the obstetric fistula

kees waaldijk

babbar ruga fistula hospital

the obstetric fistula

- **v**esico**v**aginal **f**istula **VVF**

  continuous leaking of urine thru vagina

- **r**ecto**v**aginal **f**istula **RVF**

  intermittent passing of stools_flatus thru vagina

mechanism

- the head of the baby is too big, malrotates or presents abnormally and gets stuck inside the birth canal: **obstructed labor**
- the soft tissue of the vagina are compressed between the hard fetal skull and the bony maternal pelvis
- if not relieved in time **pressure necrosis** develops
- the baby dies and its head shrinks
- now the baby may pass thru the birth canal

prolonged obstructed labor

- this condition may last for up to 7 and more days
- many women die in the process though it is not known how many
- if the mother survives it is for the prize of a dead baby and an obstetric fistula
- if the fistula is not closed she becomes an outcast

incidence and prevalence

- 2-5 per 1,000 deliveries where the mother survives
- 100,000-150,000 new patients a year
- 1,500,000-2,000,000 patients world wide waiting for surgery

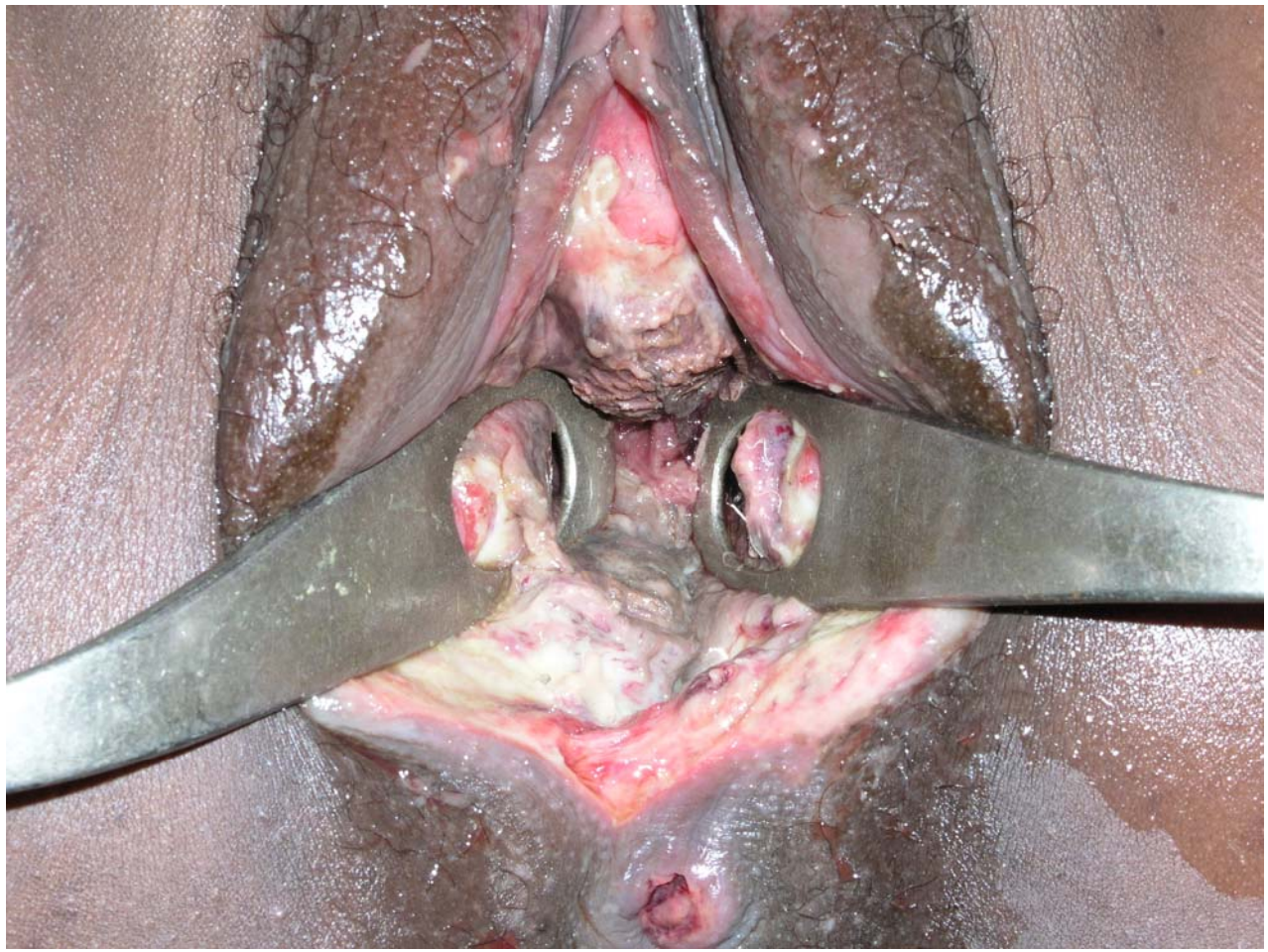
prevention

- **a** prevention of the obstetric fistula is a utopia since a network of 150,000 obstetric units are needed evenly distributed throughout the rural parts of inhabited Africa where day and night an emergency cesarean section can be performed upon arrival; what about the delay in diagnosis, decision taking and transport?

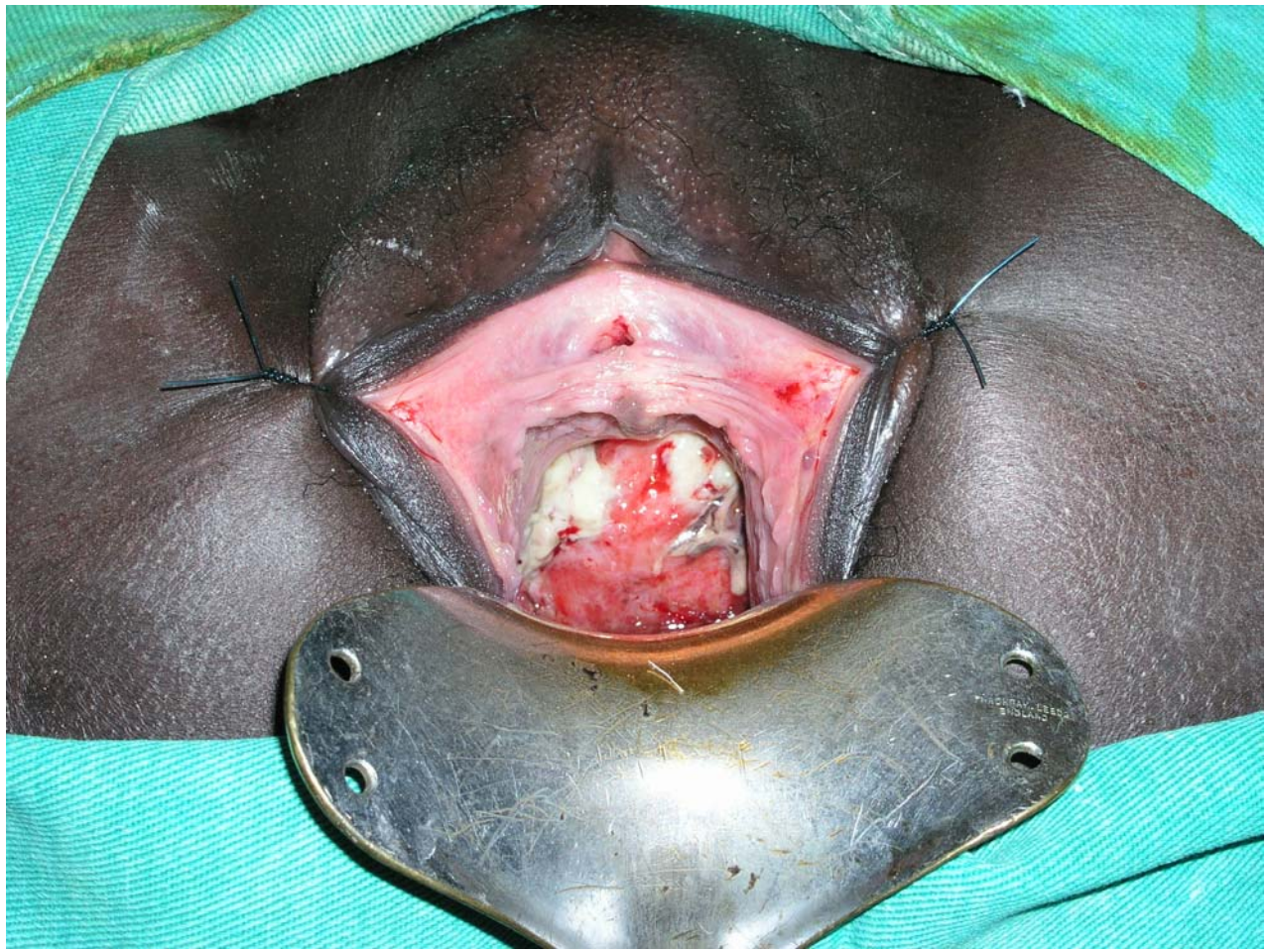
  this will take at least another century

- **b** prevention of the woman from becoming an outcast is very well feasible by the **immediate management** by catheter and/or early closure

