A Brief Overview of Genital Prolapse in Women

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Abstract
A genital prolapse is a downward or forward displacement of one of the pelvic organs from its normal location in the females. Traditionally, prolapse has been referred to displacement of the urinary bladder, the uterus or the rectum; often accompanied by urinary, bowel, sexual, or local symptoms. Although conservative treatment is enough for mild prolapse, the primary management of severe prolapse is surgical. This paper deals with the overview of prolapse including etiology, clinical presentation, preventive strategies and treatment options.

Key words: pelvic organ prolapse, vaginal hysterectomy, pessary, colpoperineorrhaphy

Introduction
Pelvic organ prolapse (POP) is a very common condition, particularly among older women. Prolapse may be defined as the falling or slipping out of place of a part or viscus. POP is the abnormal descent or herniation of the pelvic organs from their normal attachment sites or their normal position in the pelvis (into the vagina), often accompanied by urinary, bowel, sexual, or local symptoms.

Prolapse may also be called uterine prolapse, genital prolapse, uterovaginal prolapse, pelvic relaxation, pelvic floor dysfunction, urogenital/ genitourinary prolapse or vaginal wall prolapse.

The prevalence of POP is difficult to determine, as many women do not seek medical advice. However, it is 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 (Beck 1983). The global prevalence of genital prolapse is estimated to be 2-20% in women under age 45 and in the clinic-based study in Western Nepal, one in four of the women had genital prolapse, of whom 95% had self-reported the prolapse (Bonetti et al. 2004). Prolapse in a nulliparous woman is uncommon and seen only in 2% of the women and constitute 3.45% - 13.15% of all cases of prolapse (Lee et al. 1983).

In a general population of women 20 to 59 years of age in Sweden, the prevalence of any degree of prolapse was 30.8%. Only 2% of all women had a prolapse that reached the introitus (Samuelsson et al. 1999).

In the United Kingdom genital prolapse accounts for 20% of women on the waiting list for major gynaecological surgery (Cardozo 1995). Uterine prolapse is most common in multiparous and postmenopausal women. The possibility of a woman having a prolapse increases with age (Olsen et al. 1997).

Uterine descent can be graded as first degree (within the vagina), second degree (descent to the introitus), or third degree (descent outside the introitus). In first-degree prolapse, the cervix remains within the vagina; in second-degree prolapse, the cervix is at or near the introitus; and in third-degree prolapse (procidentia), most or all of the uterus lies outside the vaginal opening. Uterine prolapse always is accompanied by some degree of vaginal wall prolapse.

- A cystocele is a downward displacement of the bladder into the vagina and is the most common pelvic organ prolapse.
- A cystourethrocele is a combined displacement of the bladder and urethra.
- A uterine prolapse is descent of the uterus down the vaginal canal forward the vaginal introitus.
- A rectocele is a protrusion of the rectum into the posterior vaginal canal.
- An enterocele is a herniation of the small bowels into the vaginal canal.
- Total prolapse ("procidentia") means whole of the uterus is outside the vagina.
Cystourethrocele is seen most commonly, followed by uterine descent and rectocele (Jackson & Smith 1997).

**Etiology**

Uterine prolapse results from weakness of the pelvic support (including musculature, ligaments, and fascia). Pelvic floor defects may result from 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 (Smith et al. 1989). This may result in decreased muscle tone, leading to further sagging and stretching.

Obstetrical trauma (increases with multiparity), congenital weakness of pelvic supports (associated with spina bifida), genital atrophy and hypoestrogenism (e.g., menopause) and increased intra-abdominal pressure (e.g., obesity, chronic lung disease, asthma) are some of the factors responsible for the occurrence of prolapse.

Causes of genitourinary prolapse (Adopted from Jackson & Smith 1997)

Large babies
Long labours
Assisted delivery
Poor postnatal exercise regimens

**Congenital:**
Connective tissue disease (Norton et al. 1995, Jackson et al. 1996)

**Iatrogenic:**
Hysterectomy (DeLancey 1992)

**Increased intra-abdominal pressure:**
Obesity
Chronic respiratory disease
Pelvic masses

**Symptoms**

Common symptoms are a feeling of dragging, or a lump in the vagina, or something coming down per vaginum. There may be alterations in bowel, bladder, or sexual function due to prolapse.

Other symptoms are a sensation of vaginal fullness or pressure, back pain, coital difficulty, lower abdominal discomfort, and voiding and defecatory problems (Box 1).

