Le fort’s operation for prolapse uterus: A forgotten procedure

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Abstract
Pelvic organ prolapse (POP) and urinary incontinence (UI) are common conditions affecting many adult women today. Le Fort’s operation which was commonly done in the past has been superseded by newer techniques but is an excellent method for elderly fragile women who does not have active and sexual life. In patients who cannot withstand general anaesthesia or having high peri-operative risk but want to get rid of symptoms Le forts’ operation still holds a viable option. The Patient should be counseled about sexual functions as she would not be able to participate in sexual intercourse after procedure well before hand opting for Le Fort’s operation. Le fort’s operation, though of historical interest, is an excellent option in elderly female for prolapse of uterus.

Keywords: Le fort’s operation, uterine prolapse, pelvic floor repair, partial Colpocleisis

Introduction
With gradual increase in life expectancy over the past century has demanded for practitioners to be well conversant with disorders of the elderly population. Pelvic organ prolapse (POP) and urinary incontinence (UI) are common conditions affecting many adult women today [1]. The major treatment of Prolapse Uterus remains surgical though conservative methods can be appropriate in fewer nonsurgical candidates. Surgery for pelvic organ prolapse has undergone a major transformation from vaginal hysterectomy and pelvic floor repair as the only option to laproscopic surgeries involving abnormal sacropexy and usages of mesh [2]. Le Fort’s operation which was commonly done in the past, has been superseded by newer techniques but is an excellent method for elderly fragile women who does not have active sexual life. With partial colpocleisis there is hope for sexual activity as well if desired.

Major steps include:
1. Marking of identical rectangles on anterior and posterior vaginal mucosa
2. Cutting of anterior and posterior vaginal mucosa after giving transverse incision at the cervix attachment
3. Approximation of the pubovesical cervical fascia anteriorly and the perirectal fascia posteriorly with Lembert inverting sutures
4. Sutures placement to complete the tunnel formed by step 3
5. Sutures placement from the pubovesical cervical fascia anteriorly to the perirectal fascia posteriorly over the portio of the cervix and inversion of portio
6. Plication of pubovesical fascia and perirectal fascia except for small orifices laterally on both the sides

We hereby report a case of uterine prolapse managed successfully by Le Fort’s operation at our institute
The patient is placed in the dorsal lithotomy position and carefully examined under anesthesia. The vulva and perineum are prepped and draped.

The labia are anchored laterally with interrupted 2-0 synthetic absorbable suture.

In a similar manner, a brilliant green marking pen is used to outline the Posterior vaginal mucosa.

With a scalpel, the posterior vaginal mucosa is incised transversely at its junction with the cervix.

The cervix is grasped with a tenaculum and prolapsed from the vagina. A brilliant green marking pen is used to outline the area of the anterior vaginal mucosa that is to be undermined and removed.

The blades of curved Mayo scissors are inserted underneath the posterior vaginal mucosa and on top of the perirectal fascia, and the vaginal mucosa is freed to the lateral margins of the marked area.
The posterior vaginal mucosa is then cut along the prescribed marking lines with curved Mayo scissors and removed.

A similar transverse incision is made in the anterior vaginal mucosa at its junction with the cervix. The blades of curved Mayo scissors are inserted underneath the anterior vaginal mucosa to dissect laterally and upward toward the urethral meatus until the limits of the marked area are reached. This procedure is facilitated if traction is held on the tenaculum.

The anterior vaginal mucosa is removed from the underlying Pubovesicocervical fascia.

The surgeon progressively approximates the pubovesicocervical fascia anteriorly and the perirectal fascia posteriorly with Lembert inverting sutures.

When this suture is tied, a tunnel is created along each lateral margin for drainage of cervical mucus, thereby preventing the formation of mucocele.