necrosis



necrosis_slough



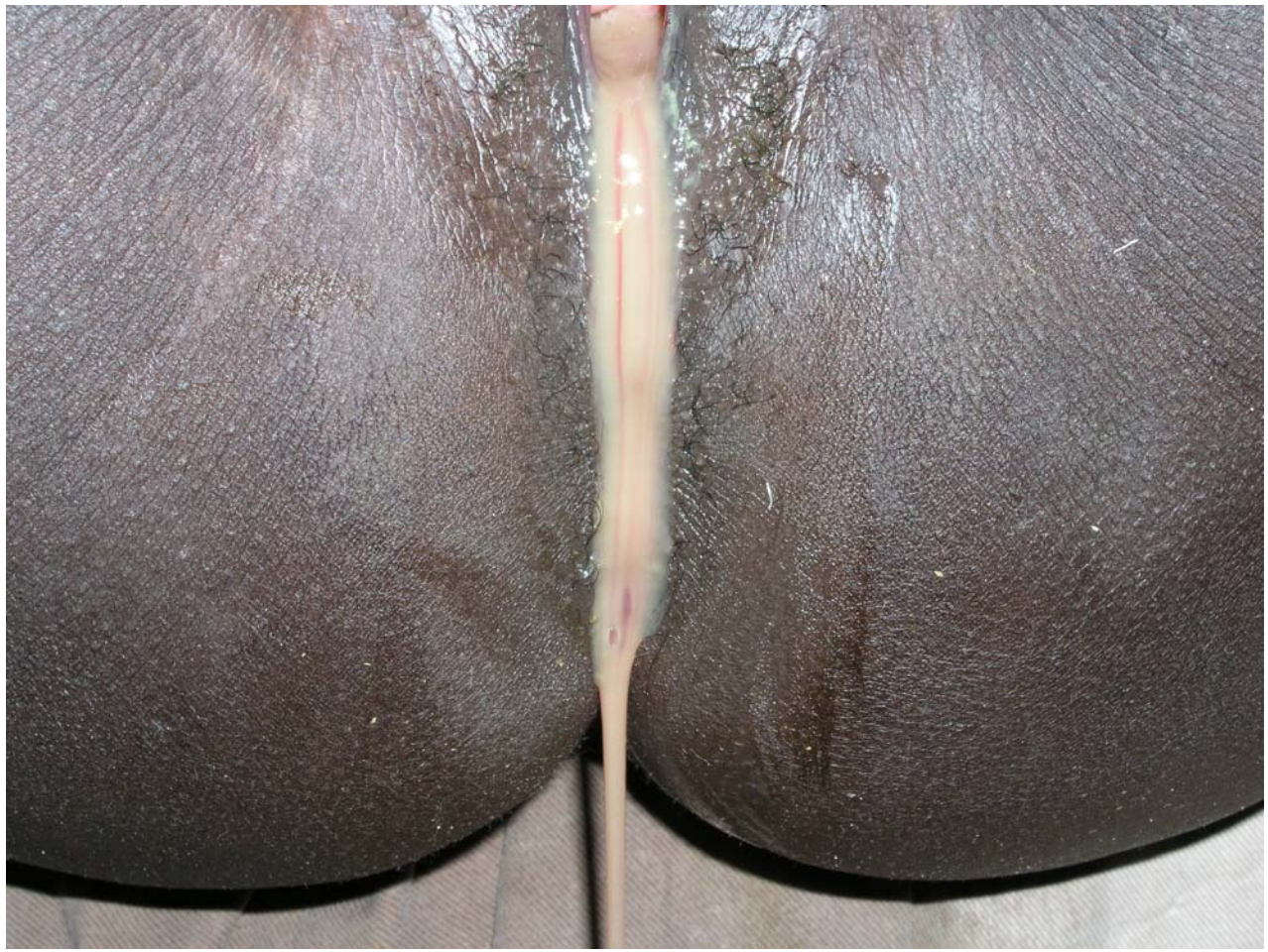
ulcer over sacrum

ulcer due to hot baths

ulcer R buttock

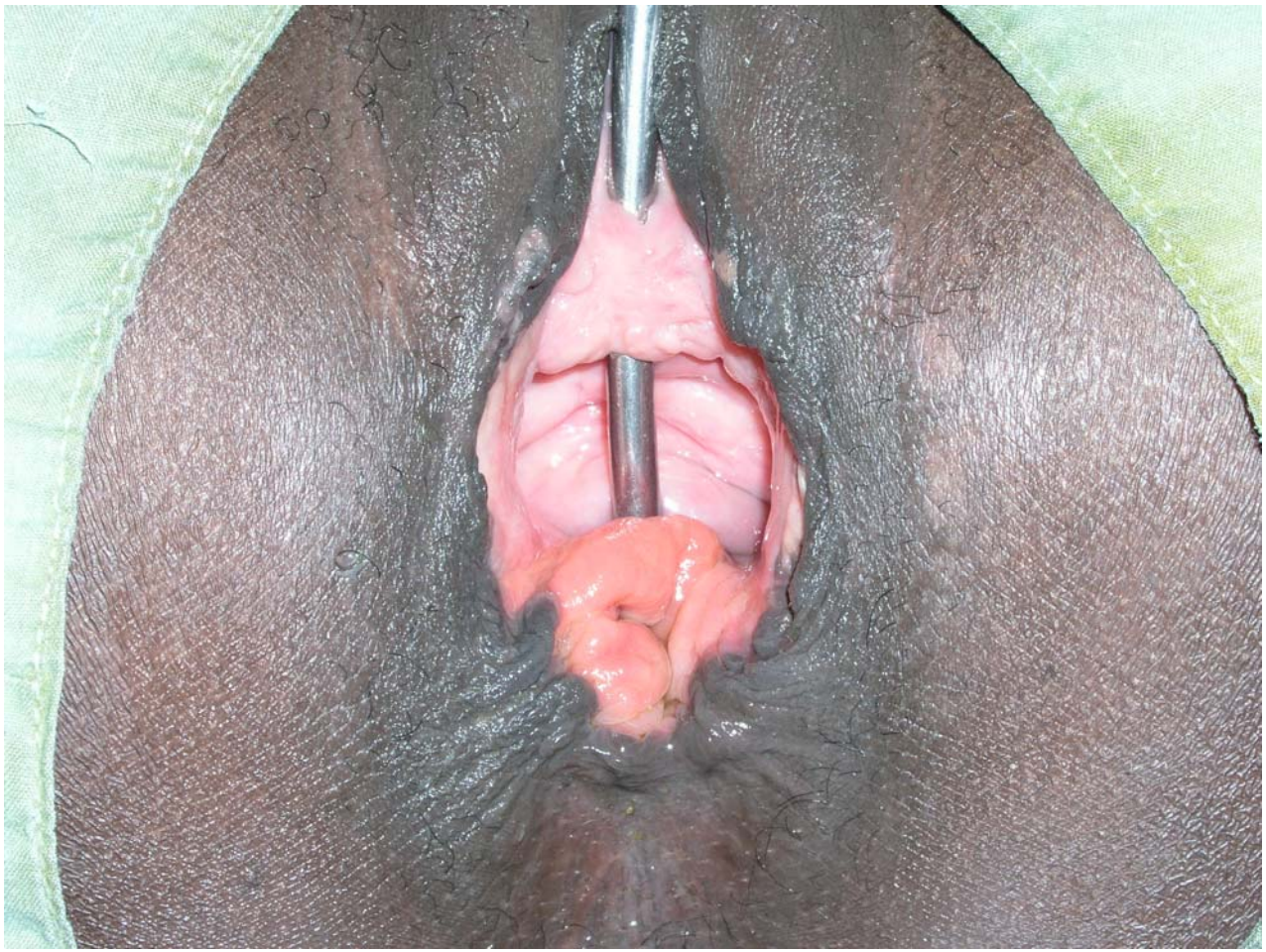
slough

slough plus lochia

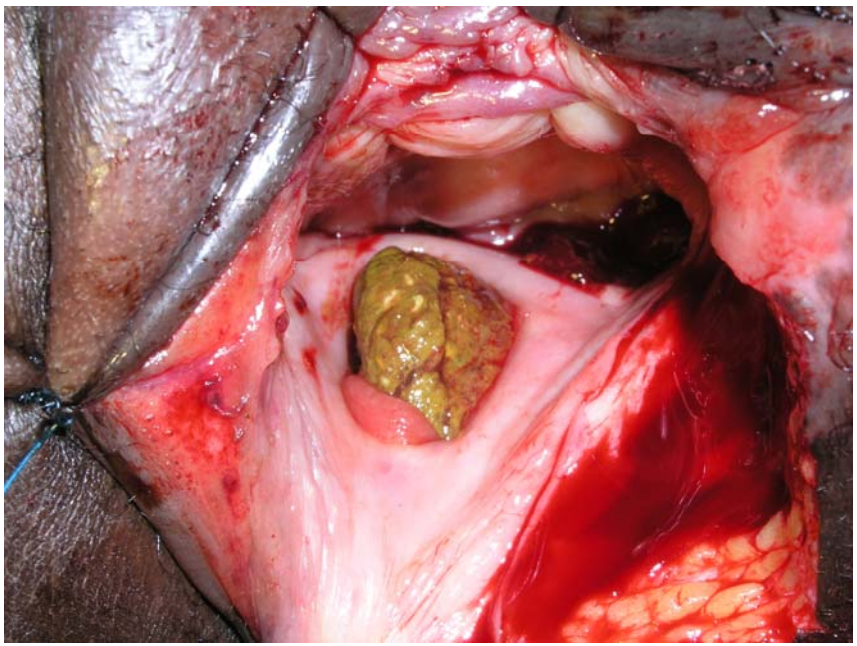


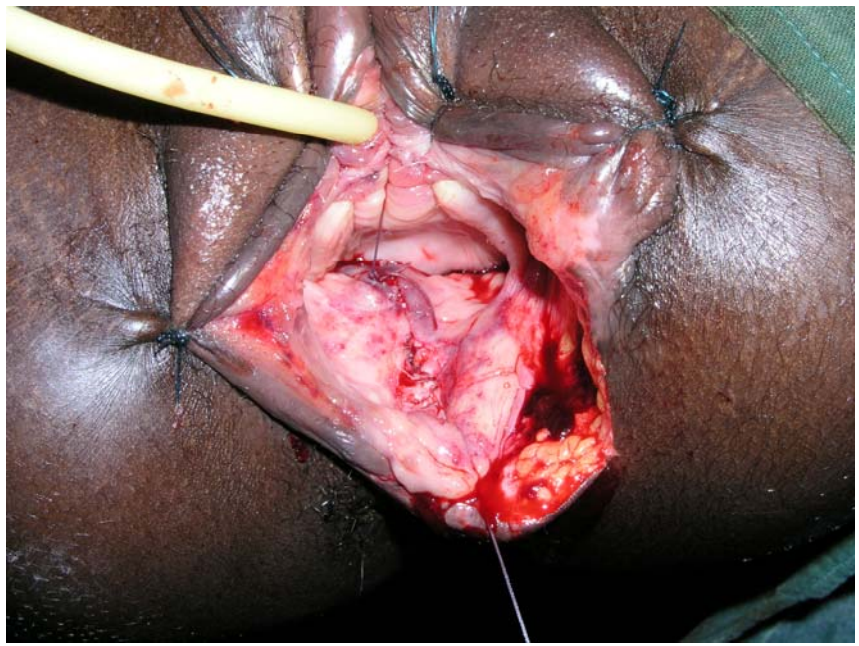
ammonia dermatitis

vesico- and rectovaginal fistula

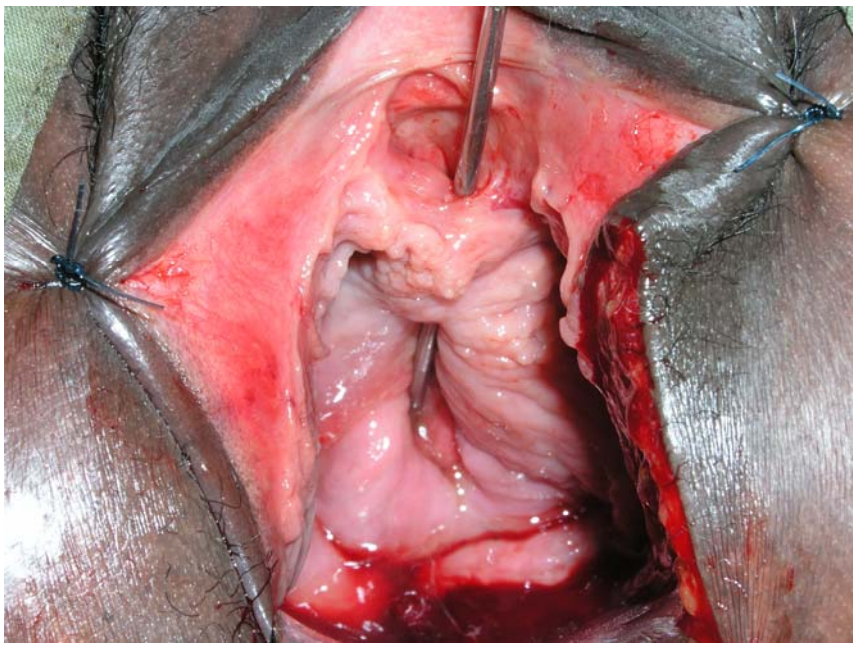


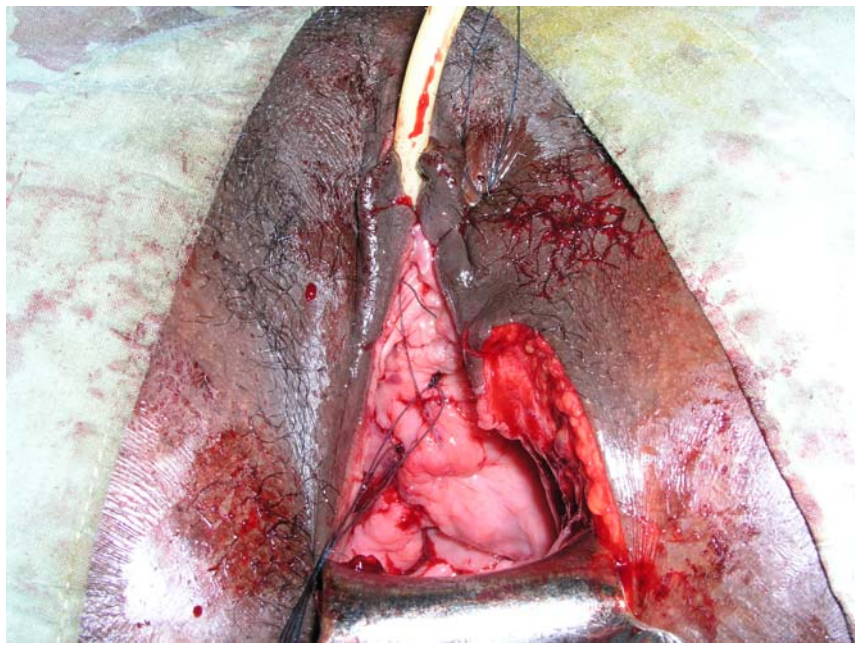
rectovaginal fistula



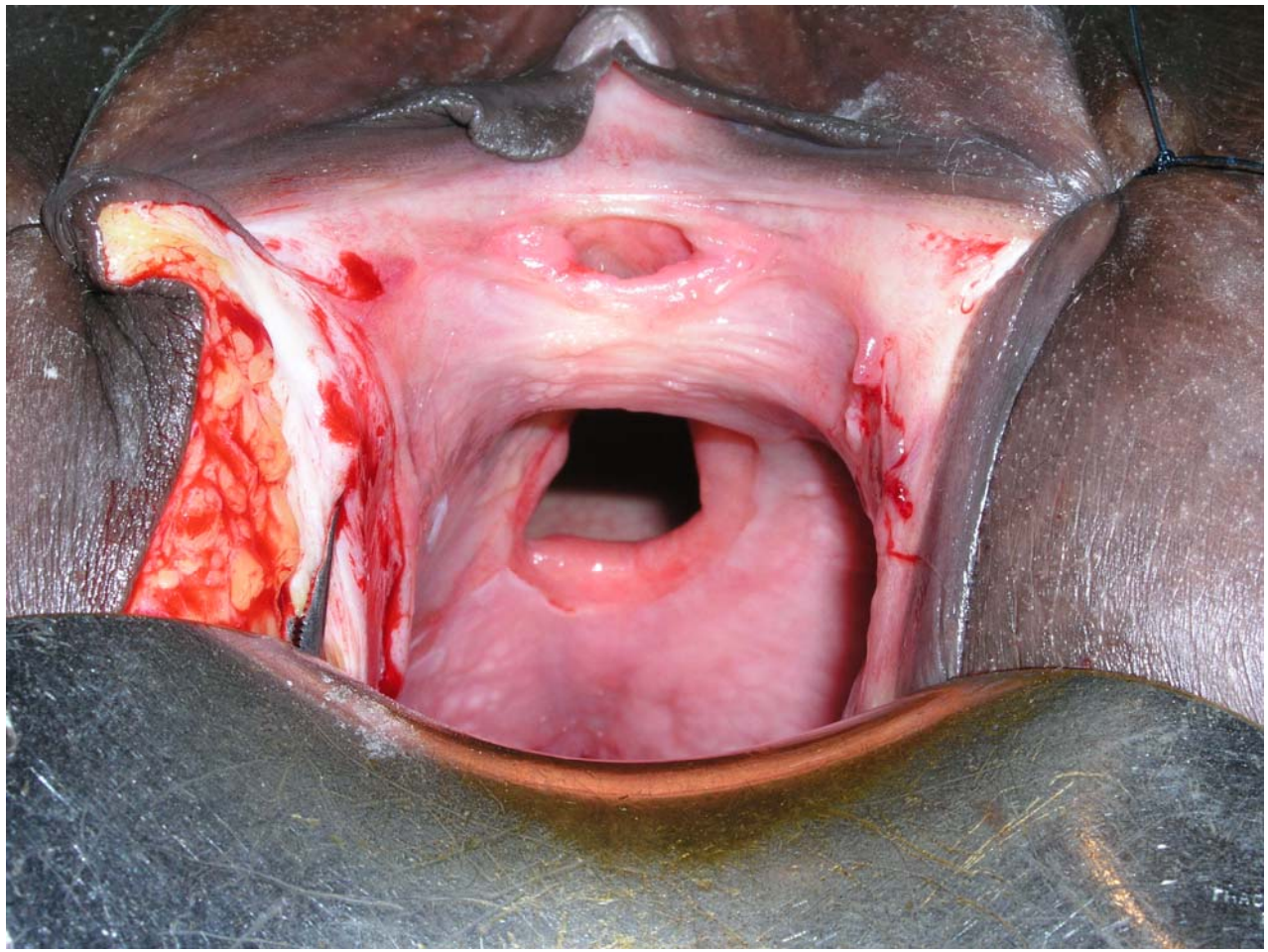


urethra trauma and fistula



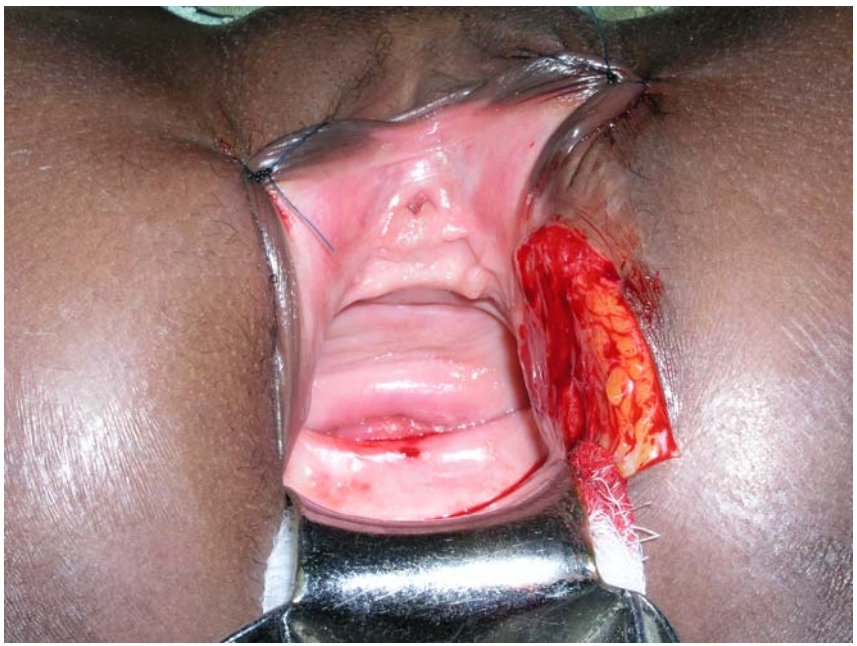


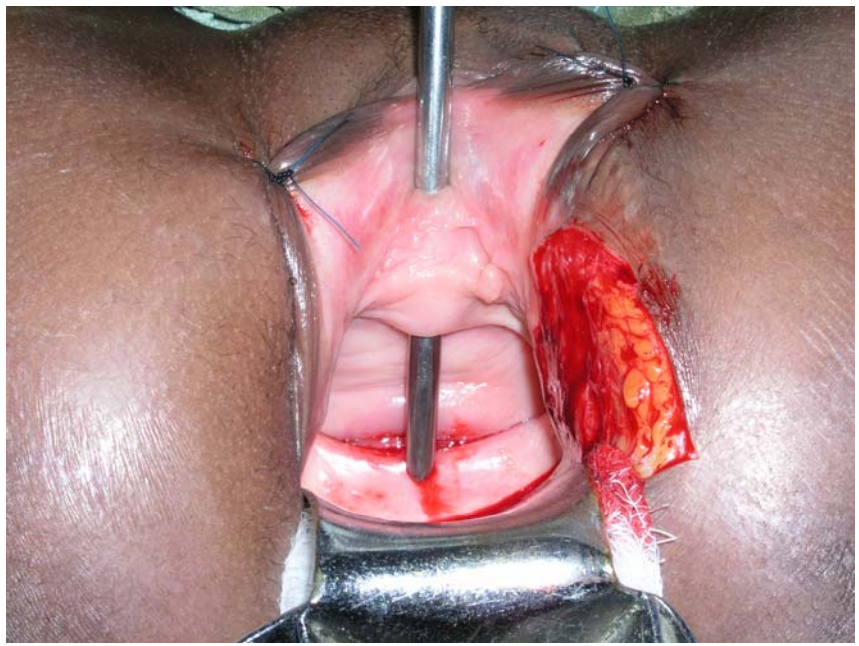
open urethra_external urethra opening



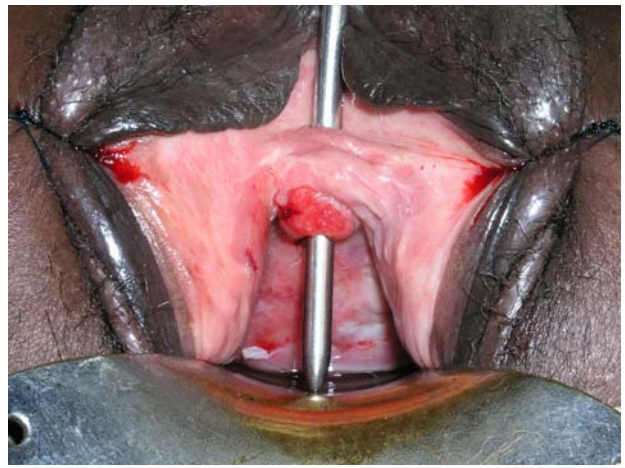
bladder base prolapse

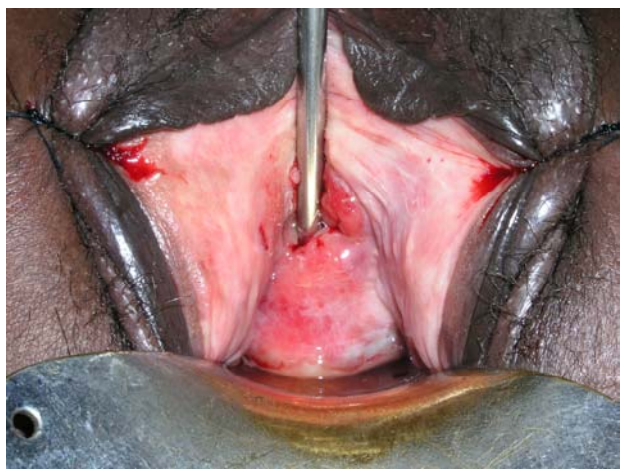
posterior vagina wall stricture

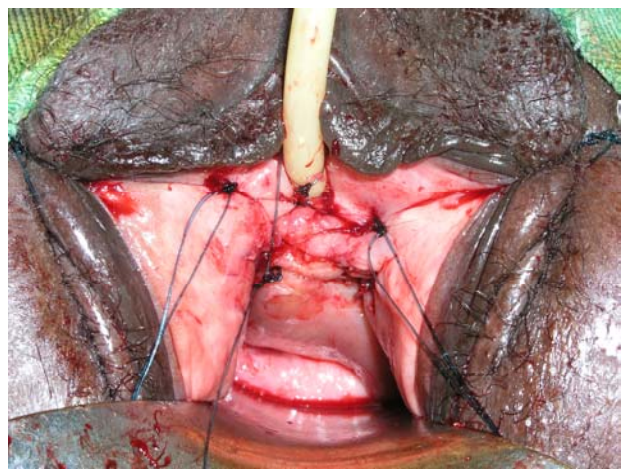




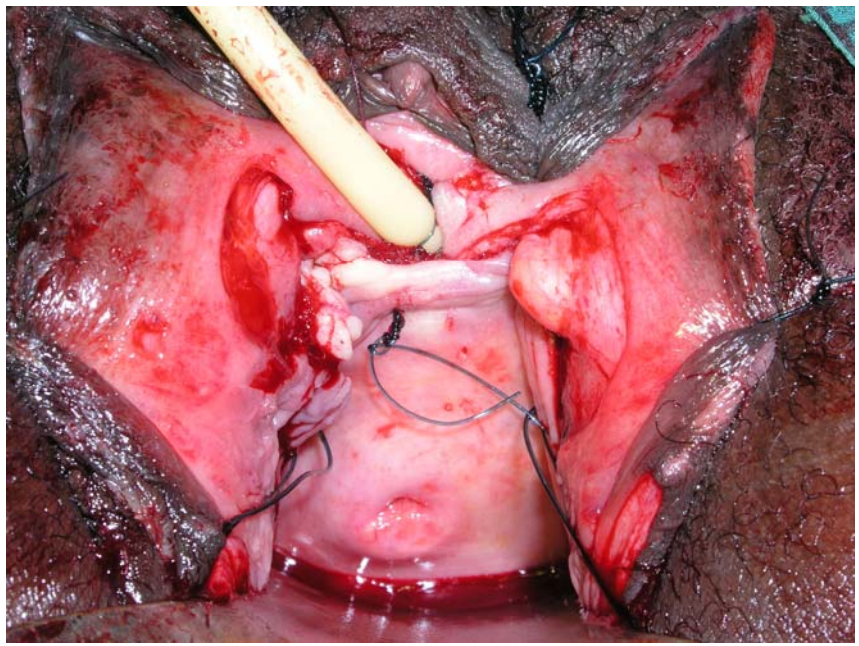
fresh fistula



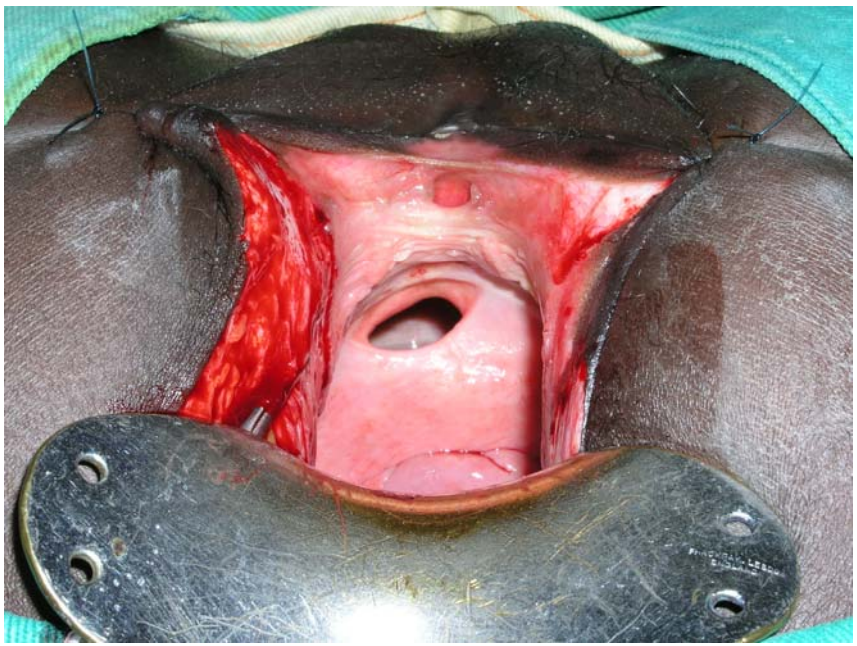


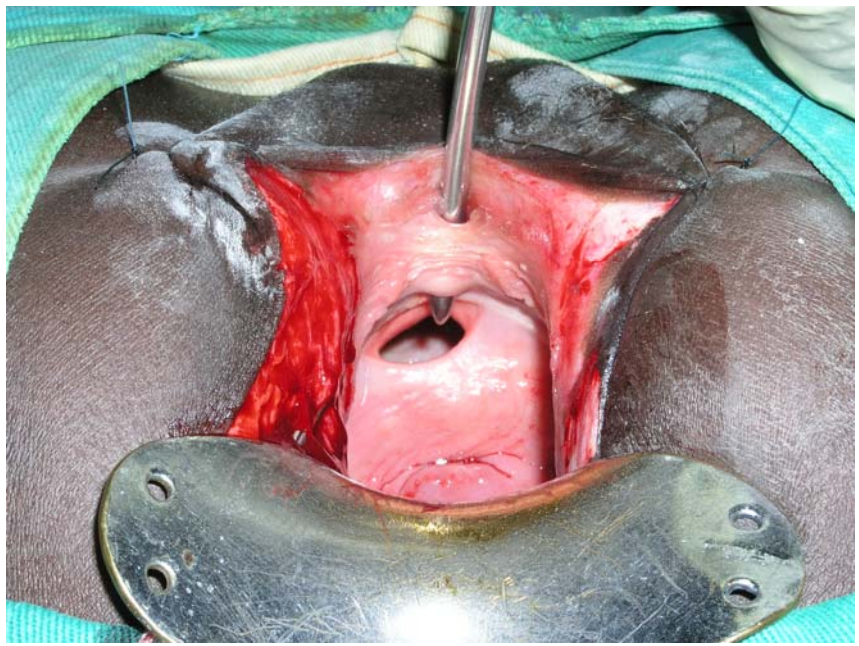


yankan gishiri fistula

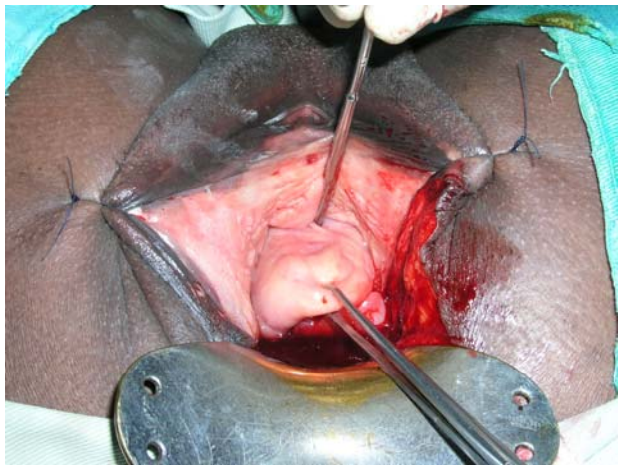


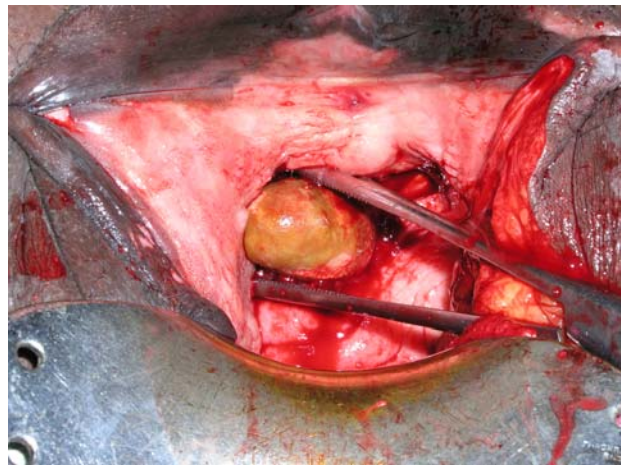
circumferential defect

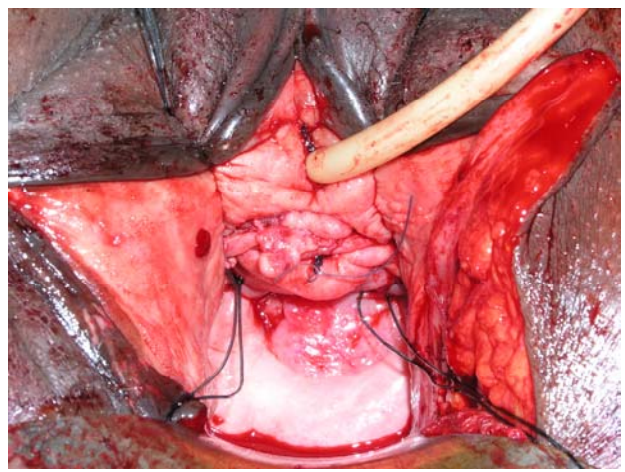




complex trauma







posterior sphincter trauma

anal reflex

saddle anesthesia

long-standing saddle anesthesia

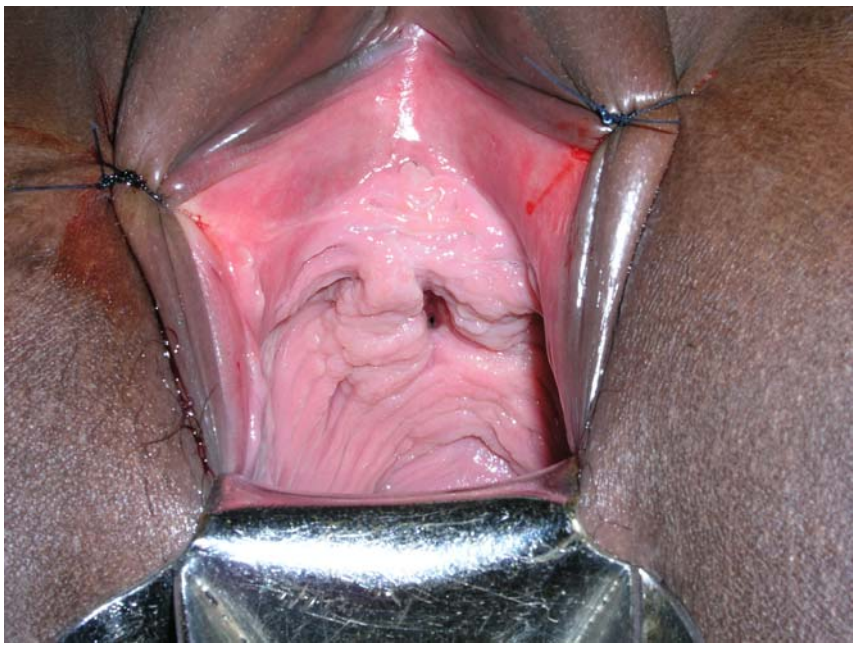
narrow pubic arch

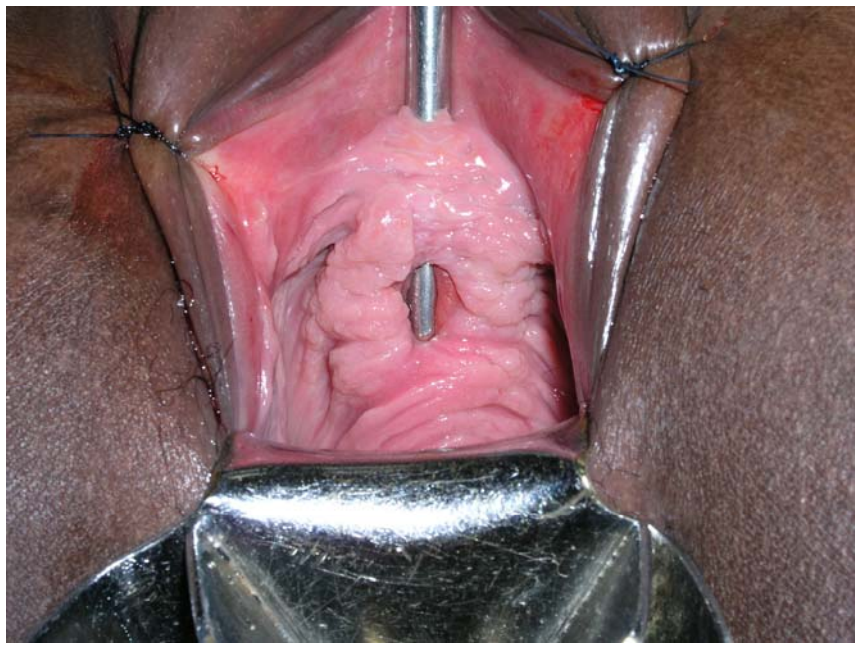
vagina atresia

minute fistula

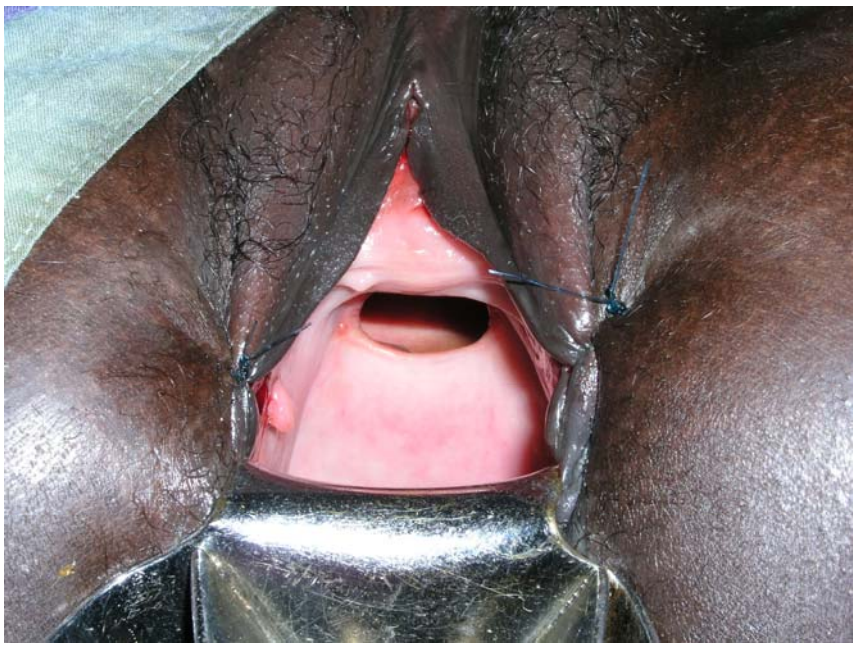
with stress incontinence

