

# Center for Reconstructive Urethral Surgery



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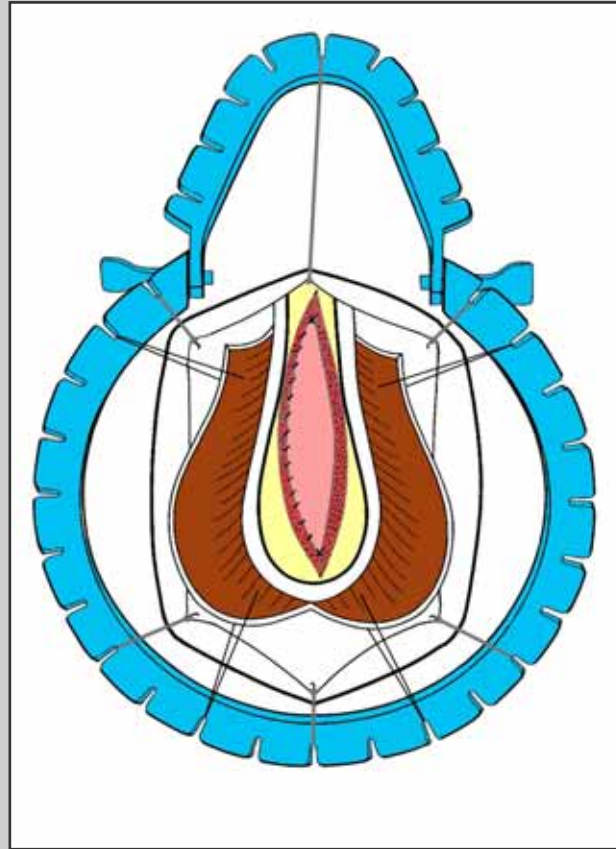
# Ventral onlay graft urethroplasty

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**Bulbar urethra**

# Ventral onlay graft urethroplasty



Surgical technique: step by step

# Preparation of the patient



**Simple lithotomy position**

# Preparation of the patient

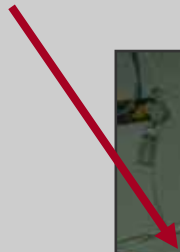


**Allen stirrups with sequential inflatable compression sleeves**



# Two surgical teams work simultaneously

harvesting  
the oral  
mucosa



preparing  
the bulbar  
urethra

# Two sets of surgical instruments



**Oral mucosa**



**Urethroplasty**



# Advantages of the double team

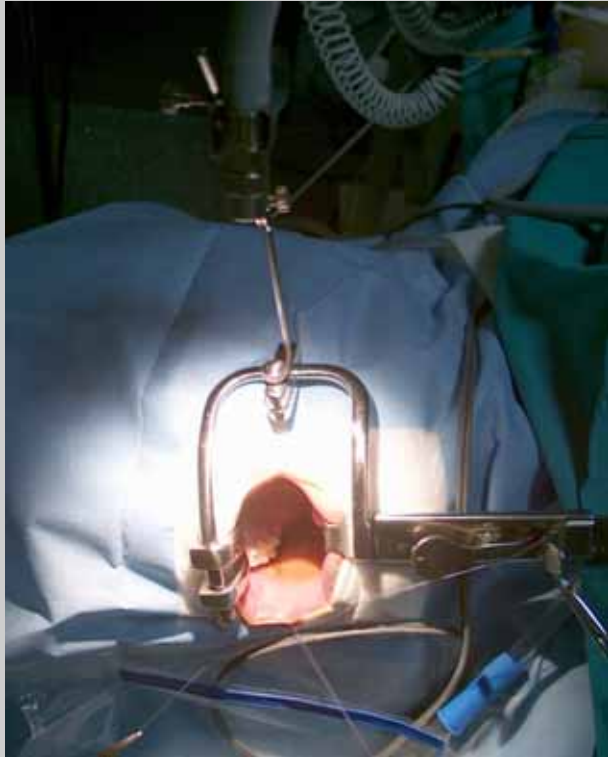
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graph TD; A[Advantages of the double team] --> B[decrease of surgical time to ~ one hour]; A --> C[decrease of contamination in surgery];
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**decrease of  
surgical time  
to ~ one hour**

