Pelvic Organ Prolapse (POP)

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Pelvic Organ Prolapse

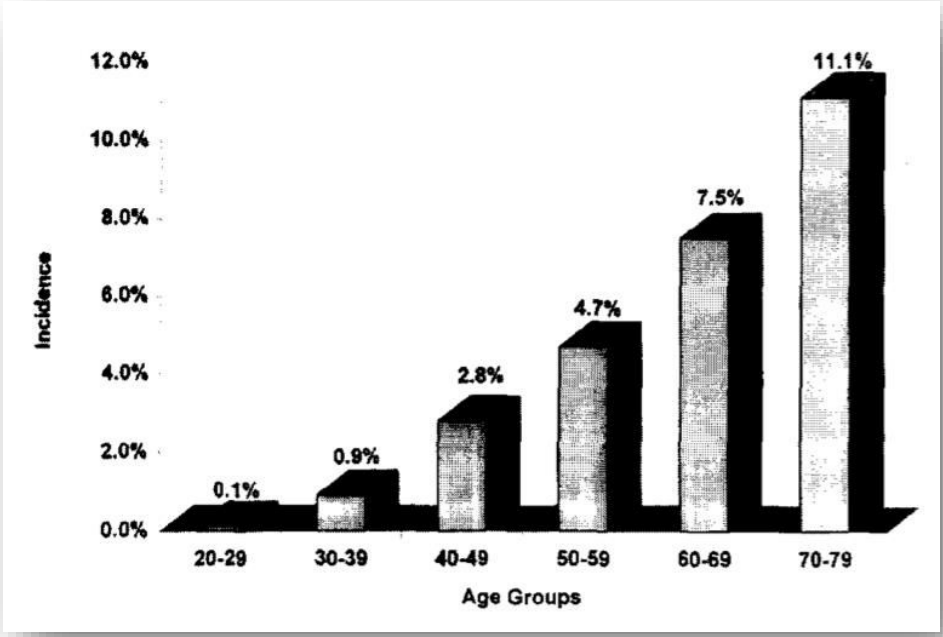
- A prolapse is a protrusion of an organ or structure beyond its normal anatomical site.

- Pelvic Organ Prolapse (POP) is usually classified according to its location and the organ contained within it.

Prevalence

- **It affects 12 – 30 % of multiparous and 2% of nulliparous women.**

- **It is extremely common problem. About 11 % of women will have one kind of the operation for prolapse during their life.***



*Olsen AL, et al. Obstet Gynecol. 1997; 89(4):501-6

Classification

I- Vaginal wall prolapse:

A- Anterior vaginal wall prolapse (Antrior compartment prolpase):

- urethrocele.
- Cystocele.
- cystourethrocele.

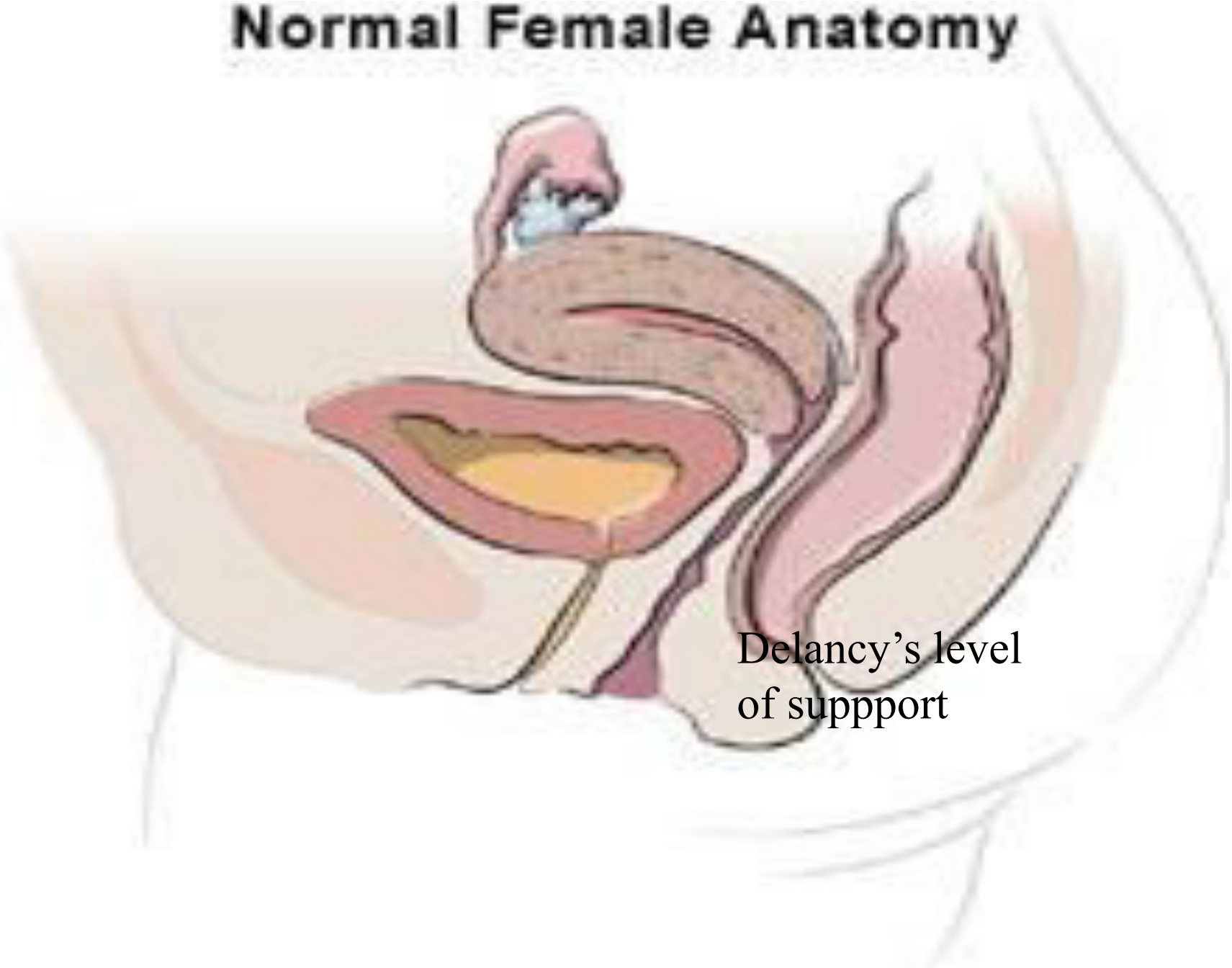
B- Posterior vaginal wall prolapse (Postrior compartment prolapse):

- Rectocele.
- Enterocele.