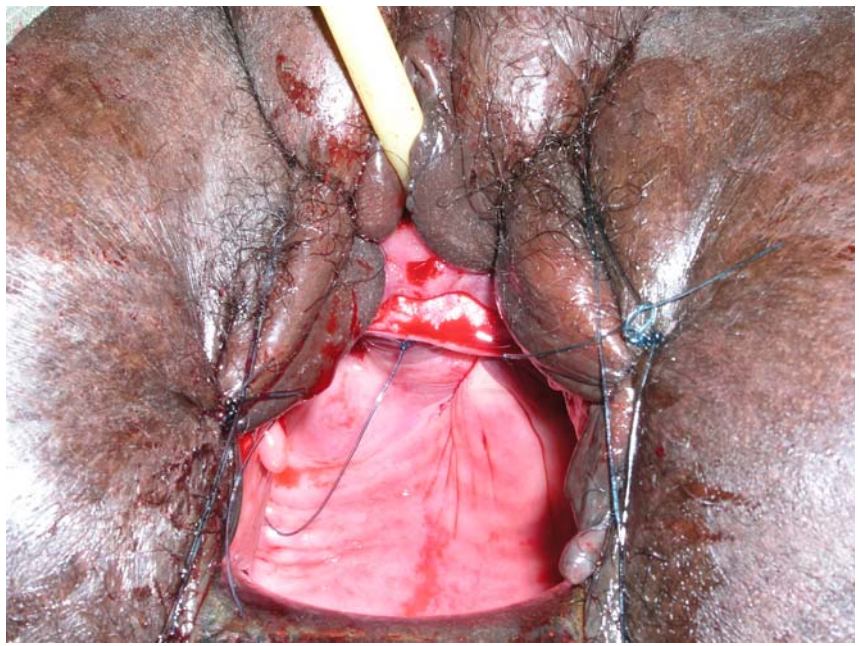
small fistula



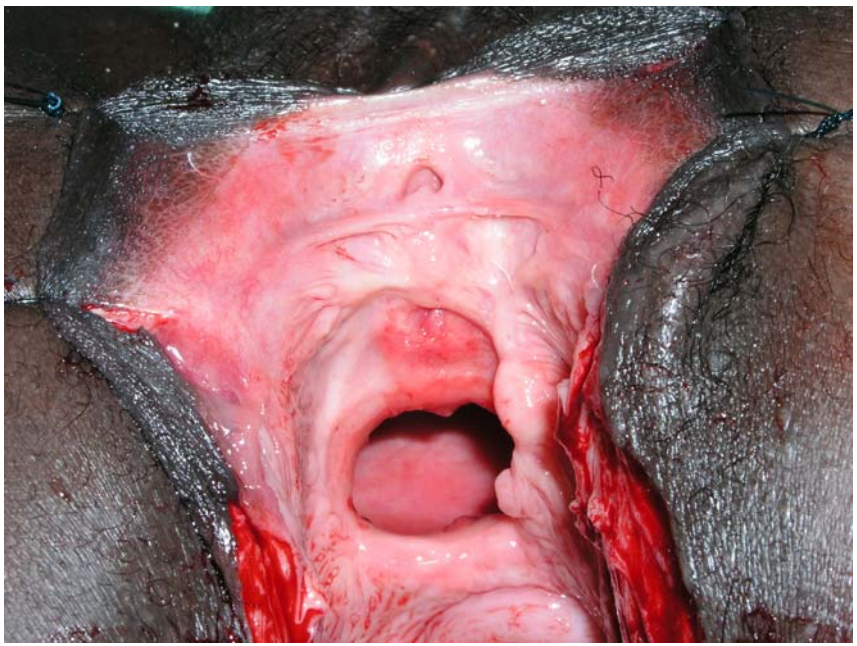


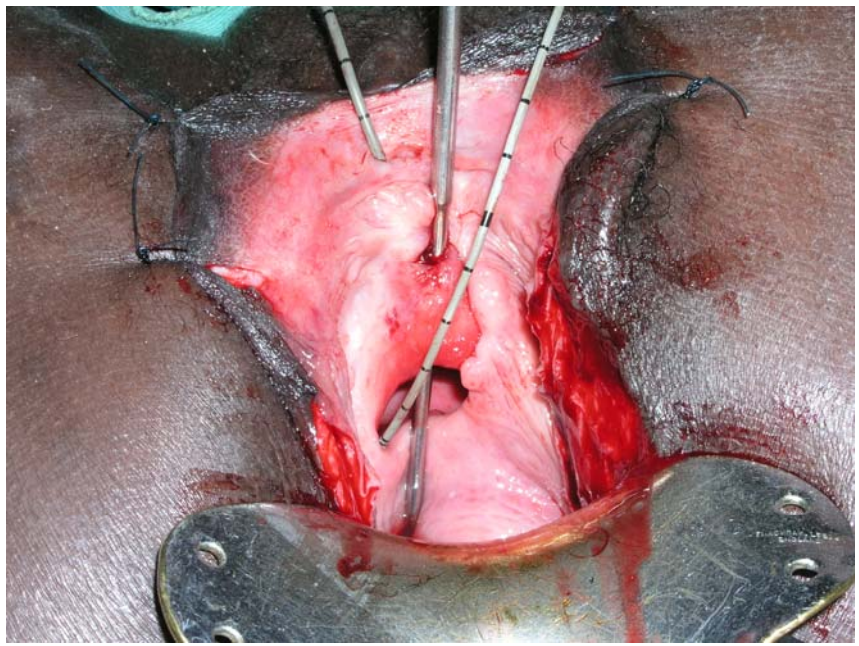
medium fistula



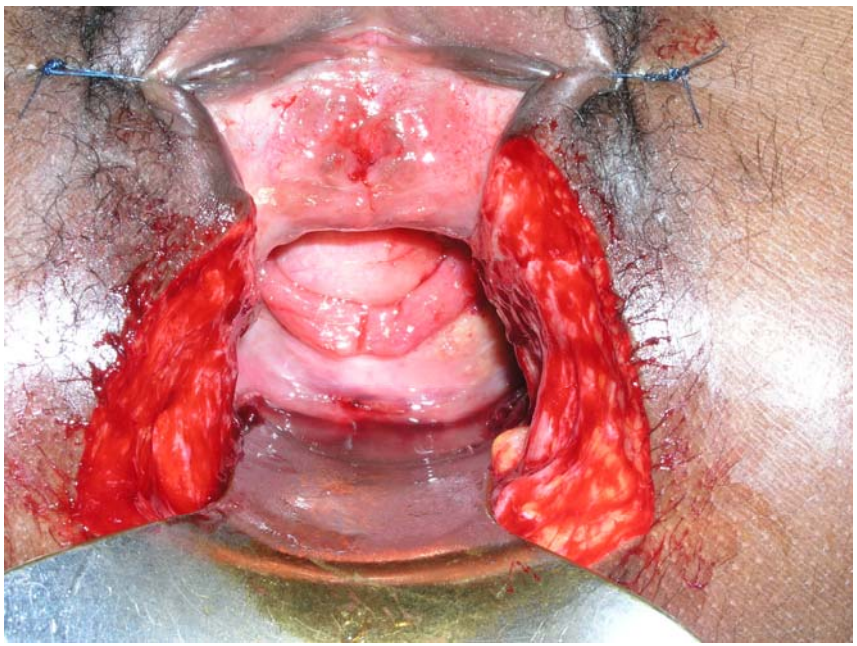


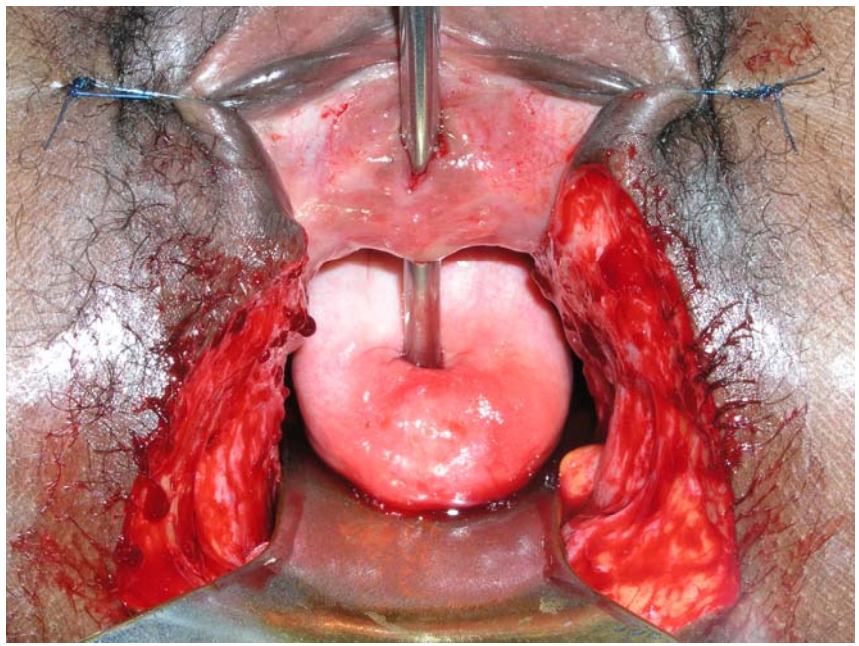
large fistula



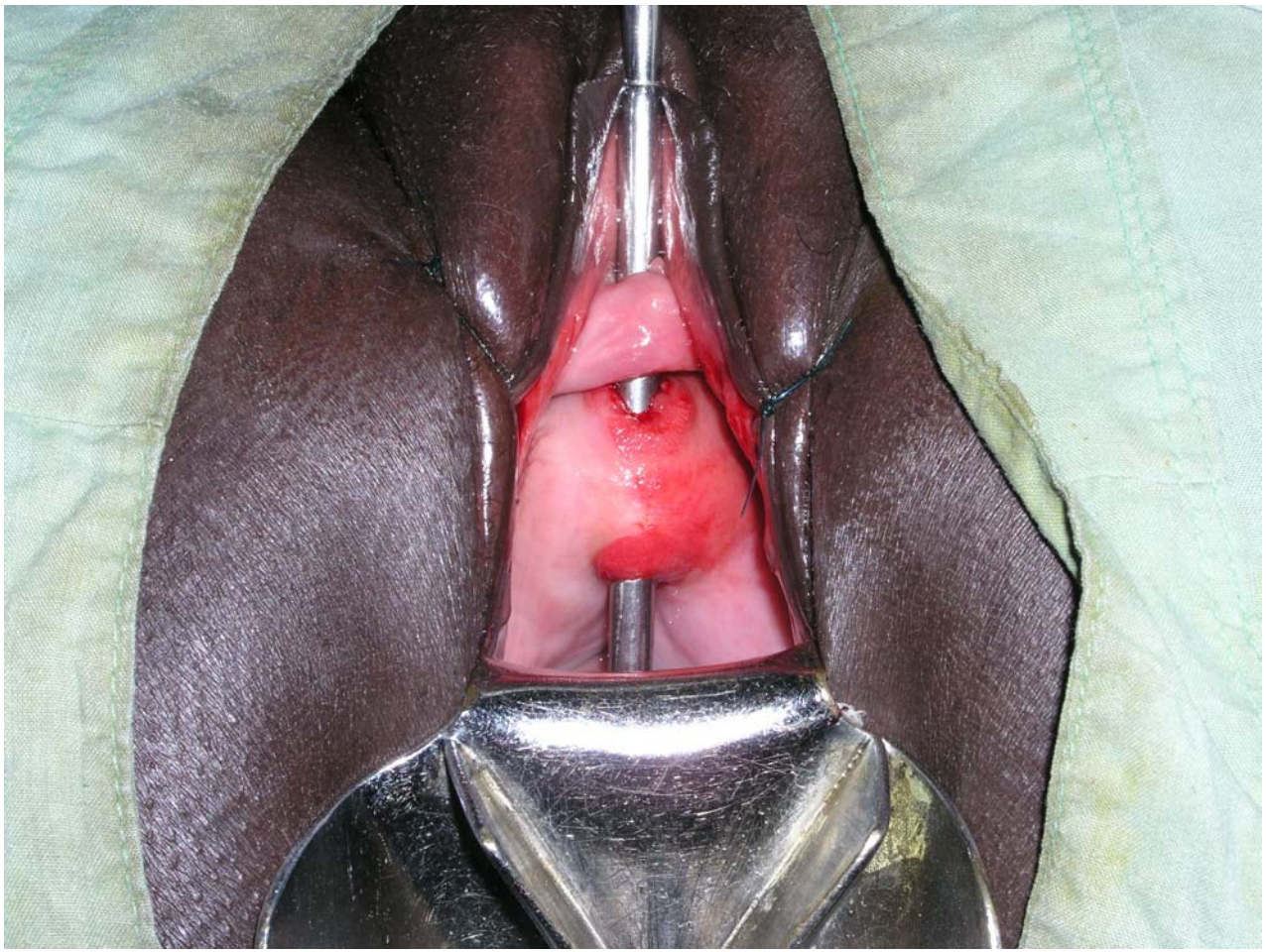


extensive fistula





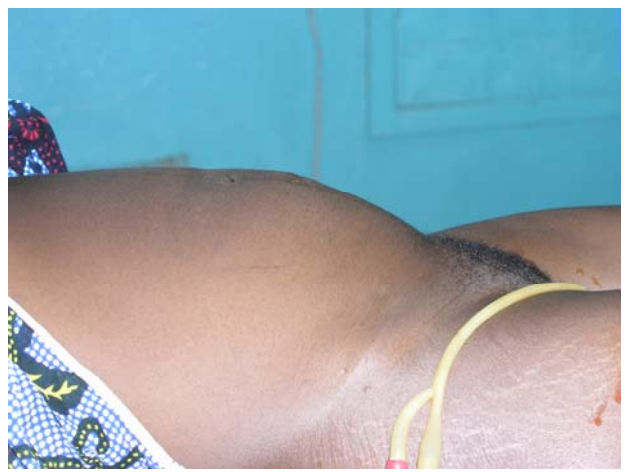
double fistula



drop foot

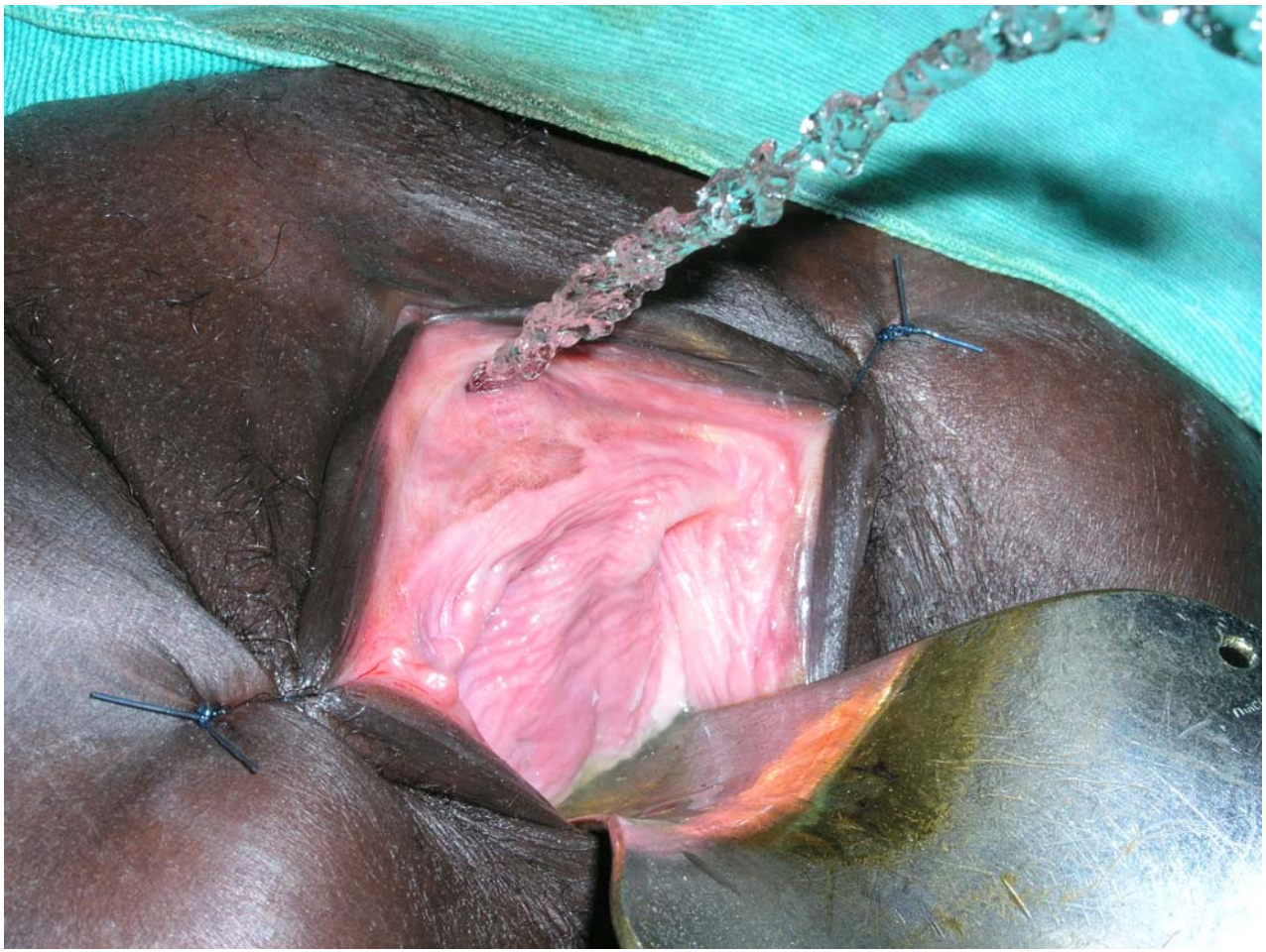
in 85%

postpartum atonic bladder



70% younger than 20 yr

postrepair incontinence



bladder stone

cervix prolapse

classification

closing mechanism

Figure 58 Closing mechanism

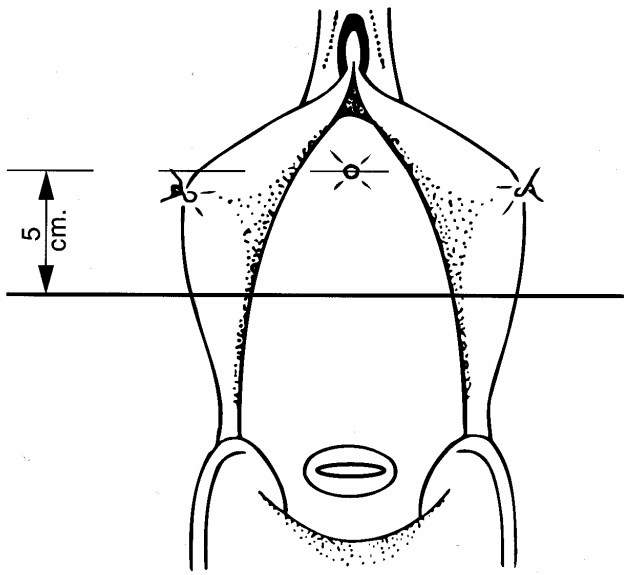


Figure 58-a Closing mechanism: frontal

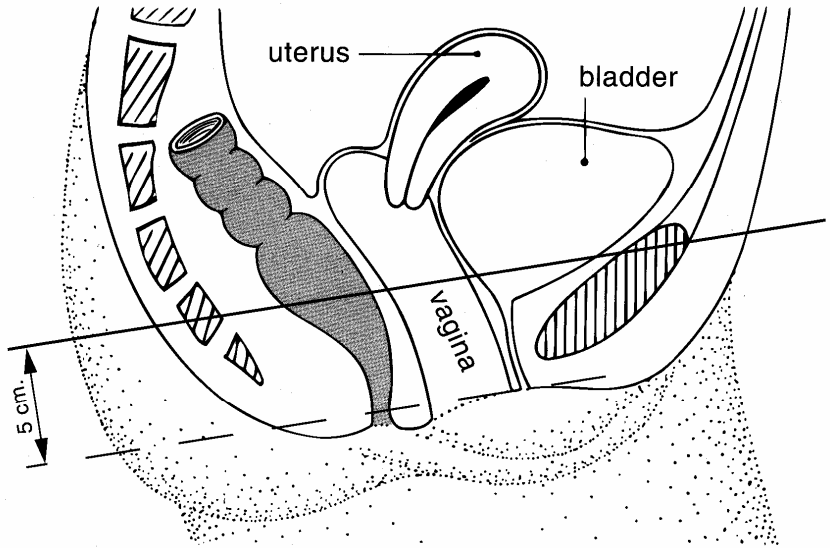


Figure 58-b Closing mechanism: sagittal

classification

according to anatomic/physiologic location

- type **I**: not involving closing mechanism

- type **II**: involving closing mechanism
- **A**: not involving (sub)total urethra
- **a**: without circumferential defect
- **b**: with circumferential defect
- **B**: involving (sub)total urethra
- **a**: without circumferential defect
- **b**: with circumferential defect

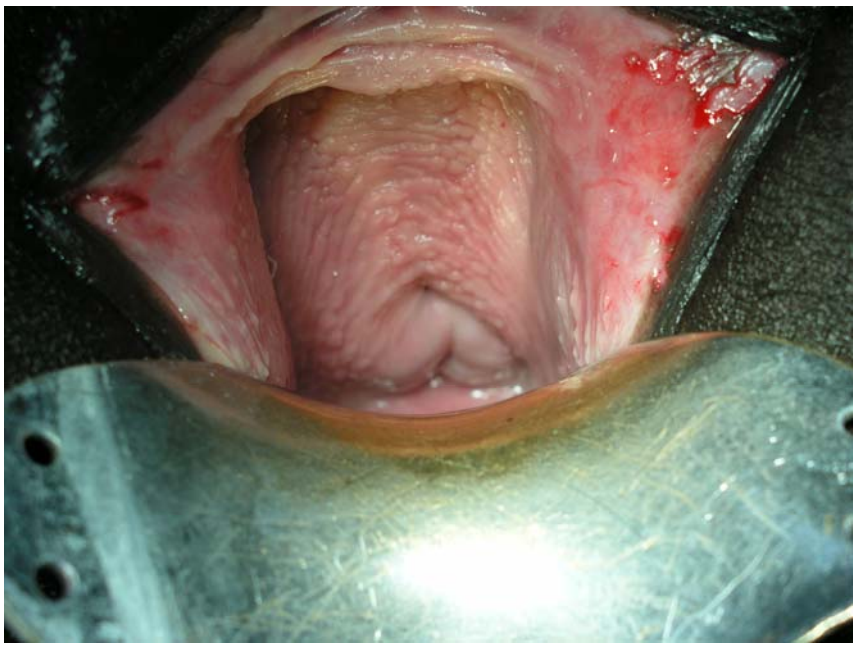
- type **III**: miscellaneous, e.g. ureter fistula

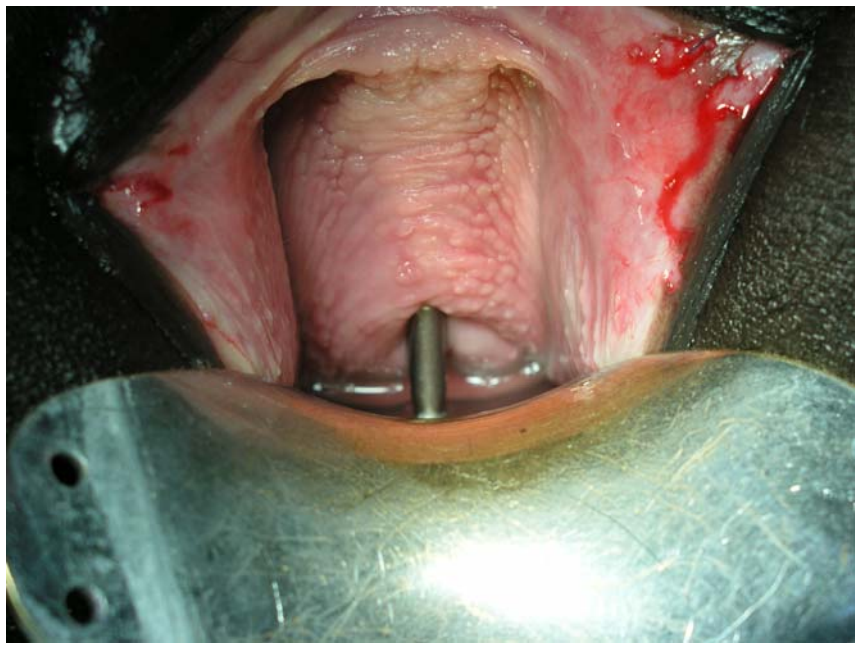
classification

according to size

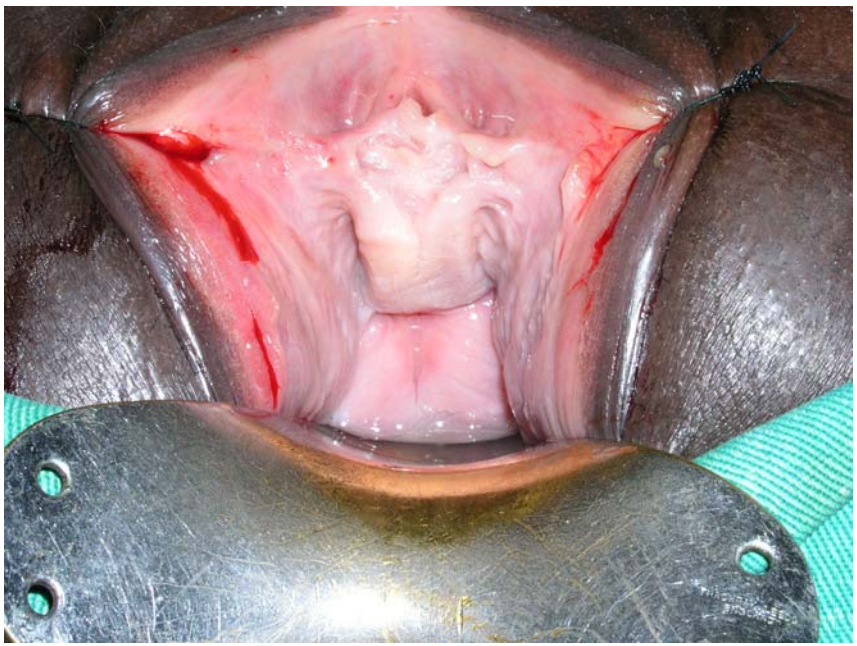
- **small** < 2 cm
- **medium** 2-3 cm
- **large** 4-5 cm
- **extensive** ≥ 6 cm