**decrease of  
contamination in  
surgery**

**The patient is intubated through the nose,  
allowing the mouth to be completely free**



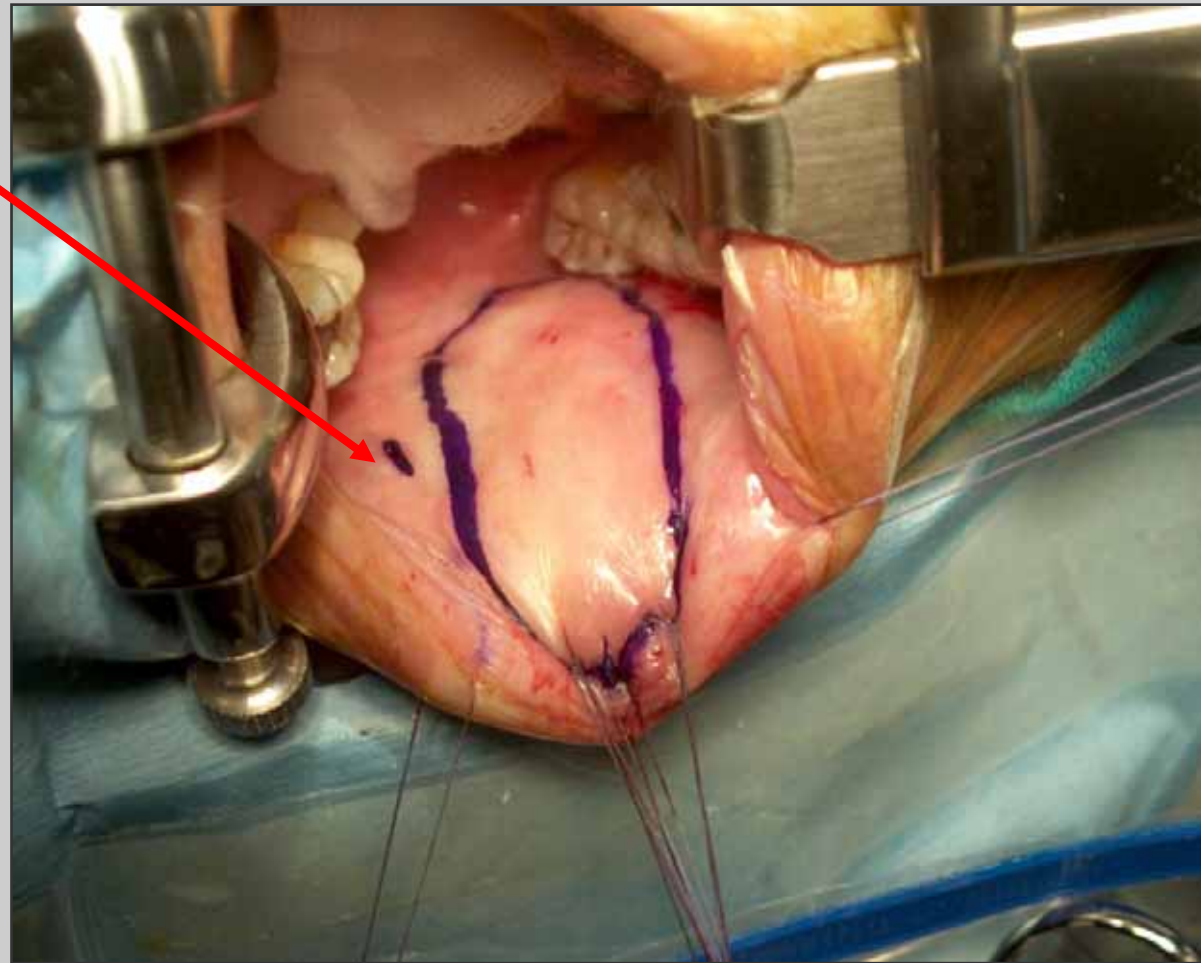


**Appropriate mouth  
retractor**



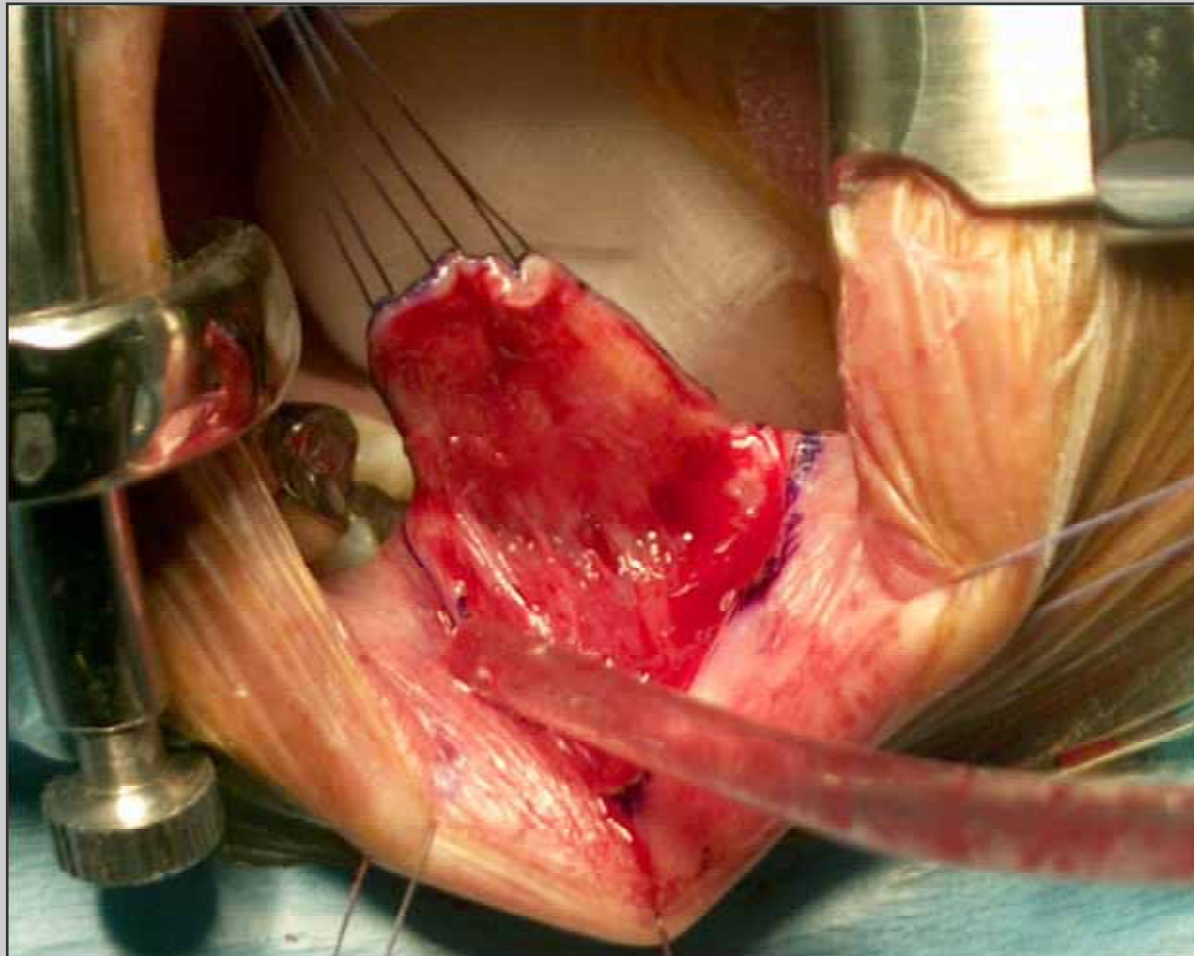
**Only one assistant is needed  
to harvest the oral graft**

