Vaginaefixatio sacrospinalis/sacrotuberalis

- **Operation Concept:**
  Amreich developed the sacrotuberal Vaginaefixatio in 1951 and it was modified by Richter in 1967 to the sacrospinal Vaginaefixatio. Both techniques attach the descended vaginal stump on one side at a ligament of the Os sacrum. The vagina will be relocated on the levatores and within an increase of intrabdominal pressure the vagina will be pressed against this component. The Fixation causes a light lateral deviation to dorsal right. Advantage of the sacrotuberal fixation is a strong hold. This requires a sufficiently long vagina, because the end of the vagina should have direct contact with the ligament. Mostly it is combined with a Colporrhaphy anterior or posterior. The aim of this operation should be preserving a cohabitation-capable vagina. Use late-resorbable sutures (z.B. PDS) instead of unresorbable sutures to avoid a long lasting pain syndrome at the buttocks.

- **Indication:**
  - Complete uterine prolapse or severe descent of the vaginal end after hysterectomy
  - Prophylaxis of a descent of the vaginal stump when extreme descent or prolapse

- **Contraindication:**
  - Common Contraindications for an operation
  - Extremely atrophic vaginal tissue
  - Too short vagina

- **Pre-operative Information for the patient:**
  - Lesion of the urinary tract, rectum
  - Lesion of the pudendus vessels (hematoma)
  - Lesion of the N. pudendus (postoperative rectal incontinence)
  - Pain at the buttocks (stops when sutures are resorbed)
  - Painful sexual intercourse by the deviation of the vagina
  - De-novo-urge incontinence
  - Painful sexual intercourse
  - Success rates: apical 92%, anterior compartment 79%, posterior compartment 94%

- **Operation planning:**
  - Gynaecological examination with vaginal- and introitus-ultrasound
  - Urodynamic measurement: Clarification of an apparent or hidden incontinence
  - Local application of oestrogen for four weeks prior operation, such as Ovestin Ovula 1x1
  - Perioperative antibiotic prophylaxis

- **Positioning of patient and cover:**
  Positioning of the patient in lithotomy position (dorsosacral position).
  Disinfection of the genital area up to the lower abdomen and emptying of the bladder with single-use catheter.
➢ **Operation technique**

- Colporrhaphy anterior is already performed. Start with the posterior colporrhaphy as described before. Present the connective tissue next to the rectum on the right in the area of the middle or upper third of the vagina, you separate the vaginal wall bluntly (or sharp as necessary) in the direction of the Spina ischiadica. Do not perforate the peritoneum or M. levator ani. After preparation you should see the intact M. levator ani.
- Opening of the sacral cavity. Open the sacral cavity carefully with two long and broad Breisky-Specula. The medial Speculum pushes the rectum medial. The lateral speculum initially pushes to the spina ischiadica. The assistant takes the medial speculum over. The operator holds the lateral speculum and prepares the loose tissue in this area bluntly with a swab. Initially you see the M. coccygeus (from Spina ischiadica to Os sacrum). The Ligamentum sacrospinale is often not found. Here you put the fixation sutures at least 1cm next to the Spina ischiadica for a sacrospinal Fixation. We prefer the sacrotuberal fixation for a stronger hold and a less deviation of the vagina.
- Presentation of the Lig. Sacrotuberale and suturing. Careful preparation craniodorsal in direction of the Os sacrum until you see the fan-shaped Ligamentum sacrtuberale. Pierce three atraumatic sutures (late-resorbable, monofile, size 1)next to each other through the ligament. Check the stability of each suture by pulling
- Fixation sutures. Unificate the rectal supportive tissue following the operation technique of the colporrhphy posterior. Pierce out the suture into the posterior vaginal cavity through the vaginal wall on the right. Do not exceed the midline to avoid a massive narrowing of the upper vaginal third.
- Closing of the colpotomy and knotting of the fixation sutures. Close the colpotomy as far as you can still knot the lavatory sutures. Carefully knot the fixation sutures until the ligament. (beware: atrophic tissue). Knot the lavatory sutures and close the colpotomy with single knot sutures.

➢ **Problems and solutions**
- Bleedings while putting a fixation suture. Most of the time the bleeding stops after knotting

➢ **Common mistakes and risks:**
- Insufficient treatment of the vaginal epithelium before operation (tearing out of the sutures)
- Perforation of the M. levator ani (strong bleeding, hematoma, relapse)
- Putting the suture too close to the Spina ischiadica (lesion of nerves and vessels)
- Lesion of the lumbosacral nerves and vessels (stay close to the sacrum on the ligament!)

➢ **Alternatives:**
- Abdominal or laparoscopic sacropexia of the vagina
- Posterior Mesh graft
- No sexual intercourse possible
- Pessary therapy

**Postoperative treatment:**
- Tight packing of the vagina (soaked with Ovestin cream for painless removal) for 48 hours to avoid haematoma (promote relapse)
- No lift of heavy weights (not more than 5kg) and no sexual intercourse for 6 weeks
- Don’t push during defecation
**Aftercare:**
- Local or systemic oestrogen
- Pelvic floor exercises
- Behaviour Modification in Lifting, carrying etc.
- Postoperative pain treatment with Ibuprofen 3x400mg/d up to 3 months and f.e. Pantoprazol 20mg (gastroprotection), if necessary additionally Tilidin