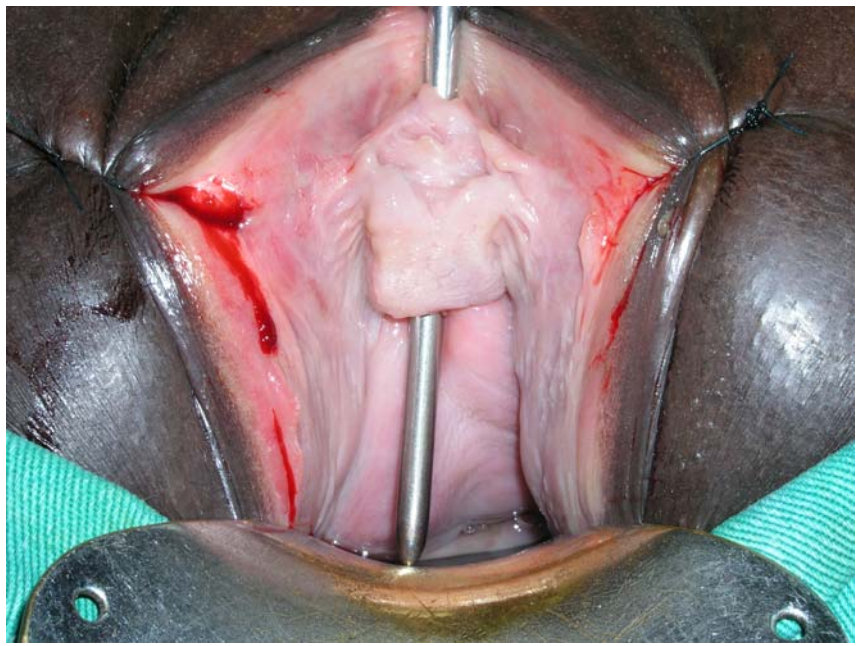
type I fistula



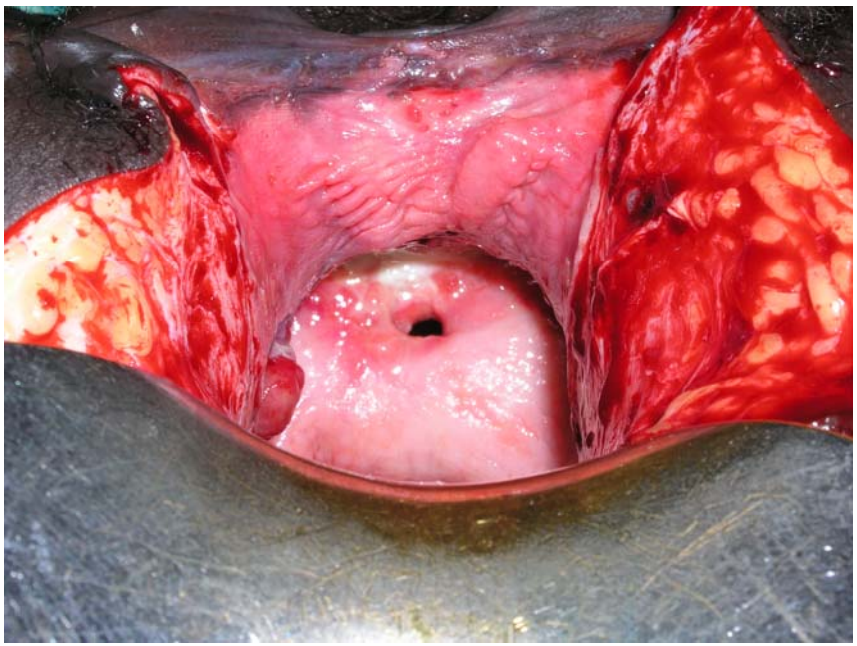


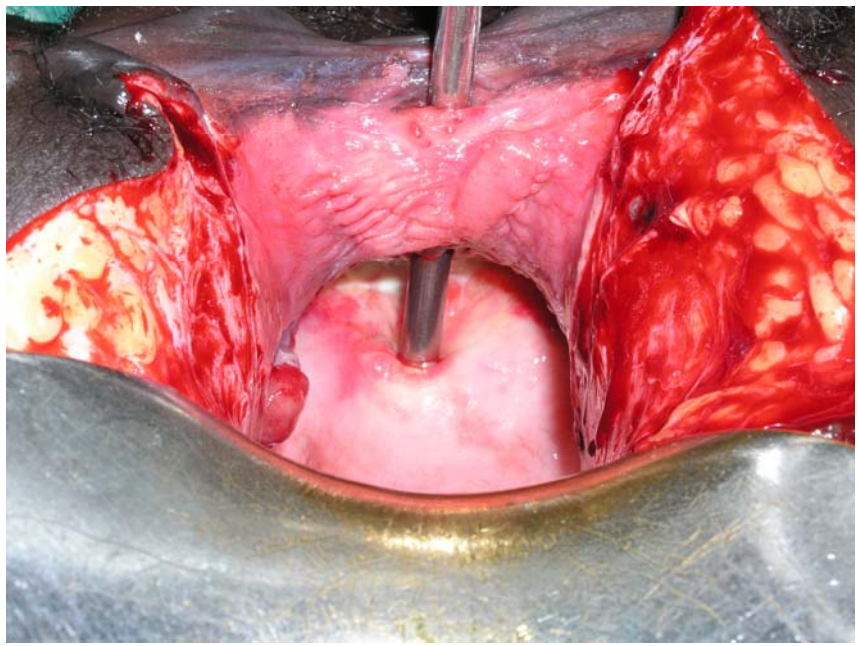
type IIAa fistula



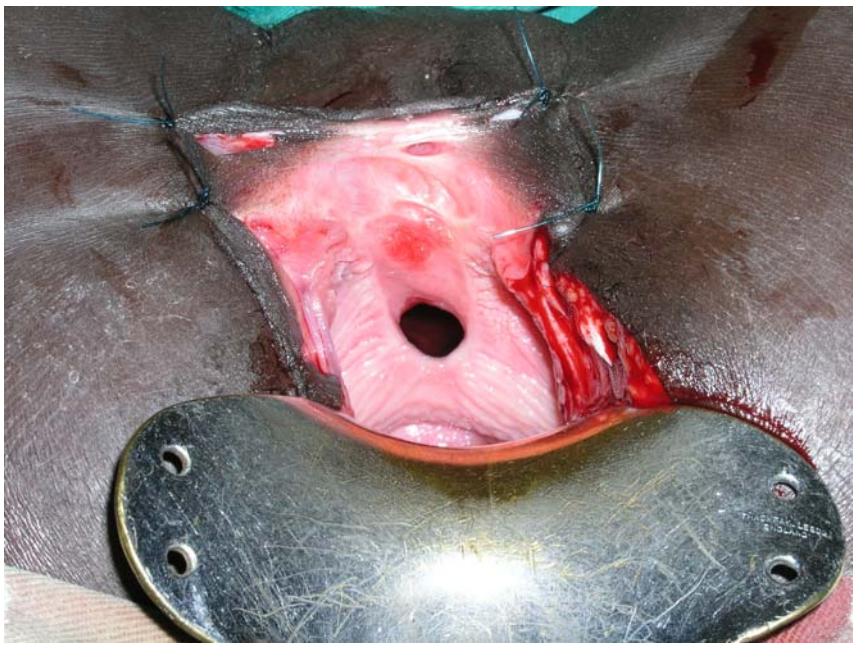


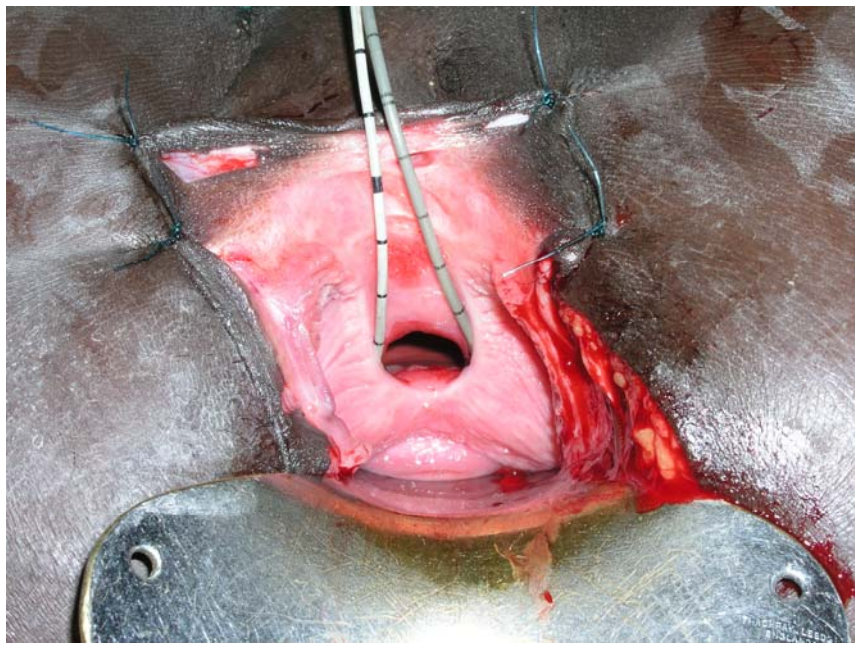
type IIAb fistula



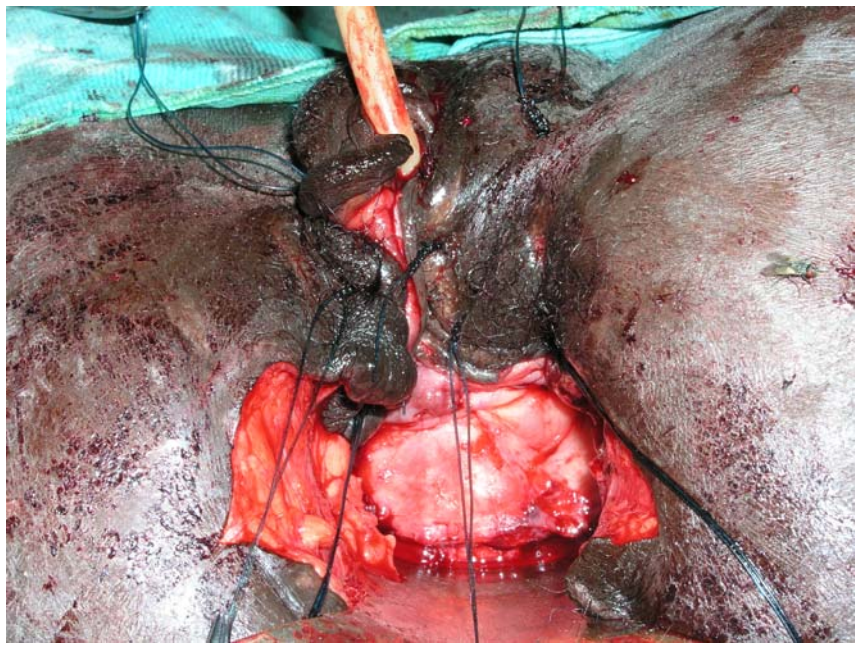


type IIBa fistula



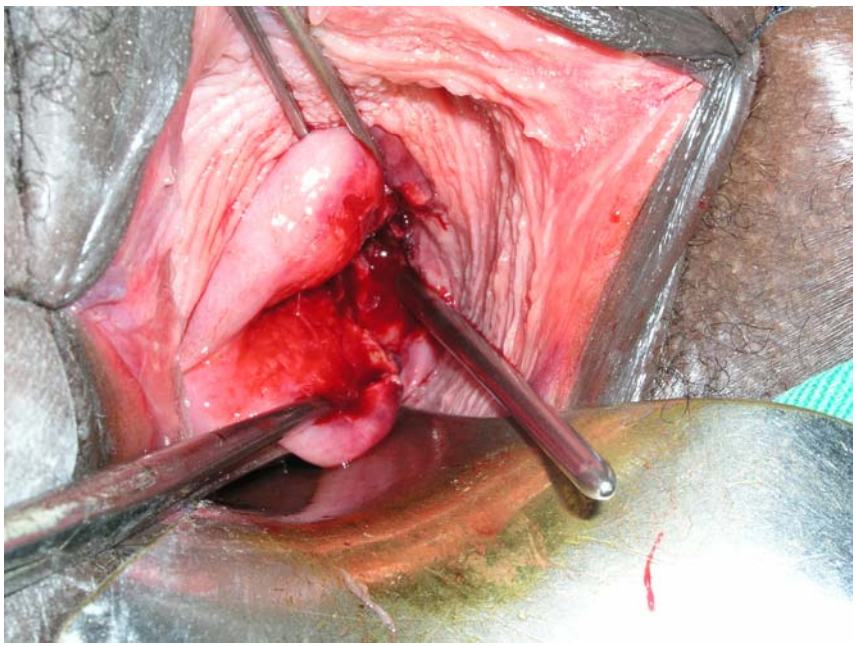


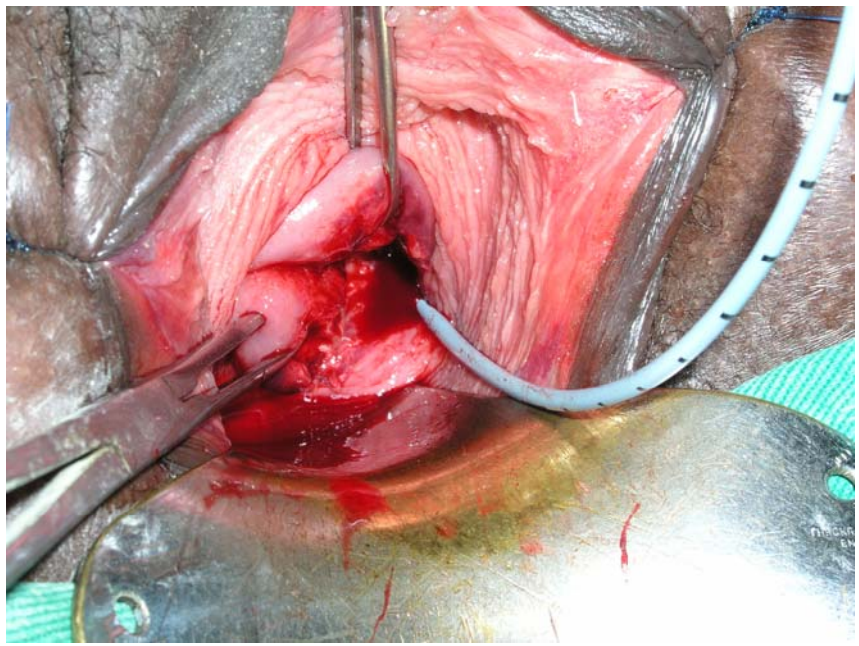
type IIBb fistula



type III fistula

ureter fistula





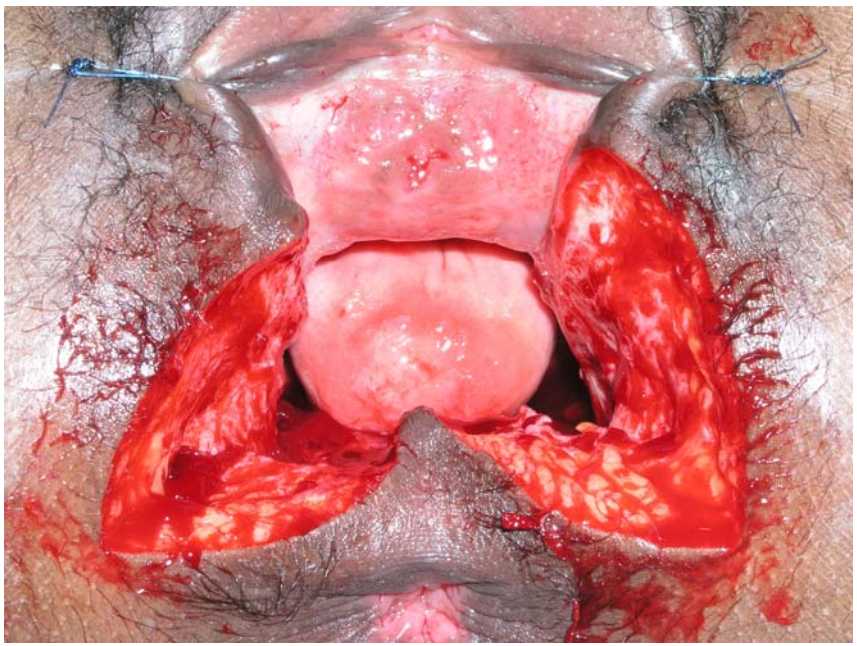
catheter treatment

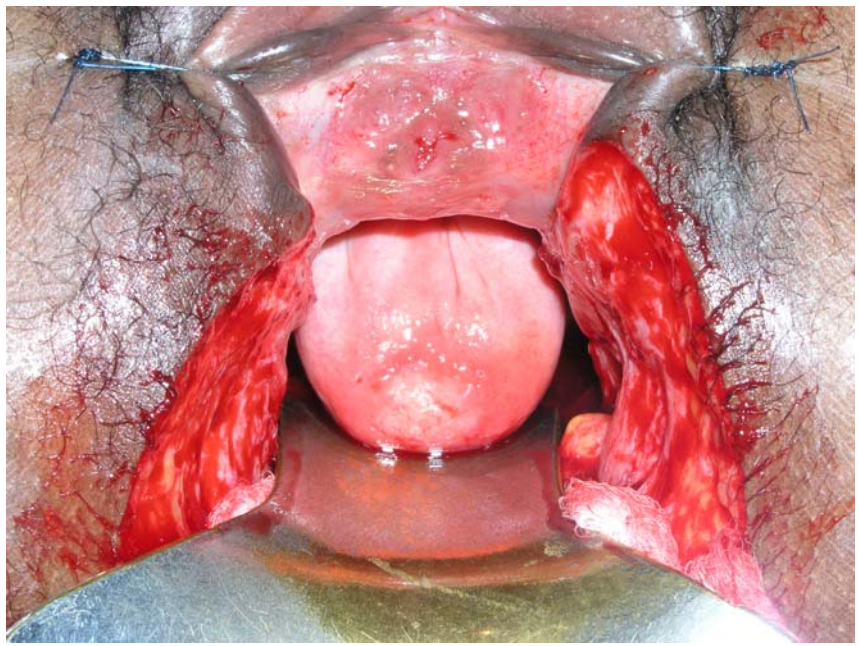
slough excision

high oral fluid intake
urine output

position on operating table

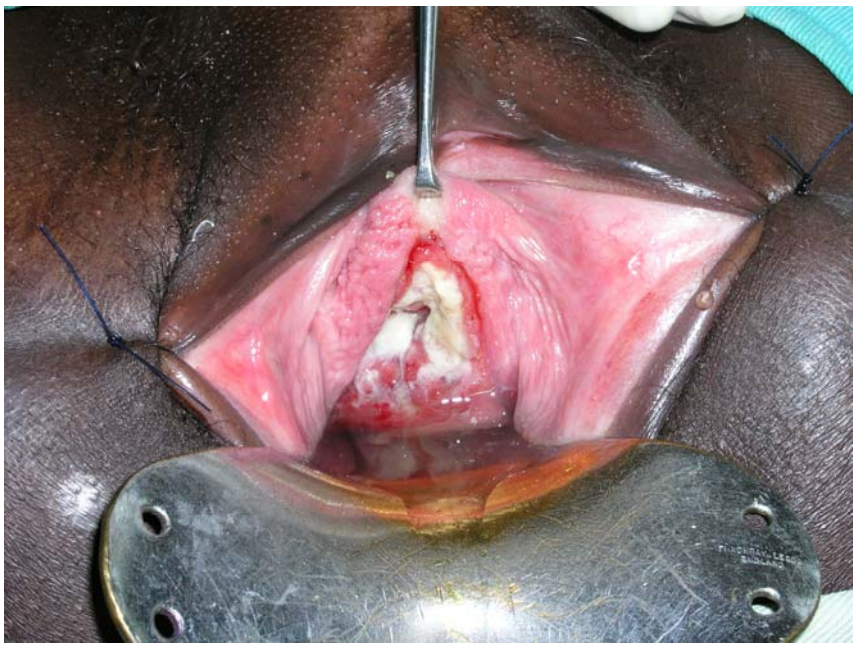
good access

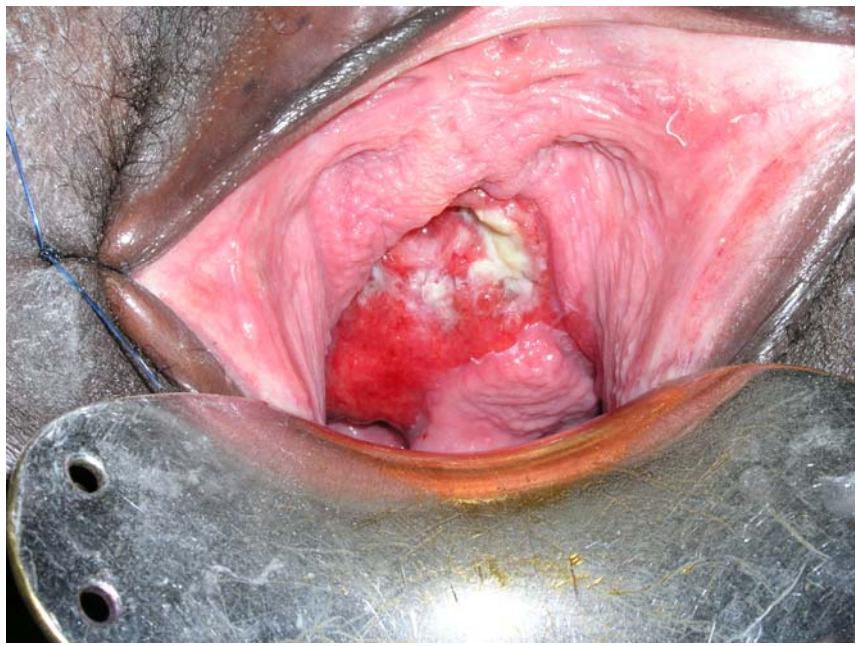




early closure

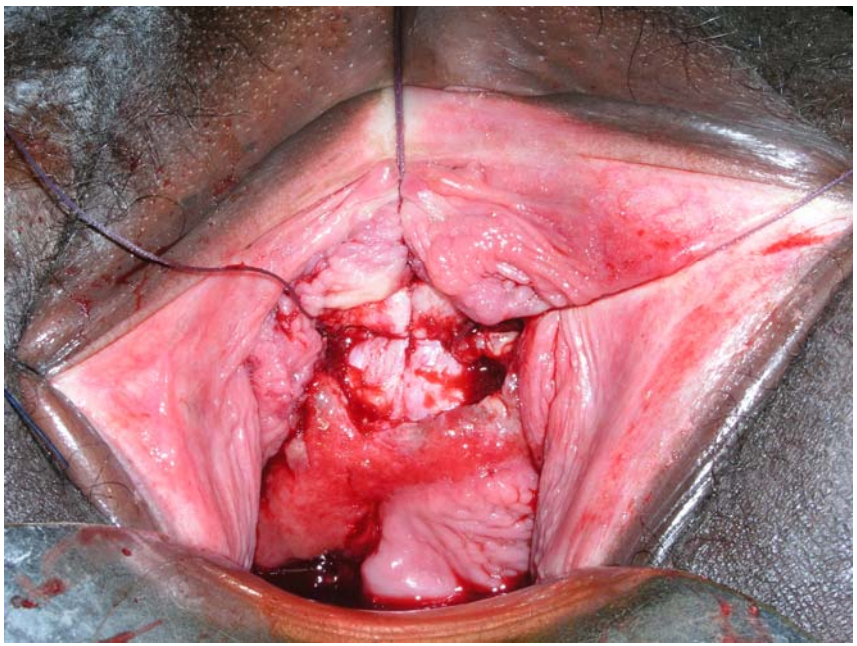
transverse

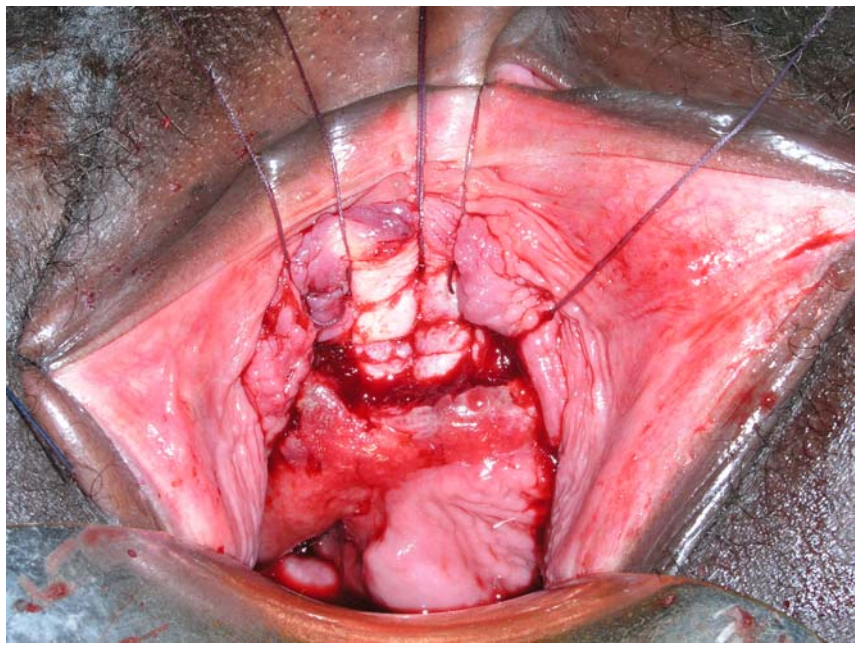




early closure

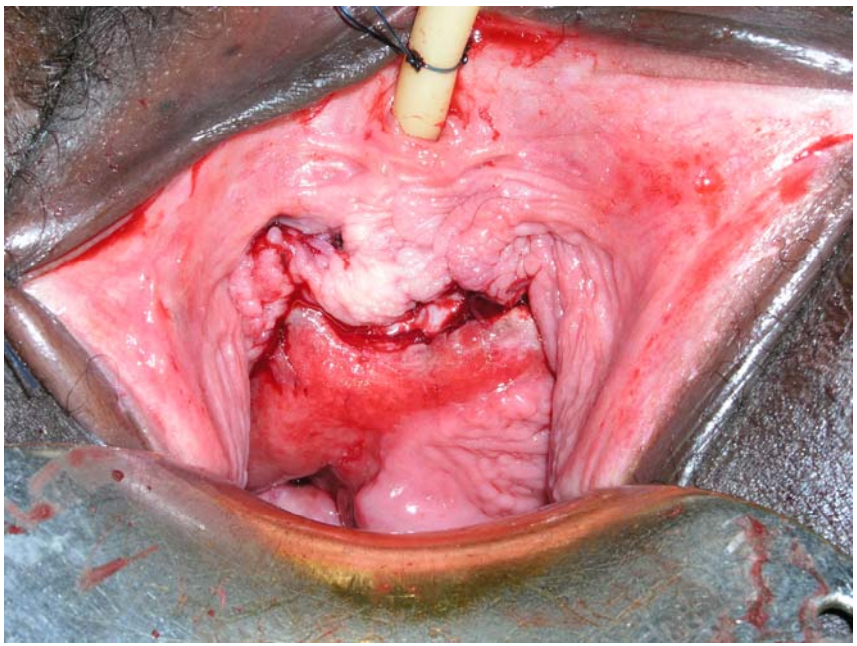
transverse

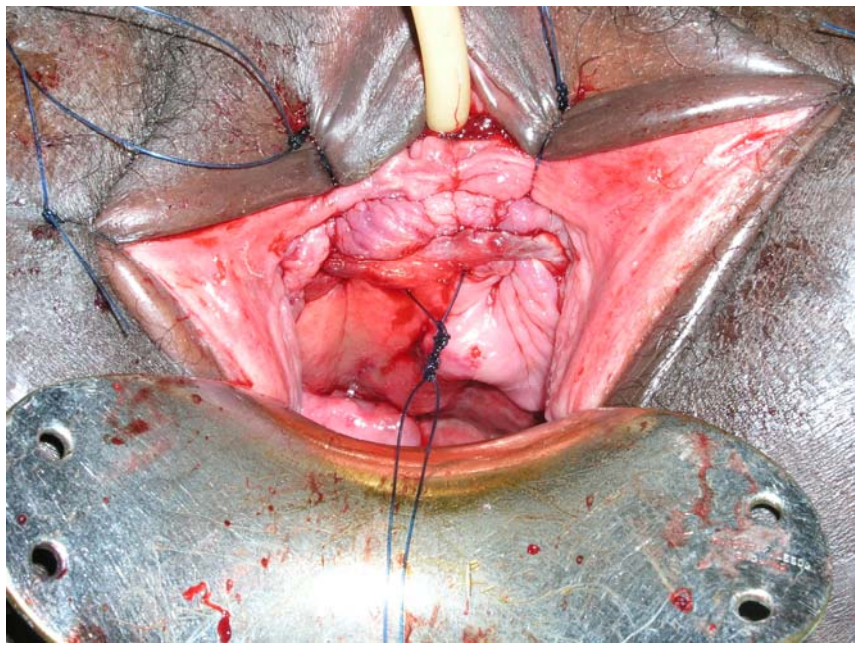