**Stenon's duct**



**the harvesting site is underlined**



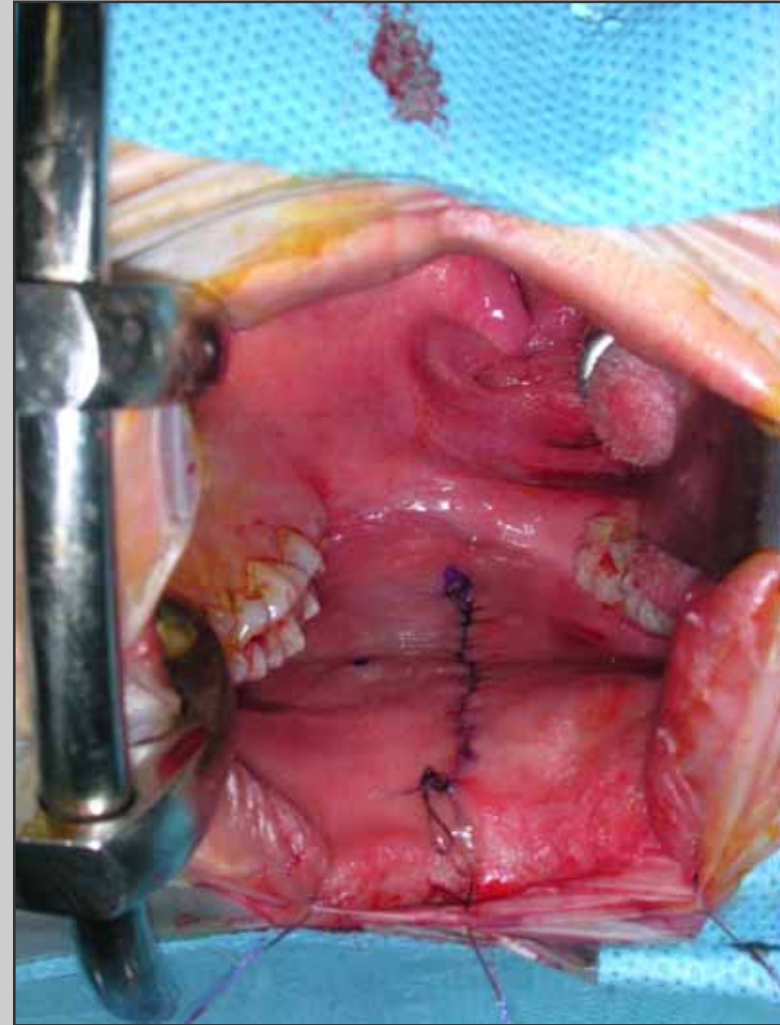
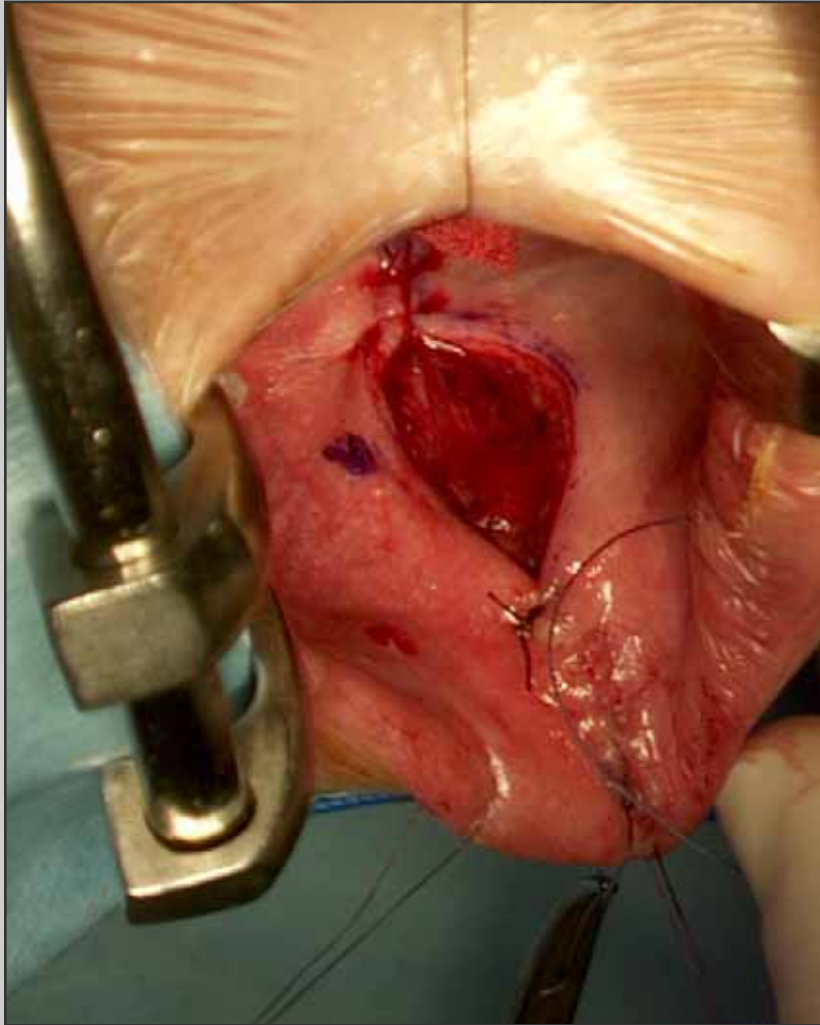


