

CENTER FOR RECONSTRUCTIVE URETHRAL SURGERY



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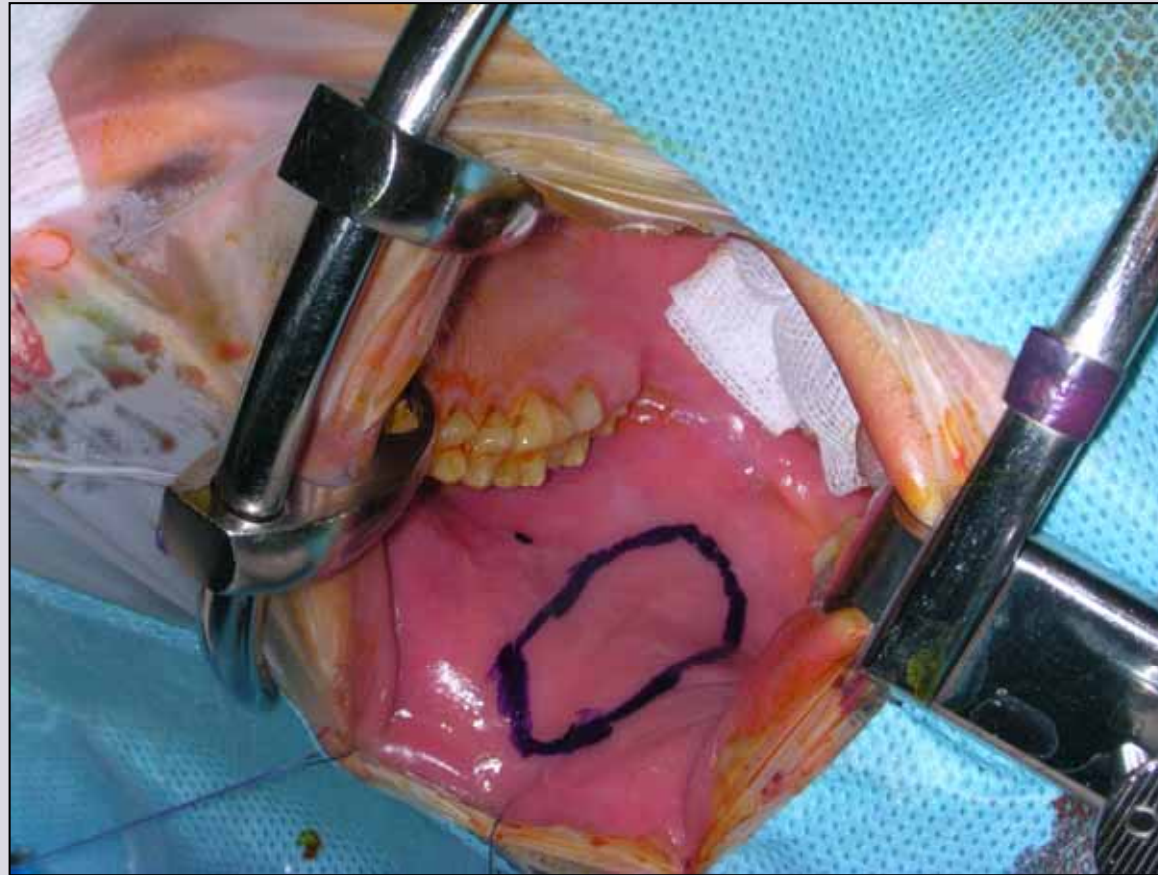
**Joint Session of the European Association of
Urology (EAU) and the Iranian Urological
Association (IUA)**

Urethral Surgery

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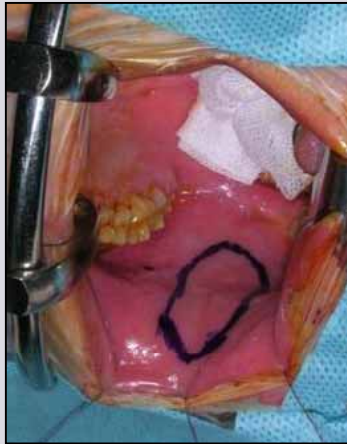
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What I should do in urethroplasty