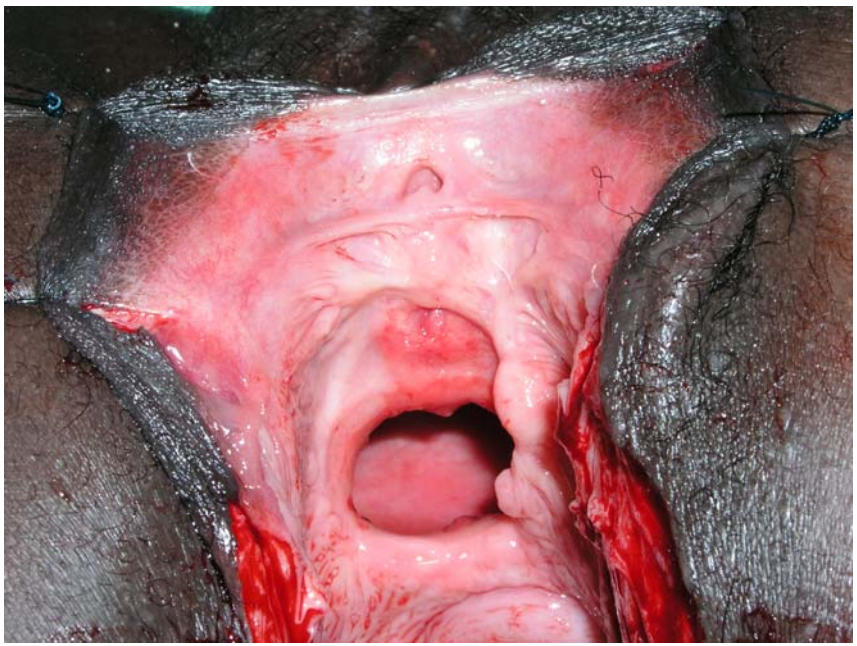
early closure

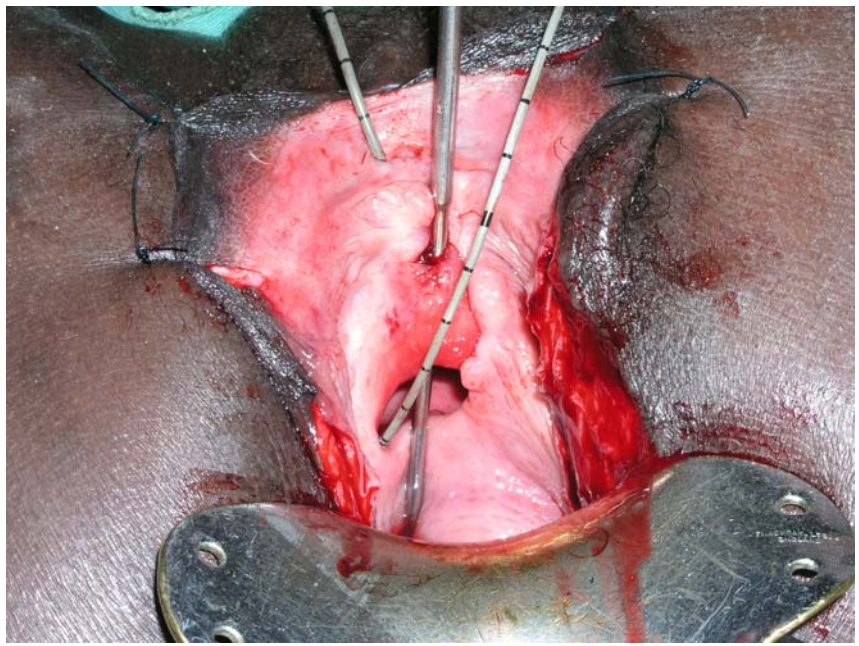
transverse



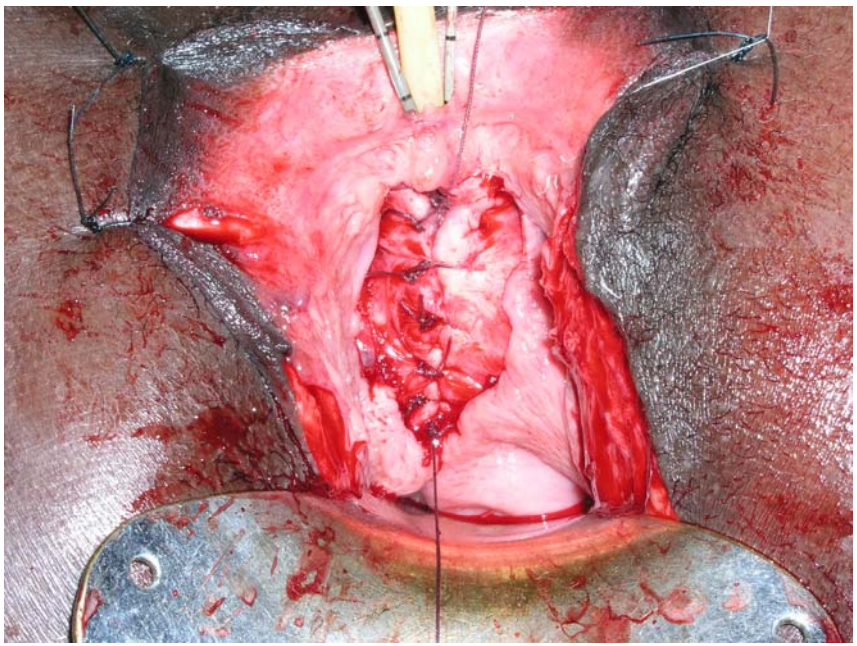


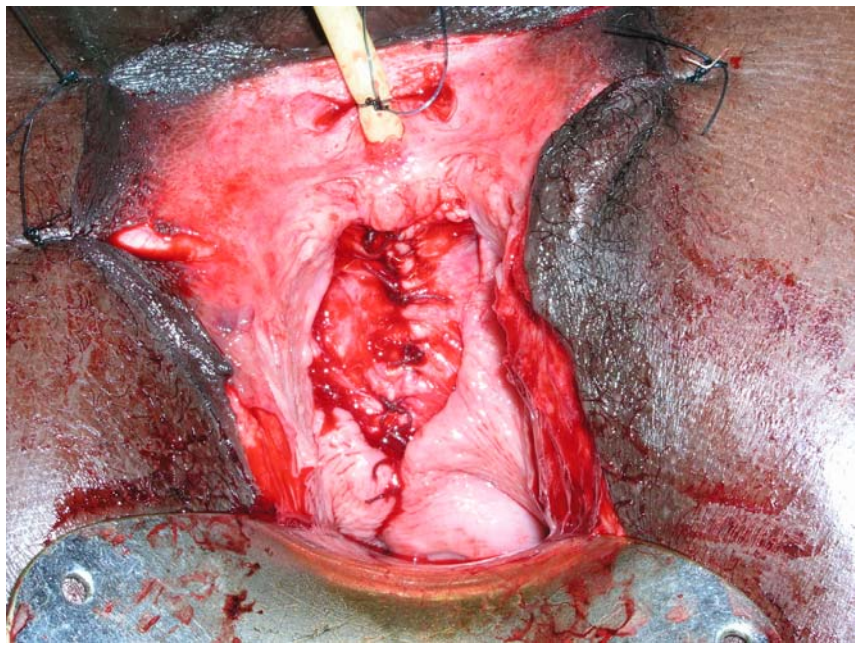
longitudinal closure



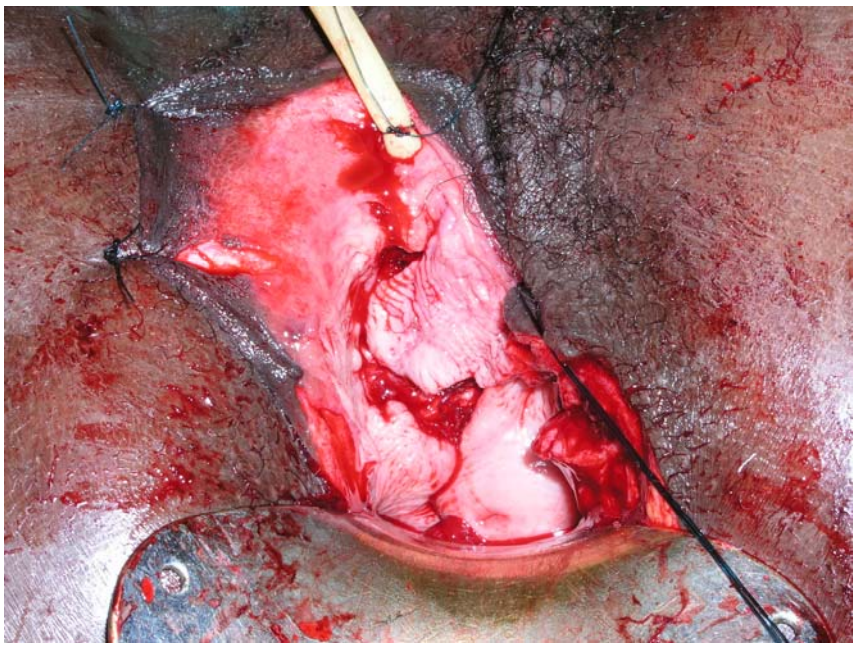


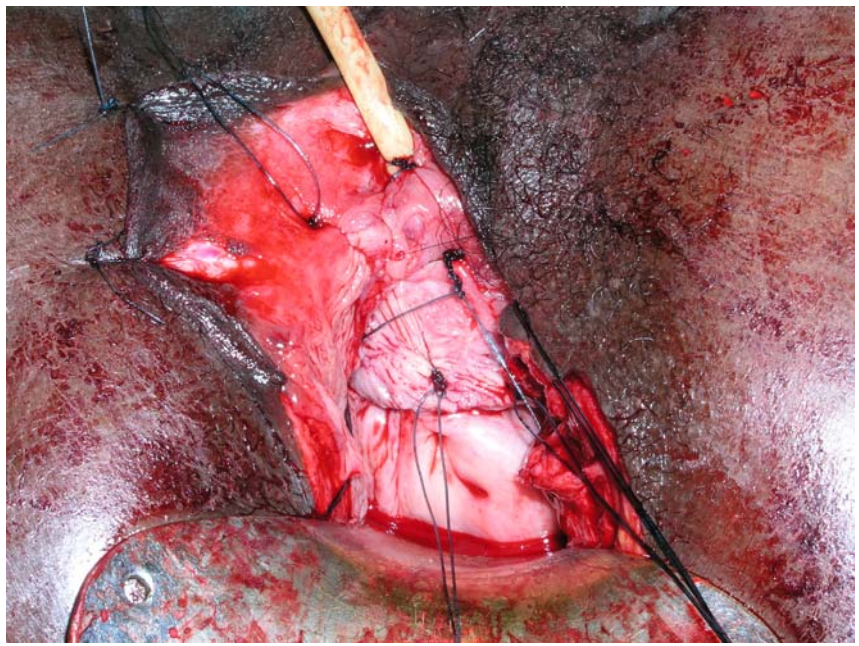
longitudinal closure



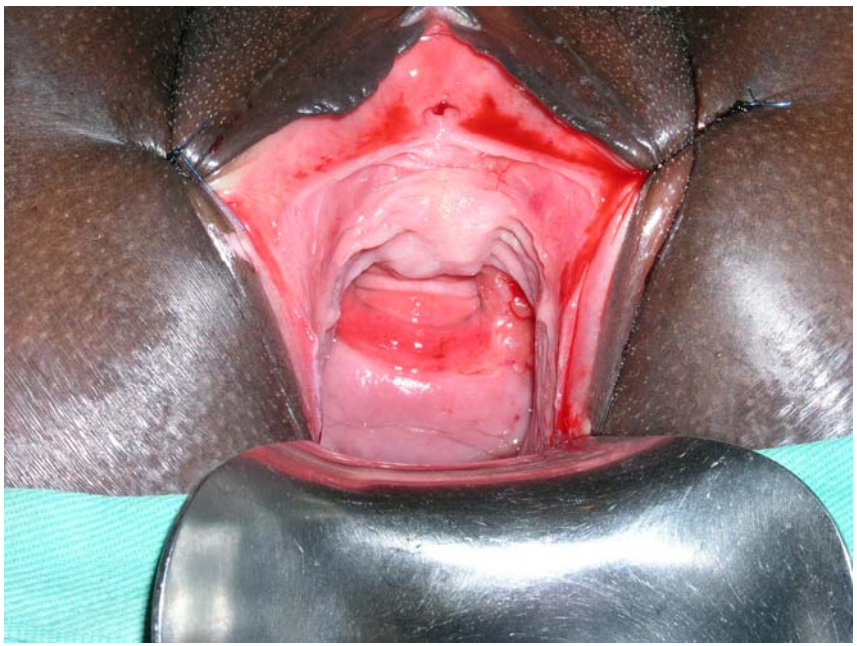


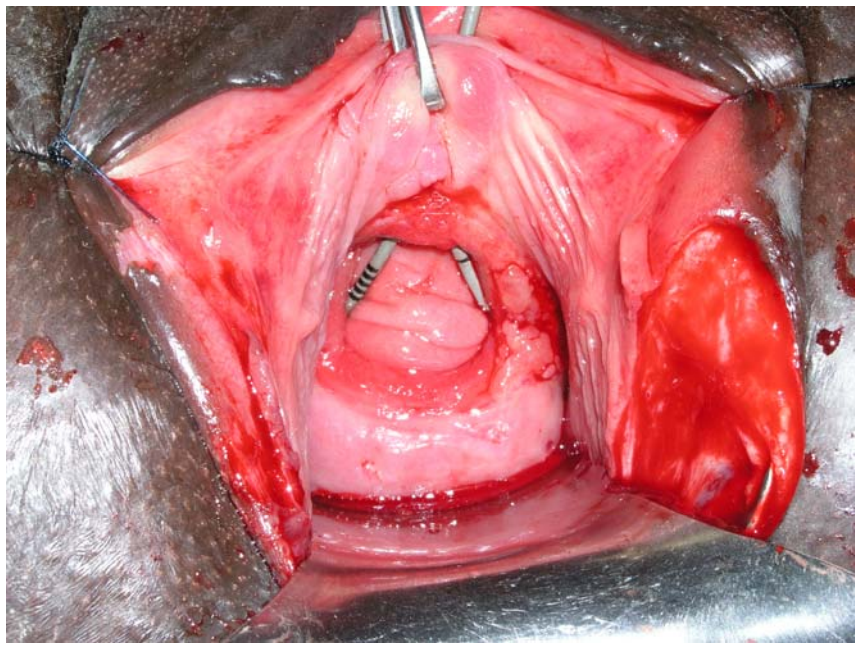
longitudinal closure



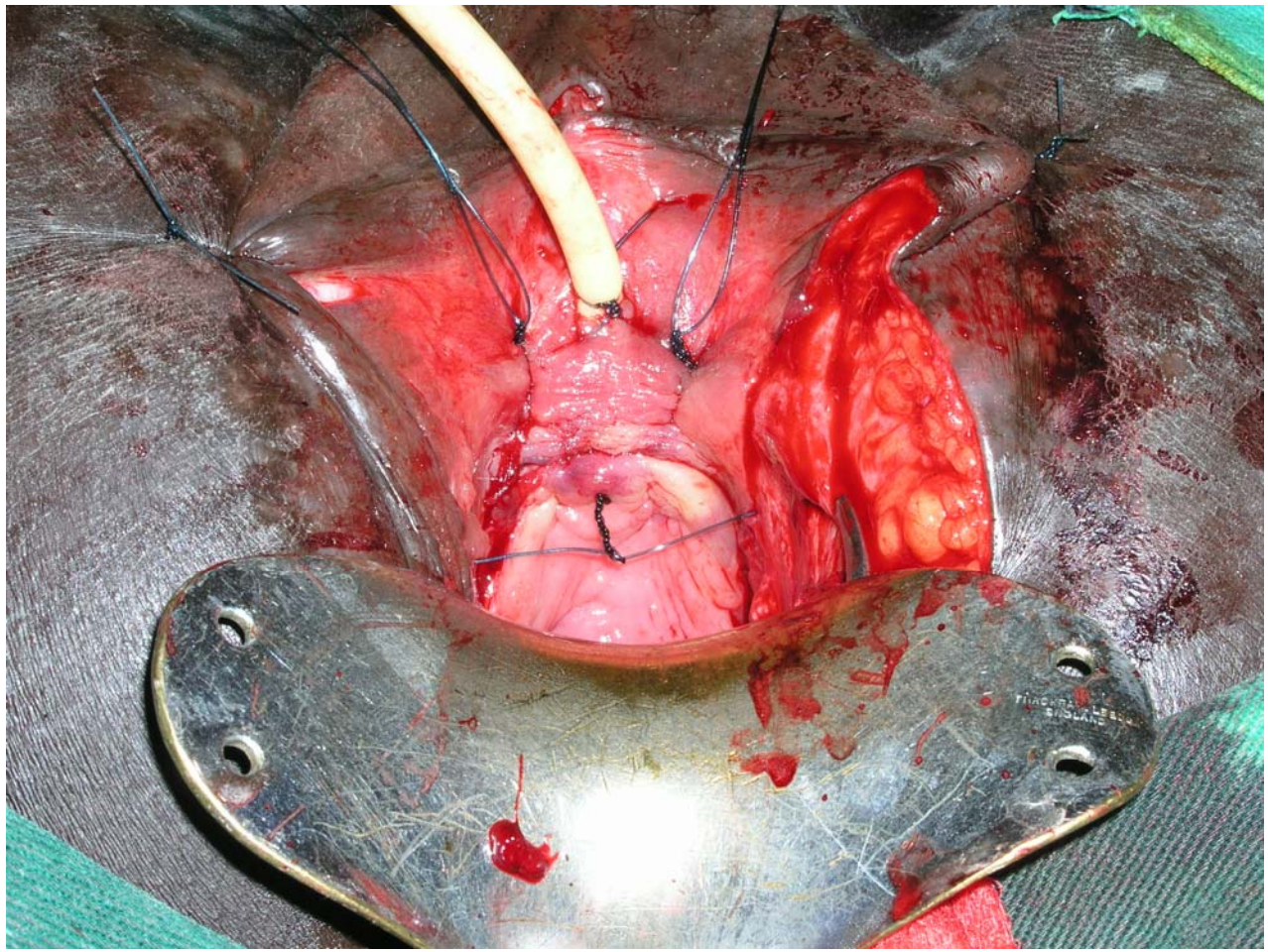


ureter catheterization





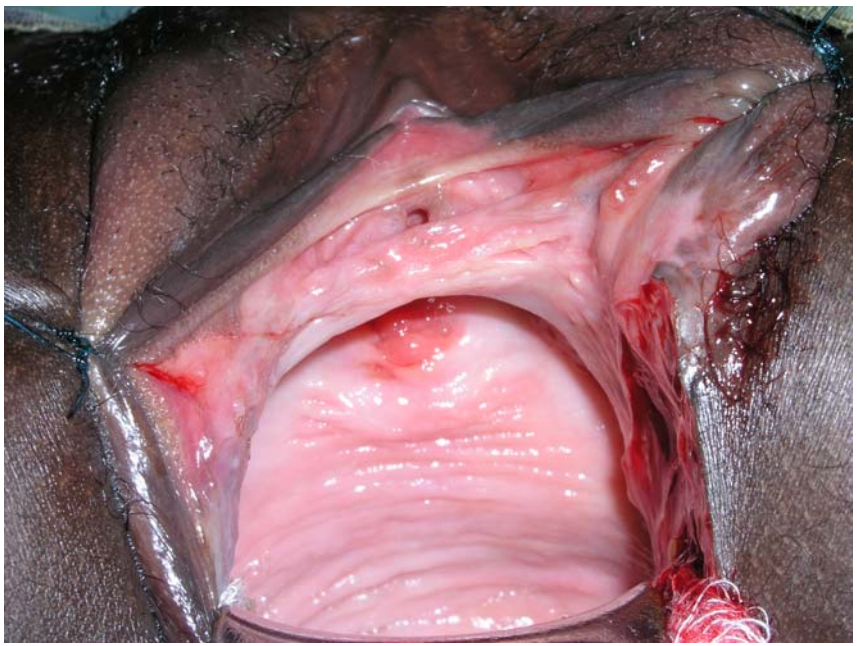
vagina wall adaptation

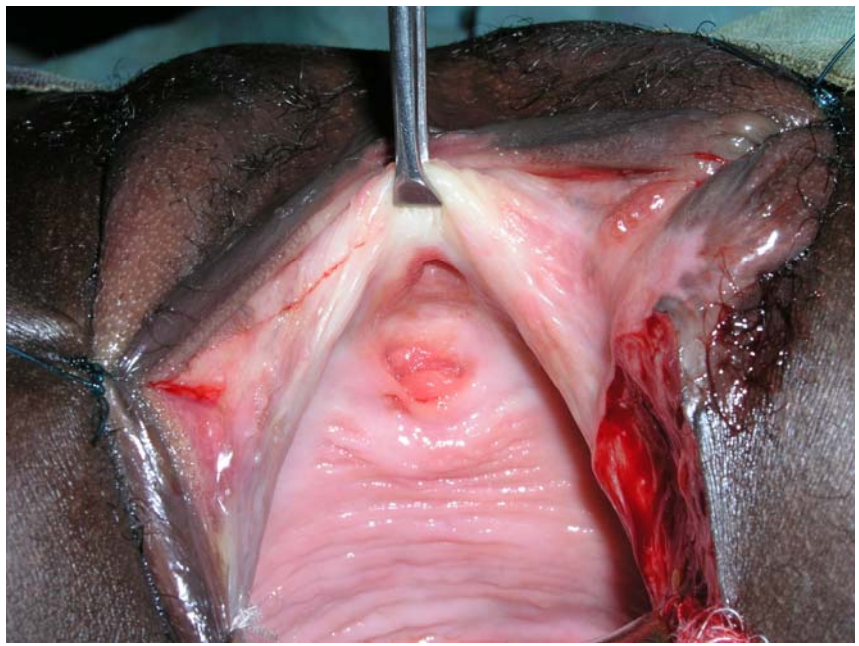


connection catheter_infusion set

for open drainage

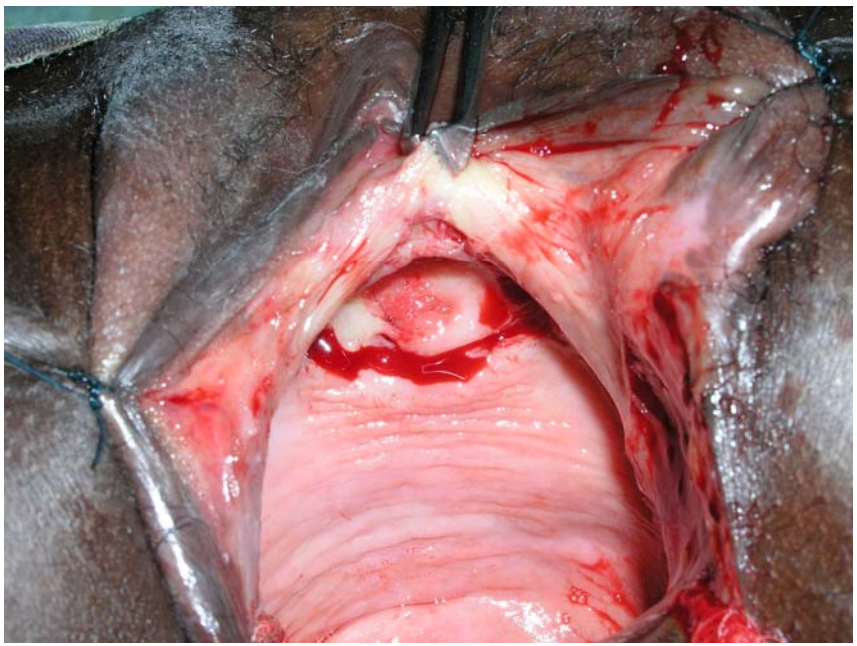
minimum surgery

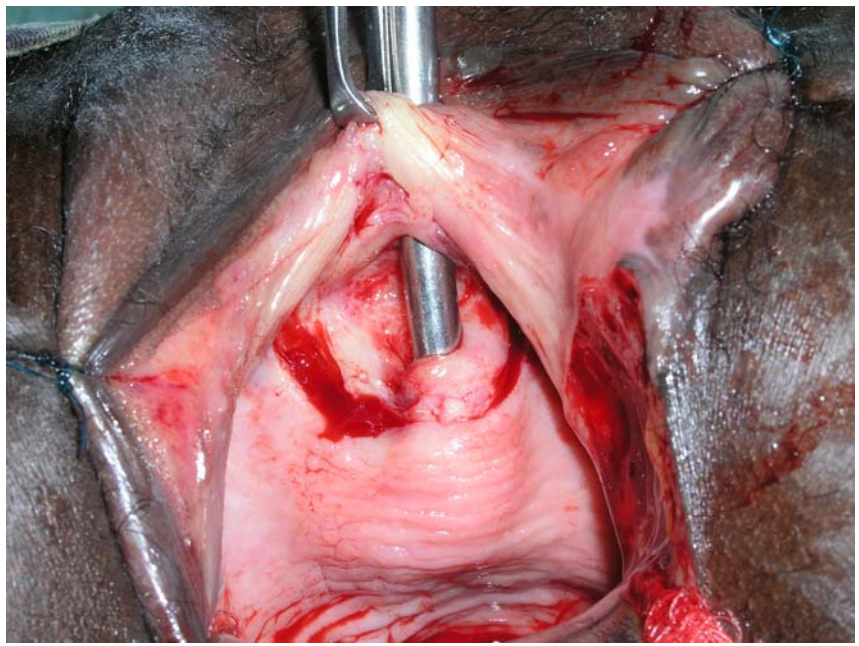




minimum surgery

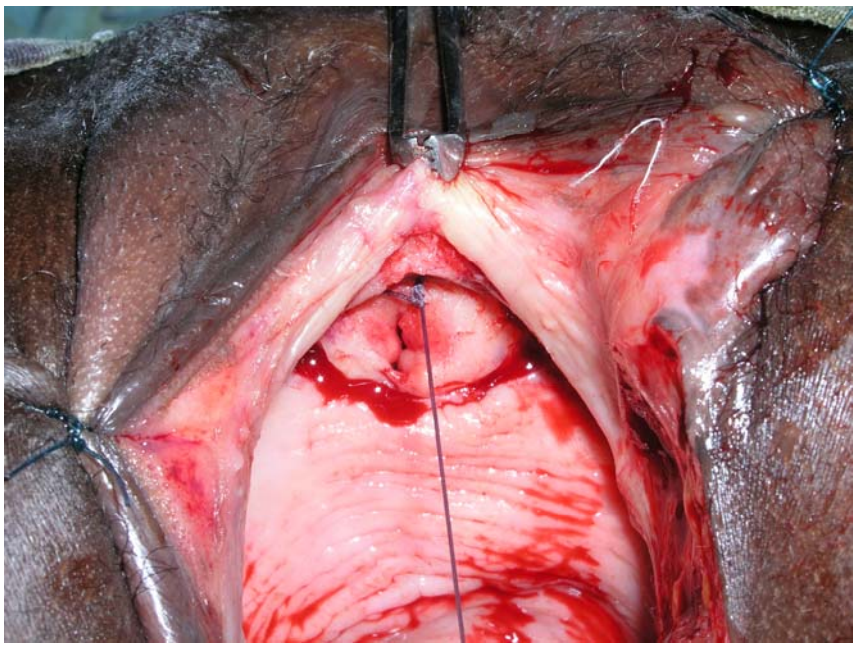
incision and minimum dissection

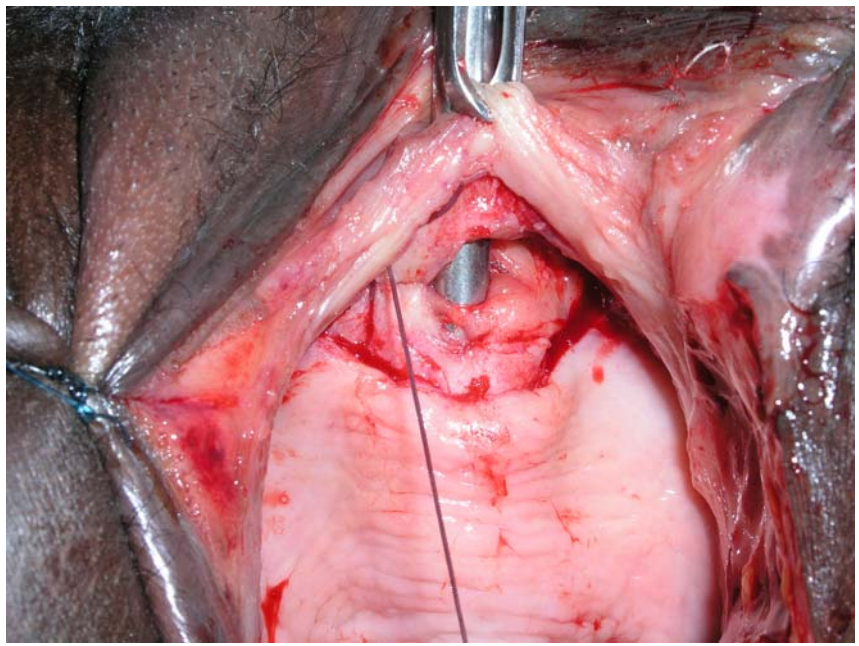




minimum surgery

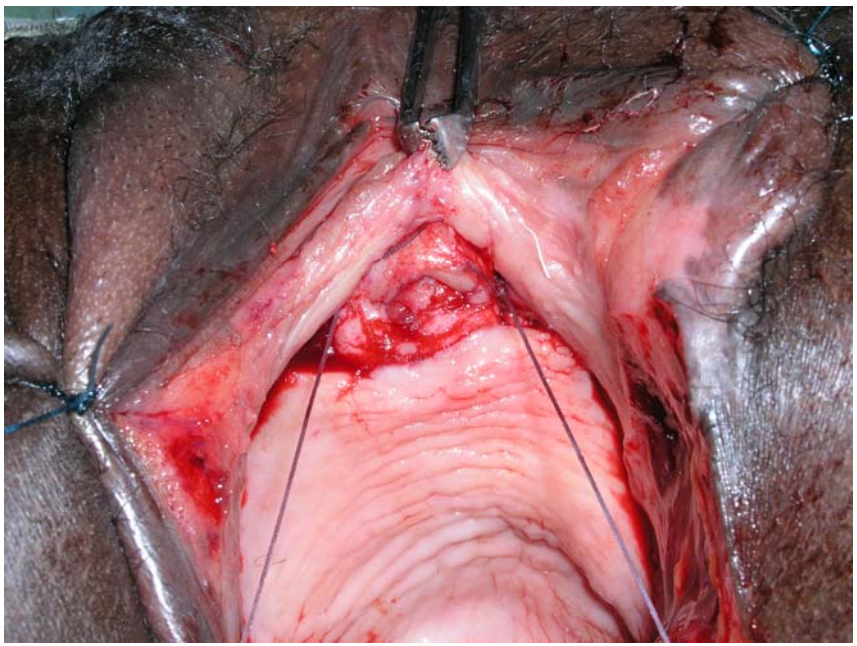
circumferential closure

