GENITAL PROLAPSE

Definition

Genital prolapse implies descent of genital organs in the female. Since the bladder and bowel (rectum) are also involved, the term "pelvic organ prolapse" (POP) is currently used.

Epidemiology (distribution and causes)

POP is extremely common. In the USA it was estimated that 11% of women (roughly one out of 10) will have an operation for POP or urinary leakage during their lives. Furthermore, of these 11%, about a third will have a second operation within two years. POP is therefore one of the most common reasons for surgery in females.

POP seems to be less common in black females. However, international studies could not prove this and it seems that underreporting is the main reason for this perception.

The main causes for POP are the following:

1. Normal childbirth, particularly under following circumstances:
   - Prolonged labour when the cervix is already fully dilated
   - Forceps delivery
   - Large babies (> 4kg)

   Pregnancy itself also contributes towards POP. A caesarean section is therefore not a guarantee against future POP, but it does help as long as normal (vaginal) births did not occur either before or after the caesarean section.

2. Ageing. With increased age, the pelvic floor structures tend to weaken, favouring the development of prolapse.

3. Obesity (over weight) with its increased weight bowel resting on the pelvic floor, also contributes towards POP.

4. Genetic background: some women are born with a tendency towards developing prolapse in later life. This may result in several women from one extended family developing prolapse. The problem is that there are no tests to detect such a tendency, unless there is a clear family history of POP.

5. A continuous “pushing down action”, such as constipation and chronic coughing. POP may also follow on operations such as a hysterectomy.

6. Unfitness. Since the pelvic floor is partly a muscle, a poor muscle condition will also contribute towards POP.

Development of POP

The pelvic floor consists of three layers. The top layer mainly consists of ligaments attached to the cervix (mouth of the womb). These ligaments suspend the pelvic organs (mainly the womb or uterus) to bones higher up in the pelvis. The middle layer consists of connective tissue, attaching the pelvic organs to the pelvic side walls. Finally, the bottom layer consists of muscle, supporting the pelvic organs.

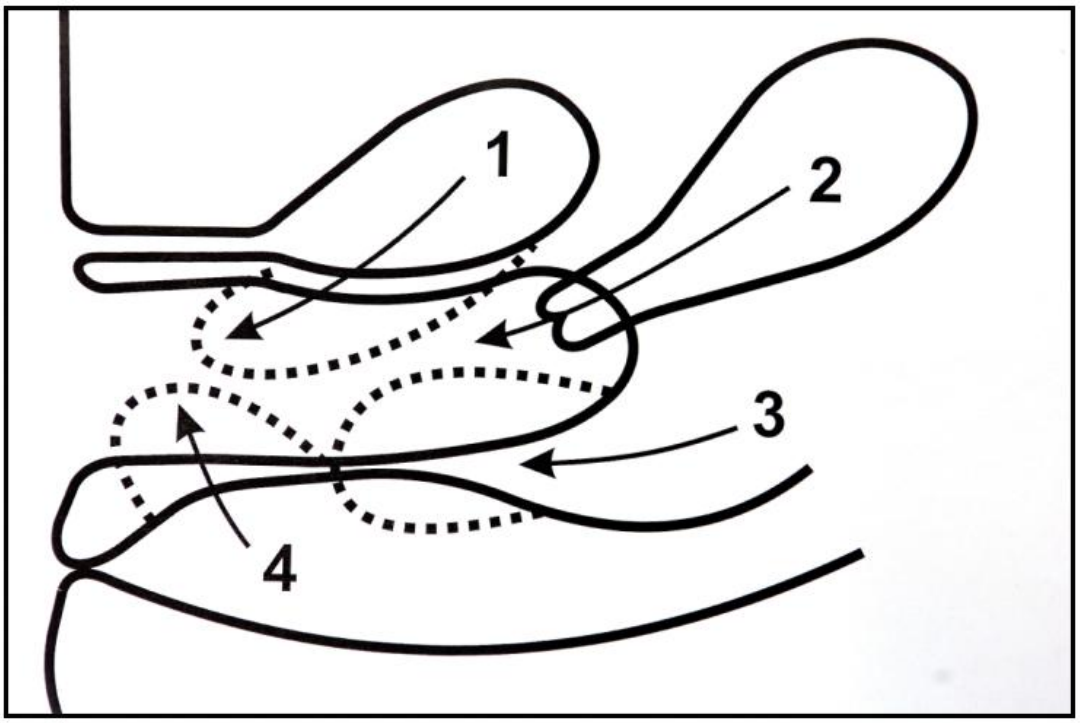
Injury, weakening or stretching of any of these layers can result in prolpase of pelvic organs. If the emphasis is more to the front, the bladder will come down into the vagina. If the weak spot is in the middle, the uterus will come down and if it is at the back, the lower bowel will bulge into the vagina.

The types of prolapse are as follows:

Compartment	**Organ descending**	**Medical terminology**
Anterior (front)	Bladder	Cystocoele
Middle	Uterus Top of vagina after hysterectomy	Uterine proloapse Vault prolapse
Posterior (back)	Abdominal cavity between uterus/vagina and bowel (rectum) Lower bowel (rectum) Weakening of the anal constrictors	Enterocoele Rectocoele and rectal prolapse (two different entities) Perineal body defect

POP is also graded into stages (the so-called POP-Q system) according to the severity of descent. With stage 1 and 2, the descent is into the vagina but not visible from the outside, while the prolapse is visible from the outside in stage 3 and 4 (see figure 1).

(Figure 1)



Different types of prolapse: 1 = cystocoele, 2 = uterine prolapse (or vault prolapse if the uterus is absent), 3 = enterocoele, 4 = rectocoele.

Quality of life (QoL) issues

POP involves two aspects:

1. The site and degree of prolapse (see above).
2. The burden the woman carries due to the prolapse, which decreases her QoL.

