Pelvic organ prolapse

Pelvic organ prolapse

Is a protrusion of the uterus and/or vagina beyond normal anatomical confines. The bladder, urethra, rectum, and bowel are also often involved.

Uterine Support

The parametrium ,composed of the uterosacral &cardinal ligament ,attaches the cervix & upper vagina to the pelvic sidewall. the cardinal Ligaments attach the the lateral aspect of the cervix &vagina to the pelvic sidewall over the sacrum.

Classification:

Prolapses are classified according to their location and the organs contained within them into :

Anterior vaginal wall prolapse :

- Urethrocele: urethral descent
- Cystocele : is prolapse of the anterior vaginal wall, involving the bladder. Often there is an associated prolapse of the urethra, in which case the term cysto-urethrocele is used.

Posterior vaginal wall prolapse :

- **Enterocele** is prolapse of the upper posterior wall of the vagina. The resulting pouch usually contains loops of small bowel.
- **Rectocele** is prolapse of the lower posterior wall of the vagina, involving the anterior wall of the rectum.

Apical vaginal prolapse :

- **Uterine (apical) prolapse** is the term used to describe prolapse of the uterus, cervix, and upper vagina.
- **Vault prolapse**: post-hysterectomy inversion of vaginal apex.

Four stages of prolapse :

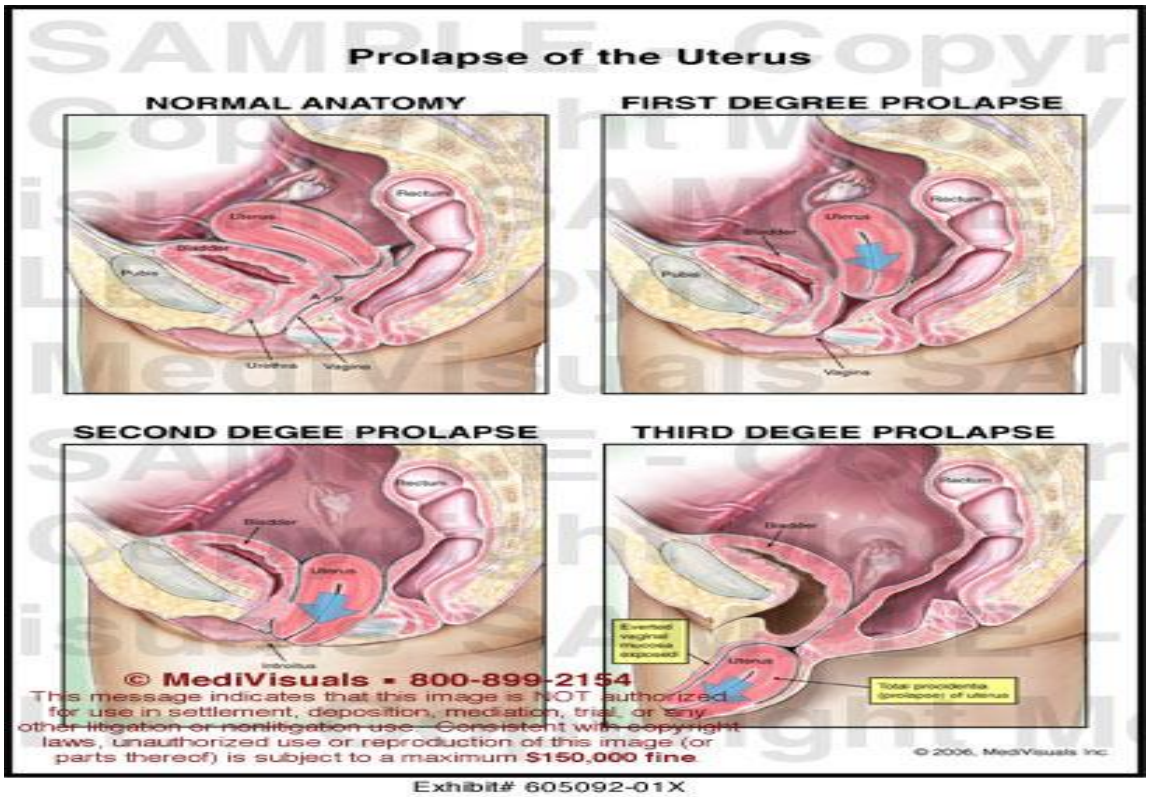
Stage 0 : no prolapse is demonstrated.

Stage I : the most distal portion of the prolapse is more than 1cm above the level of the hymen.

Stage II : the most distal portion of the prolapse is 1cm or less proximal to or distal to the plane of the hymen.

Stage III : the most distal portion of the prolapse is more than 1cm below the plane of the hymen.

Stage IV : complete eversion of the total length of the lower genital tract is demonstrated.



Etiology

The connective tissue, levator ani and intact nerve supply are vital for the maintenance of position of the pelvic structures, and are influenced by pregnancy, childbirth and ageing.