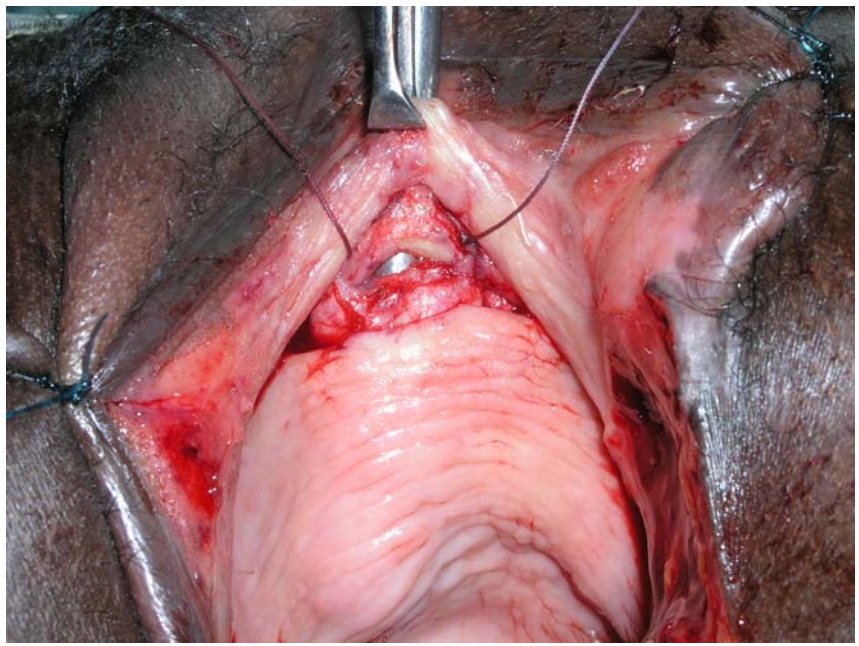




minimum surgery

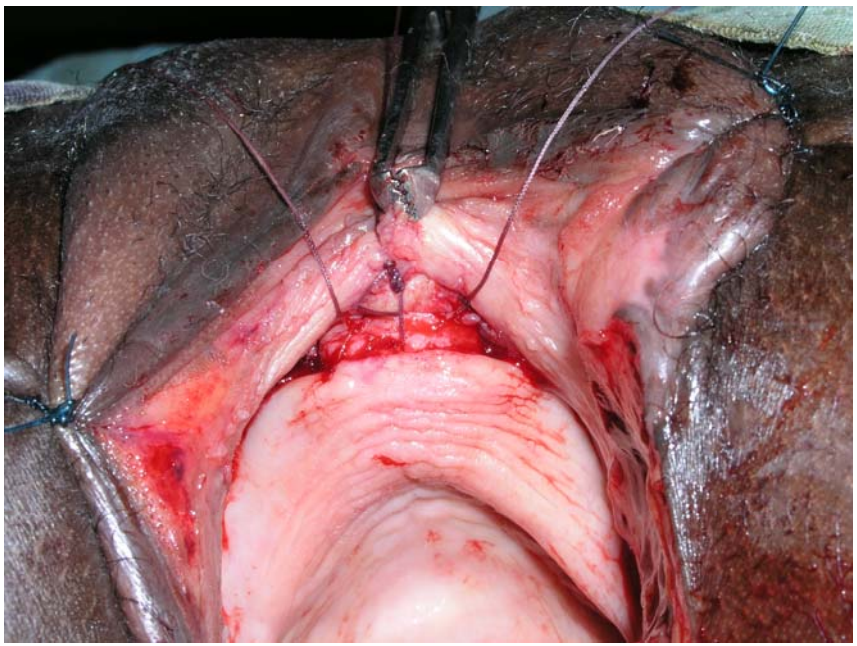
circumferential closure

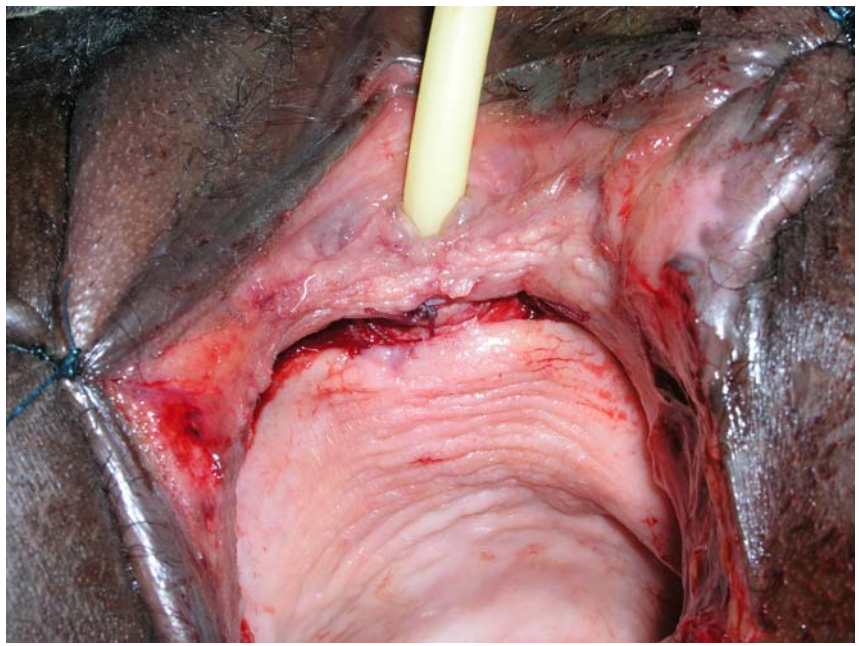




minimum surgery

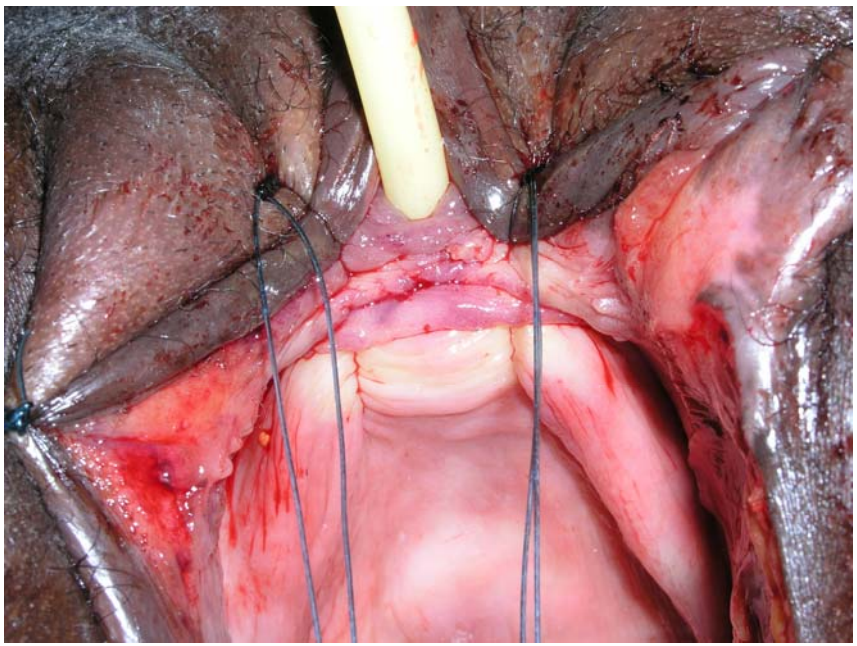
end-to-end vesicourethrostomy

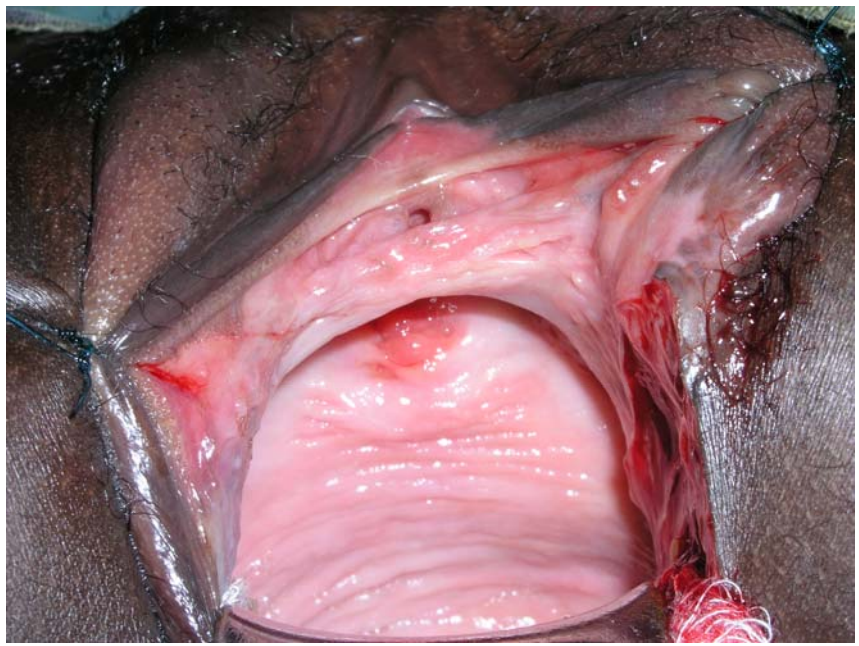




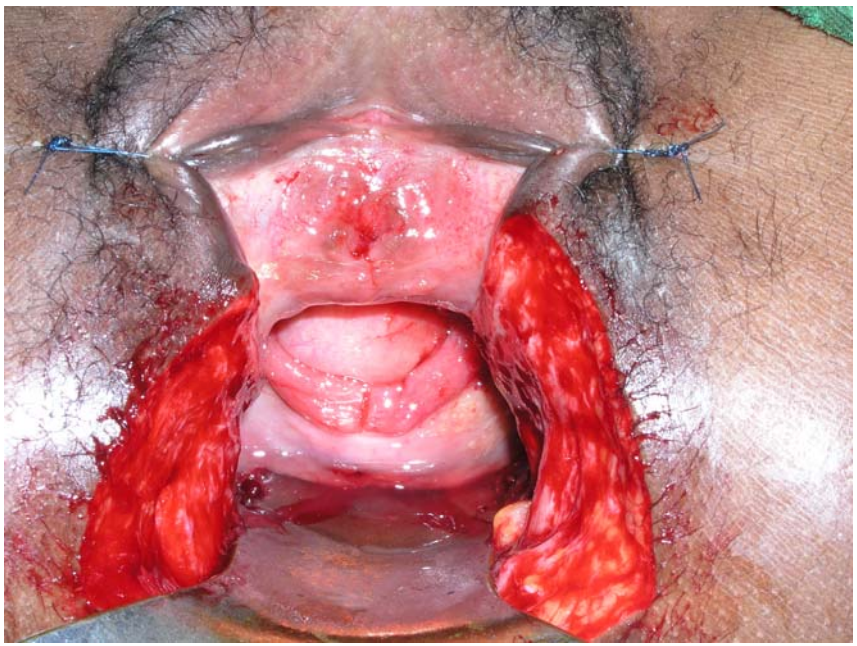
minimum surgery

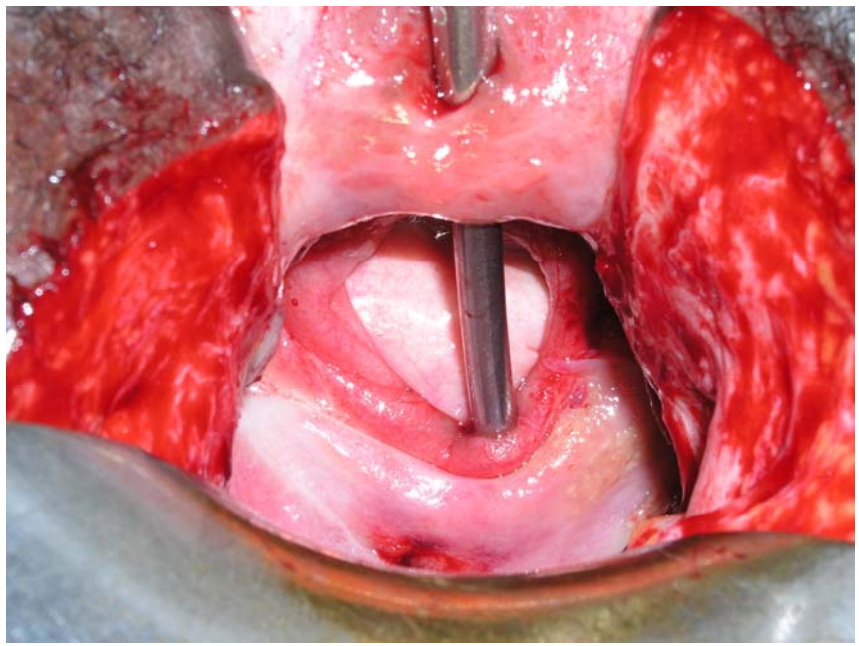
anterior vagina wall adaptation





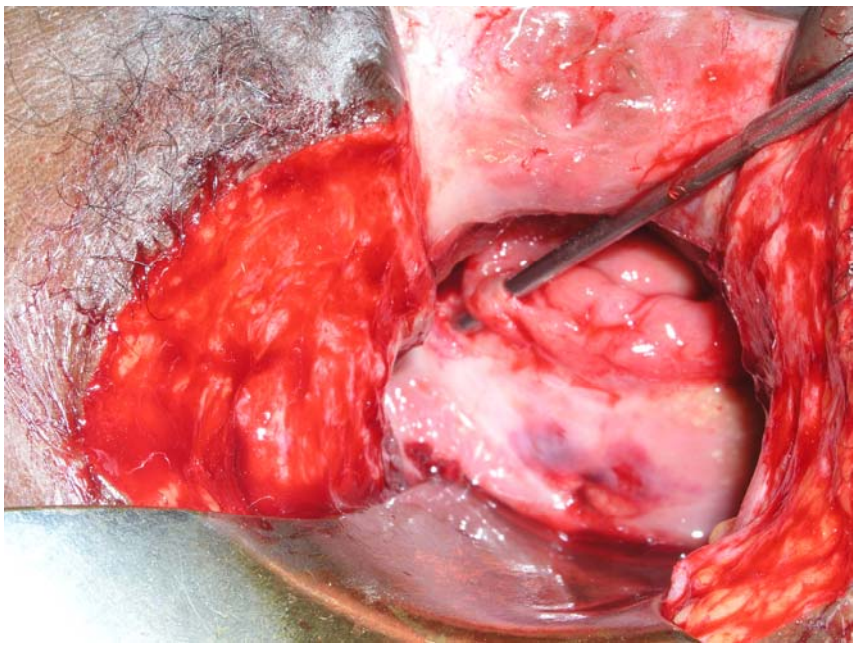
extensive fistula repair

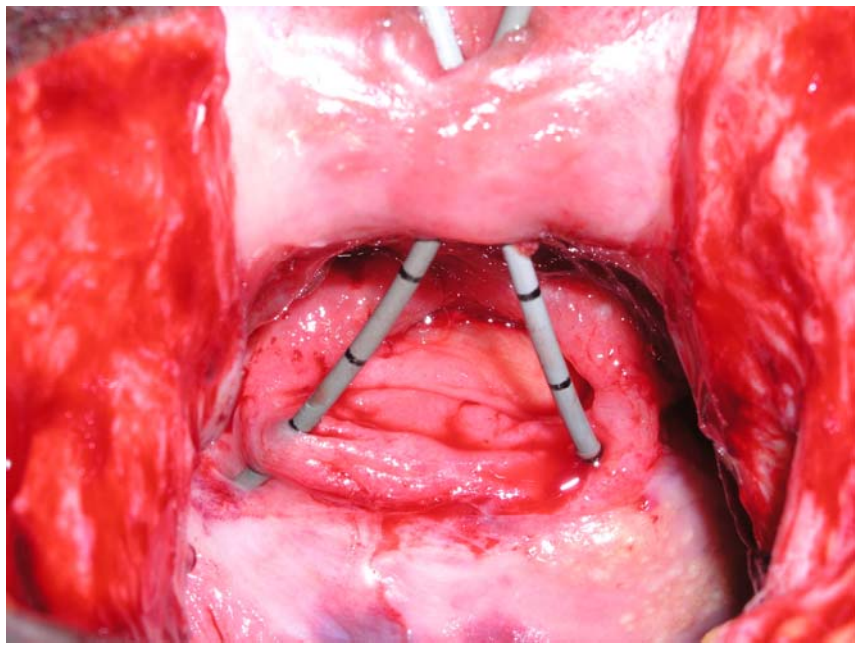




extensive fistula repair

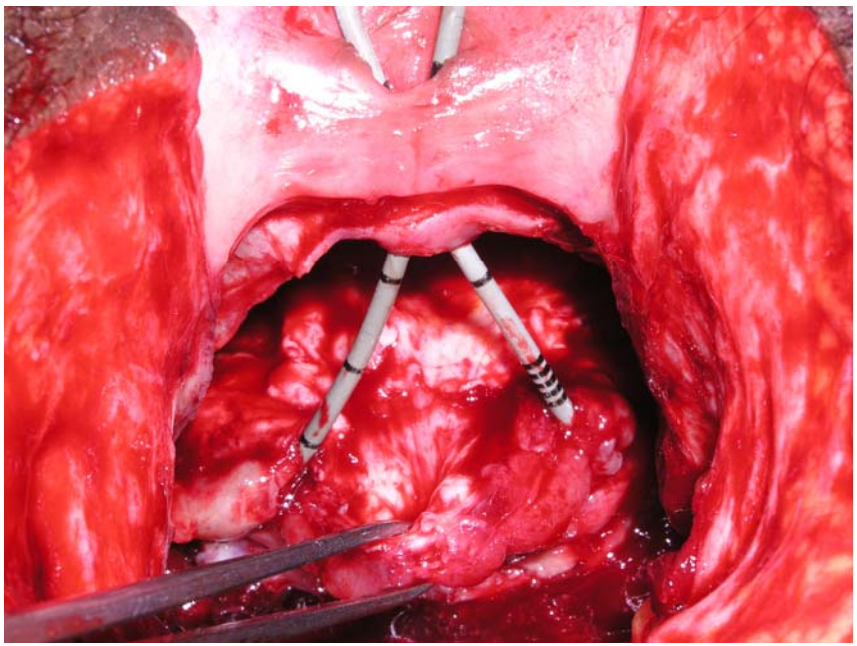
ureter catheterization

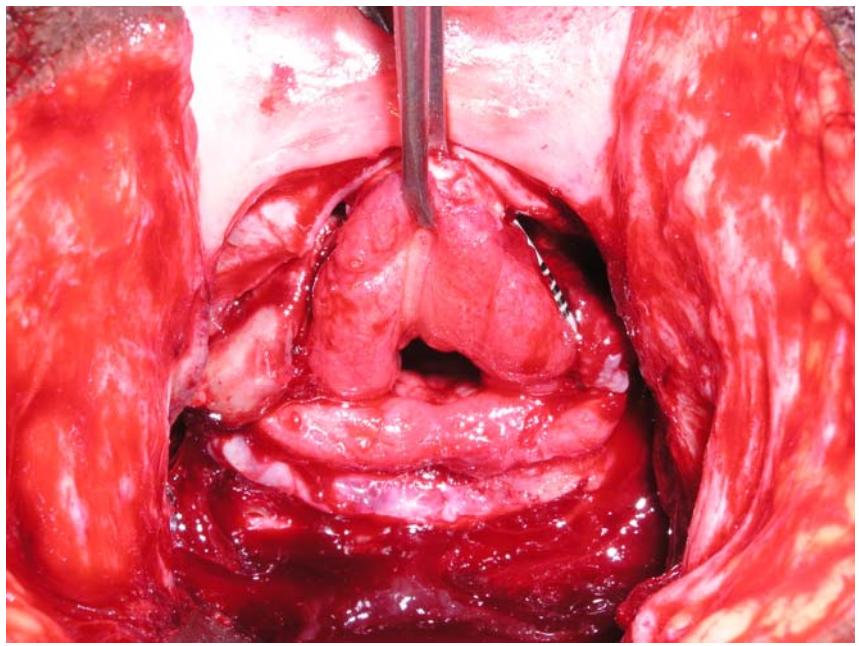




extensive fistula repair

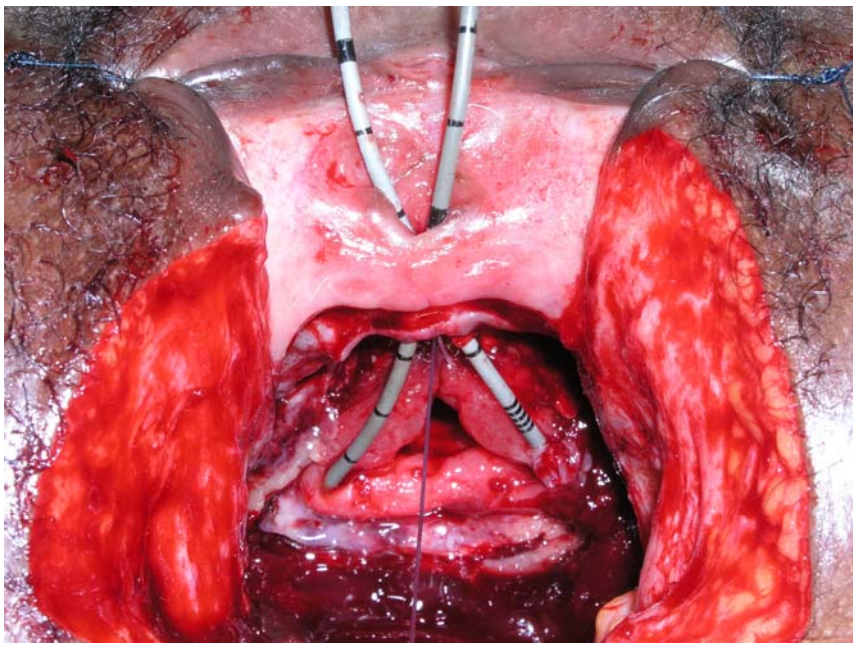
circumferential dissection

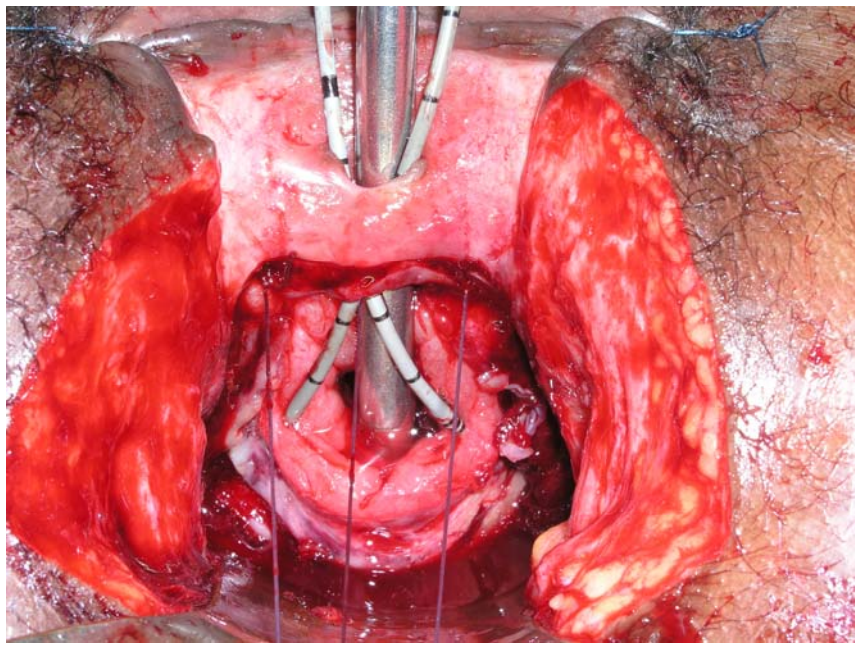




extensive fistula repair

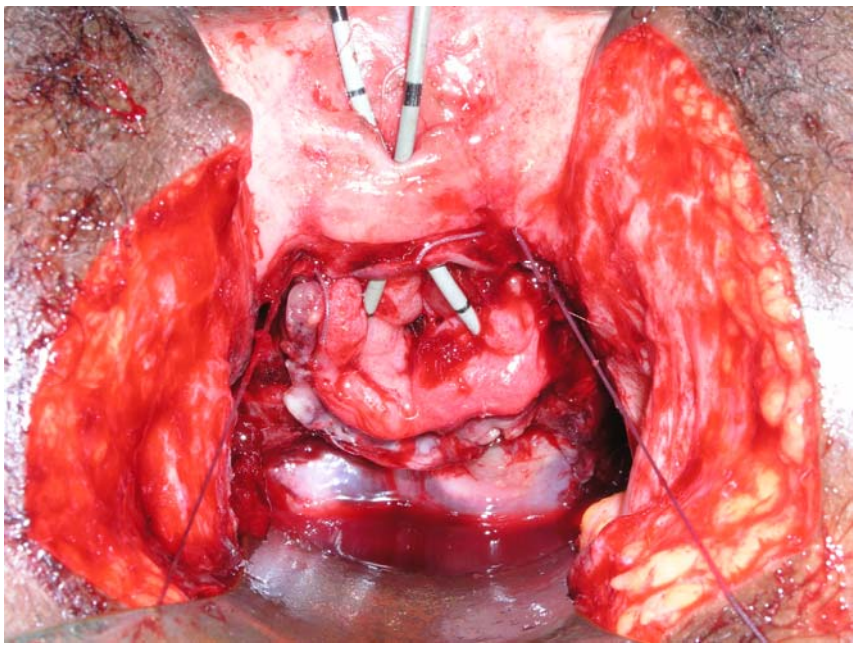
advancement and fixation

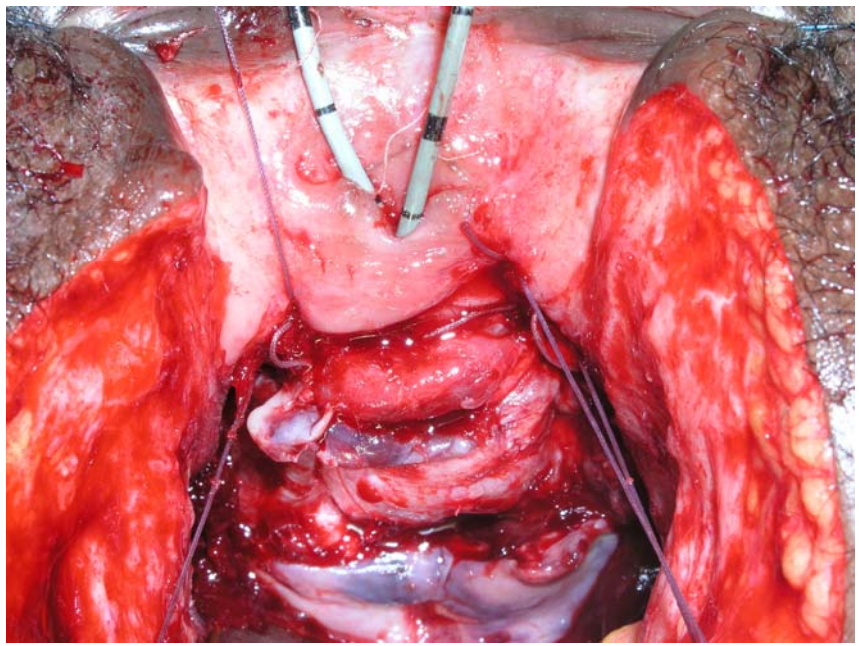




extensive fistula repair

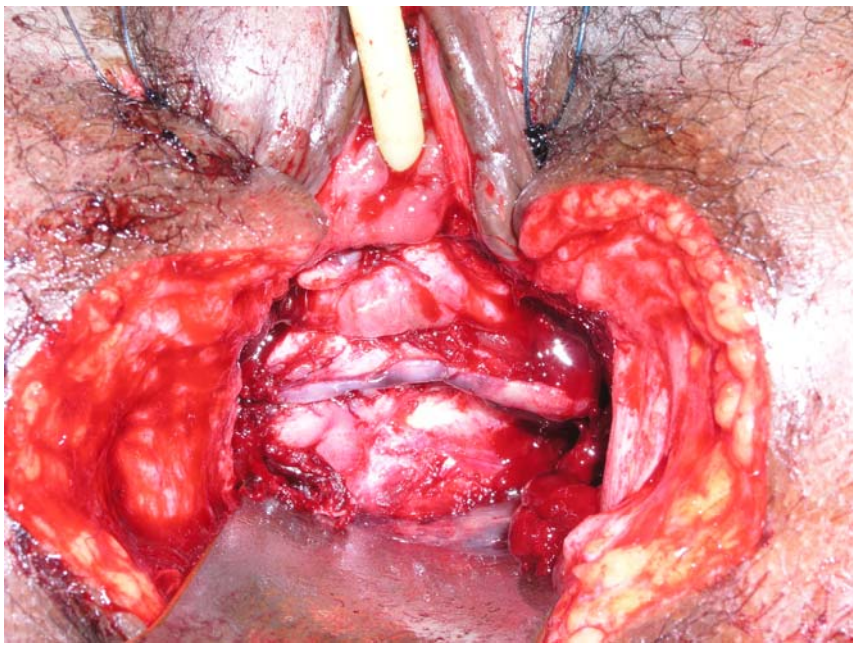