Oral mucosa

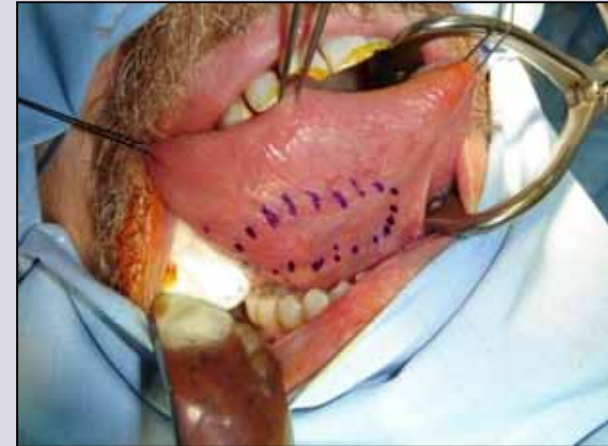
Oral mucosa: harvesting sites



cheek



lip



tongue

NO

Harvesting site from the lip: visible to the naked eye



Negative aesthetic consequences

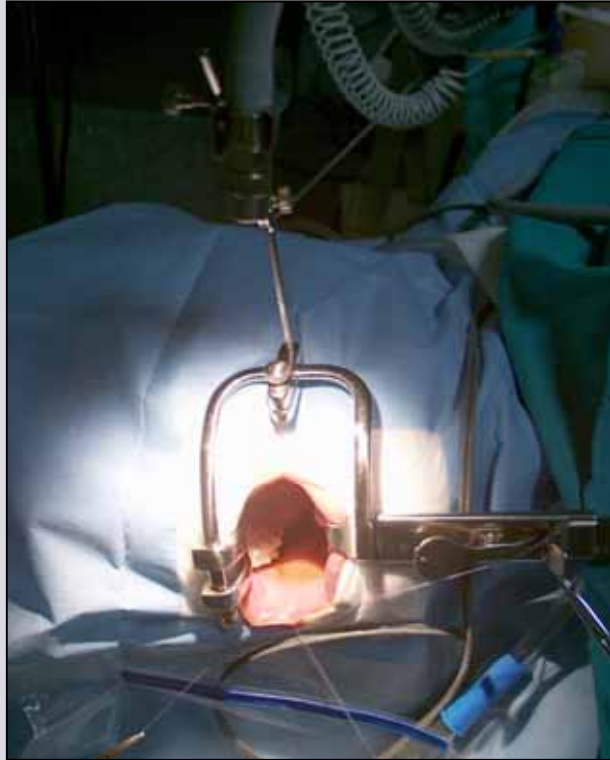
Unsatisfactory post-operative patient acceptance

Oral mucosa: surgical technique



Two surgical teams work simultaneously

Oral mucosa: surgical technique



**Appropriate
mouth retractor**



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

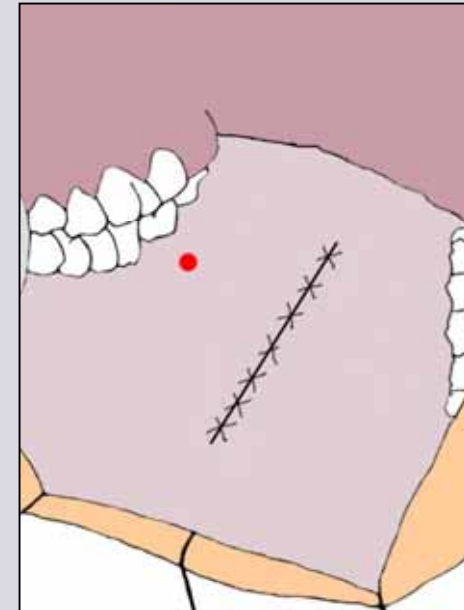
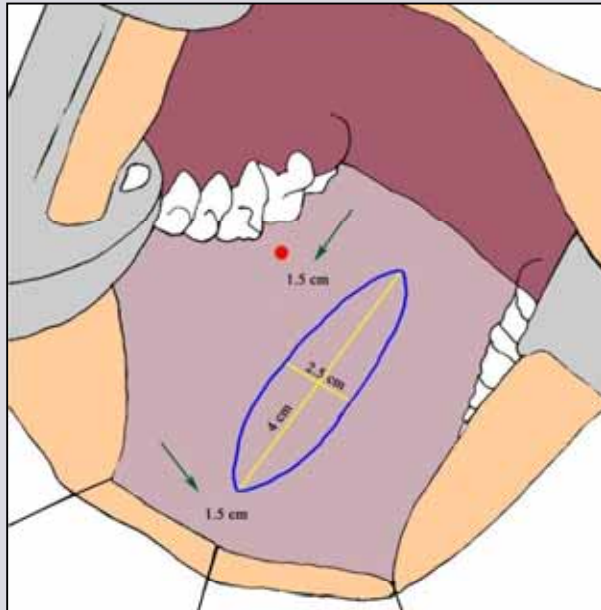
Advantages of the double team