Pregnancy and vaginal *Childbirth*:

The single major factor leading to the development of genital prolapse appears to be vaginal delivery due to damage to the muscular and fascial supports of the pelvic floor and change in innervation .

Ageing (hormonal factor) :

The process of ageing can result in loss of collagen and weakness of fascia and connective tissue. These effects are noted particularly during the post-menopause as a consequence of estrogen deficiency.

Congenital :

Two per cent of symptomatic prolapse occurs in nulliparous women, implying that there may be a congenital weakness of the connective tissue.

Postoperative : Poor attention to vaginal vault support at the time of hysterectomy leads to vault prolapse in 1 per cent. Mechanical displacement as a result of gynecological surgery, such as colposuspension ,may lead to the development of a rectocele or enterocele.

Raised intra-abdominal pressure: Which occur due to constipation or chronic cough or obesity.

Exercise: like weight lifting and long –distance running**.**

Clinical features: Symptoms are often absent, but the most commonly reported are:

- ***General symptoms:***
  - dragging sensation, discomfort, and heaviness within the pelvis
  - feeling of 'a lump coming down'
  - dyspareunia or apareunia
  - discomfort and backache
- ***Cysto-urethrocele symptoms :***
  - urinary urgency and frequency
  - Incomplete bladder emptying
  - urinary retention or reduced flow where the urethra is kinked by descent of the anterior vaginal wall.

Rarely, in extremely severe cystourethrocele, uterovaginal or vault prolapse, renal failure may occur as a result of ureteric kinking.

- ***Rectocele symptoms:***
  - constipation
  - difficulty with defecation (may digitally reduce it to defecate).

Symptoms tend to become worse with prolonged standing and towards the end of the day. In case of grade 3 prolapse, there may be mucosal ulceration, resulting in vaginal bleeding , discharge& infection.

Examination

- Exclude pelvic masses with a bimanual examination.
- **Vaginal examination** is best carried out with the woman in the left lateral position, using a Sims speculum.

Investigations:

usually diagnosis is made by clinical examination , but we may need:.

- USS to exclude pelvic or abdominal masses (if suspected clinically).
- Urodynamic are required if urinary incontinence is present.
- ECG, CXR, FBC, and U&E (if appropriate), to assess fitness for surgery.

Differential diagnosis

1. vaginal cyst.
2. urethral diverticulum.
3. pendunulated fibroid polyp.
4. chronic uterine inversion.

Management of prolapse:

Prior to specific treatment, attempts should be made to correct obesity, chronic cough or constipation. If the prolapse is ulcerated, a 7-day course of topical estrogen should be administered.

Treatment include:

1.prevention.
2.physiotherapy.
3.intravaginal devices.
4.surgery:

A. uterine preserving surgery .
B. Hysterectomy.

Factors influencing the type of treatment of prolapse

- Severity of symptoms.
- Extension of the signs (asymptomatic grade 1 prolapse does not require treatment).
- Age, parity, and wish for further pregnancies.
- Patient's sexual activity.
- Presence of aggravating features such as smoking and obesity.
- Urinary symptoms.
- Other gynecological problems such as menorrhagia.

Prevention of pelvic organ prolapse

- Reduction of prolonged labour.
- Reduction of trauma caused by instrumental delivery.
- Encouraging persistence with postnatal pelvic floor exercises.
- Weight reduction.
- Treatment of chronic constipation.
- Treatment of chronic cough (including smoking cessation).

Conservative management

- **Physiotherapy** has a role in the management of mild prolapse in young women.

- **Intravaginal devices (pessaries)**
  1. Ring pessary: is most commonly used and is available in a number of different sizes (52–129mm); the ring is placed between the posterior aspect of the symphysis pubis and the posterior fornix of the vagina.
  2. Shelf pessary: it may be difficult to insert and remove .
  3. Hodge pessary.

Indications for pessary treatment are:

- patient's wish;
- as a therapeutic test;
- childbearing not complete;
- medically unfit;
- during and after pregnancy (awaiting involution);
- while awaiting surgery.

Surgical management

Surgery offers definitive treatment of prolapse. Choice of procedure depends on patient and type of prolapse that exists.

- Cystourethrocele
  1. Anterior calporrhaphy (anterior repair which is vaginal approach).
  2. Paravaginal repair (which is abdominal approach).
- Rectocele

  Posterior colpoperineorrhaphy (posterior repair).

- Uterovaginal prolapse
  1. **Uterine preserving surgery** .
     A. Hysterosacropexy.
     B.The Manchester repair.
     C.Le Fort colpocleisis.
     D. Total mesh' procedure using an introducer Device.
  2. **Procedures involving hysterectomy**
     A. Vaginal hysterectomy.
     B. Total abdominal hysterectomy and sacrocolpopexy.
     C. Subtotal abdominal hysterectomy and sacrocervicopexy.

- Vault prolapse.
    1. Sacrospinous ligament fixation(vaginal approach).
    2. Sacrocolpopexy