circumferential closure

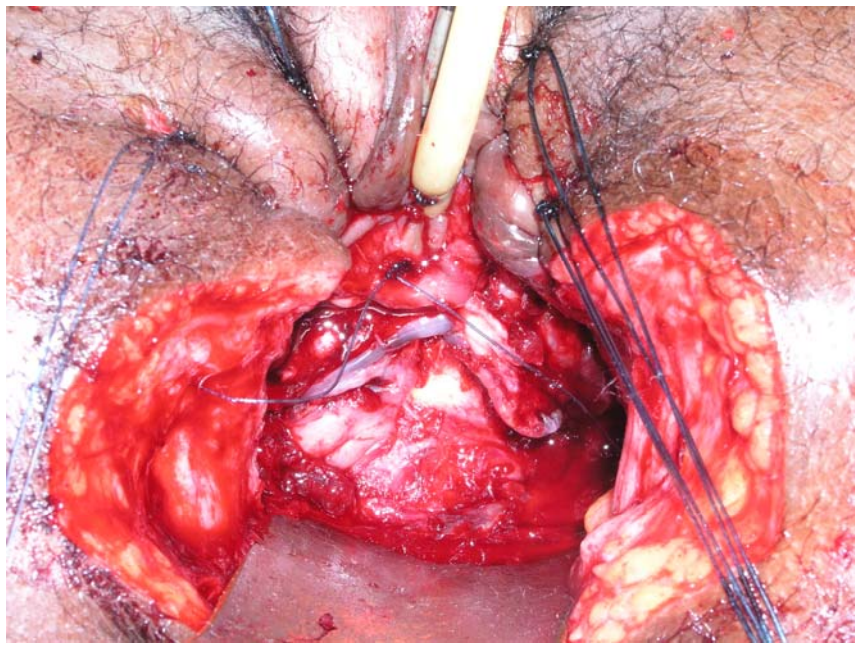




extensive fistula repair

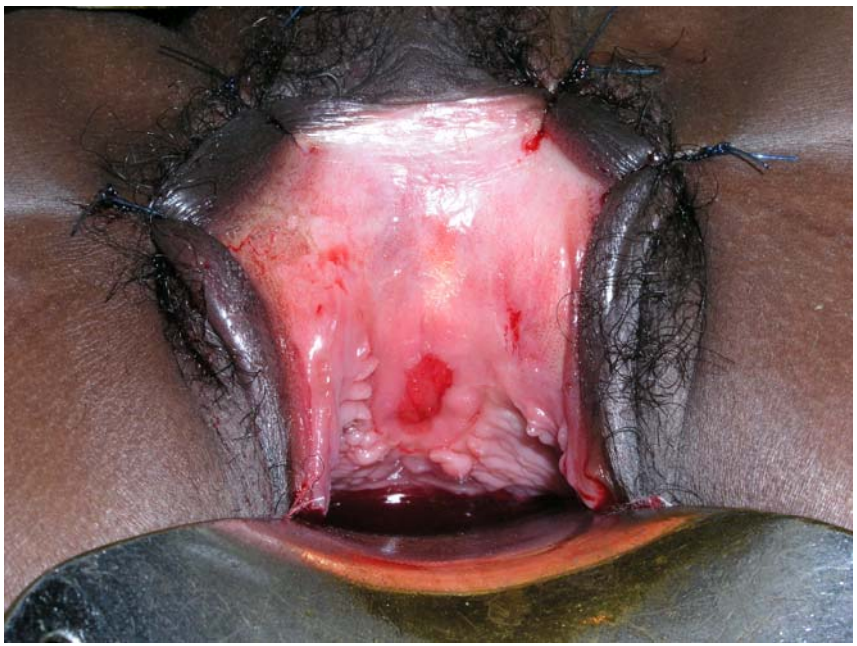
end-to-end vesicourethrostomy





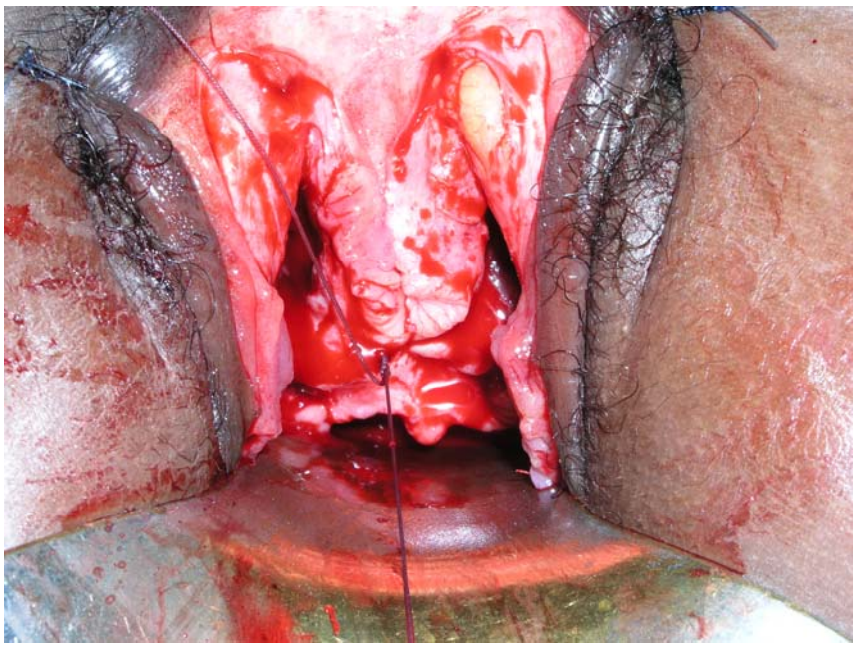
urethra reconstruction

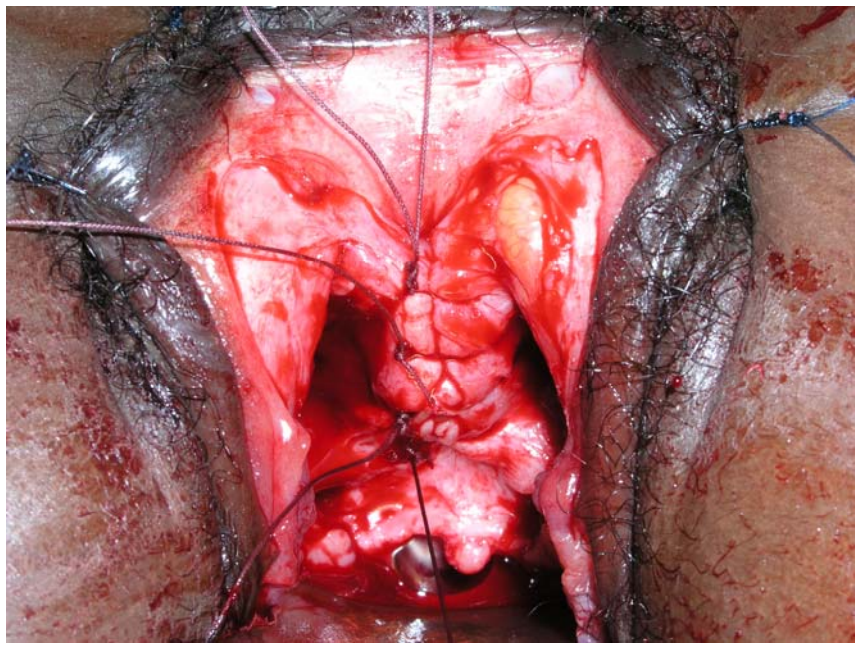
incision and dissection



urethra reconstruction

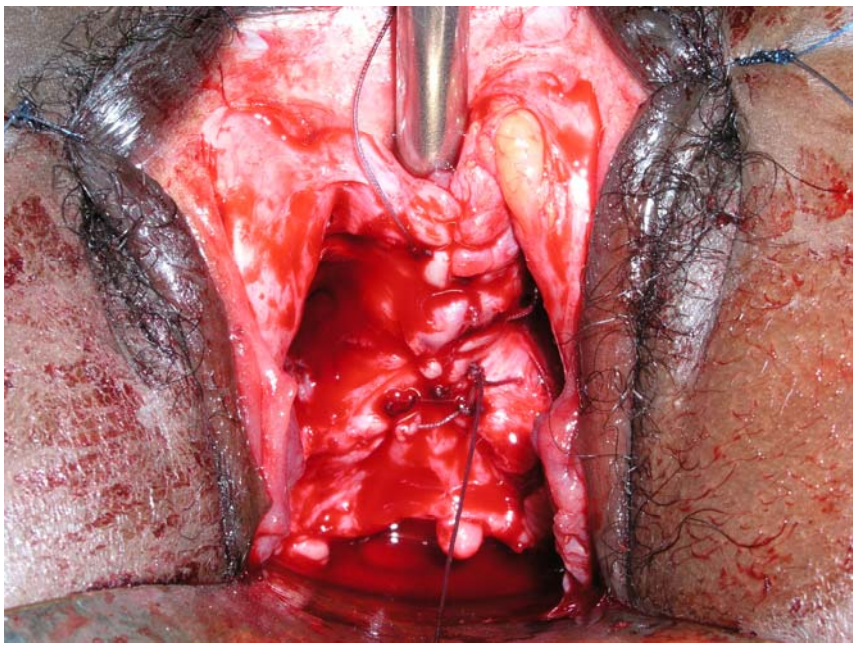
longitudinal reconstruction

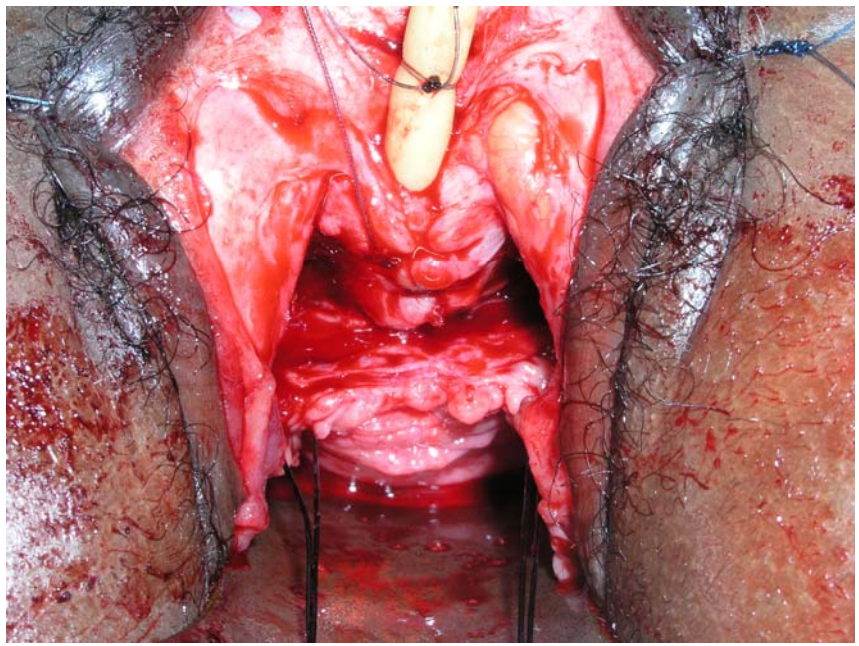




urethra reconstruction

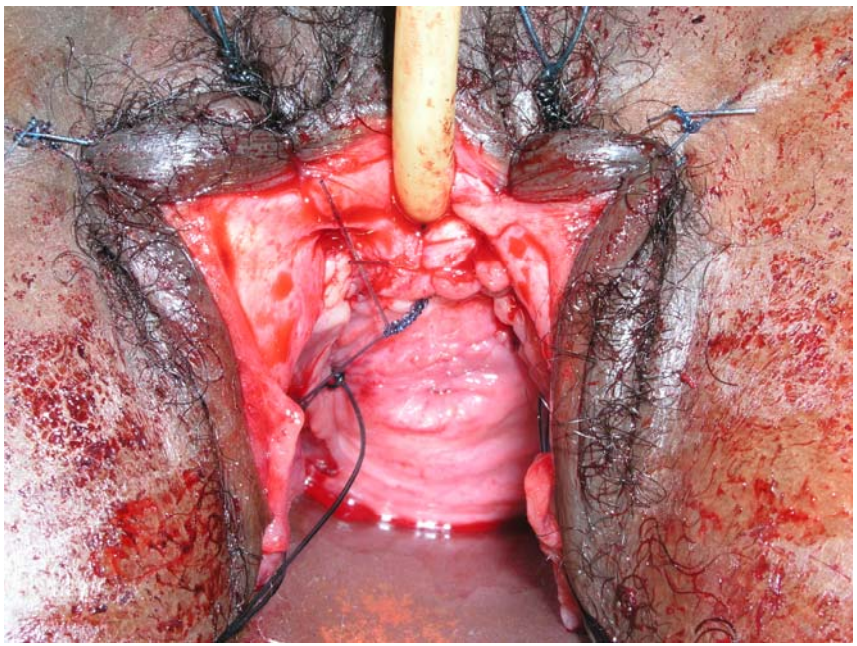
checking diameter

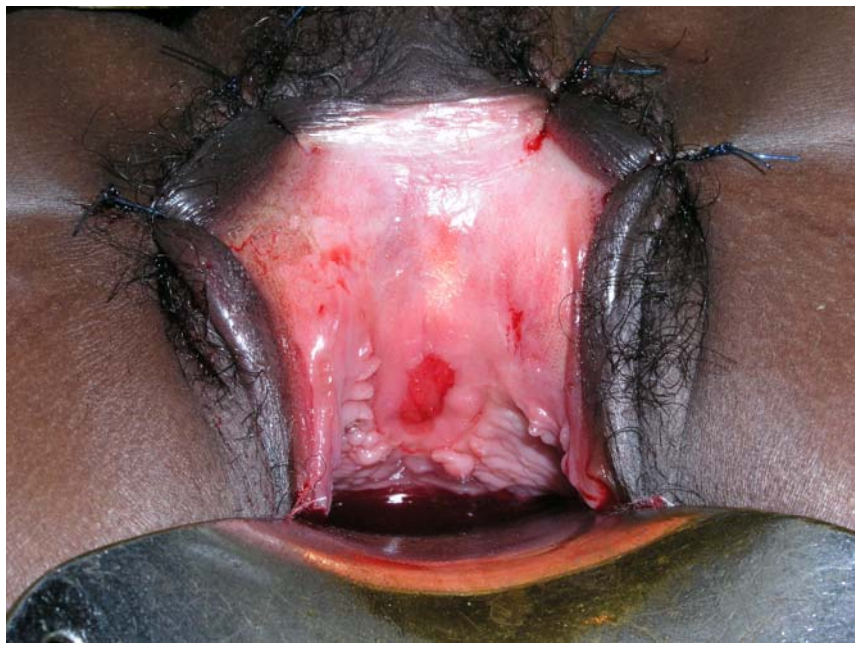




urethra reconstruction

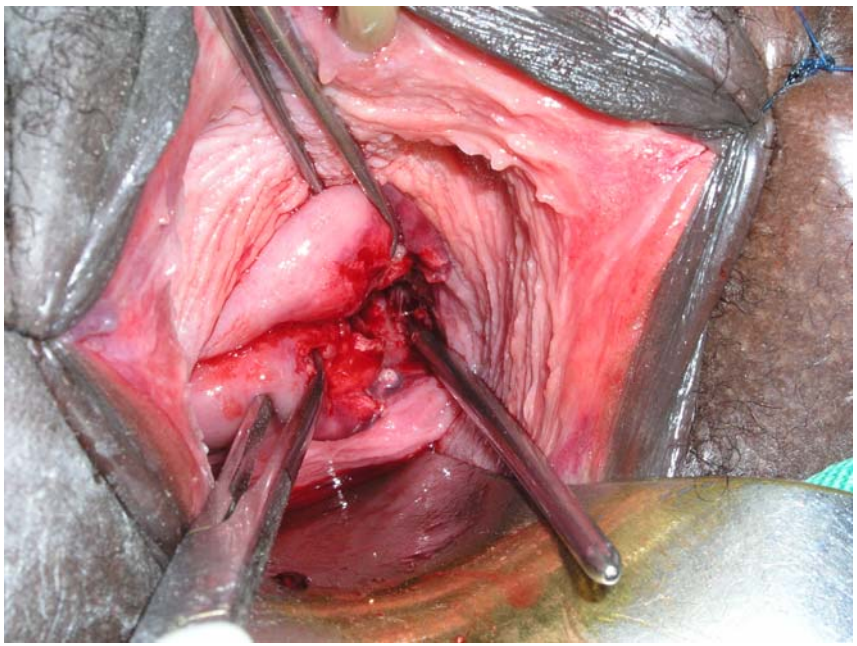
anterior vagina wall advancement flap

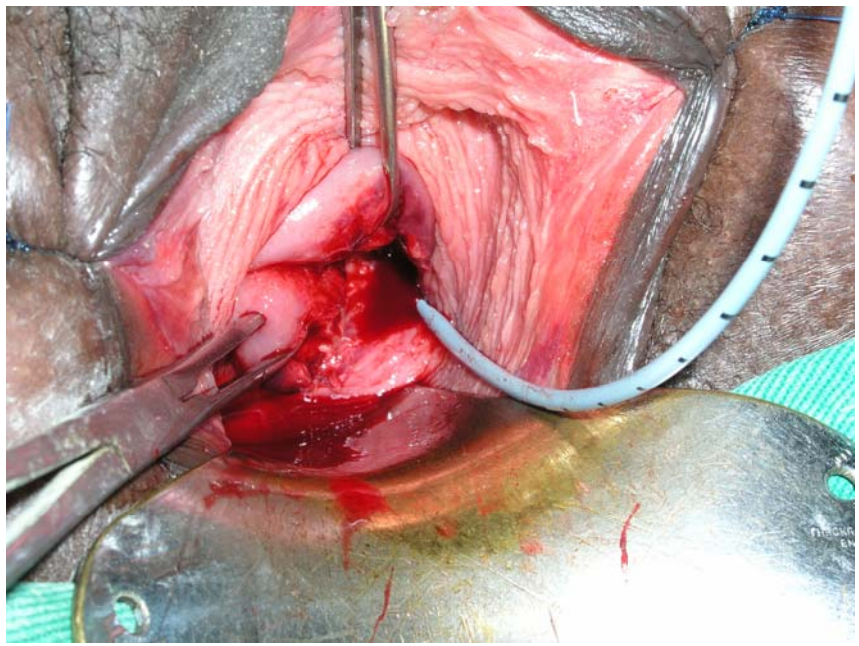




intracervical ureter fistula L

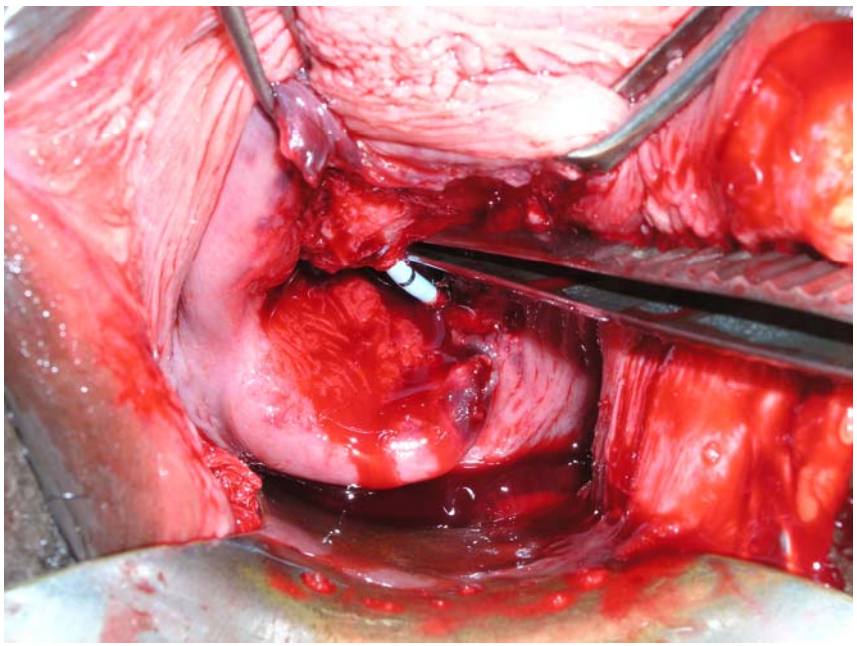
ureter catheterization

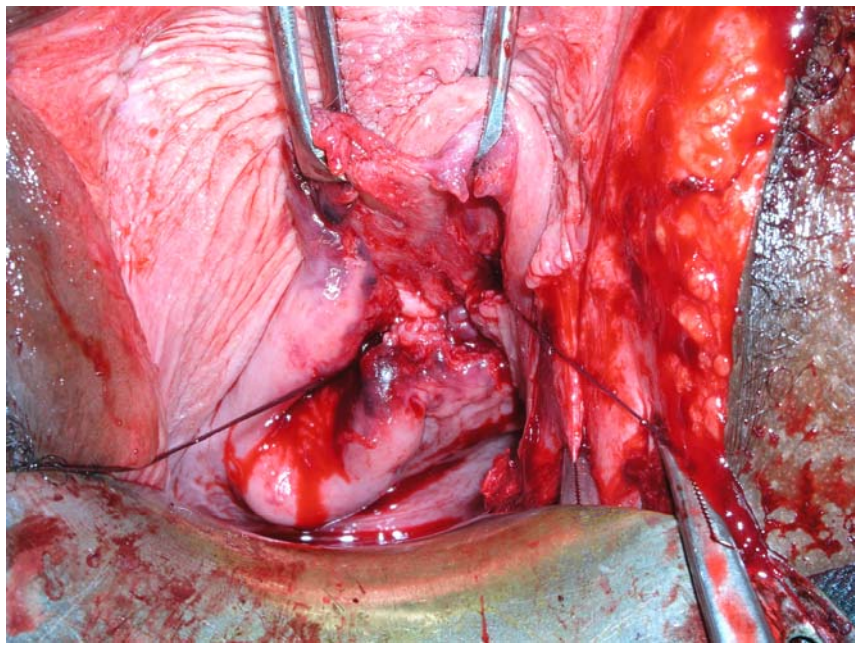




ureter fistula L

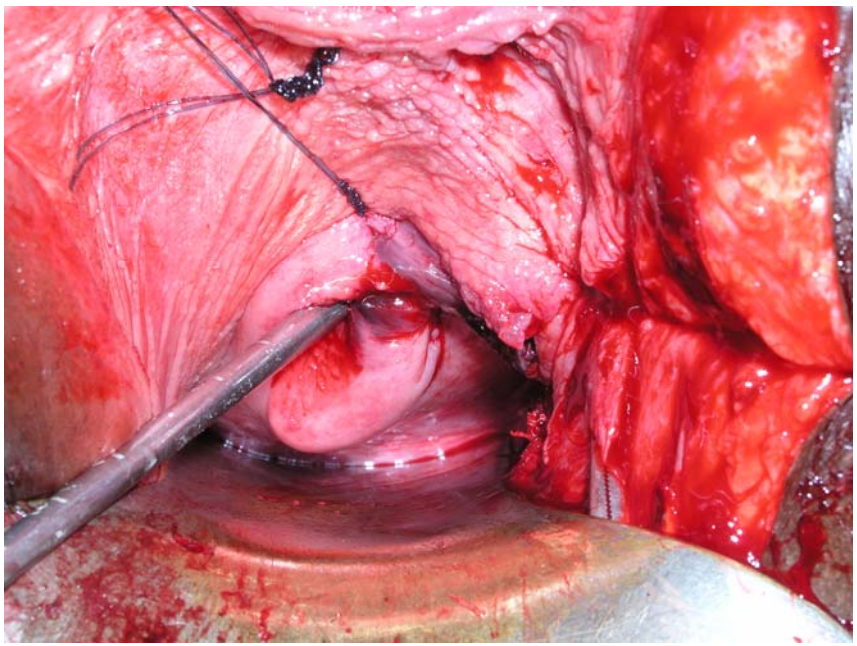
opening bladder, routing catheter, closing bladder