Several sutures are placed in a similar manner to complete the tunnel.
Lembert 0 absorbable sutures are placed from the pubovesicocervical fascia anteriorly to the perirectal fascia posteriorly over the portio of the cervix. After several of these sutures have been placed, the surgeon inverts the portio of the cervix. After several rows of sutures have been completed, the cervix is totally inverted, and the pubovesical cervical fascia anteriorly and the perirectal fascia posteriorly are plicated. A final row of 0 synthetic absorbable sutures is placed between the remaining vaginal mucosa anteriorly and posteriorly. Note that a small wire probe can be inserted into the tunnel laterally on each side. The vaginal mucosal sutures are completed. Note that the urethra and the urethrovesical angle are not included in the procedure and are not sutured to the posterior fourchette. Such a procedure would distort the urethrovesical angle and in many cases lead to postoperative urinary incontinence. Although the finished operation leaves the patient with a slight urethrocele or bulge, the surgeon should make no attempt to close off the entire vagina.
Pelvic floor defects are created as a result of childbirth and are caused by the stretching and tearing of the endopelvic fascia and the levator muscles and perineal body. Partial pudendal and perineal neuropathies are also associated with labor. Impaired nerve transmission to the muscles of the pelvic floor may predispose them to decrease tone, leading to further sagging and stretching. Genital atrophy and Hypoestrogenism also play important contributory roles in the pathogenesis of prolapse. However, the exact mechanisms are not completely understood. Prolapse may also result from pelvic tumors, sacral nerve disorders, and diabetic neuropathy. It is estimated that the lifetime risk of requiring at least 1 operation to correct incontinence or prolapse is approximately 11%.[11] The primary management of severe uterus prolapse is surgical. For patients in whom conservative management has failed, a variety of surgical approaches to correct POP are available. The final decision regarding choice of procedure depends upon various factors such as Medical condition and age, severity of symptoms, patient’s choice (i.e., surgery or no surgery), patient’s suitability for surgery, presence of other pelvic conditions requiring simultaneous treatment, including urinary or fecal incontinence, presence or absence of urethral hypermobility, presence or absence of pelvic floor neuropathy, history of previous pelvic surgery.[16]. In patients who cannot withstand general anaesthesia or having high peri-operative risk but want to get rid of symptoms Le Fort's operation still holds a viable option. Patient should be counselled about sexual functions as she would not be able to participate in sexual intercourse after procedure well before hand opting for Le Fort’s operation. Since this is rarely done procedure now days we deliberately done a survey in our institute about familiarity with procedure of Le forts among consultants and post graduate students. To our surprise very few consultants and almost none of the residents have done or seen the Le Fort’s operation before this case. So, this case was one of its kind in a teaching institute for conversing budding gynecologists with this historical procedure, which still holds well in few clinical situations.

**Case Report**

A 75 year old para 1 widow woman was admitted to our institute with chief complaints of something coming out per vaginum, low backache for the last few years. Per Vaginum examination showed the presence of procidentia and cystocele, Rest of general physical examination and systemic examination did not reveal any significant abnormality. Initially the patient was evaluated for vaginal hysterectomy but on pre-anesthetic checkup patient was found to be unfit for general anesthesia owing to her poor cardio-pulmonary status. Since the patient was much annoyed by symptoms of procidentia, Le Fort’s operation was decided since patient fulfilled all criteria for Le Fort's. After taking a valid consent and having done necessary investigations, patient was taken for the procedure. Le Fort's repair was done with partial colpocleisis. Patient withstands procedure well without any significant event intraoperatively and postoperatively. The Procedure was undertaken under saddle block anaesthesia. Patient was discharged from hospital with a stable general condition on seventh post-operative day and asked to follow up in our outpatient department.

**Discussion**

Pelvic floor defects are created as a result of childbirth and are caused by the stretching and tearing of the endopelvic fascia and the levator muscles and perineal body. Partial pudendal and perineal neuropathies are also associated with labor.[3] Impaired nerve transmission to the muscles of the pelvic floor may predispose them to decrease tone, leading to further sagging and stretching. Genital atrophy and Hypoestrogenism also play important contributory roles in the pathogenesis of prolapse. However, the exact mechanisms are not completely understood. Prolapse may also result from pelvic tumors, sacral nerve disorders, and diabetic neuropathy.[4]

**References**