decrease of
surgical time
to ~ one hour

decrease of
contamination in
surgery

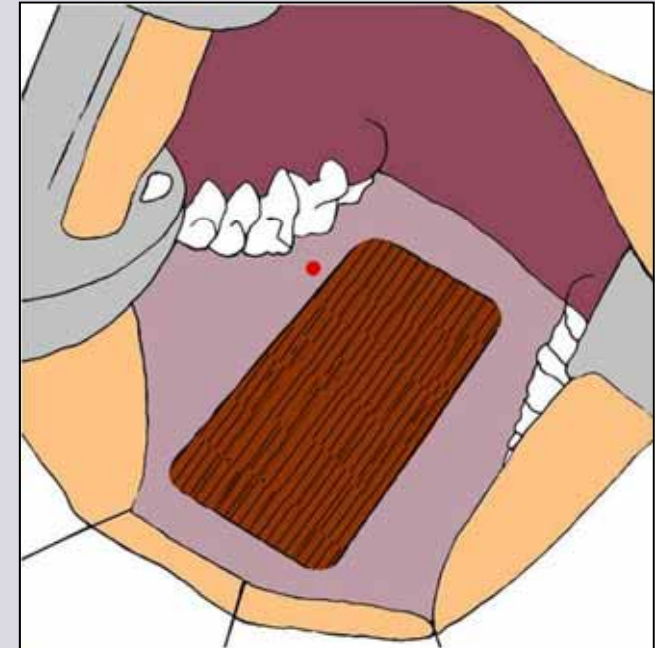
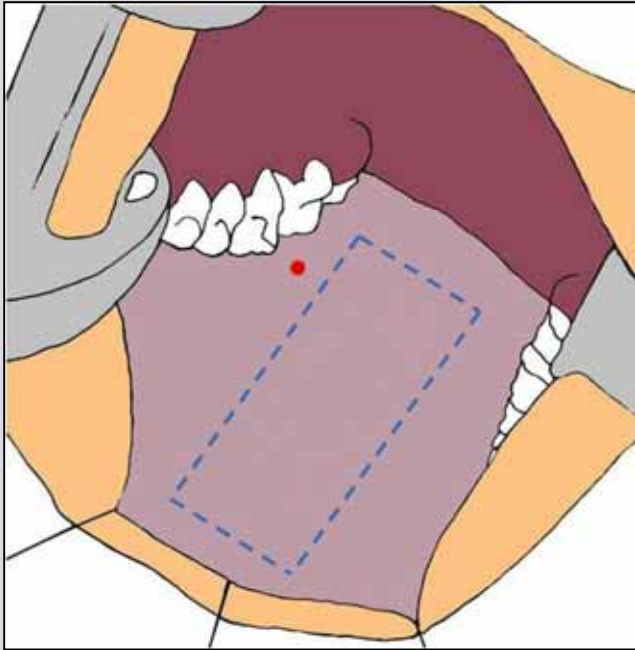
provides training
opportunity for a young
assistant interested in
learning urethral surgery

Oral mucosa: surgical technique



One-stage techniques: ovoidal graft shape

Oral mucosa: surgical technique



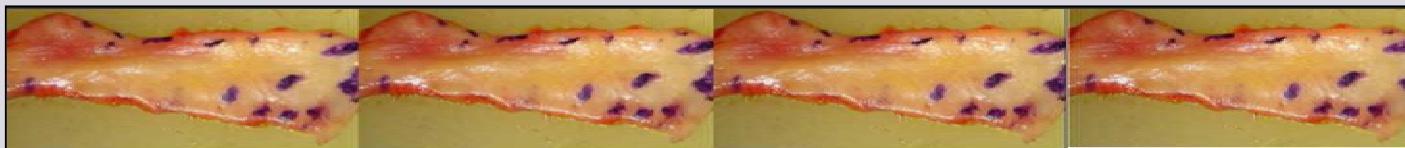
Staged techniques: rectangular graft shape

