



Prolapse (from the Latin prolapsus, a slipping forth) refers to the falling or slipping out of place of a part or viscus. Pelvic organ prolapse is descent of the pelvic organs into the vagina, often accompanied by urinary, bowel, sexual, or local pelvic symptoms. The incidence of genital prolapse is difficult to determine, as many women do not seek medical advice. It has been estimated that a half of parous women lose pelvic floor support, resulting in some degree of prolapse, and that of these women 10-20% seek medical care. In the United Kingdom genital prolapse accounts for 20% of women on the waiting list for major gynaecological surgery. The incidence of prolapse requiring surgical correction in women who have had a hysterectomy is 3.6 per 1000 person years of risk; the cumulative risk is 1% at 3 years and 5% at 17 years after a hysterectomy. The chance of a woman having a prolapse increases with age. Therefore, the incidence of prolapse will rise as life expectancy increases. This article deals with the management in primary care of women with genital prolapse and the options in secondary care.

Factors that keep the genital tract in place are; pelvic bones, connective tissues (pelvic fascia and ligaments), pelvic floor muscles, and intact innervations to the pelvic floor muscles.

There have been many postulated risk factors for pelvic organ prolapse, including pregnancy, vaginal childbirth, aging, chronically increased intraabdominal pressure, menopause, hypoestrogenism, trauma, genetic factors, race, musculoskeletal diseases, chronic diseases, smoking, and prior surgery. It is likely that the etiology of pelvic organ prolapse is multifactorial and results from a combination of risk factors, which vary from patient to patient.



Prolapses can occur in the anterior, middle, or posterior compartment of the pelvis : Anterior compartment prolapses are prolapse into the vagina of the urethra (urethrocele) or bladder (cystocele) or both (cystourethrocele). Middle compartment prolapses are uterine or vault descent and enterocele (herniation of the pouch of Douglas). Posterior compartment prolapse is prolapse of the rectum into the vagina (rectocele). Enteroceles may contain small bowel and omentum. Cystourethrocele is the most common type of prolapse, followed by uterine descent and then rectocele. Urethroceles are rare. Traditionally uterine descent is graded as 1st degree (within the vagina), 2nd degree (descent to the introitus), or 3rd degree (descent outside the introitus).

Prolapse may be asymptomatic or symptomatize with one or more of the following; bulge symptoms(see or feel vaginal bulge,pelvic pressure,bulging sensation), urinary Symptoms,(urinary incontinence ,urinary frequency,urinary urgency weak or prolonged urinary stream,hesitancy ,feeling of incomplete emptying ,manual reduction of prolapse to start or complete voiding and position change to start or complete voiding),bowel symptoms,(incontinence of flatus or liquid/solid stool, feeling of incomplete emptying,hard straining to defecate ,urgency to defecate ,digital evacuation to complete defecation, splinting vagina or perineum to start or complete defecation, and feeling of blockage or obstruction during defecation),sexual symptoms,(dyspareunia, decreased lubrication, decreased sensation and decreased arousal or orgasm),pain(pain in vagina, bladder, or rectum ,pelvic pain,and low back pain),vaginal discharge, and menstrual symptoms.

Actually cases of prolapse do not require any special investigations However ,assessment of the urinary tract, anal sphincter and pelvic floor muscles are essential prior to treatment. Contrast radiography,ultrasound,

computered tomography and dynamic magnetic resonance imaging give an accurate anatomic assessment, measure true pelvic floor descent, give important information about muscular and fascial failure, assess all 3 pelvic floor compartments simultaneously, and objectively grade prolapse .

Treatment can be either conservative or surgical. Conservative treatment should always be offered before referral to hospital. Pelvic floor exercises may limit the progression of mild prolapse and alleviate mild prolapse symptoms such as low back ache and pelvic pressure. However, they are not useful if the prolapse extends to or beyond the vaginal introitus.

For many years pessaries have been used to treat prolapse, although their use has decreased with advances in anaesthesia and surgical techniques. The main indications are: patients unfit for, awaiting, or who have declined surgery, women who may yet bear children , and in the management of prolapse in neonates, which can occur in conjunction with neural tube defects.

Pessaries are available in a variety of sizes and shapes to suit different patients and are of two main types: support pessaries, which rest under the symphysis and sacrum and elevate the vagina, and space occupying pessaries.