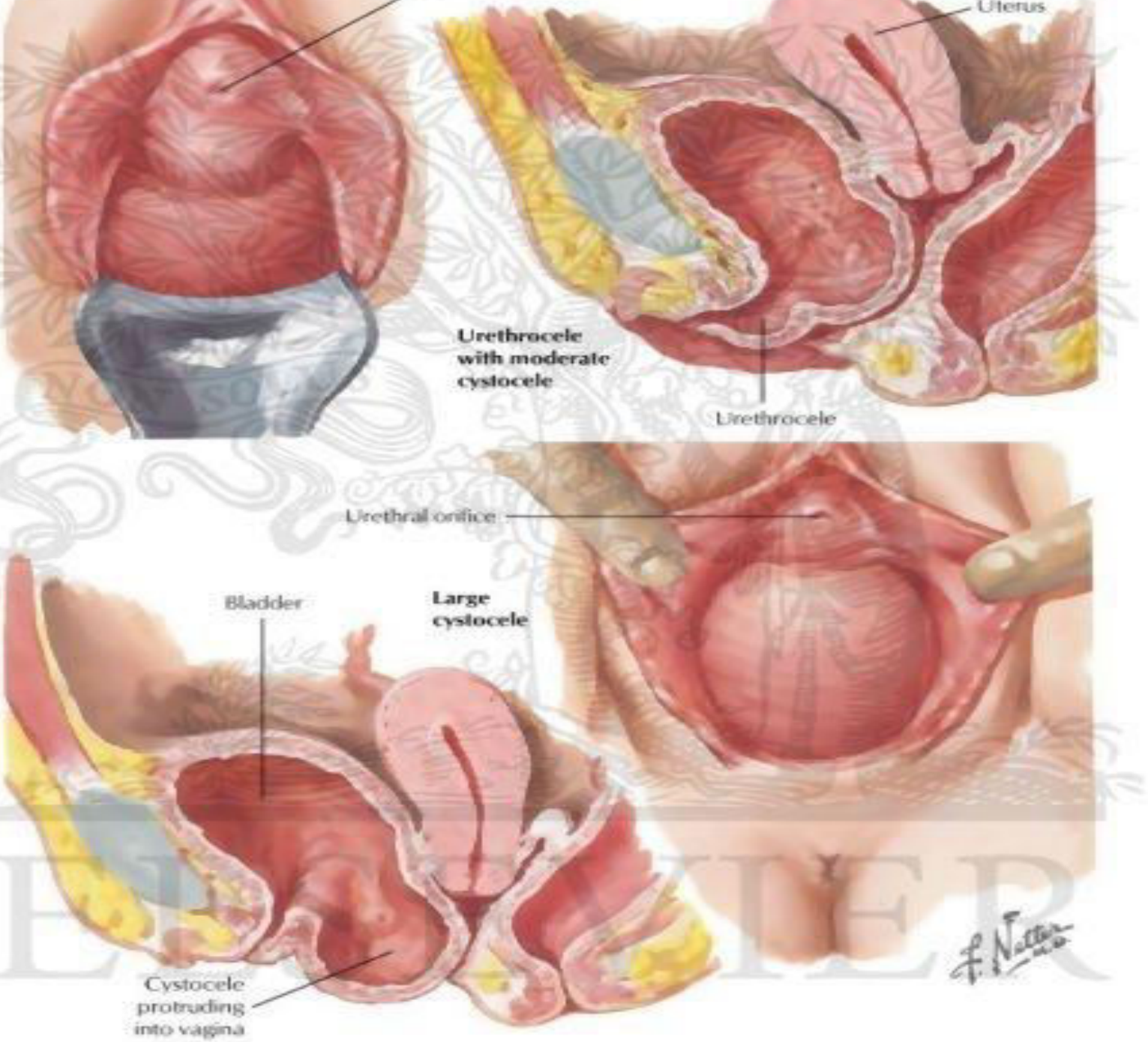
C- Apical vaginal wall prolapse: (Apical compartment prolapse)

- Vault prolapse (after hysterectomy).

Normal Female Anatomy



Delancy's level of suppport



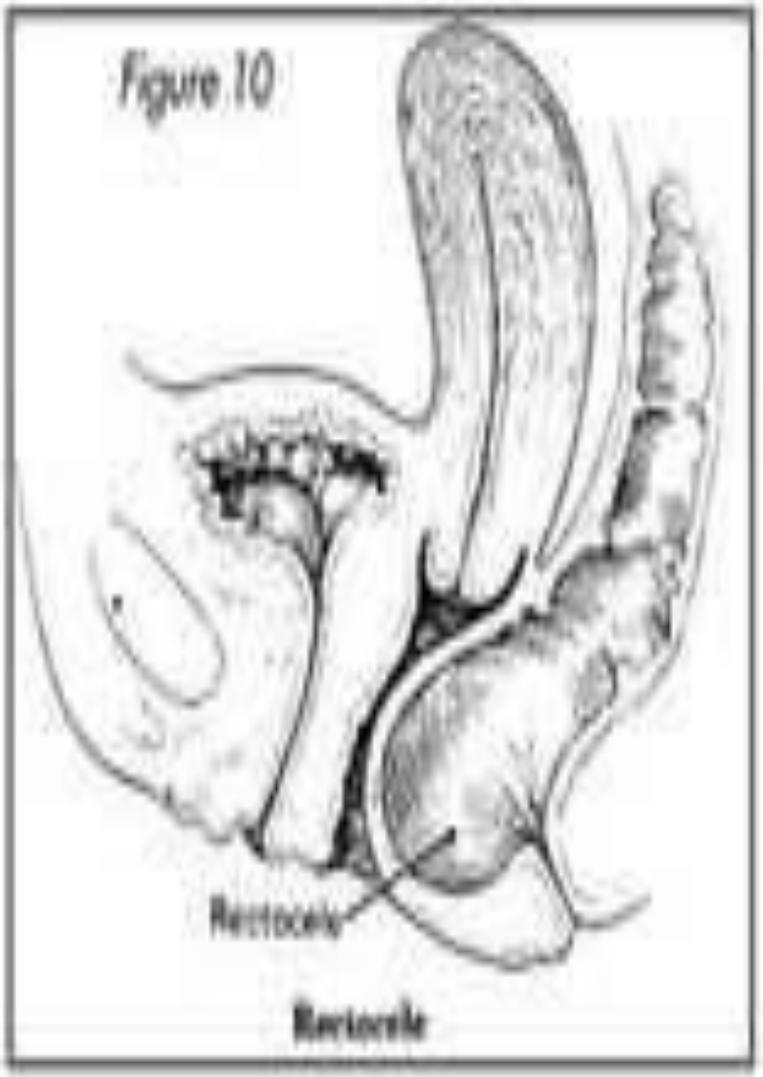
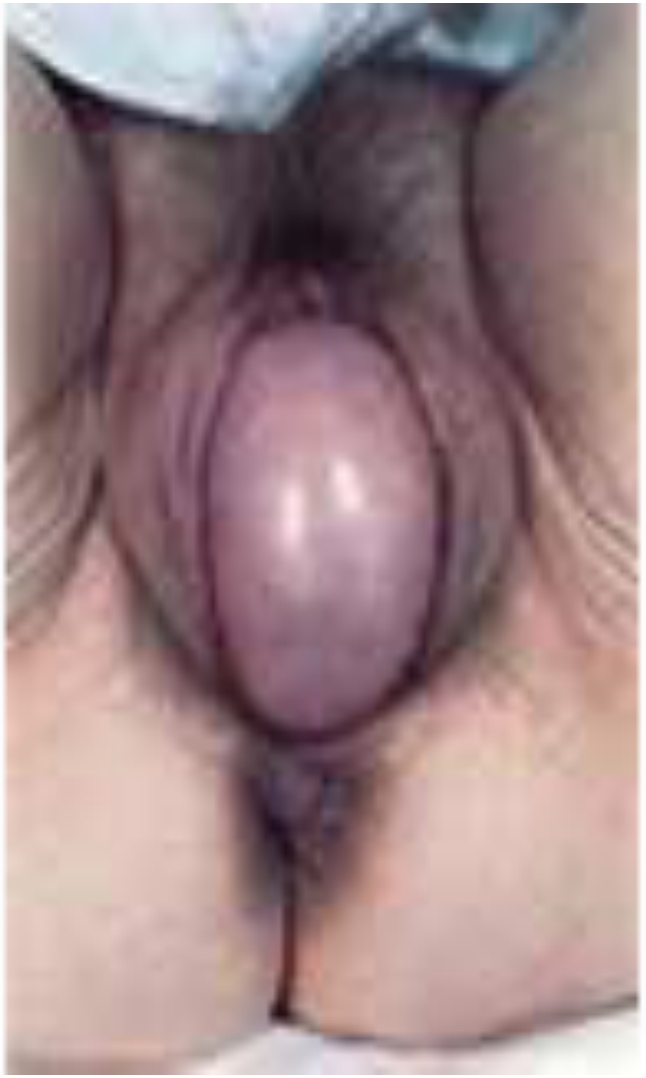
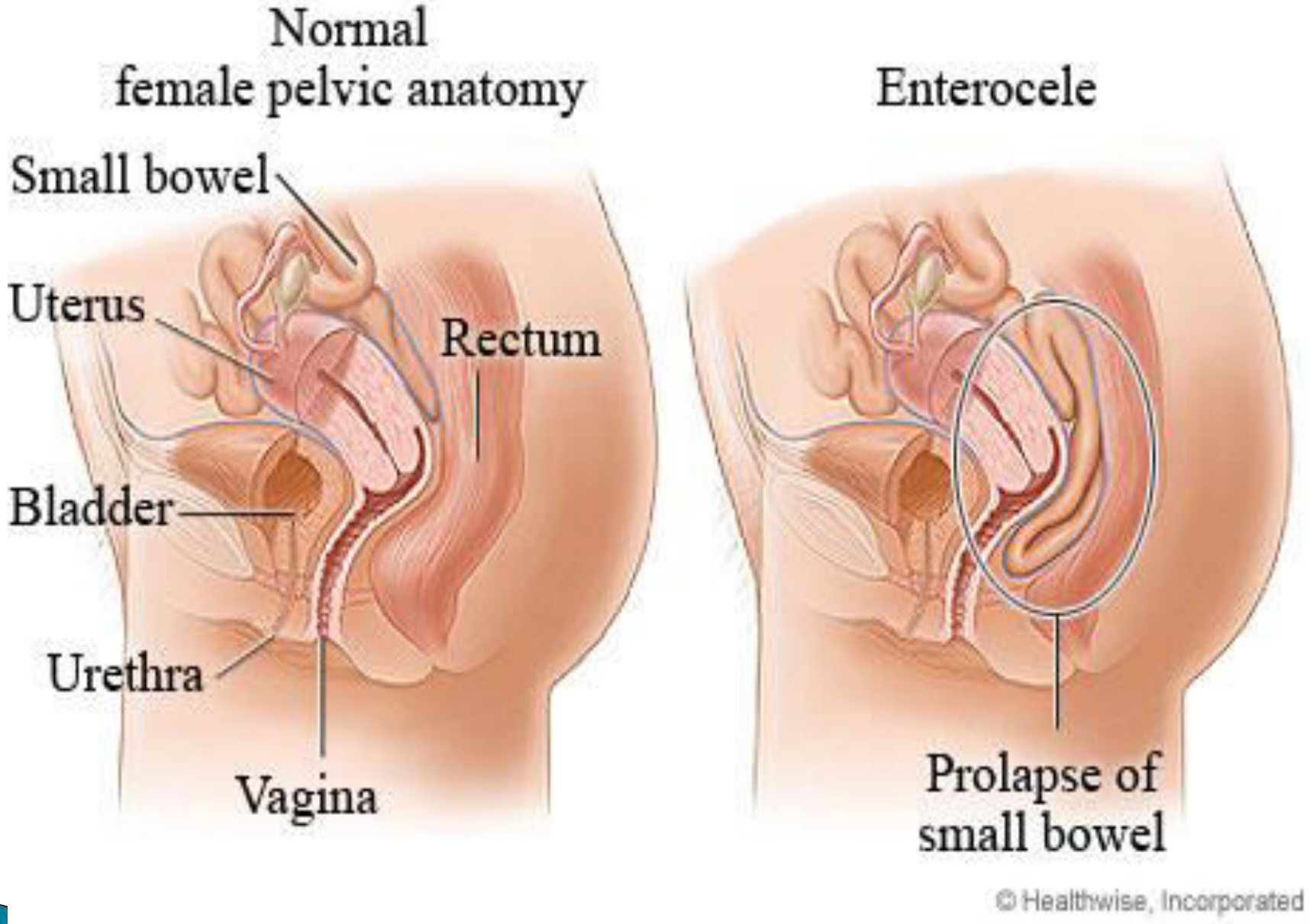