**The oral mucosa is the
best material for
urethral
reconstruction.**



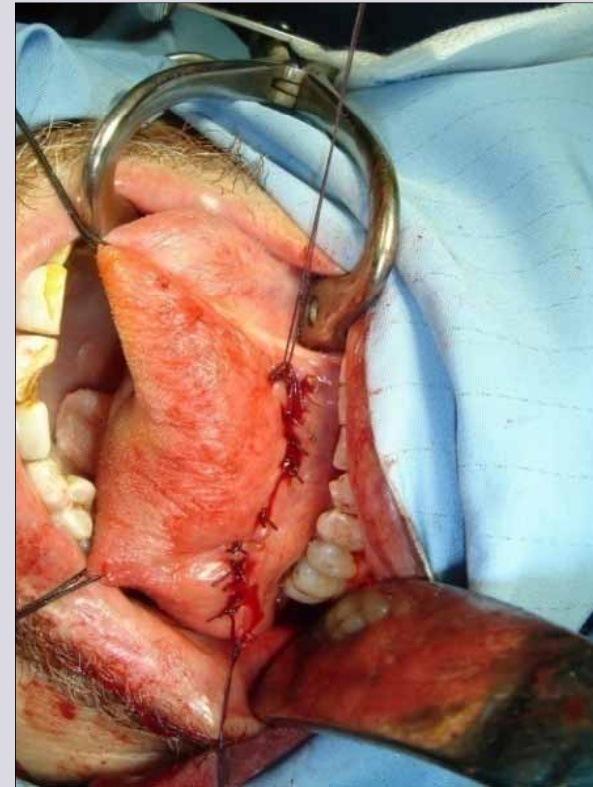
Oral mucosal grafts

right cheek	5 x 2.5 cm
left cheek	5 x 2.5 cm
tongue	4 x 2.5 cm
	4 x 2.5 cm



18 cm x 2.5 cm

Harvesting site



Oral mucosa → **concealed**

Harvesting site



Skin → **visible to the naked eye**

aesthetic consequences → **psychological sequelae**

Oral mucosa: biological characteristics

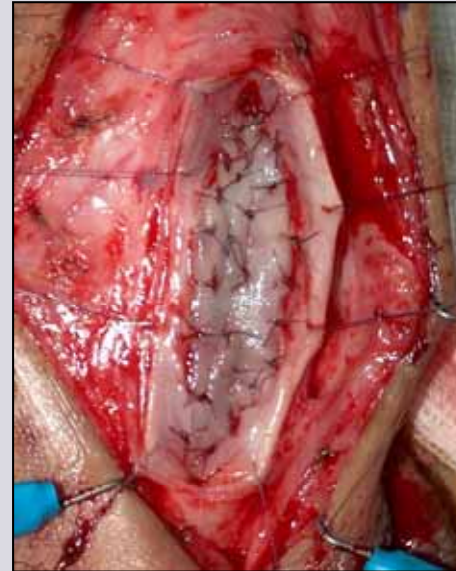
Easy to adapt for any type of urethroplasty