**The oral mucosa is removed**



**The graft is 4 cm long and 2.5 cm wide**

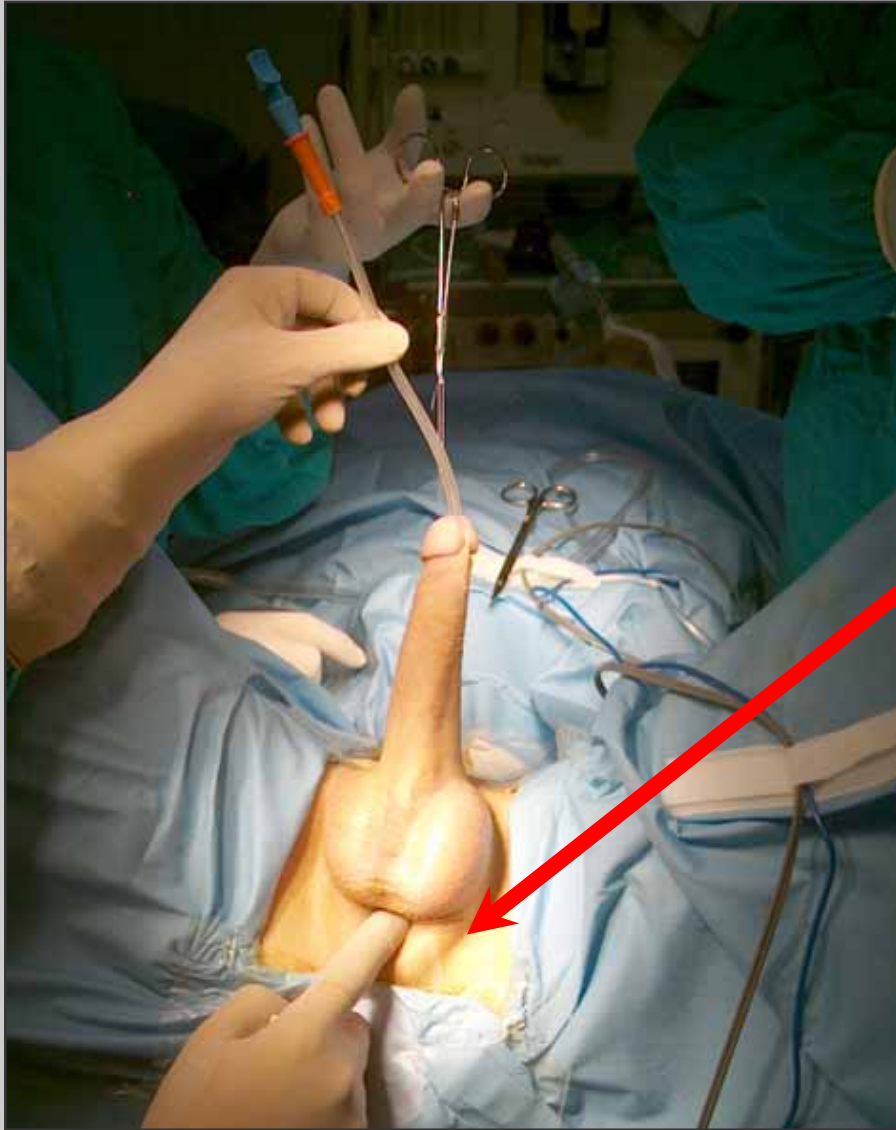




**The harvesting site is closed**

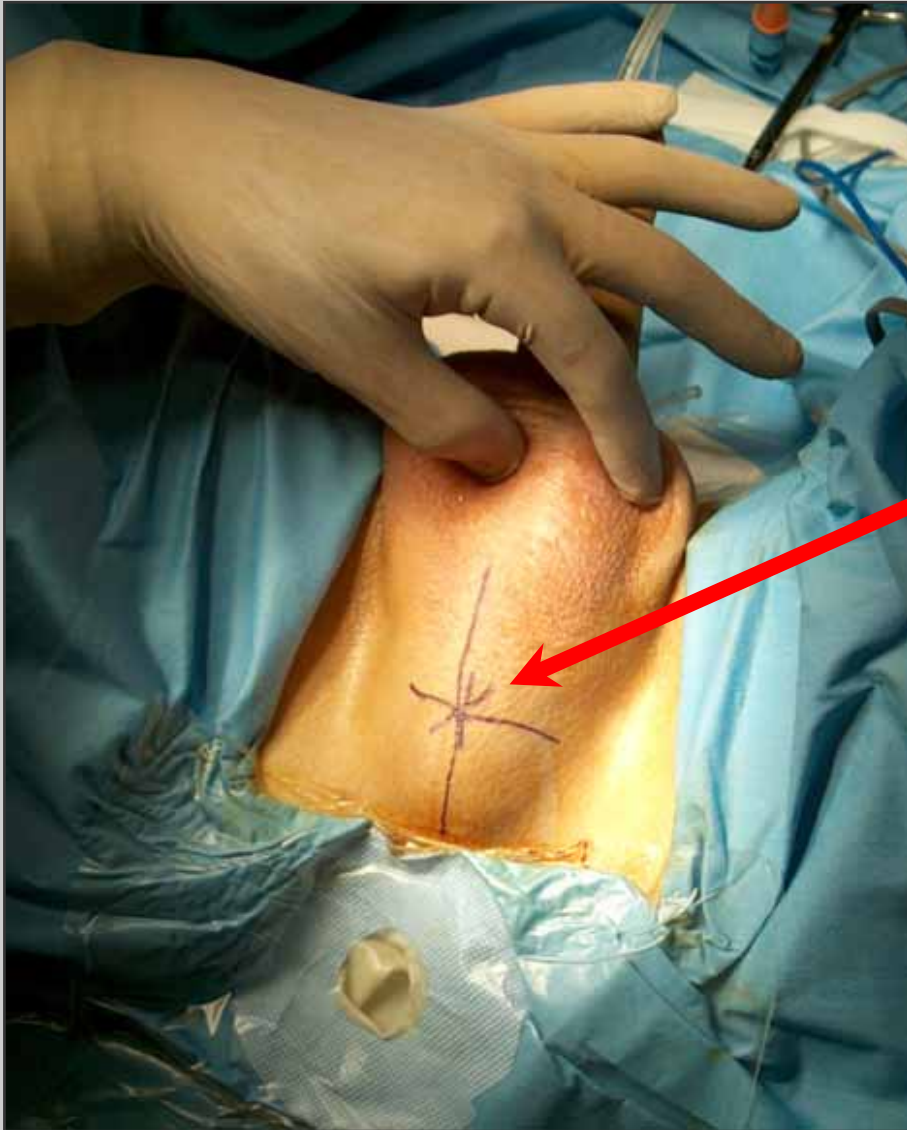


**Methylene blue is  
injected into the urethra**

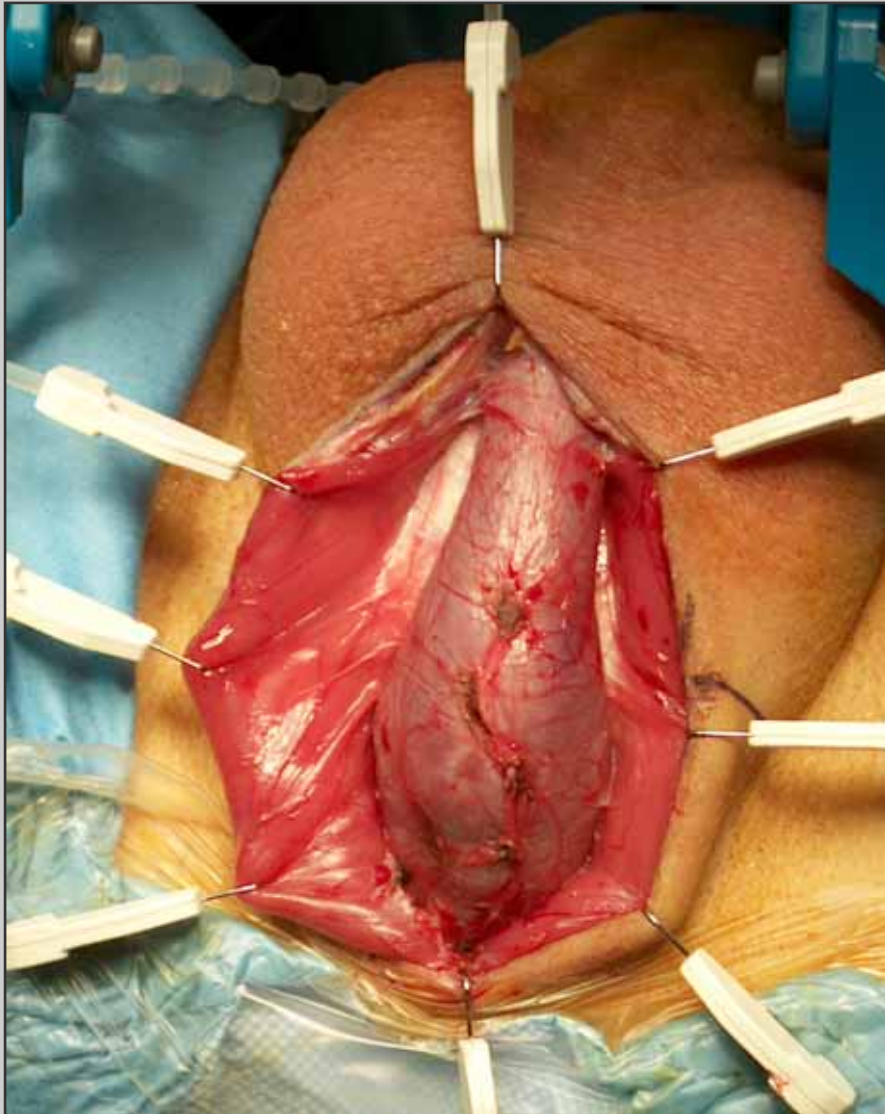


**The distal extent of the stenosis is identified by inserting a 16 Ch catheter with