Figure 10
Rectocele




Normal
female pelvic anatomy
Small bowel
Uterus
Rectum
Bladder
Urethra
Vagina
Enterocele
Prolapse of
small bowel
© Healthwise, Incorporated

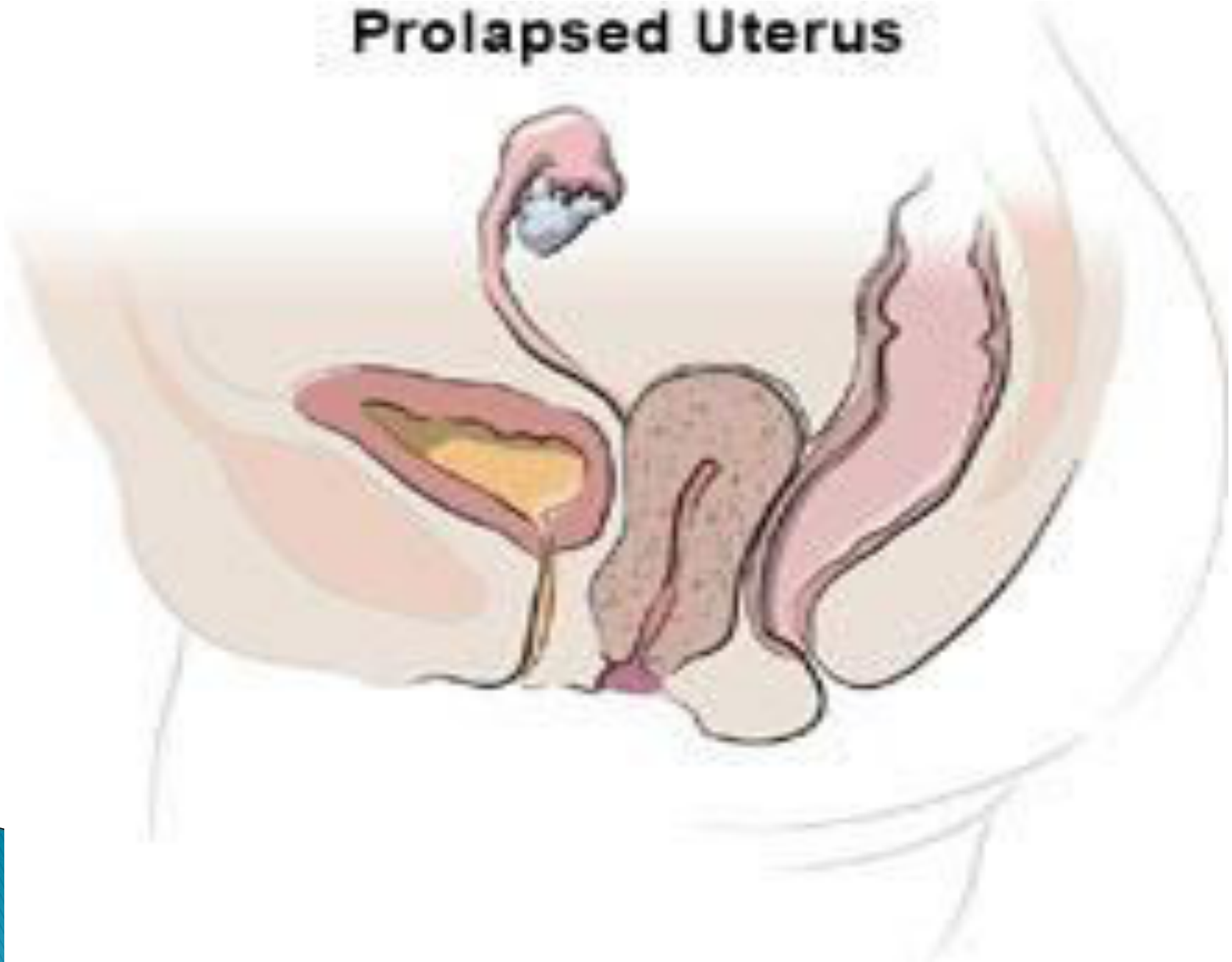
Classification

II- Uterine prolapse:Of 3 grades:

Grade 1: descent within the vagina.
Grade 2: Descent of the cervix outside the introitus but not the body of the uterus.
Grade 3: Descent of the whole uterus outside the introitus (Procidentia).

III- Combined type.