There is a lack of good data on the indications for different types of pessary, who should change the pessary, how often pessaries should be changed, and whether pessaries should be used concurrently with hormone replacement therapy or pelvic floor exercises. Some women, particularly elderly women, find it less embarrassing and stressful to visit their general practitioner or practice nurse to change a pessary than return to the specialist. No data have been published on the effect of pessaries on sexual

function. However, we would expect a space occupying pessary to produce some barrier to coitus.

The lifetime risk of undergoing an operation for prolapse or incontinence by the age of 80 years is 11%,⁴ but this probably grossly underestimates the true figure. Reoperation is required in 29% of cases, and the time interval reduces between each successive operation. The indications for surgery are: failure of pessary, patients who want definitive treatment, and prolapse combined with urethral sphincter incompetence or faecal incontinence.

The aims of surgical correction of prolapse are relief of symptoms, restoration of normal vaginal anatomy, and preservation of coitus and urinary and anal continence. Injury after childbirth usually involves all the pelvic floor and pelvic organ supports, although sometimes only one organ may prolapse.

When more than one compartment is involved, a combination of procedures may be needed. Often urinary incontinence is overt, or it is potential and is masked by prolapse and may be precipitated by surgery, for example sacrocolpopexy. Some operations for example, colposuspension for a cystourethrocele—may predispose to a prolapse in another compartment.

Operations can be classified by compartment and by approach. It is important to enquire whether the woman is sexually active before considering vaginal surgery, as this may alter the choice of surgery.

Other factors that influence choice of surgery are the fitness of the patient and surgeon's preference. There is a lack of data on pregnancy outcomes and childbirth after prolapse surgery. If the prolapse remains corrected and the patient conceives, an elective caesarean section may be

advisable. Generally women should avoid heavy lifting after surgery and avoid sexual intercourse for 6-8 weeks.

Surgical treatment is nearly always the best treatment for established prolapse. Extremities of age or intention to preserve fertility are not contraindications for surgical treatment. However, they may modify the technique.

Many different surgical procedures to correct anterior vaginal wall defects have been described. In general, lateral defects should be repaired with a paravaginal repair. Combination between Burch procedure and a abdominal paravaginal repair offers superior results for cure of urinary incontinence as well as correction of anterior support loss and provides additional support to the mid-vagina. Midline defects should be repaired with an anterior colporrhaphy. Until there is evidence showing long-term benefit from the use of graft material with anterior colporrhaphy, the use of delayed absorbable sutures such as Vicryl or No. 1 polydioxanone (PDS; Ethicon, Somerville, NJ) is recommended, with midline plication.

Defects secondary to apical descent should be repaired by resuspending the apex. Transverse defects require reestablishing continuity between the anterior muscularis layer and vaginal apical support and, as such, may be approached a number of different ways. When abdominal sacral colpopexy for prolapse repair is planned, retropubic paravaginal repair can be performed when the surgeon judges that support of the anterior vagina would be insufficient without it. Transobturator repair is a new technique for repair of anterior vaginal wall prolapse especially for 3rd-grade or recurrent cystocele.

Operations of the posterior compartment prolapse include the traditional colporrhaphy , the site-specific defect technique, transanal repair, combined transvaginal and transanal repair, abdominal approach, combined abdominal and vaginal approach ,the intravaginal slingplasty device and reinforcement through graft placement regardless of the surgical technique.

The traditional colporrhaphy assumes that the anatomic defect is the result of stretching of the rectovaginal septum or vaginal muscularis but the site-specific technique is based on the assumption that discrete tears of these layers result in posterior wall prolapse. With longer follow-up, recurrent prolapse after site-specific repair is at higher rates than after traditional posterior colporrhaphy. Traditional posterior colporrhaphy is recommended, with careful attention to prevent narrowing of the vagina or introitus, when indicated to relieve symptomatic posterior vaginal prolapse.

Transanal repairs are generally performed for defecation disorders. The abdominal approach to the correction of a rectocele is most often employed when correction of an accompanying enterocele or vault prolapse is indicated. The sacral colpoperineopexy can be performed totally abdominally or as a combined abdominal and vaginal procedure. The intravaginal slingplasty (IVS) is minimally invasive technique for providing posterior and apical support to the vaginal wall. Finally rectocele can be repaired laproscopically.

