY

The vaginal sphincter consists mainly of two bulbocavernosus muscles (BCMs) [9]. Despite its great importance, there is very little knowledge about these muscles even among health care providers. BCMs are perineal muscles located on each side of the vaginal opening. Contraction of these muscles narrows the opening to form the vaginal sphincter. Moreover, contraction of BCMs compresses the greater vestibular glands resulting in lubrication of the vagina and thus facilitating sexual intercourse. The similar muscles in males do not separate on either side but come closer together on the lower surface of the bulb of the penis, the contraction of which helps empty the last drops of urine when urinating or semen when ejaculating. BCMs are called love muscles as they have an important role in female sexual acts. Narrowing of the vaginal opening caused by sexual stimulation during intercourse and the consequent pressure on the base of the erect penis can help maintain an erection and avoid premature ejaculation. This can be achieved by enhancing the sphincter role of the BCMs. This can be achieved by several methods. A surgical approximation of the posterior segments of BCMs can be proposed to treat vaginal laxity to improve sexual sensation and pleasure. This can also put pressure on the root of the penis during intercourse so that it can delay its venous return and keep the penis erect after insertion into the vagina.

There are many surgical and non-surgical procedures designed for tightening the lax or redundant vagina [10]. However, these methods are still experimental with no satisfactory results. The procedure was conducted for ten women aged 25-35 years. After a good preoperative preparation, a small perneo-vaginal wall flap was done. Then, traction of BCM of both sides and their approximation using delicate stitches were performed without excision of either mucosa muscle or skin. The post-operative appearance of the perineum was good. Muscles' tone at the vaginal introitus had been improved. There was no detected fibrosis nor reported dyspareunia. The sexual pleasure for both partners was greatly increased over time starting after the first three months postoperatively for all cases. Simple plication of BCMs at the vaginal introitus could be suggested as a simple surgical method for tightening the redundant vagina. Future studies regarding large numbers of volunteers are recommended to accurately evaluate the results of such a new technique.

In numerous women, damage to uterine and vaginal

supporting structures during childbirth and changes related to maturing frequently result in a few degree of pelvic and vaginal relaxation, including cystocele, urethrocele, rectocele, enterocele, or uterine prolapse [11]. Cystocele alludes to the loss of bladder support; urethrocele includes loss of urethral support; rectocele incorporates weakening of the supporting fascia within the rectovaginal septum; enterocele could be a herniation of the pouch of Douglas cul de sac into the rectovaginal septum; and uterine prolapse could be a weakening of uterine support and uterine descent into the vagina to the vaginal introitus or beyond. A critical degree of pelvic and vaginal relaxation isn't ordinarily seen in nulliparous women. These conditions may be asymptomatic or may have side effects, such as stress urinary incontinence, that are greatly restricting and upsetting. Surgery to correct symptomatic pelvic relaxation is nearly continuously an elective strategy; that, the choice for surgery ought to be directed by the woman herself, based on the degree to which her exercises are disrupted by her side effects or the extent of her social inability as a result of urinary incontinence. Ladies ought to be made mindful that incontinence isn't an inevitable result of maturing, and an assessment of the specific cause as often as possible leads to treatments, counting surgery, that are accommodating or corrective.

The types of surgery utilized for vaginal/pelvic relaxation vary depending on the anatomic changes included. A front and back colporrhaphy are as often as possible performed to correct a cystocele and rectocele, respectively, and are ordinarily performed in conjunction with a vaginal hysterectomy to correct the going with uterine prolapse. The diagnosis of anatomic stress incontinence is confirmed by cystometric and dynamic testing, which is utilized to run the show out of other possible causes such as neurologic issues or hyperactive bladder withdrawals. On the off chance that anatomic stress urinary incontinence could be a factor, a retropubic bladder neck suspension may be performed. Sexual dysfunction may happen after vaginal vault strategies because of vaginal shortening or alteration of the vaginal axis.

Expectations for the results of surgery should be talked about before the method since no surgery for stress urinary incontinence is 100% successful. In expansion, the lady must get it that even though unlikely, it is possible that her voiding issues will be more regrettable after surgery or that the issue will repeat, making it fundamental that a moment surgical procedure be performed.

CONCLUSION

Therapy of the front or back wall of the vagina depends on the subjective complaints present, but also on whether the woman has completed her reproductive function or wants to continue giving birth. Therapy can be non-operative and operative. Non-operative means using a pessary, performing Kegel exercises that strengthen the muscles of the pelvic floor. In older women, the use of estrogen can improve both the tone and vascularization of these structures. Surgical therapy is performed with the aim of restitution of the lowered vaginal mucosa, raising the bladder as well as the paraurethral connective tissue. Most often, the therapy is carried out for health, hygiene and aesthetic reasons, as front or back plastic surgery of the vagina.

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