Prolapsed Uterus

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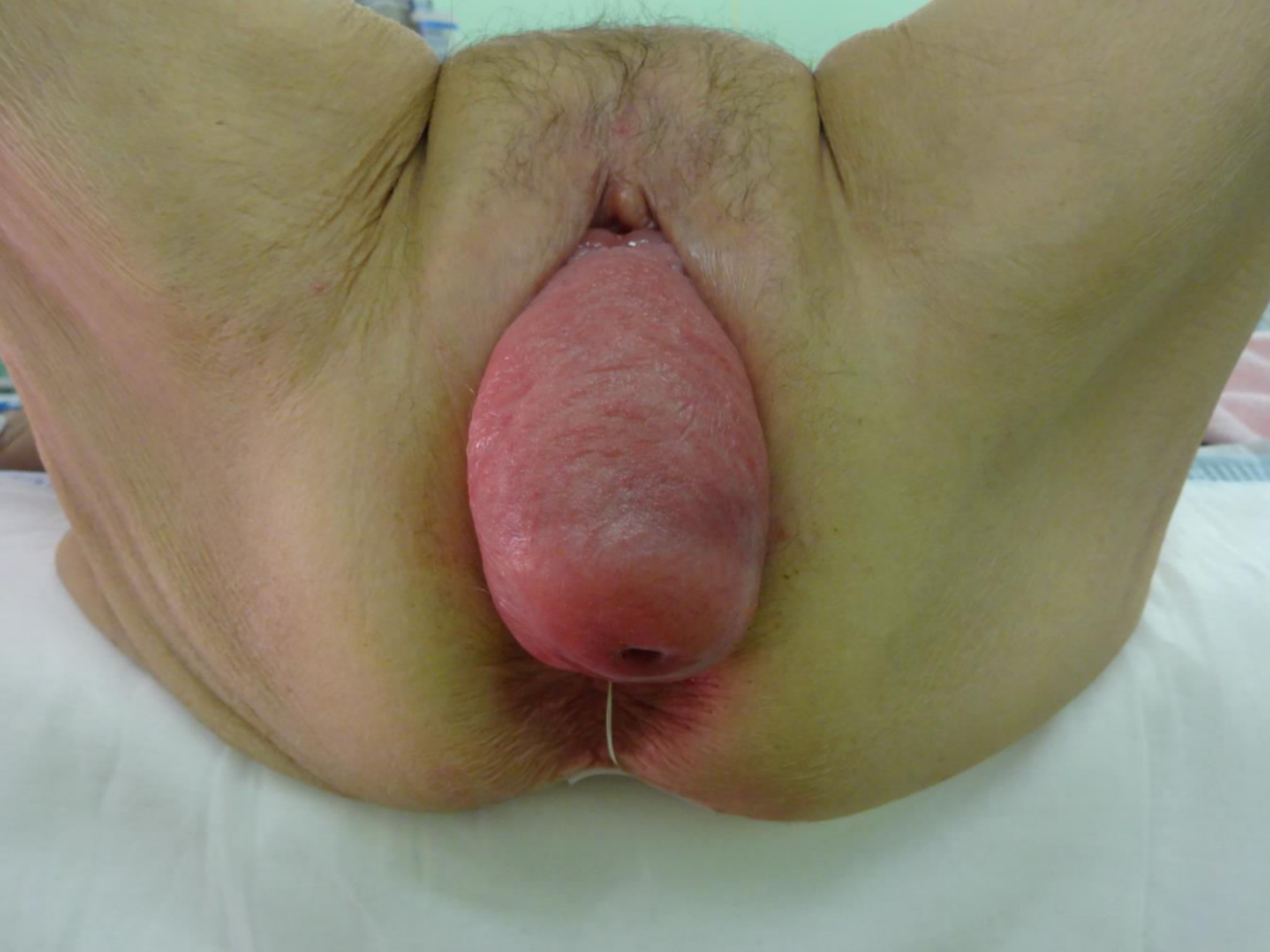
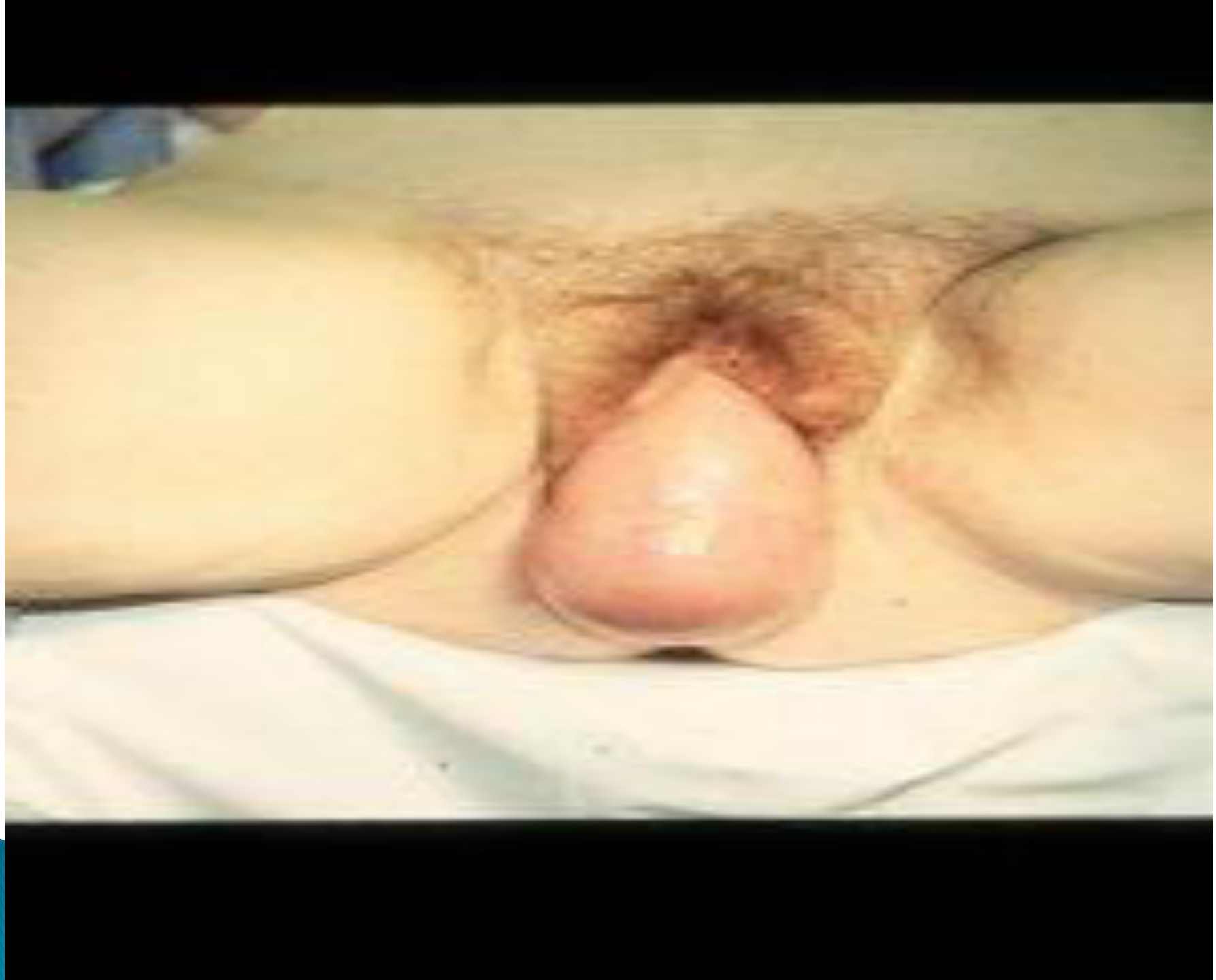
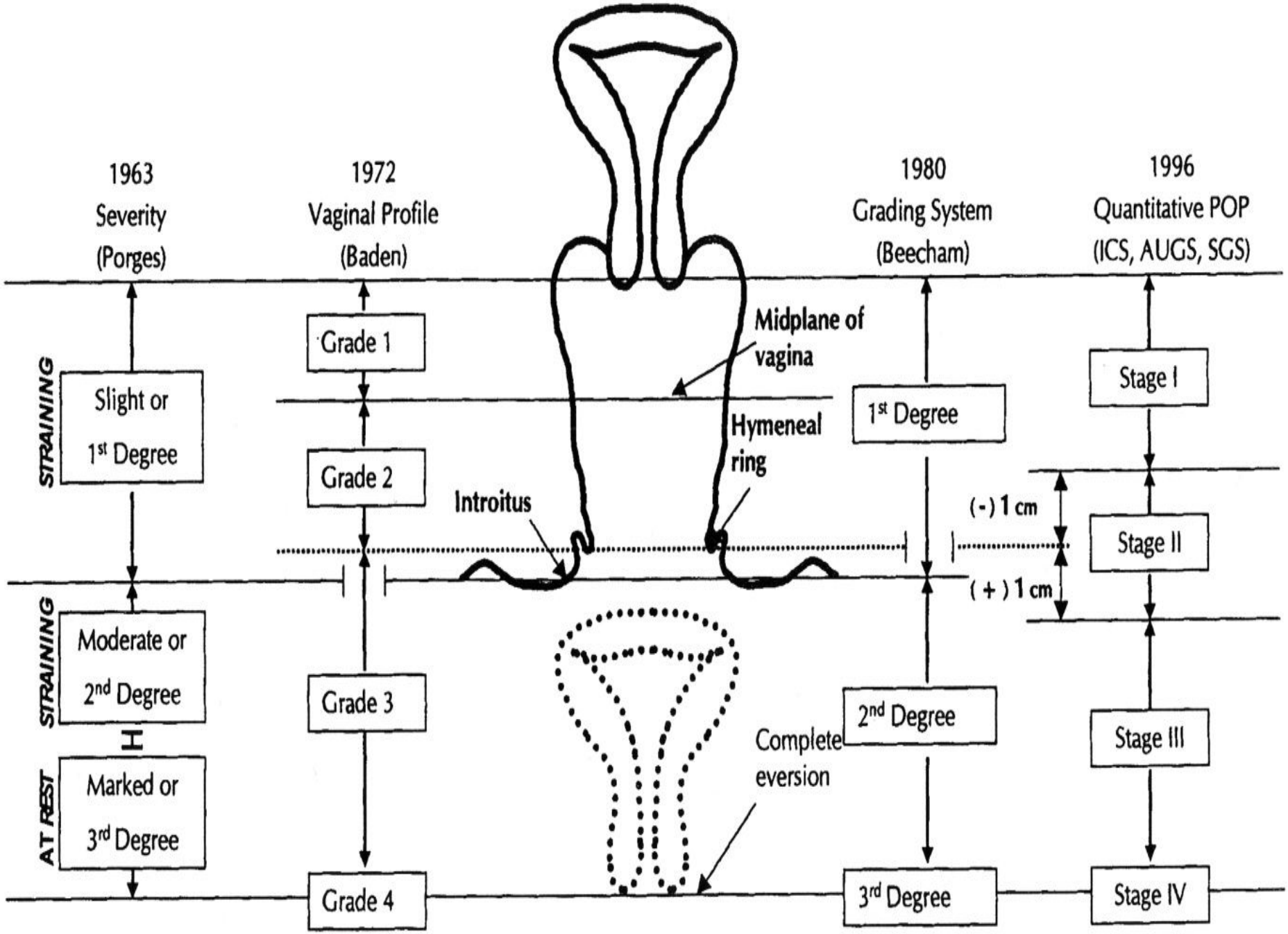