a soft round tip**

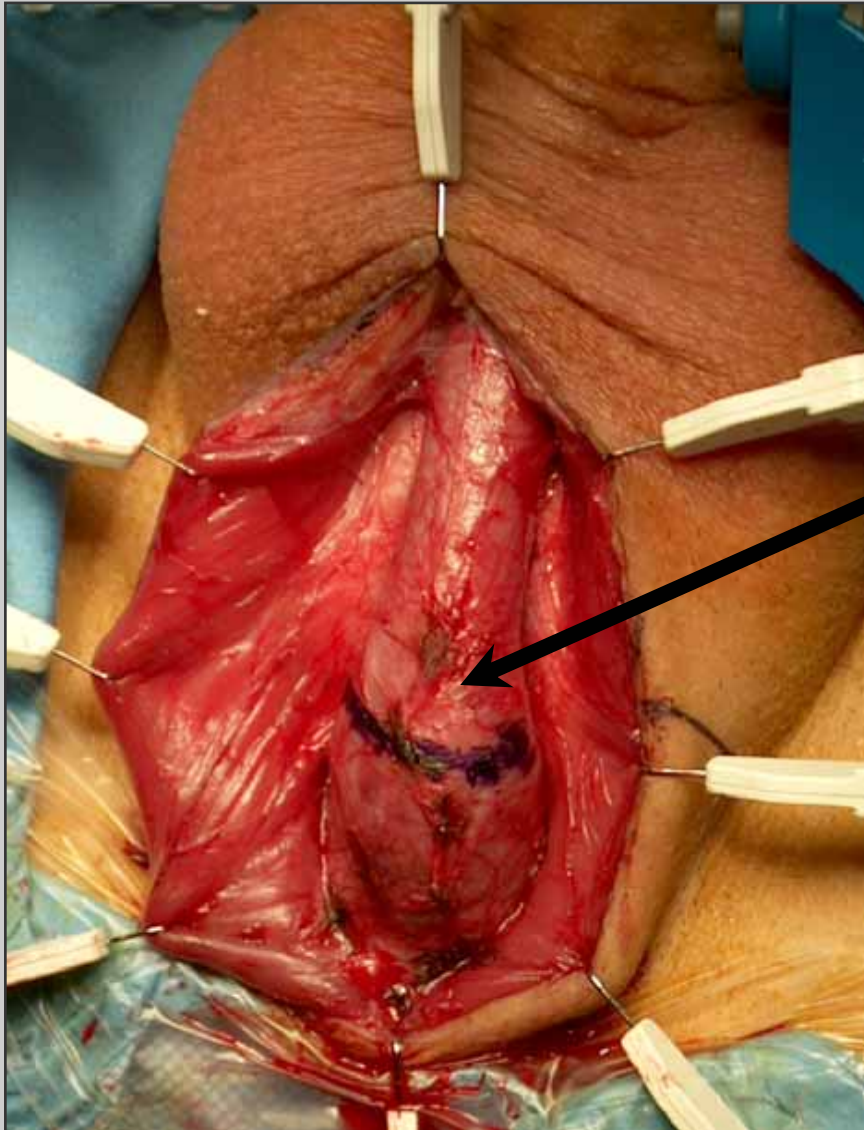




**Midline perineal incision**

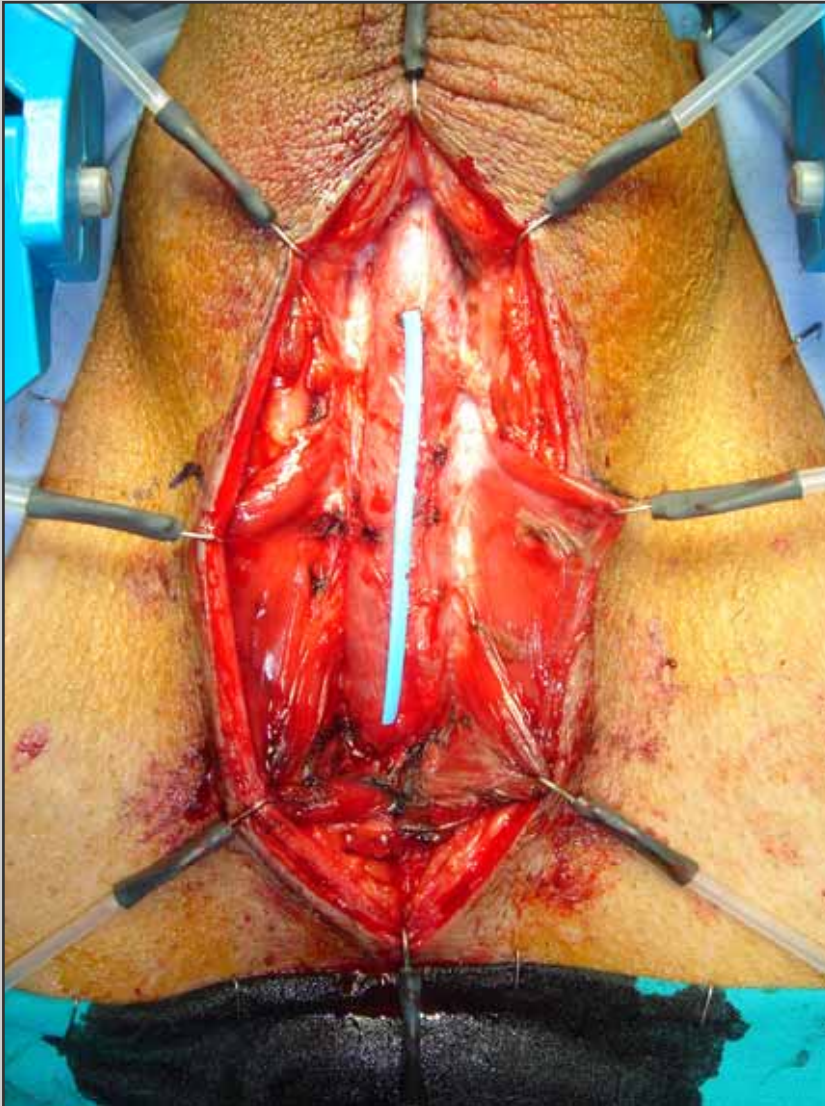


**The urethra is freed  
from the  
bulbocavernosus muscle**

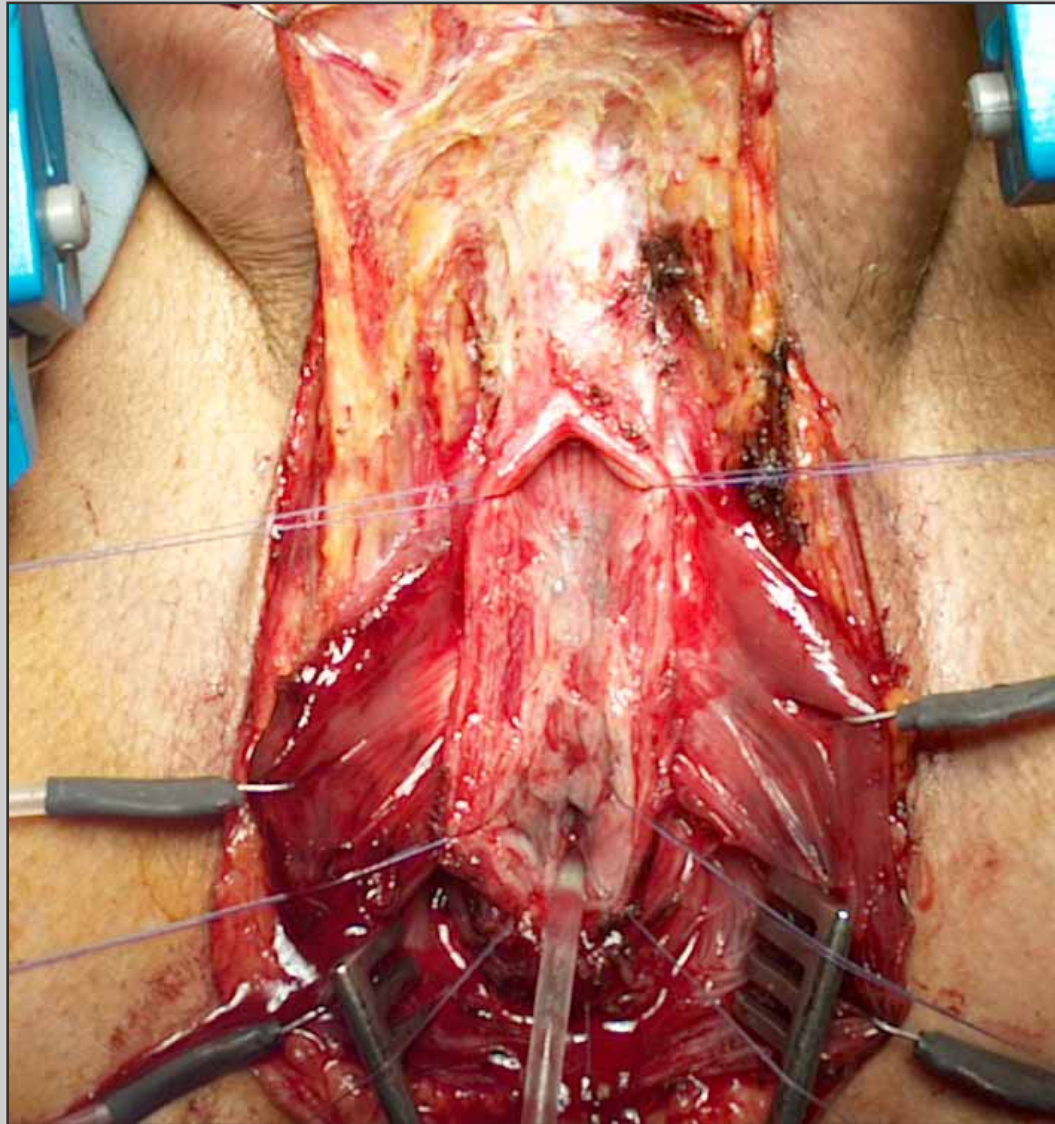


**The distal extent of the  
stenosis is identified  
and underlined**



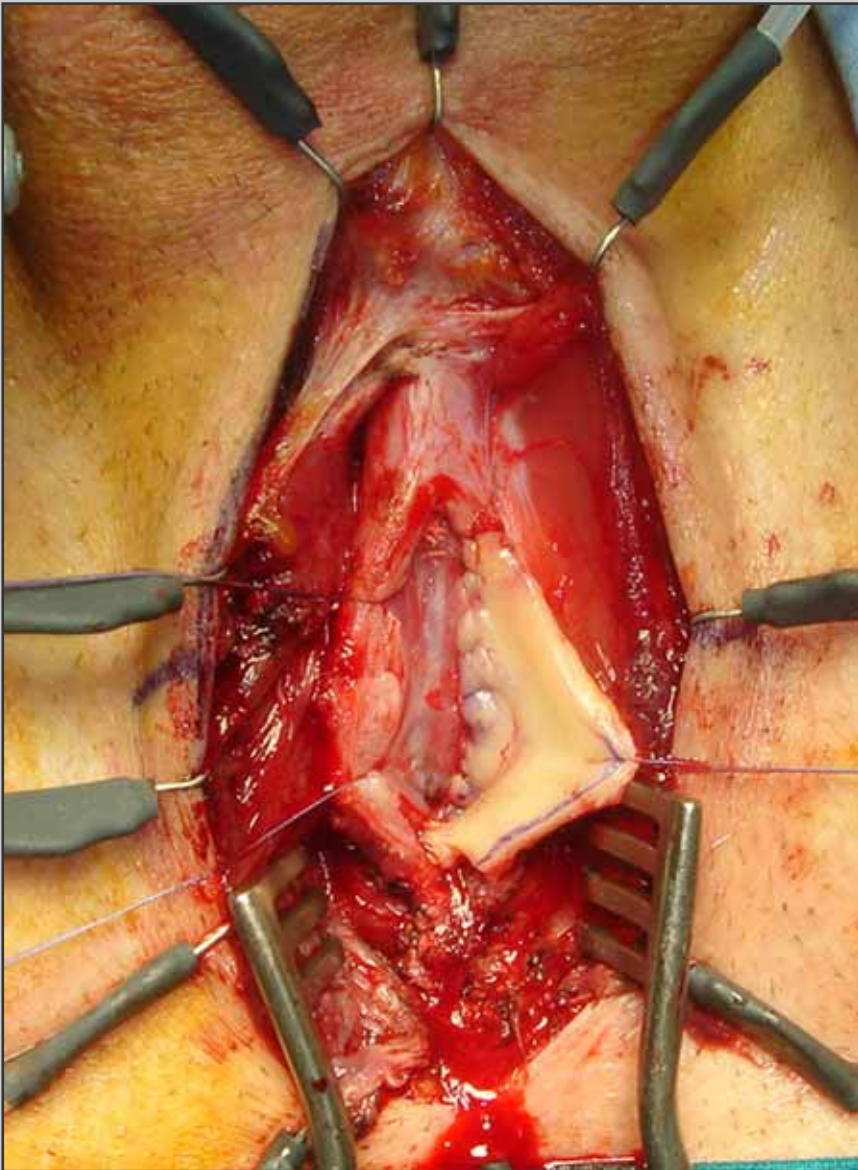