ureter fistula L

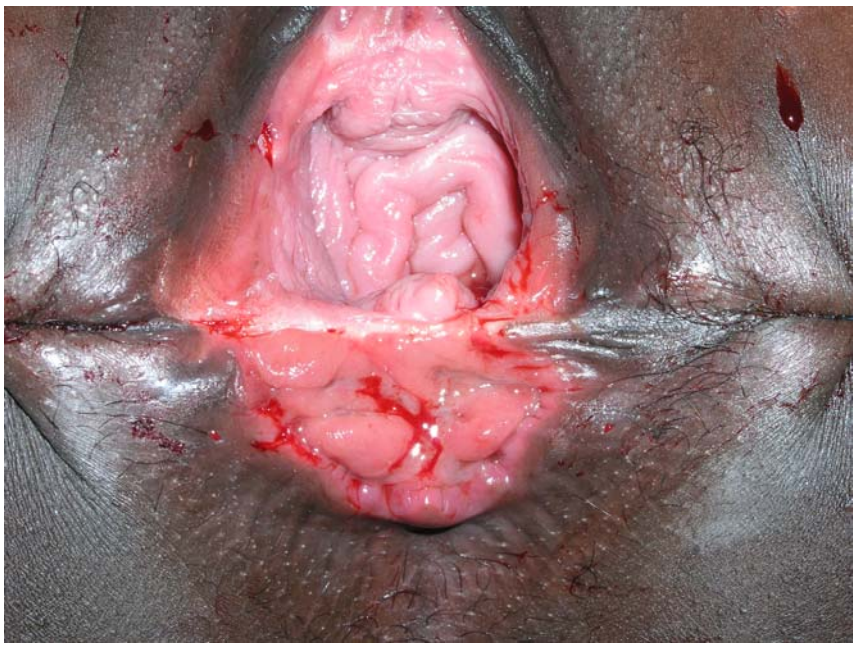
cervix closure and checking urine flow

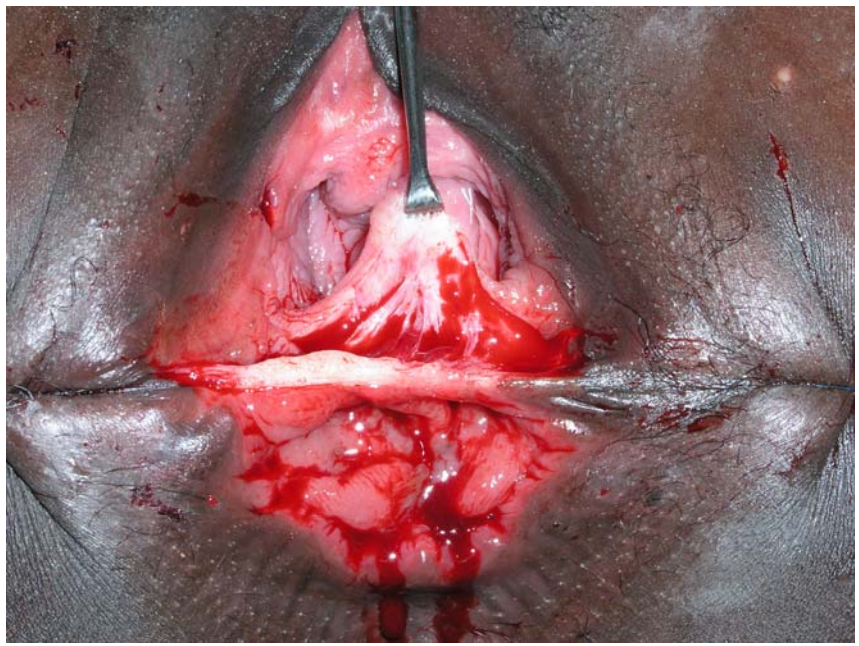


sphincter ani rupture with rectum trauma

sphincter ani repair

with rectum closure



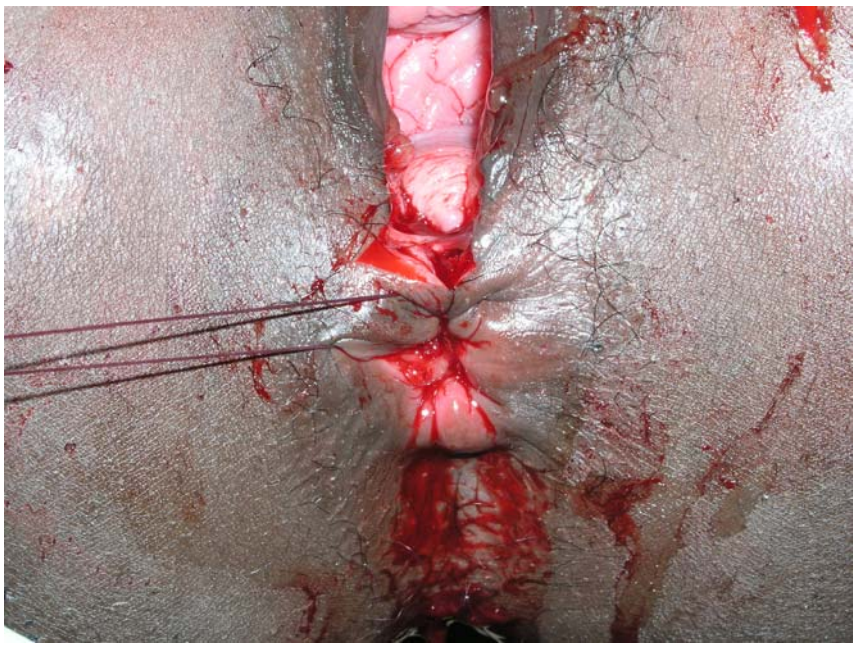


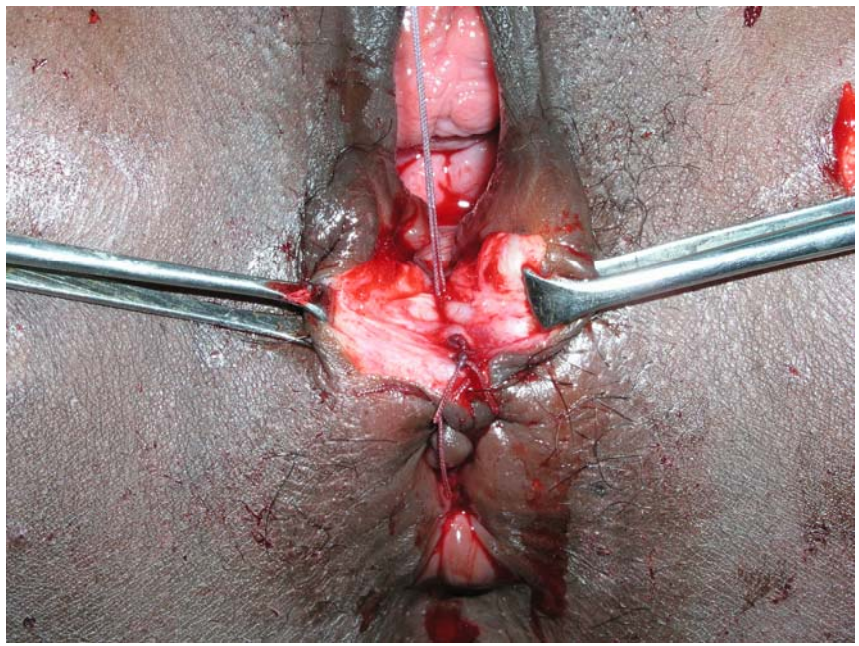
sphincter ani repair

rectum closure

sphincter ani repair

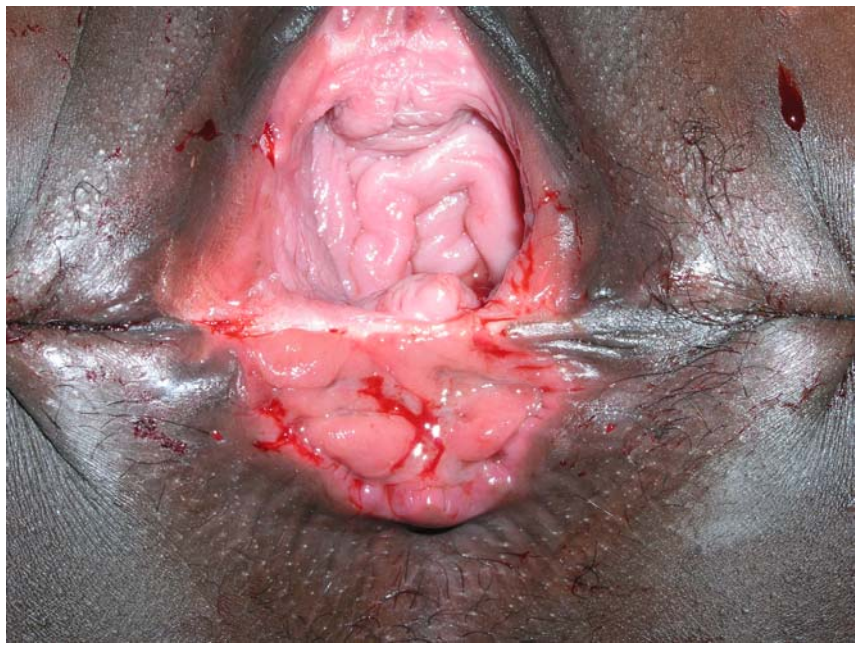
sphincter repair



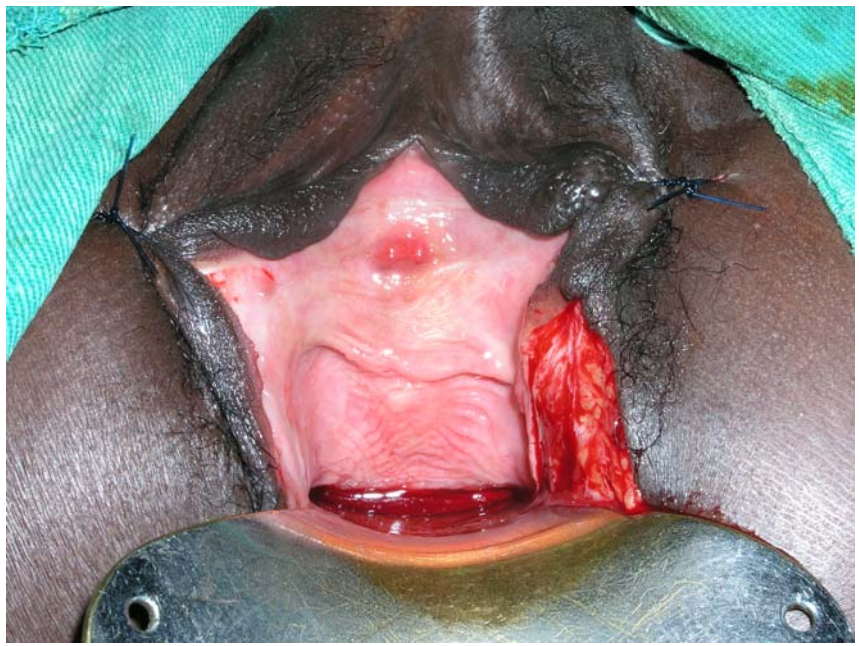


sphincter ani repair

deep low-tension perineum adaptation

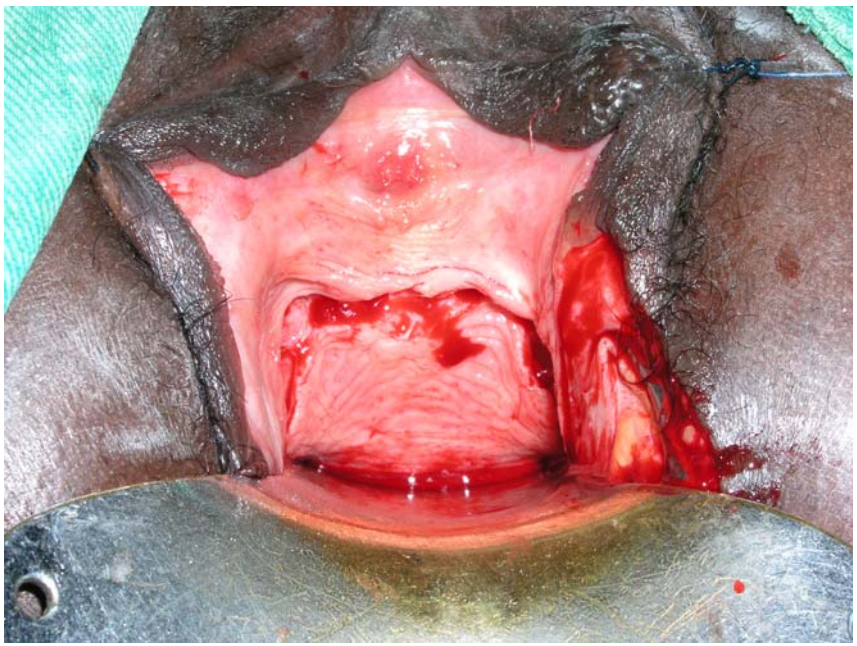


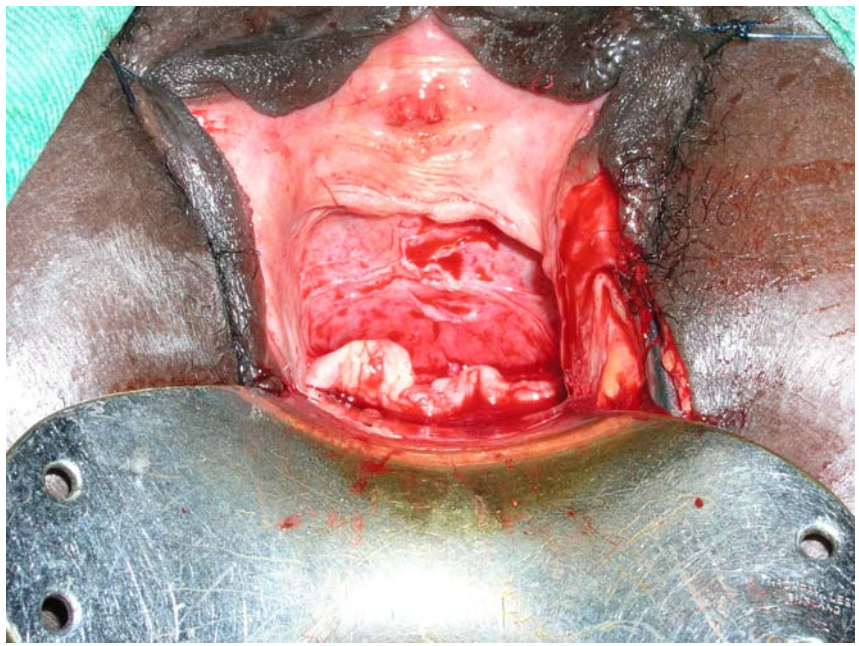
intrinsic_stress incontinence



intrinsic_stress incontinence

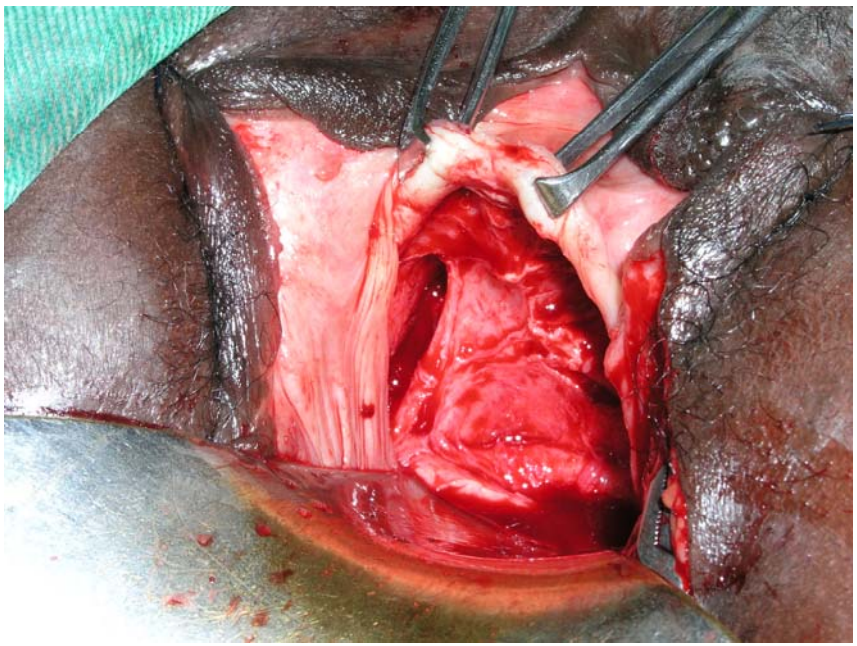
incision and dissection

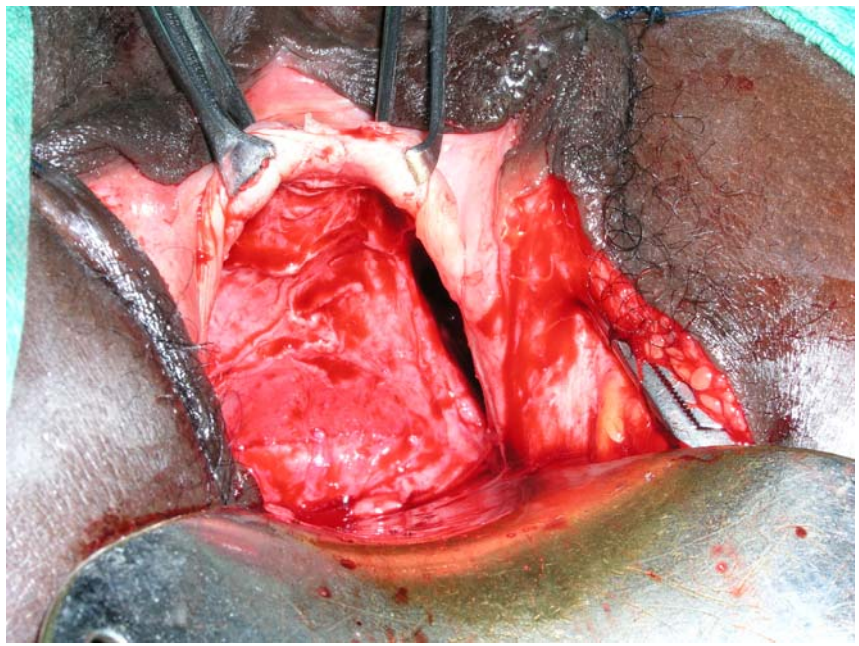




intrinsic_stress incontinence

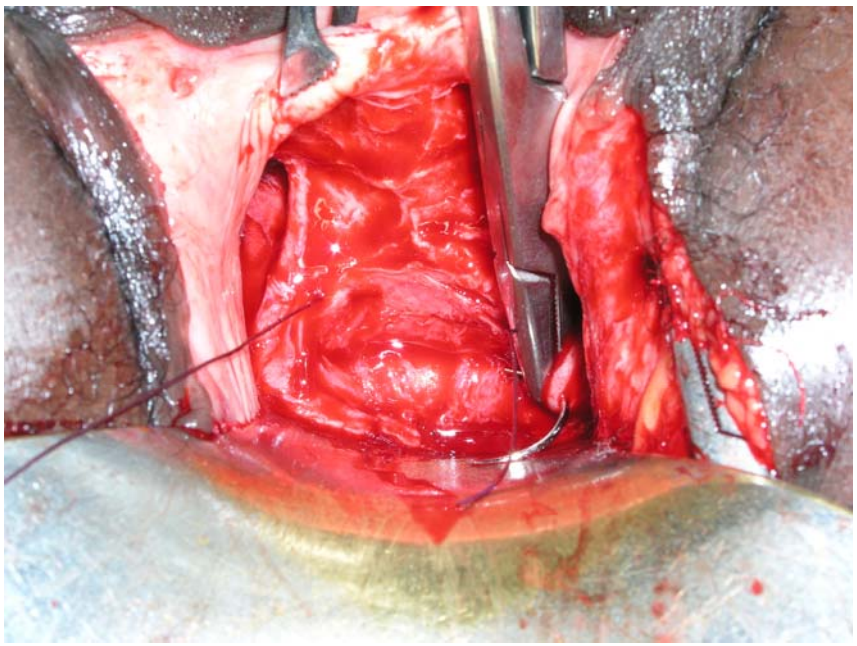
paravesical spaces

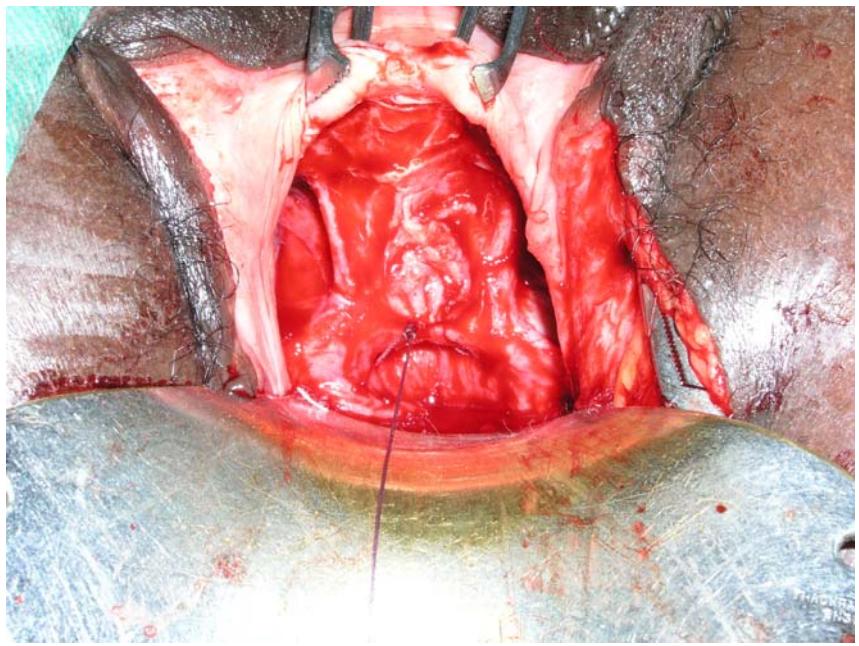




intrinsic_stress incontinence

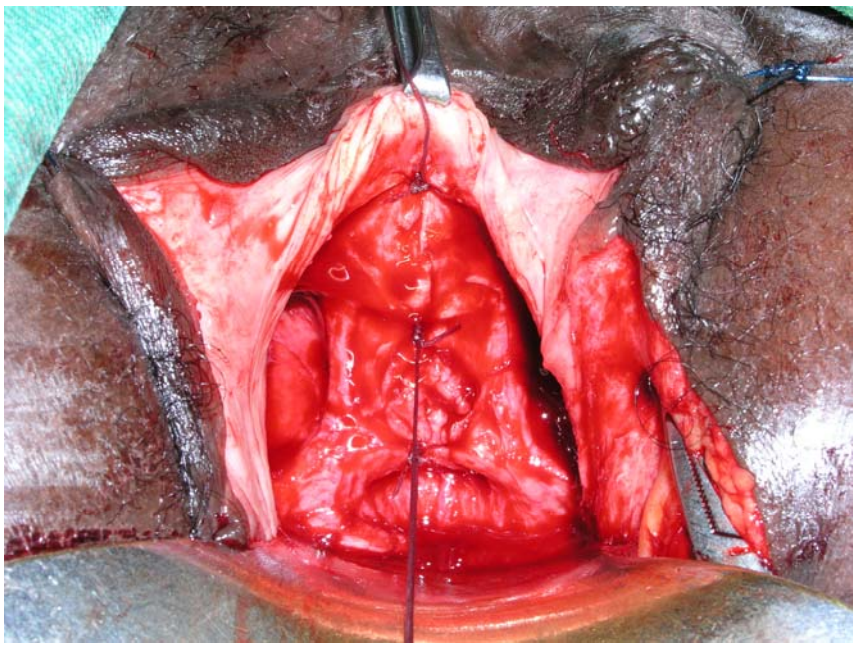
rhaphy of urethra_fascia

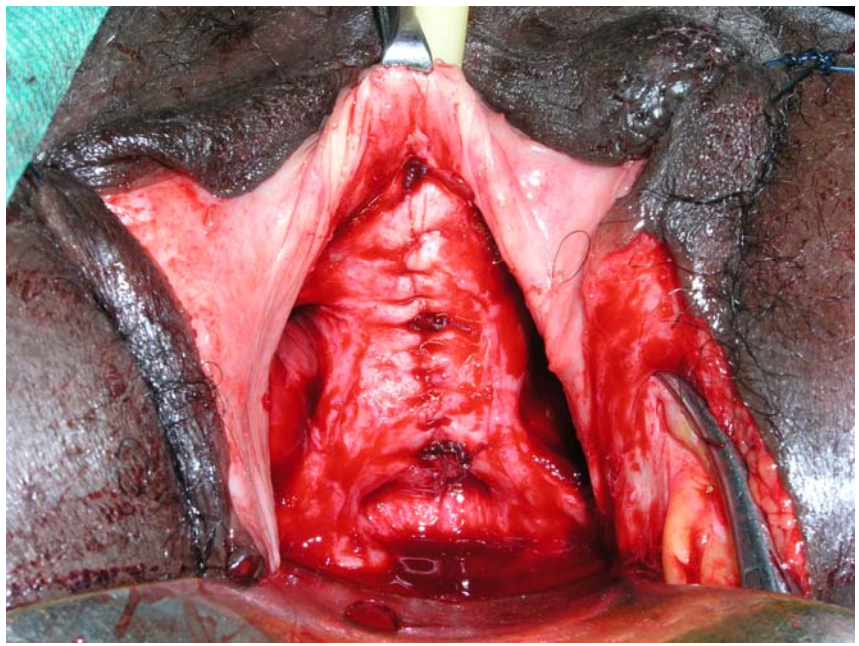




intrinsic_stress incontinence

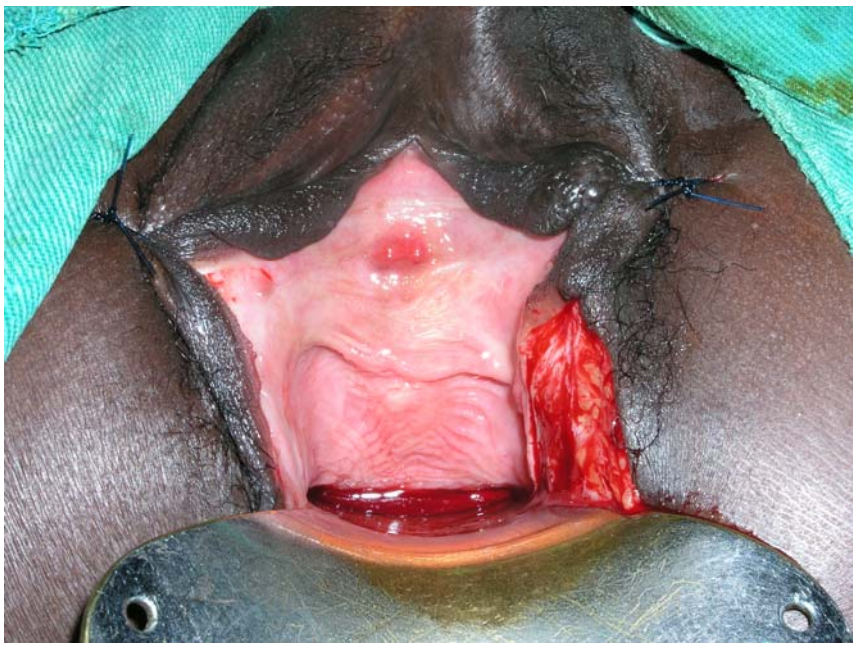
interrupted_continuous rhaphy





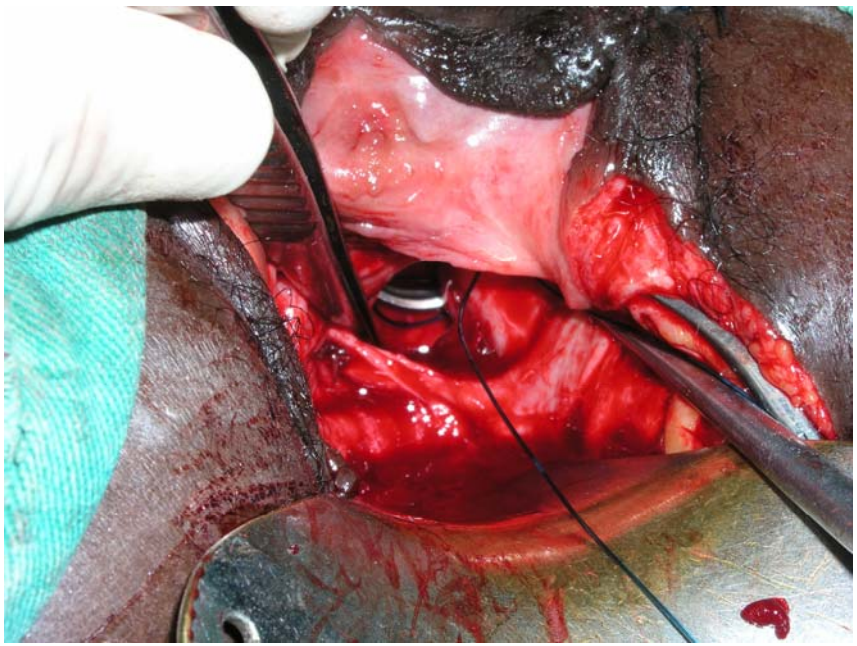
intrinsic_stress incontinence

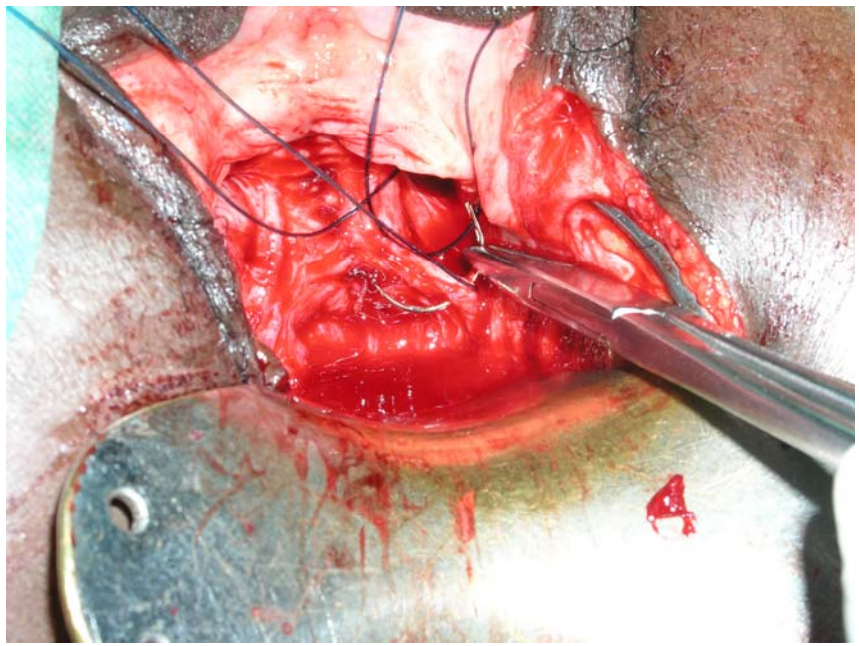
external urethra opening before/after



intrinsic_stress incontinence

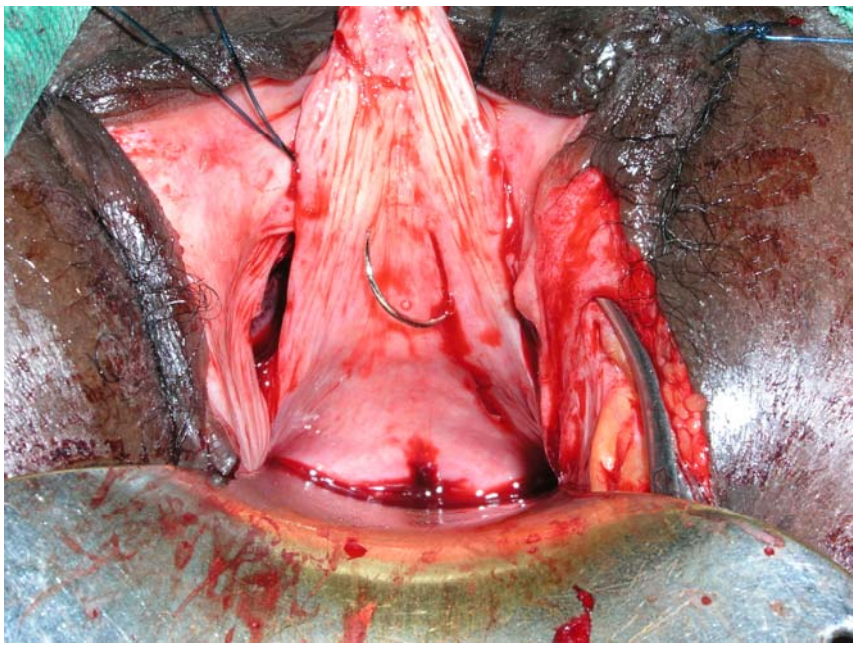
fasciocolposuspension

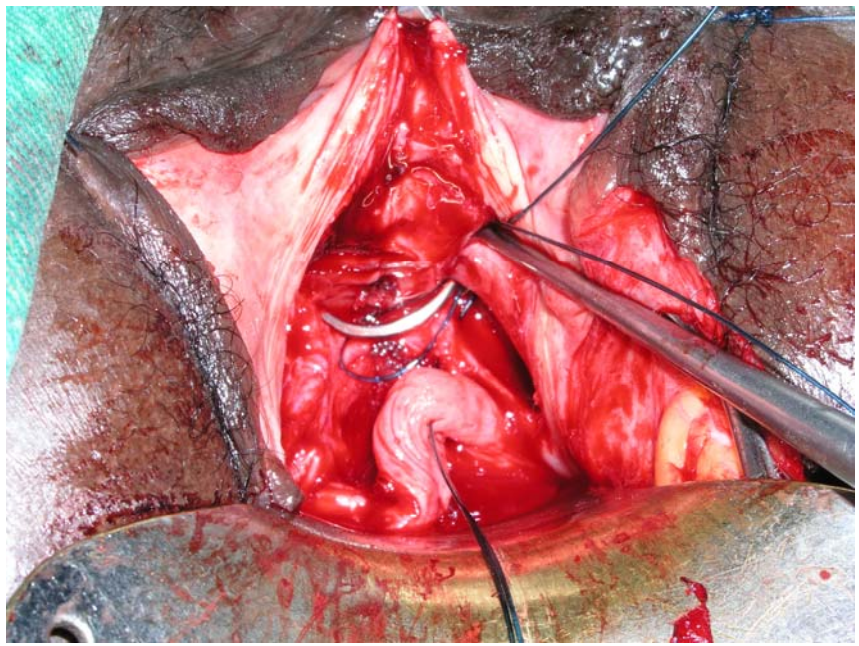




intrinsic_stress incontinence

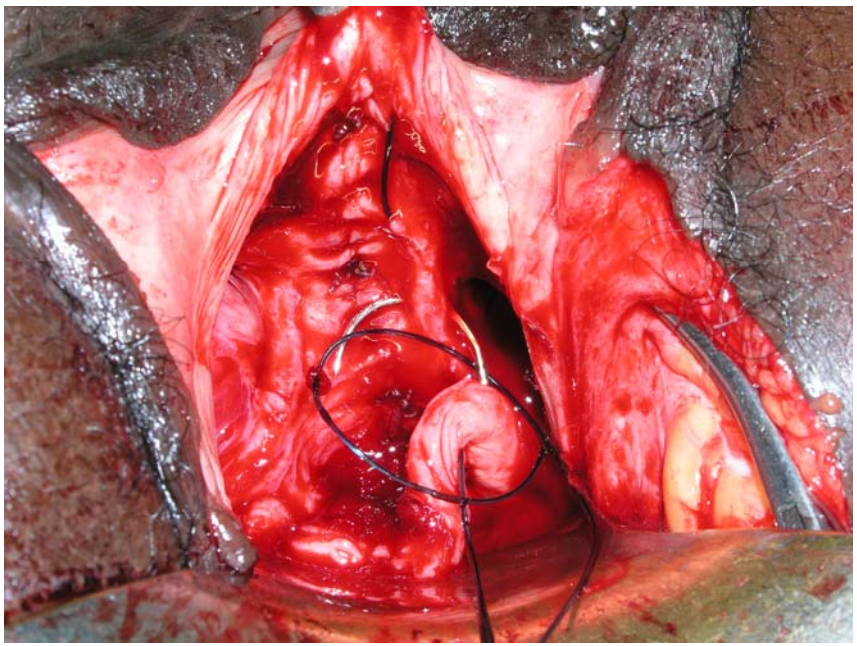
fasciocolposuspension

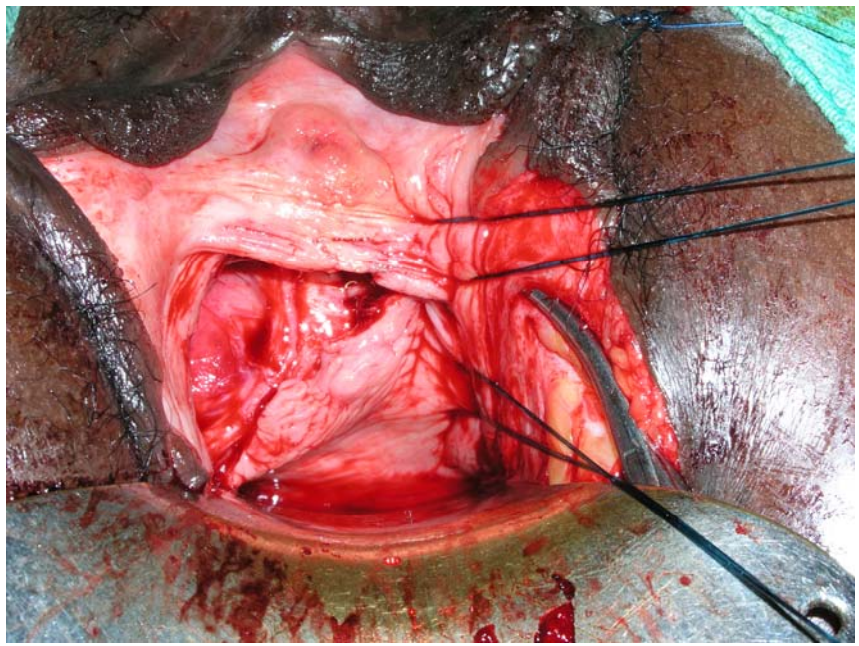




intrinsic_stress incontinence

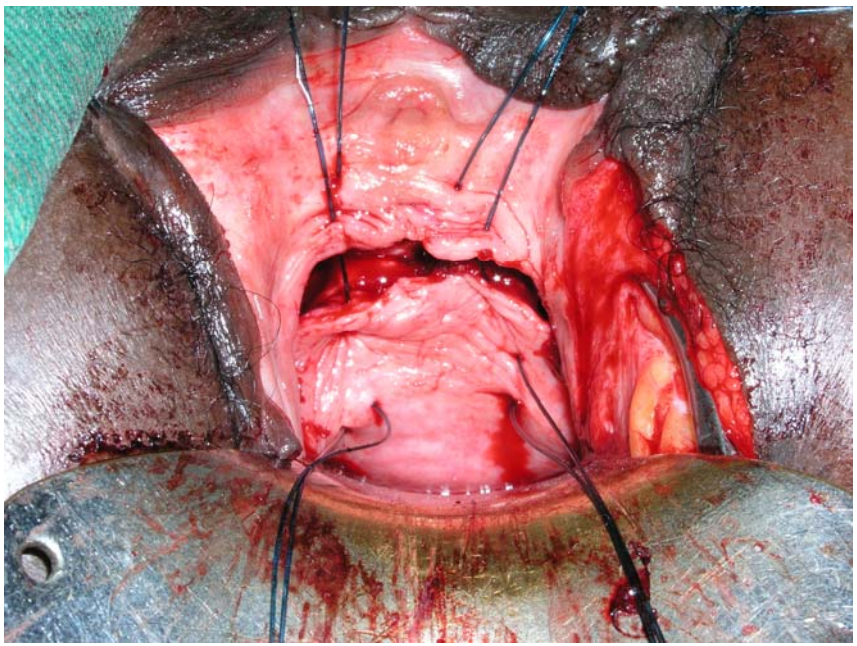
fasciocolposuspension

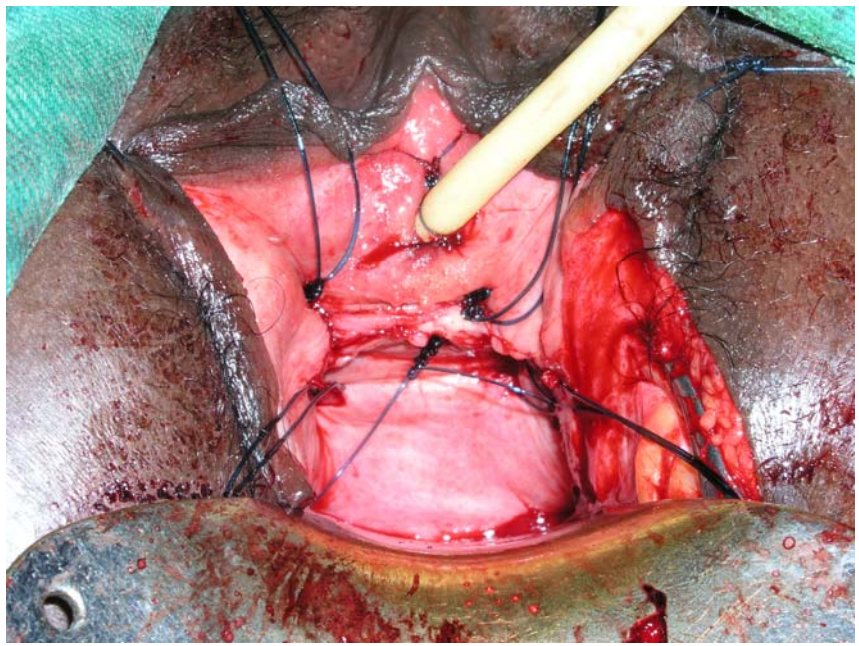




intrinsic_stress incontinence

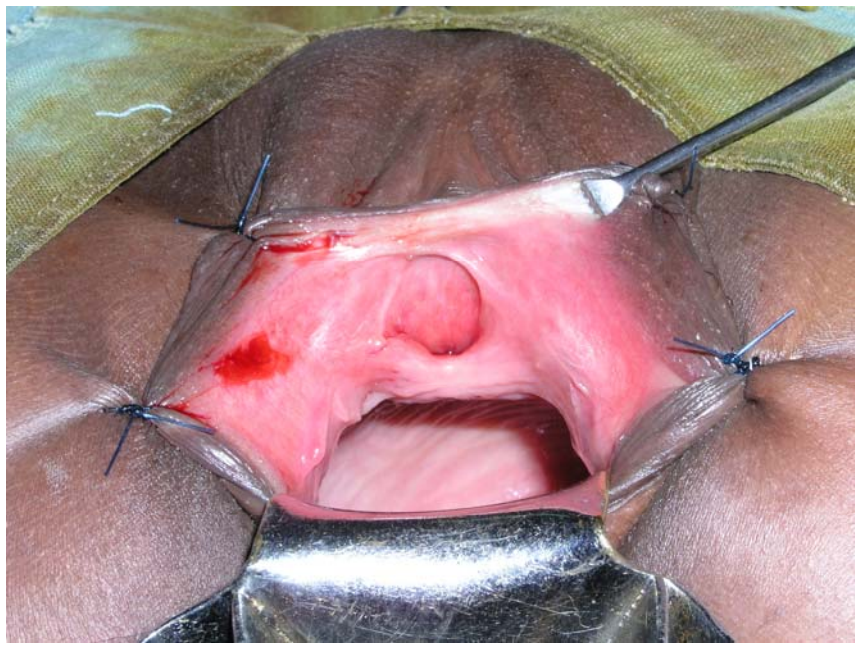
fasciocolposuspension





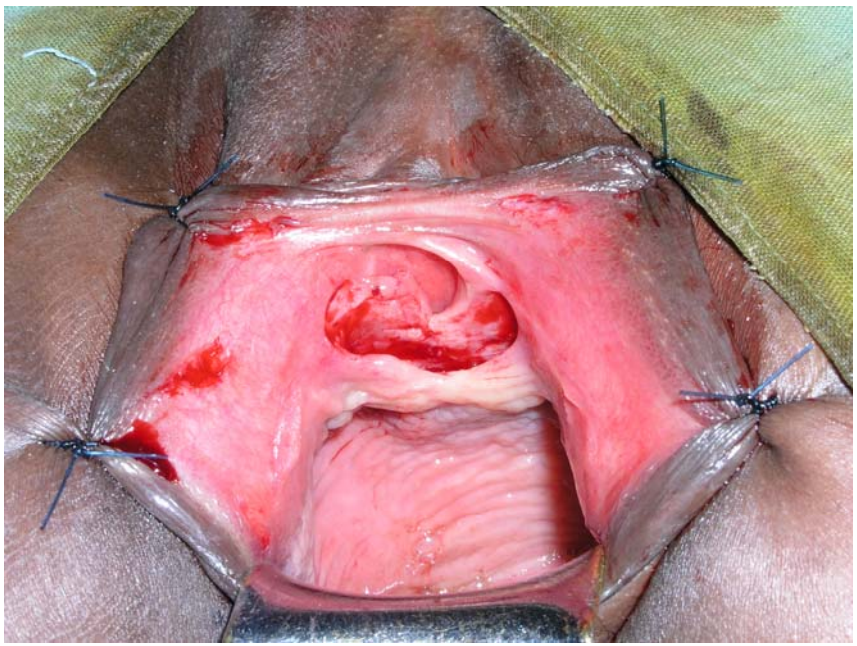
open urethra

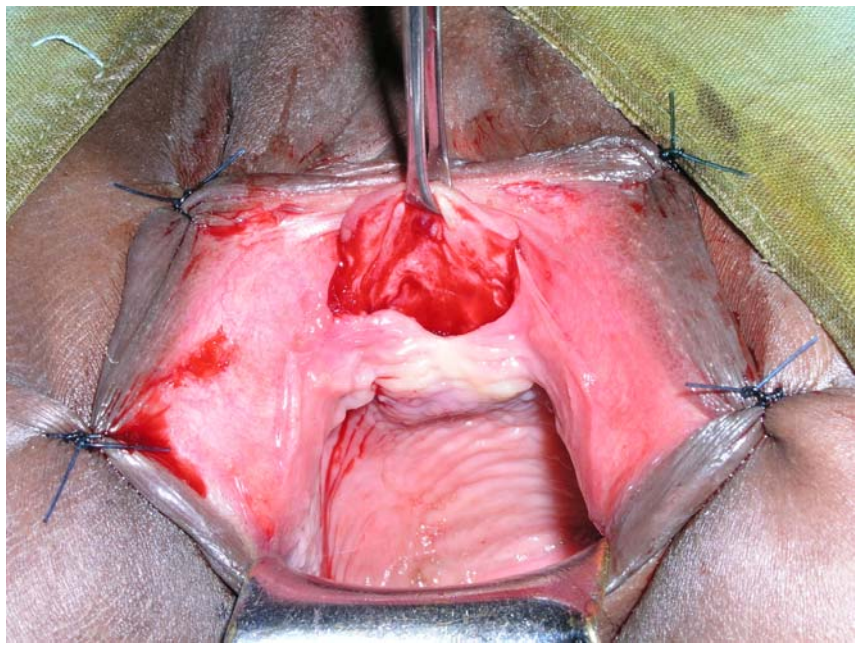
with instrinsic_stress incontinence



open urethra

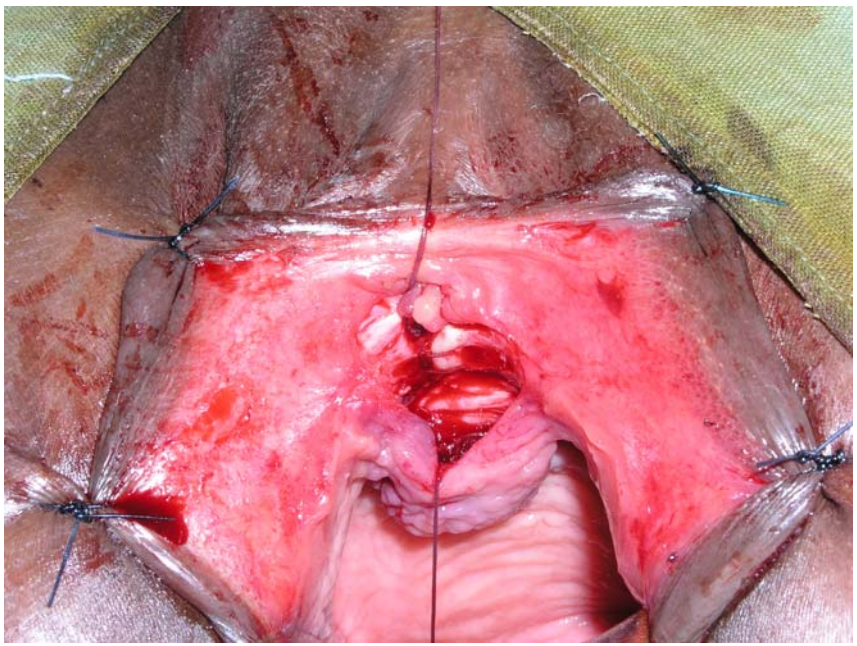
incision and dissection

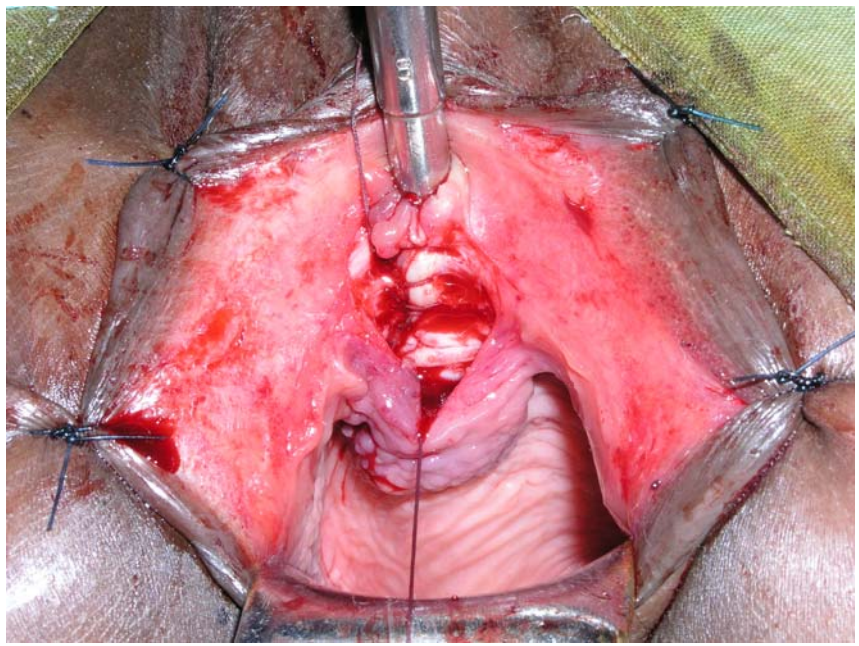




open urethra

rhaphy





open urethra

anterior vagina wall closure