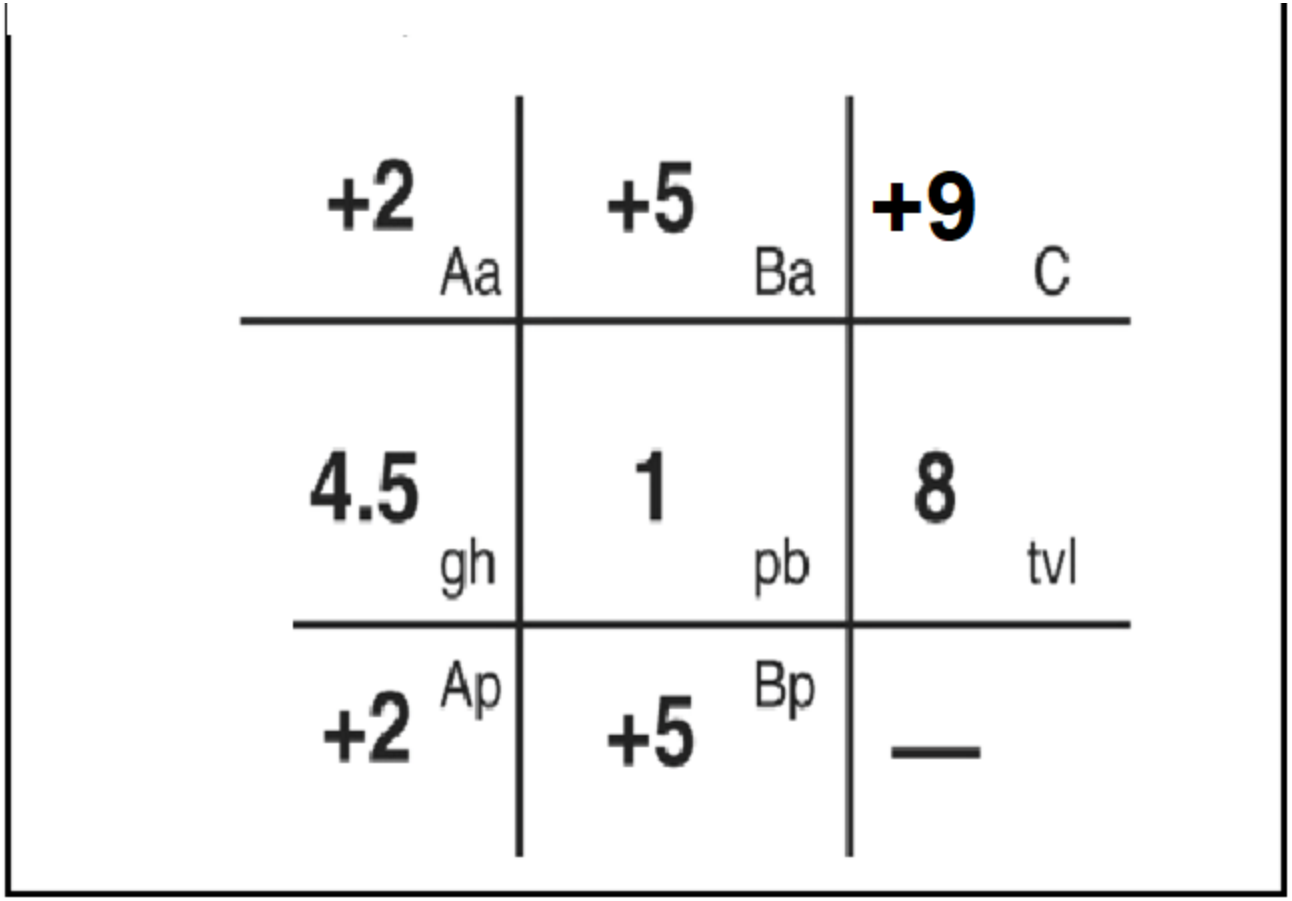

1963
Severity
(Porges)
1972
Vaginal Profile
(Baden)
1980
Grading System
(Beecham)
1996
Quantitative POP
(ICS, AUGS, SGS)
STRAINING
Slight or
1st Degree
Moderate or
2nd Degree
STRAINING
AT REST
Marked or
3rd Degree
Grade 1
Grade 2
Grade 3
Grade 4
Midplane of
vagina
Hymeneal
ring
Introitus
1st Degree
2nd Degree
3rd Degree
(-) 1 cm
(+) 1 cm
Complete
eversion
Stage I
Stage II
Stage III
Stage IV

The Baden and Walker Grading System (1968)

Grade 0	no prolapse
Grade 1	prolapse halfway to the hymen
Grade 2	prolapse to the introitus
Grade 3	prolapse halfway beyond the hymen
Grade 4	complete prolapse

ICS CLASSIFICATION (1996) Quantitative Pelvic Organ Prolapse (POP-Q)

- The topography of vagina is described using six points (2 on anterior vaginal wall, 2 on the superior vagina, 2 on the posterior vaginal wall). In addition to other 3 points.


+2 Aa
+5 Ba
+9 C
4.5 gh
1 pb
8 tvl
+2 Ap
+5 Bp
—

ICS CLASSIFICATION (1996) Quantitative Pelvic Organ Prolapse (POP-Q), Simplified

- Stage 0: no prolapse
- Stage I: the most distal portion of the prolapse is > 1cm above the level of the hymen
- Stage II: the most distal portion of the prolapse is ≤ 1cm proximal to or distal to the hymen

  Stage III: the most distal portion of the prolapse is > 1cm below the plane of the hymen.
- Stage IV: complete eversion of the total length of the vagina.