**The incision on the ventral  
urethral surface is  
underlined**

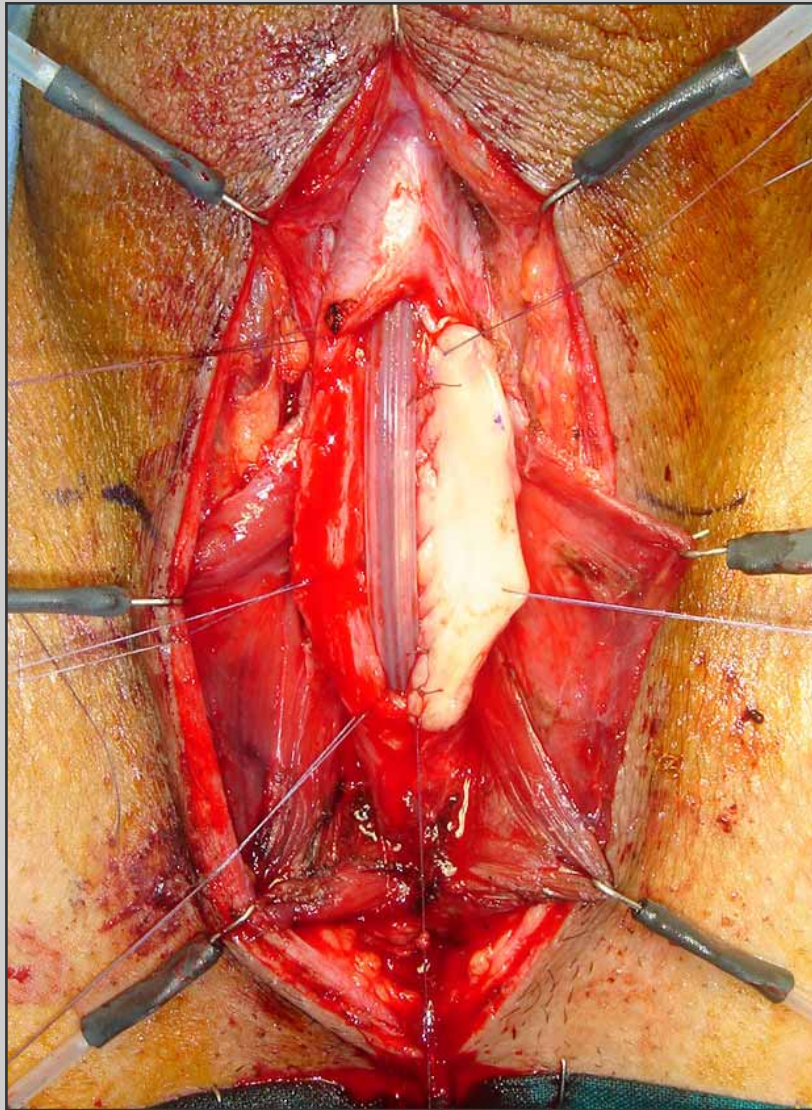


**The ventral urethral  
surface is fully  
opened**



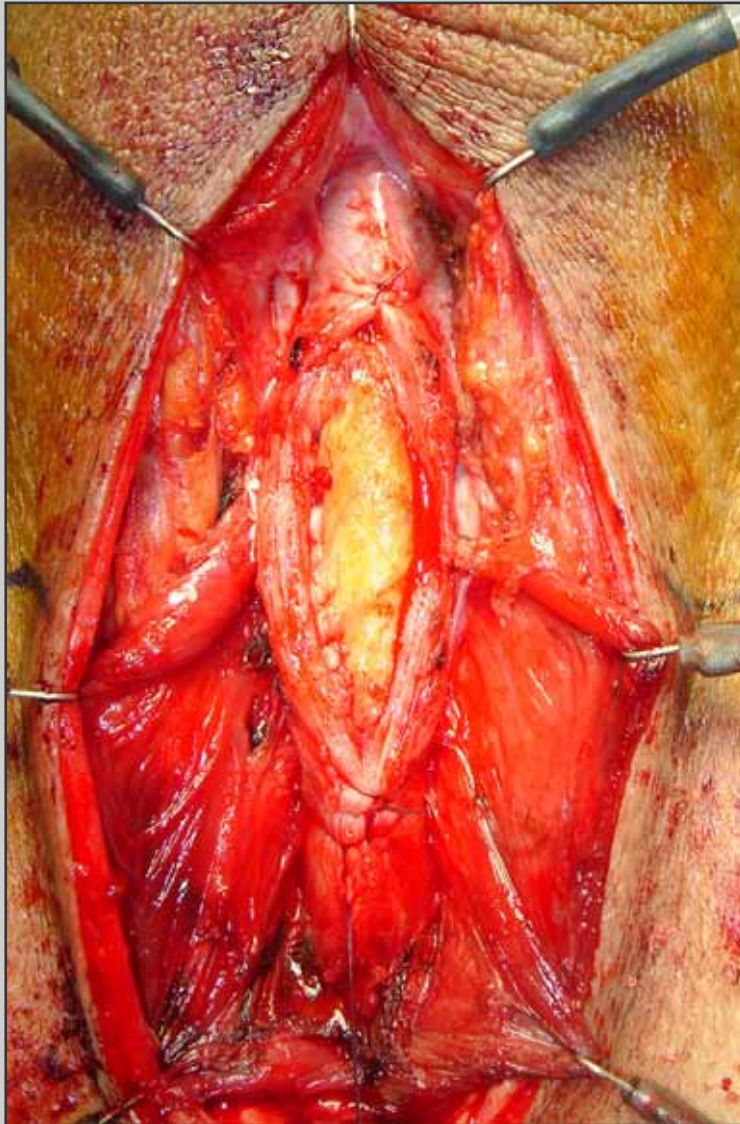


**The oral mucosal  
graft is sutured to the  
left margin of the  
urethral mucosa**

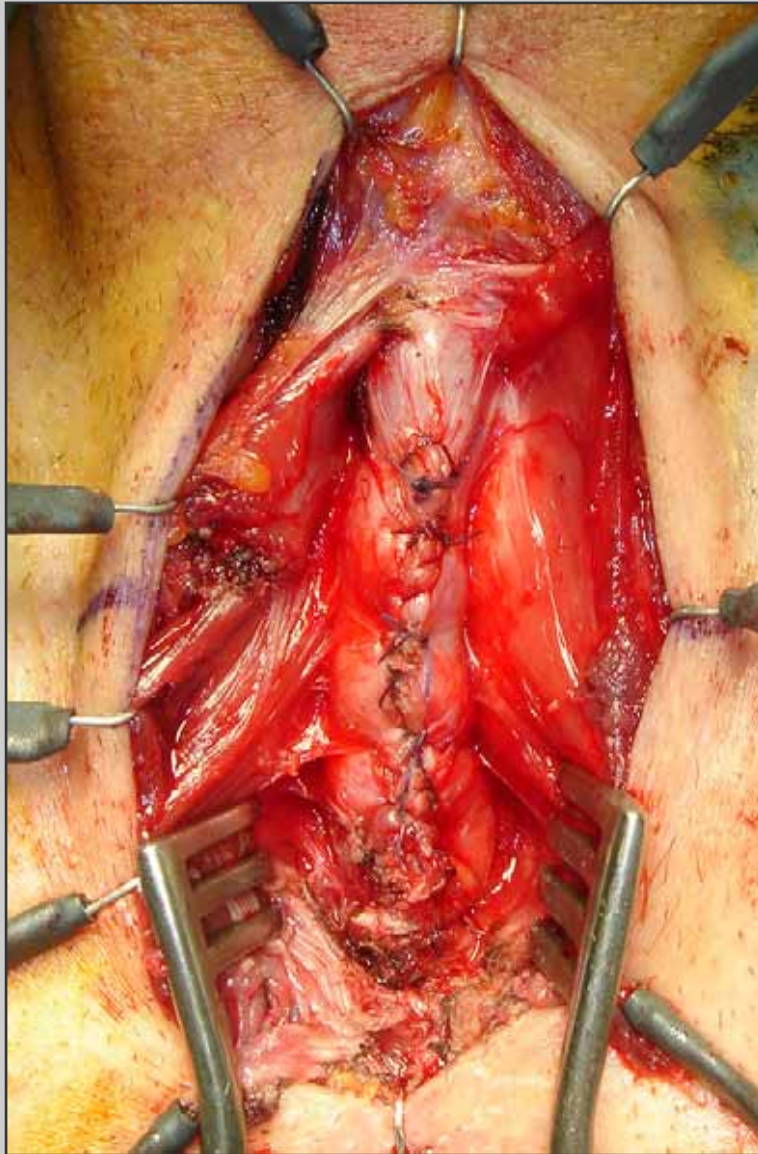


**A Foley 16 Ch  
grooved silicone  
catheter is inserted**