Therefore QoL has to do with the symptoms caused by POP, limiting the woman in her daily life activities. In medical terms this is known as morbidity.

Type of prolapse (see above)	Typical QoL issues
Cystocoele	Poor emptying of the bladder Urge (can't hold the urine) Leakage Bladder infection
Uterine prolapse	Pulling/pushing sensation in the pelvis Problems with sexual intercourse Leakage from the bladder Bladder symptoms: urge with or without leakage
Enterocoele and vault prolapse	Pressure in the pelvis Lower abdominal pain Pain during sexual intercourse Constipation Difficulty in passing stool Bladder symptoms: urge with or without leakage
Rectocoele (see above)	Severe difficulty in passing stool Soiling : leakage of brown fluid through the anus Bladder symptoms: urge, etc. Slight bleeding through anus
Perineal body defect (see above)	Can't keep wind (and sometimes stool) inside Leakage of urine
Rectal prolapse	Similar to rectocoele, plus something protruding through the anus

QoL questionnaires are sometimes used to assess the magnitude of the morbidity (burden) experienced by the woman with prolapse. This is translated into a percentage and repeated after surgery. A QoL score that improved from say 45% to 95% is an excellent result.

Treatment

1. Conservative treatment
   Mild forms of prolapse are treated conservatively. Methods of treatment include physiotherapy, exercise, weight loss and pessaries. A pessary is a large plastic ring (about 6 – 8 cm in diameter) placed horizontally into

the vagina. It stretches the vagina sideways, preventing prolapse. It is used in older women who actually need surgery, but the doctors are reluctant to do it because of other problems which increase her risk of complications during/after surgery. Such a ring stays in the vagina permanently.

2. Surgical treatment

Significant progress has recently been made (and is still being made) with the surgical treatment of POP. The main reason being the introduction of mesh – a synthetic net placed on the front or the back of the vagina and fixed to the inside of the pelvis. In this way the descended pelvic organs are pulled upwards and suspended in their normal positions. However, mesh is a foreign material to the body and may give rise to complications. These include infection, erosion (mesh appearing on the surface of the vagina) and pain (pelvic pain or pain during sexual intercourse). Therefore, mesh should only be used when the benefit clearly exceeds the potential problems.

The indications for surgery are the following:

- POP stages 3 and 4.
- Stage 2 POP which is very symptomatic and there is good reason to believe that surgery will significantly relieve symptoms (improve QoL).
- Certain types of urinary leakage (mainly true stress incontinence).

The objectives of surgery are the following:

- To restore the altered anatomy to its normal state or as close as possible to it.
- To improve the QoL as much as possible.
- To minimize the risk of recurrence of prolapse and deterioration of QoL.

Because POP is associated with a weakened or defective pelvic floor, the ideal outcome is not always possible. In every case the advantages and disadvantages of the different surgical procedures have to be considered in order to decide on the most appropriate procedure for a specific patient.

Surgery is classified as follows:

- Abdominal surgery : an open operation, or a laparoscopic operation
- Vaginal surgery
- Combination of abdominal and vaginal surgery

The spectrum of the different operations is large, but the most commonly performed procedures are listed below.

Most popular surgical procedures for POP

Operation	Details	Comments
Abdominal sacrocolpopexy (ASC)	From above (abdominally) the pelvic organs are suspended with mesh to the sacrum (part of the bony pelvis)	Delivers the best results, but involves a more invasive procedure compared to vaginal surgery
Vaginal repair without using mesh	The natural tissue is used to repair the prolapse	Most commonly used for the repair of rectocoele and perineal body defect
Vaginal repair with mesh	The mesh is placed between the vagina and bladder, and/or between the vagina and rectum, with fixation to the pelvic wall	More effective for bladder prolapse than for other types of prolapse. Increased risk of complications compared to ASC, but less invasive surgery.
Sacrospinous fixation	With stitches, the uterus is fixed to a ligament inside the pelvis	Reasonably successful for prolapse of the uterus

In some cases an additional procedure might be done for leakage of urine, e.g. a transvaginal tape (TVT) or obturator tape (see elsewhere on the website).

Choice of procedure

The ideal operation is not always possible due to both patient and doctor related factors. Therefore, the doctor has to take in account many factors in order to decide on the most appropriate procedure. The choice has to be discussed in detail with the patient, including the pros and cons of the procedure or the procedures in consideration.

Outcomes of surgery

Surgical outcomes vary depending on the degree and nature of the prolapse, complicating factors (eg. age, body mass, etc) and the procedure utilized. A recurrent prolapse rate of below 20% is acceptable. No guidelines exist as to what the improvement in QoL should be.

The most common problems encountered after surgery are the following:

- A new type of prolapse which hasn't existed before the operation
- Recurrent prolapse
- Urinary symptoms (urge or a leak)
- Pain somewhere in the pelvis
- Mesh erosion
- Constipation

However, with thorough evaluation of the patient, sound selection of the type of surgery and a high level of technical expertise in the execution of the procedure, an excellent result can be expected, both in the short and long term.

Training of health care workers

Both doctors and physiotherapists are insufficiently trained in the field of POP at undergraduate level. When doctors specialize in Obstetrics and Gynaecology, they are trained in this field but are not experts after qualification. Urologists and Surgeons, who are also involved in this field, receive very little training during their postgraduate years. Therefore, continuous training post-specialization is important and SAUGA plays a pivotal role here. SAUGA is also working towards the registration of Urogynaecology (POP and urinary problems) as a subspeciality of Obstetrics and Gynaecology. Following such registration, Gynaecologists can receive further training in Urogynaecology and qualify as Urogynaecologists. This will raise the level of clinical practice in this field and it will stimulate research.