Etiology of Prolapse

1- Congenital (genetic factor):

- Prolapse may occur in nulliparous.
- More common in certain races than others.
- It is familial.

2- Childbirth:

- Multiparity.
- Prolonged labor.
- Difficult vaginal delivery. (The single major factor for POP)

Etiology of Prolapse

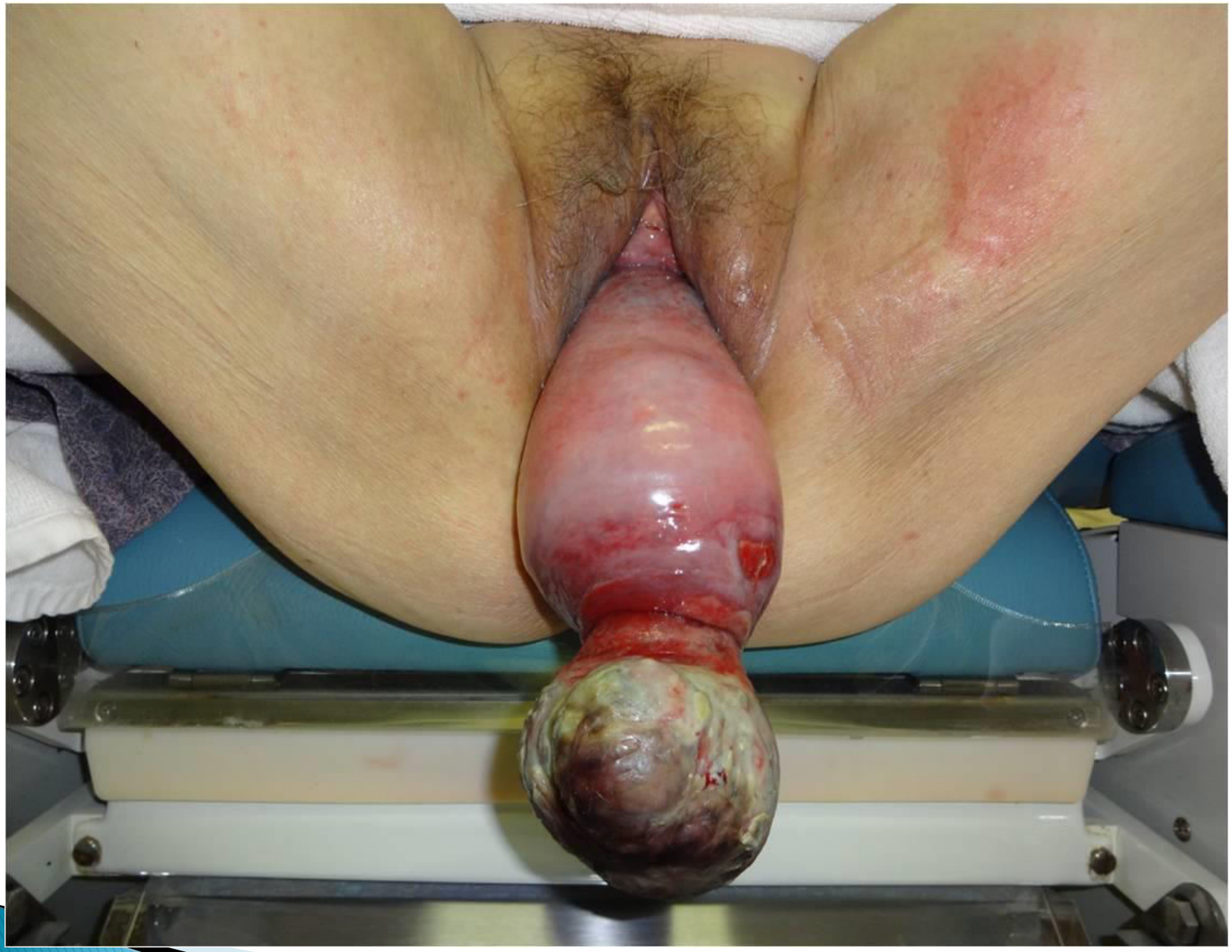
3- After hysterectomy. (Incidence 1-10% & usually accompanied by enterocele (70%).

4- Raised intra-abdominal pressure:

- **Chronic cough.**
- **Chronic constipation.** **(Cretinism)**
- **Pregnancy, labor and delivery.**
- **Large pelvic and abdominal tumor.**
- **Ascitis.**

5- Ageing: **common in post menopausal women.**

6- Obesity (BMI >25).



Clinical features

History:

- **Lump protruding from the vagina either on straining or even at rest.**
- **Lower abdominal discomfort and back pain.**
- **<u>In anterior compartment prolapse:</u> urinary frequency, urgency, voiding difficulty, urinary tract infections and stress incontinence.**
- **<u>Posterior compartment prolapse</u>: incomplete bowel emptying, constipation.**
- **Sexual dysfunction.**

POPDI-6: Pelvic organ prolapse distress inventory 6

PISQ-12: Pelvic organ prolapse/urinary incontinence sexual function questionnaire

** **Procidentia:** Bloody vaginal discharge due to ulceration and infection of the most dependent part of prolpase(Decubitus ulcer).

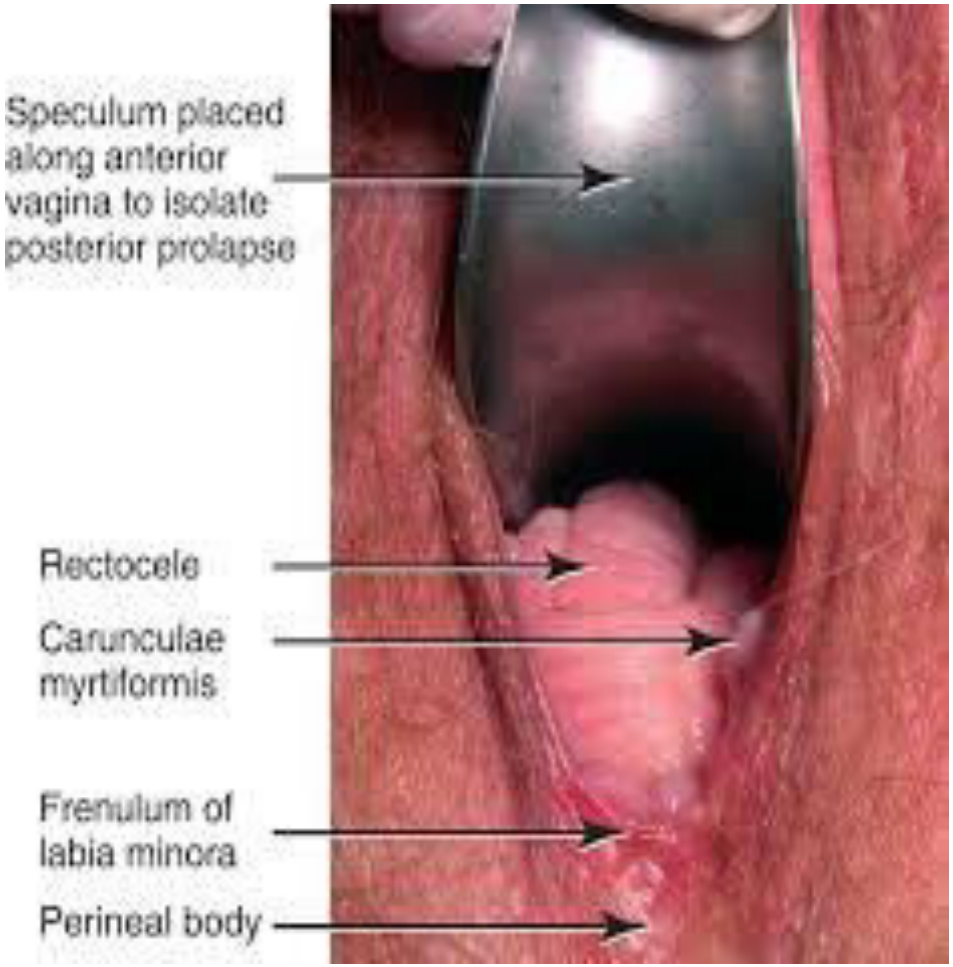
Abdominal examination: to exclude tumors, organomegaly and ascitis.