**The oral mucosal graft is  
moved to cover the  
urethral plate and  
sutured to the right  
margin of the urethral  
mucosa**



**The corpus spongiosum  
is closed over the oral  
mucosal graft**

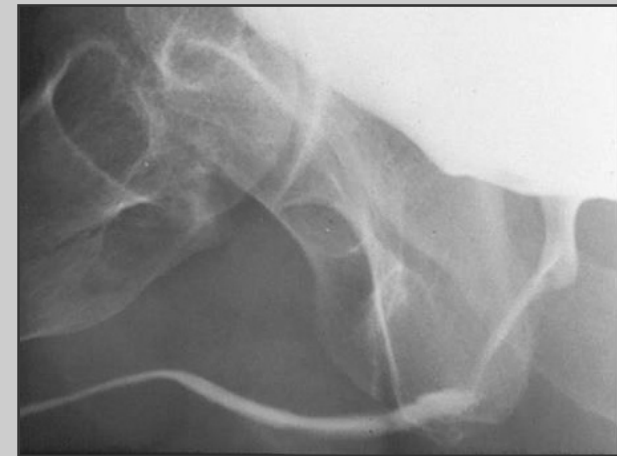




**The perineal  
wound is closed**

# Post-operative care

- **Patient is discharged from the hospital three days after surgery**
- **Patient is maintained on oral antibiotics until the catheter is removed**
- **Three weeks following surgery, the catheter is removed and voiding cysto-urethrography is obtained**



# Post-operative complications

- **Urethrorrhagia due to nocturnal erection**
- **Temporary numbness or dysesthesia to the perineum**
- **Scrotal swelling**
- **Urethral fistula**