Perineorrhaphy should be performed with any repair where there is separation of the perineal muscles. This also facilitates the natural posterior deflection of the vagina in the pelvis.



Vaginal vault prolapse may occur regardless the uterus is present or removed. Methods of surgical treatment include vaginal closure and reconstructive procedures with or without a concomitant continence procedures.

A Le Fort procedure is an option if the patient has her uterus and is no longer sexually active. For patients with posthysterectomy vault prolapse who do not desire coital function and operative time is to be kept at a minimum, a colectomy and colpocleisis can be done to treat the prolapse.

A reconstructive procedures include vaginal and abdominal routes. Gynecologic surgeons have favored the vaginal approach for its low complication rates and quick recovery, whereas more recently, abdominal routes have gained popularity for their increased durability.

Abdominal sacral colpopexy is the most popular method, it could also be done laproscopically . Many surgeons use it as their primary surgery for all cases of posthysterectomy vault prolapse. especially for young patients with advanced prolapse, patients who have a foreshortened vagina, or who have other coexisting conditions that predispose to continued marked increases in intraabdominal pressure. Also for patients who have previously failed a vaginal approach.

Abdominal uterosacral suspension is an alternative procedure to sacrocolpopexy. The advantage of it is the use of permanent sutures instead of a synthetic graft but the disadvantage is the lack of an intervening graft to reinforce the attenuated vagina.

Transvaginal sacrospinous ligament suspension (SSL) is one of the commonest procedures for transvaginal repair of vaginal vault prolapse. It permits restoration of a normal, horizontal inclined upper vagina axis. It is a short procedure, and it is an extraperitoneal operation. It is less surgically

useful in patients of advanced age and debility as the sacrospinous ligament may be atrophied, in women with large anterior vaginal wall prolapse and in patients have short vagina as the vagina is not long enough to reach the sacrospinous ligament without a suture bridge.

Vaginal uterosacral suspension in which the vagina is resuspended to its original level 1 support (the uterosacral ligaments).

The iliococcygeal approach to apical suspension mainly to avoid peritoneal entry or as a fall-back procedure when uterosacral ligament suspension was planned but peritoneal entry is not feasible. In addition, iliococcygeal suspension works well in the case of a foreshortened vagina when a vaginal approach is planned.

Intravaginal slingoplasty (Infracoccygeal sacropexy) is the only vaginal apical procedure that uses a permanent mesh to support the apex. Whereas this technique is gaining popularity worldwide, there is a paucity of data to support its efficacy or safety. In fact, many would consider it experimental. Posterior tissue fixation system (TFS) sling operation is a direct evolution of the posterior IVS procedure and longer term follow up and studies are required to fully evaluate this procedure.

Operations for uterovaginal prolapse in patients not desiring fertility include;vaginal hysterectomy, abdominal hysterectomy, manchester (fothergill) repair, and the obliterative procedures.

Patients who have symptomatic uterine prolapse and who desire uterine preservation have several options that include vaginal, abdominal, or laparoscopic procedures.Vaginal procedures include Shirodkar procedure , modified Manchester operation, transvaginal sacrospinous uterine fixation



(sacrospinous hysteropexy), intravaginal slingoplasty, and posterior tissue fixation system. Abdominal procedures include ventral fixation, modified Gilliam suspension with shortening of the uterosacral ligaments or with sacral cervicopexy, abdominal sling operations especially Shirodkar's sling operation, and abdominal sacrohysteropexy.

The surgical principles of the laparoscopic approach should be the same as the abdominal approach and should not be compromised. The advantages of the laparoscopic approach include superior visualization of the pelvic anatomy and easier identification of site-specific defects of the pelvic floor. Also, minimally invasive access provides the benefits of shorter hospitalization, decreased postoperative pain, and a more rapid recovery. Laparoscopic uterine suspension is reported to the round ligaments, to uterosacral ligament, and to the sacral promontory.

All of those operations have their specific indications and contraindications regarding age, preservation of fertility, size of uterus, general condition of patient, and the associated uterine pathology.

Enterocoele is a type of vaginal vault prolapse; it may be congenital, pulsion, traction, or iatrogenic. Repair of enterocoele includes excision or obliteration of the entire sac of enterocoele and perform all indicated repairs to provide adequate support from below for the occluded orifice of the sac. It may be done transvaginally or transabdominally.