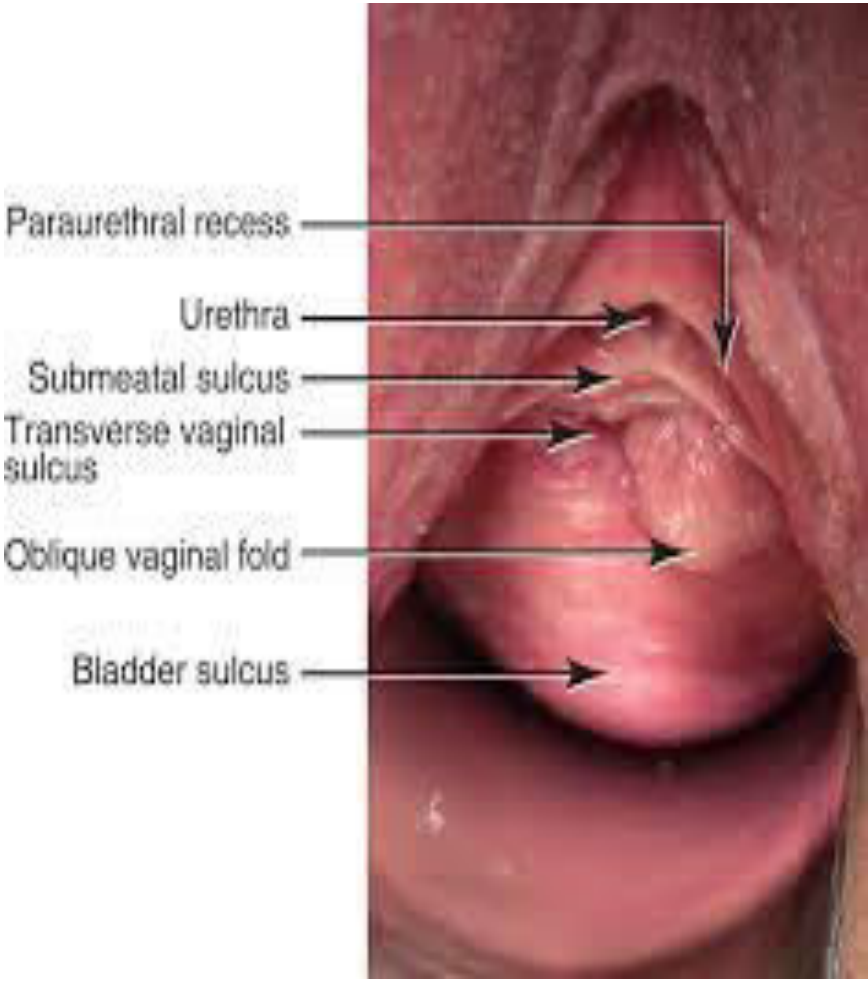
Vaginal examination:

- On dorsal position, the prolapse could be seen protruding through the introitus. If not, the patient should be asked to push down or cough.

Clinical features

- Any ulceration should be detected.
- Bimanual exam to exclude pelvic tumors.
- By Sim's speculum and the patient in the left lateral position, the type of prolapse should be identified.
- By combined rectal and vaginal digital exam, we can differentiate between rectocele and enterocele.


Speculum placed along anterior vagina to isolate posterior prolapse
Rectocele
Carunculae myrtiformis
Frenulum of labia minora
Perineal body


Paraurethral recess
Urethra
Submeatal sulcus
Transverse vaginal sulcus
Oblique vaginal fold
Bladder sulcus

Differential diagnosis

- Congenital or inclusion vaginal cysts.
- Urethral diverticulum.
- Large uterine polyp.
- Pedunculated fibroid.

Investigations

- In case of urinary symptoms, GUE, urine culture, cystometry, and cystoscopy may be considered to exclude local causes in the bladder.
- In major degree of prolonged uterine prolapse, renal function should be studied to exclude renal failure due to kinking of the ureters.
- Imaging study: MRI.

Treatment

The choice of treatment depends on:

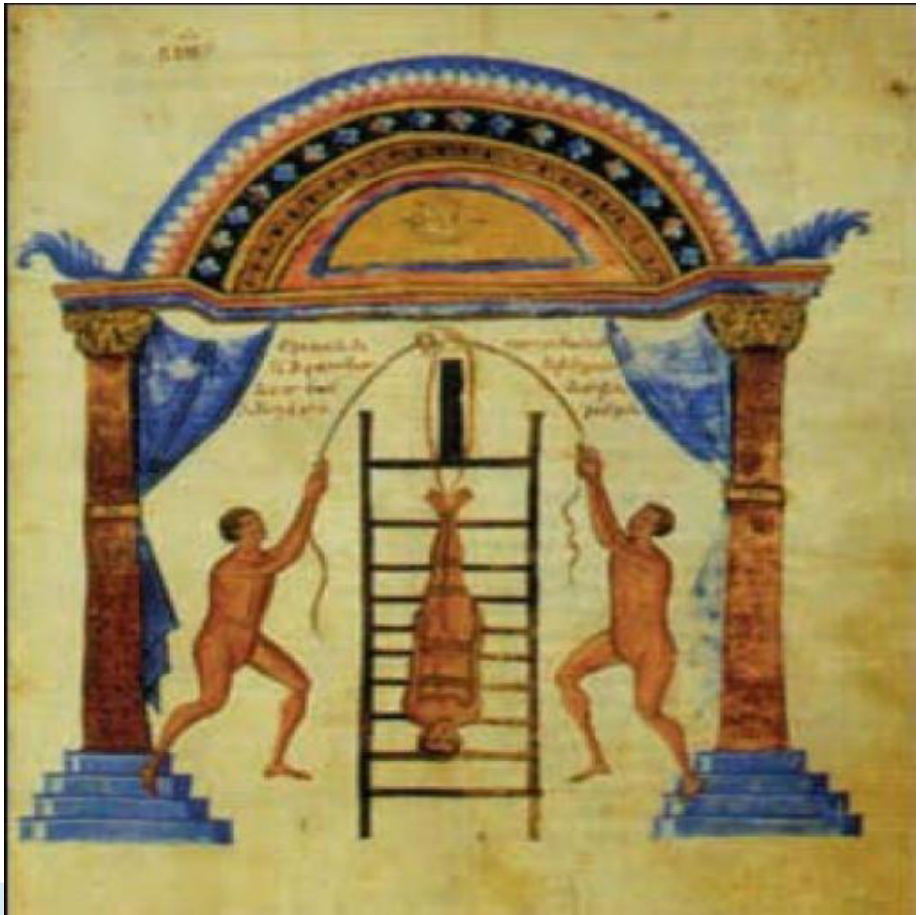
- **The patient wish.**
- **Age of patient and parity.**
- **Preservation of sexual function.**

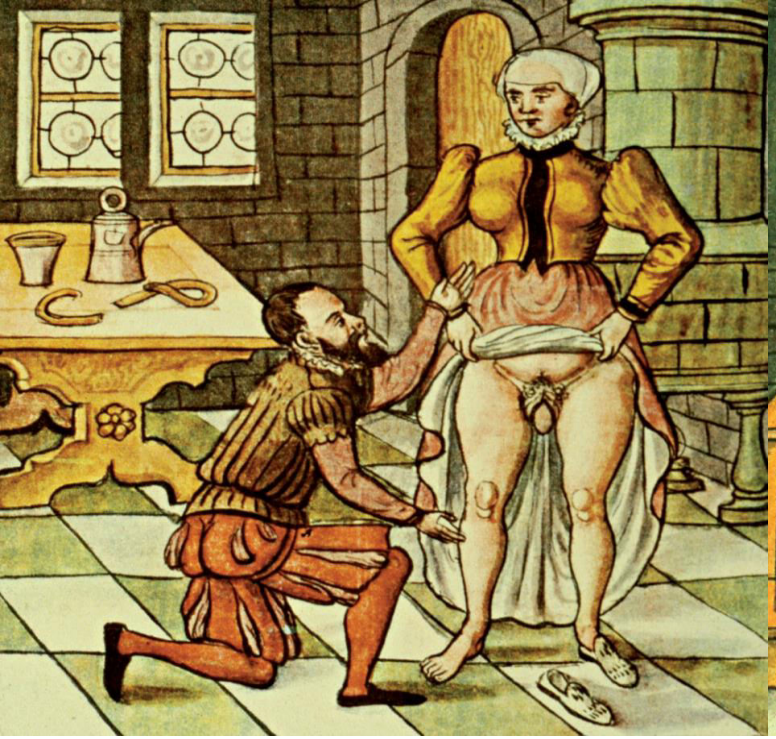
The treatment is conservative and/or surgical.