**Box 1: Symptoms of genitourinary prolapse**

- Urinary symptoms
  - Urinary stress incontinence
  - Urinary retention
  - Recurrent urinary tract infections
  - Frequency (diurnal and nocturnal)
  - Urgency and urge incontinence

**Hesitancy**
Poor or prolonged urinary stream
Feeling of incomplete emptying
Manual reduction to start or complete emptying
Positional changes to start or complete emptying

**Bowel symptoms**
Dyschezia
Constipation
Difficulty in defecation
Incontinence of flatus, or stool

**Urgency of defecation**
Feeling of incomplete evacuation
Rectal protrusion during or after defecation (rectal prolapse)

**Sexual symptoms**
Coital difficulties—dyspareunia, loss of vaginal sensation,
Inability to have coitus
Lack of satisfaction or orgasm
Incontinence during sexual activity

**Other local symptoms**
Feeling of pressure or heaviness in the vagina
Pain in the vagina or perineum
Low back pain
Lower abdominal pressure or pain
Ulceration/spotting leading to discharge if procidentia

**Management**

The diagnosis of prolapse is mainly clinical, thus minimal additional investigation is usually required. If there are urinary symptoms, urine must be sent for culture and sensitivity analysis. Urodynamic studies are helpful to rule out incontinence and imaging studies.
will exclude associated other pelvic pathologies.

Prevention

Better obstetrical/labor care may help prevent prolapse in the long term. Pelvic floor exercises after childbirth may have prophylactic role, though this has not been proved. The role of hormone replacement therapy in preventing prolapse is uncertain.

Treatment of exacerbating factors that increase intra-abdominal pressure such as constipation, chronic cough, and obesity may be helpful in preventing prolapse occurrence and progression.

Treatment

Asymptomatic mild prolapse needs no treatment. Often reassurance and explanation is all that is required. Currently, there are many treatments for uterine prolapse including non-surgical and surgical options.

Conservative/ nonsurgical management

This should be offered for patients with mild symptoms. Pelvic exercises and pessaries are the mainstays of nonsurgical management.

Pelvic floor (Kegels) exercises may limit the progression of mild prolapse and alleviate mild prolapse symptoms such as low back ache and pelvic pressure (Davilla & Bernier 1985). However, they are not useful if the prolapse extends to or beyond the vaginal introitus (Davilla 1996).

Prolapse can be reduced with vaginal pessary that is placed into the vagina to support areas of prolapse. The vaginal support devices may be appropriate for patients unfit for, awaiting, or who have declined surgery.

Pessaries are commonly rings, and they should be changed every six months to prevent erosion of or embedding in the vaginal wall. They may cause vaginitis, ulceration, urinary retention, fistula formation, and erosion into the bladder or rectum. Most complications are from a long-forgotten pessary (Scotti et al. 1994). Rarely, carcinoma at the site of contact has been reported (Schraub et al. 1992). The use of topical estrogen cream with vaginal pessaries reduces discomfort and erosion.

Surgical therapy

If pain and discomfort from prolapse does not respond to non surgical treatment and life style changes, surgery may be considered. In case of severe prolapse, the primary treatment is surgical. A variety of surgical approaches are available to correct prolapse. Surgery should aim for correction of the prolapse while maintaining coital functions and preserving continence. The aims of surgical correction of prolapse are relief of symptoms, restoration of normal vaginal anatomy, and preservation of coitus and urinaiy and anal continence (Thakar & Stanton 2002). The choice of surgery depends upon which organs are involved and the severity of symptoms.

Vaginal surgery is preferred because the patient usually has a shorter recovery time with this approach. The vaginal approach is also useful for the concomitant correction of incontinence. One needs to work out the preoperative, intraoperative and post-operative details before surgery. Surgical correction has a low complication rate. Complications of vaginal surgery (other than the risks associated with anesthesia) include pelvic infection, hemorrhage, and injury to the ureters or lower urinary tract with fistula formation, bowel injury, etc.

Types of Repair

Anterior colporrhapy, or anterior repair, has been the preferred operation for cystocele/cystourethrocele. The main postoperative problems are difficulty in voiding and recurrence of the prolapse (Webber 2000).

Colpopereineorrhaphy, or posterior repair, is favoured for rectocele. Vaginal narrowing and dyspareunia is common after posterior repair, particularly when mid-vaginal levator sutures have been inserted (Francis & Jeffcoate 1961). The main problem with levator placement during posterior repair is dyspareunia, which is attributed to atrophy of the muscle fibres and subsequent scarring (Jeffcoate 1959).

Colposuspension is indicated for urethral sphincter incontinence associated with a 2nd or 3rd degree cystourethrocele. It will correct cystocele, as well as giving excellent long term urinary continence (Alcalay et al. 1995). Vaginal hysterectomy (rather than Manchester repair) is now the procedure of choice for uterine prolapse. This can be combined with an anterior or posterior repair (or both) if a concurrent cystocele or rectocele is present.

Manchester or Fothergill repair can be performed for mild uterine descent, especially when the cervix has become enlarged and conservation of the uterus is desired.

Conclusion

Pelvic organ prolapse is a common problem in the elderly women. It is caused most commonly by pregnancy, labor, and childbirth. It also can be related to diseases that cause increased pressure in the abdomen, such as obesity, respiratory problems with a
long-lasting (chronic) cough, constipation, and pelvic masses.

Conservative treatments such as pelvic floor exercises and a vaginal pessary are best in cases of mild uterine prolapse or when surgery is not an option. Surgery is the definitive treatment and can provide a long-term solution to uterine prolapse. Further research is required into the underlying pathophysiology/pathoanatomy and clinical outcome of conservative and surgical treatment.

References