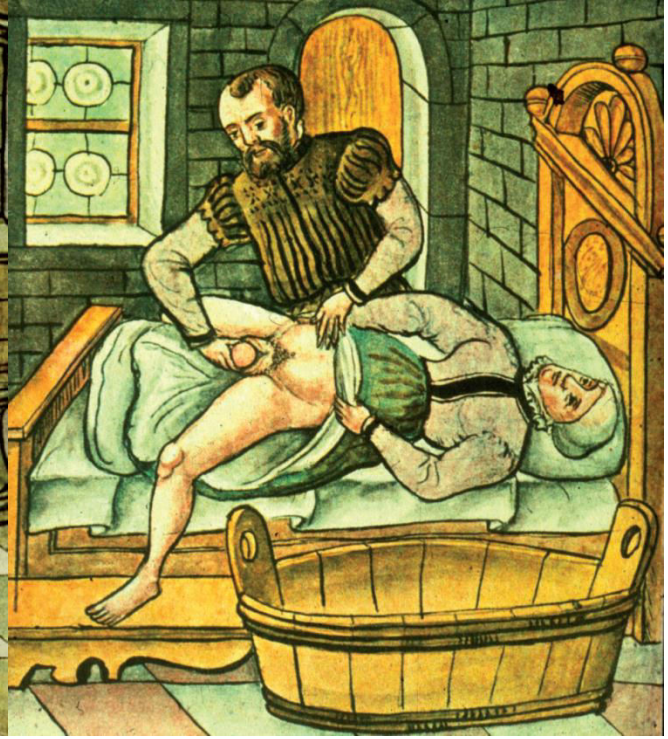
History of POP treatment

Kahun gynecological papyrus

Hippocratic Succussion

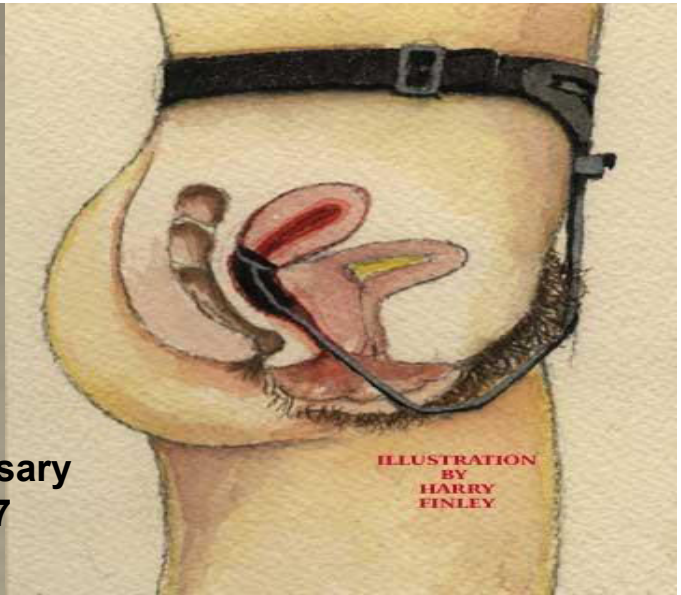






19th century

Pessary
1867



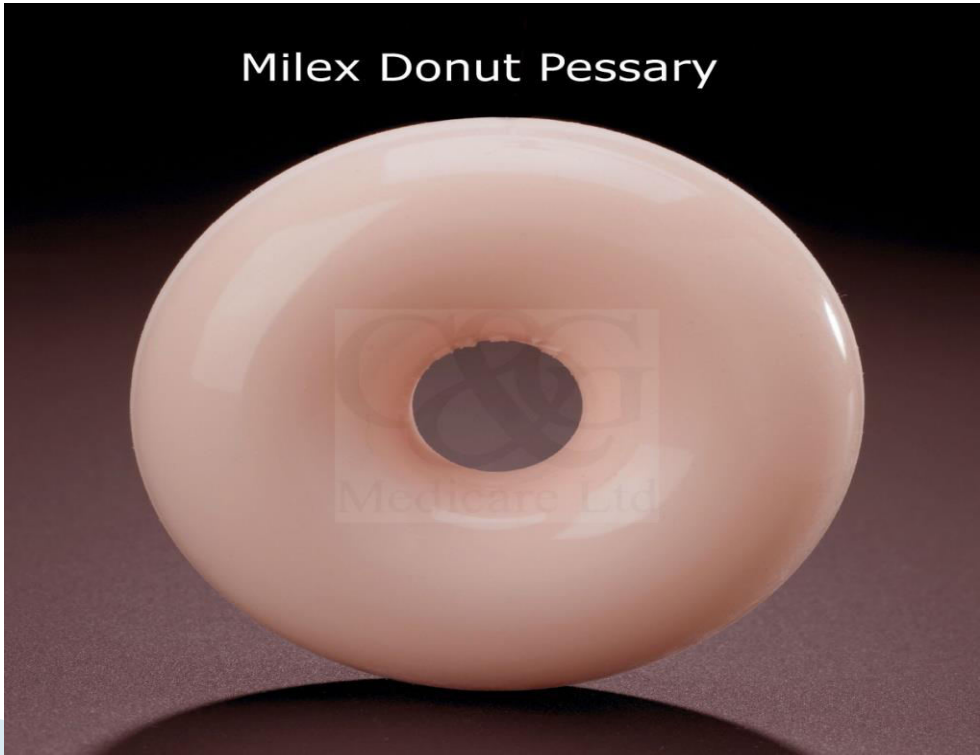
Conservative treatment

- **Attempt should be made to correct obesity, chronic cough and constipation.**
- **If decubitus ulcer is found, then local estrogen for 7 days should be used.**
- **Pelvic floor muscle exercises.**

Pessary:

Support Pessary: Ring Pessary:

- **A silicon rubber-based ring pessaries are most popular for conservative therapy.**
- **Space- Filling Pessary: Donut, Gellhorn.**


Milex Donut Pessary

Conservative treatment

- They are inserted in the vagina, but should be changed at regular intervals.
- The use of ring pessaries my be complicated by vaginal ulceration and infection.

Indications of pessaries:

1. As a therapeutic test.
2. Medically unfit for surgery or refused surgery.
3. During and after pregnancy.
4. While awaiting for surgery.

Surgical treatment:

Cystourethrocele: Anterior colporrhaphy operation.

Rectocele: Posterior colpo-perinorrhaphy.

Enterocele: Posterior colporrhaphy with excision of the peritoneal sac.

Uterine Prolapse:

- **Vaginal hysterectomy:** in elderly patients and those who completed the family or with other uterine or cervical pathology. Adequate vault support of the utero-sacral ligement or the sacrospinous ligament (SSL fixation) is needed.

Surgical treatment (uterine sparing)

- ***Manchester operation:*** amputation of the cervix, bringing of the cardinal ligaments and uterosacral ligaments anterior to the lower uterine segment followed by vaginal repair.

- ***Sacrohysteropexy:*** this is an abdominal operation. It involves attachment of a synthetic mesh from the uterocervical junction (isthmus) to the anterior longitudinal ligament of the sacrum.
- ***Trans-vaginal mesh (TVM):***

Surgical treatment

Vault prolapse:

- **Sacrocolpopexy:** The vaginal vault is attached to the sacrum by synthetic mesh.
- **Sling operation:** The vaginal vault is slinged to the anterior abdominal wall by two strips of anterior rectus sheath.

- Both operations are carried out by abdominal approach.

- **Vaginal procedures:**

Sacrospinous ligament fixation (SSLF), Uteroscaral ligament suspension, ileococcygeous suspension, Vaginal mesh kits,


Thank you