One-stage



Two-stage

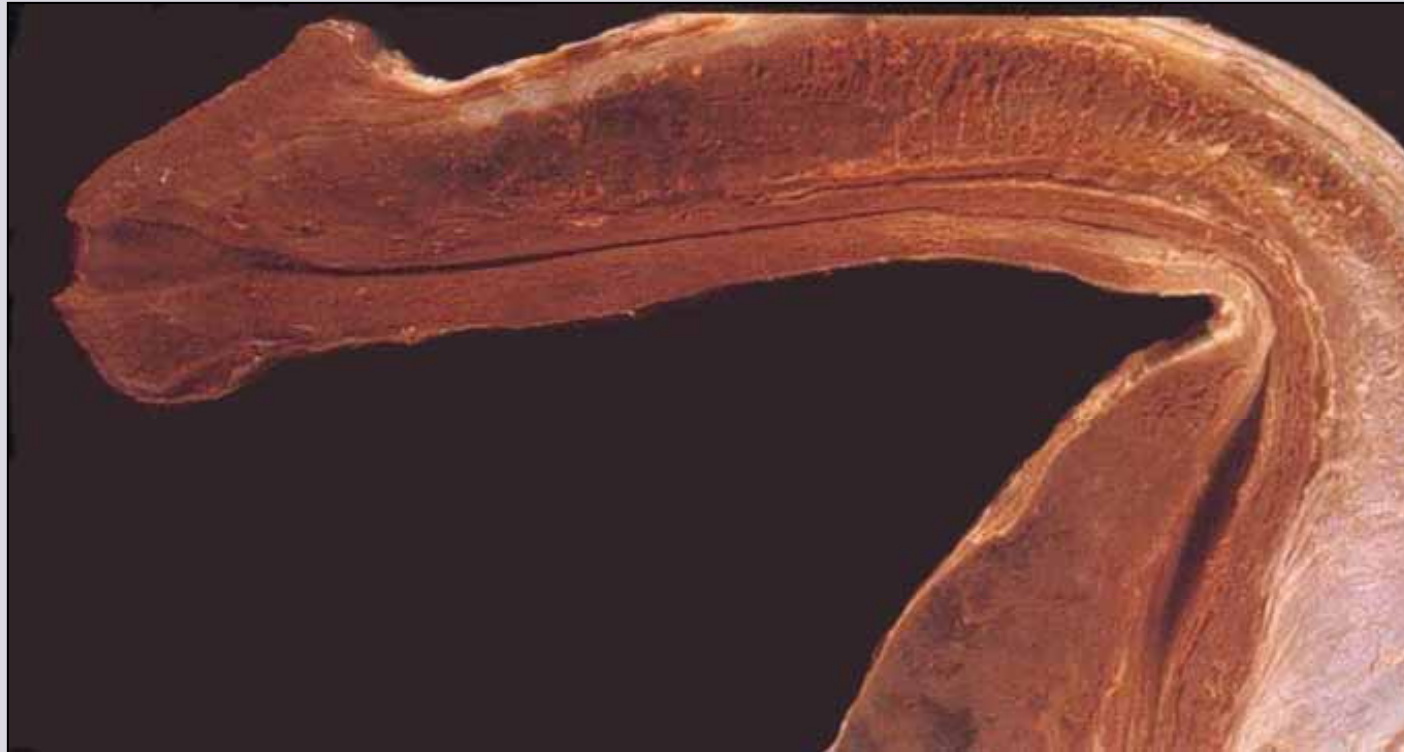


Inlay



Onlay

What I should do in urethroplasty



Penile urethroplasty

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Penile urethroplasty



Minimally invasive techniques using oral graft

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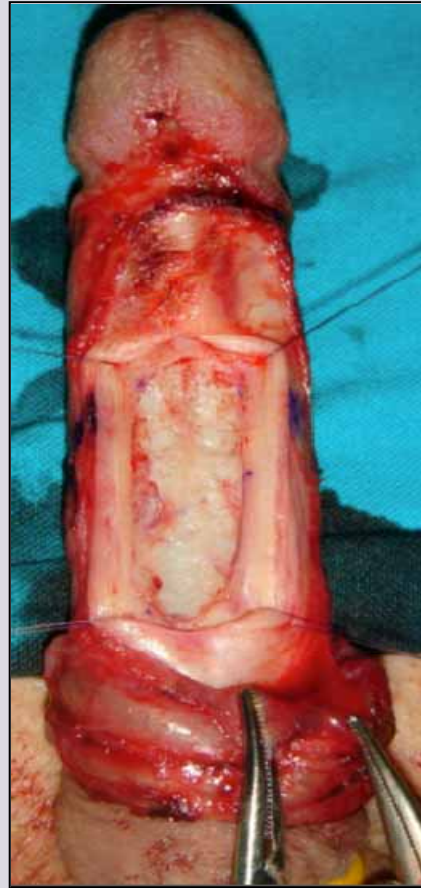
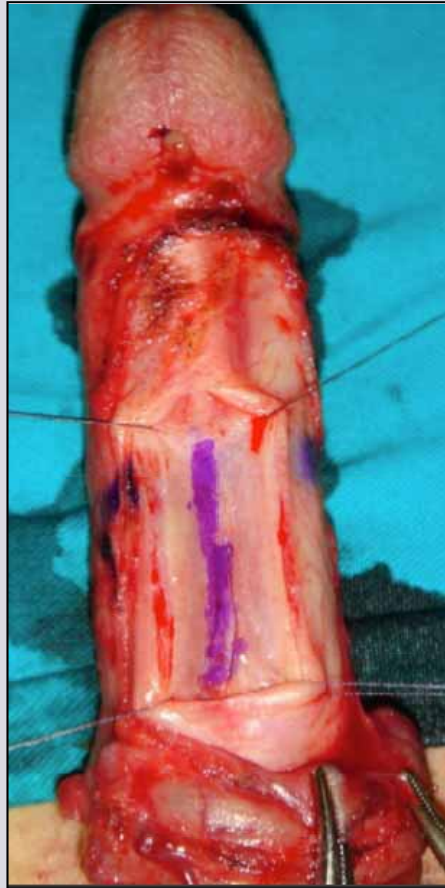
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Penile urethroplasty



One-stage technique

Penile urethroplasty



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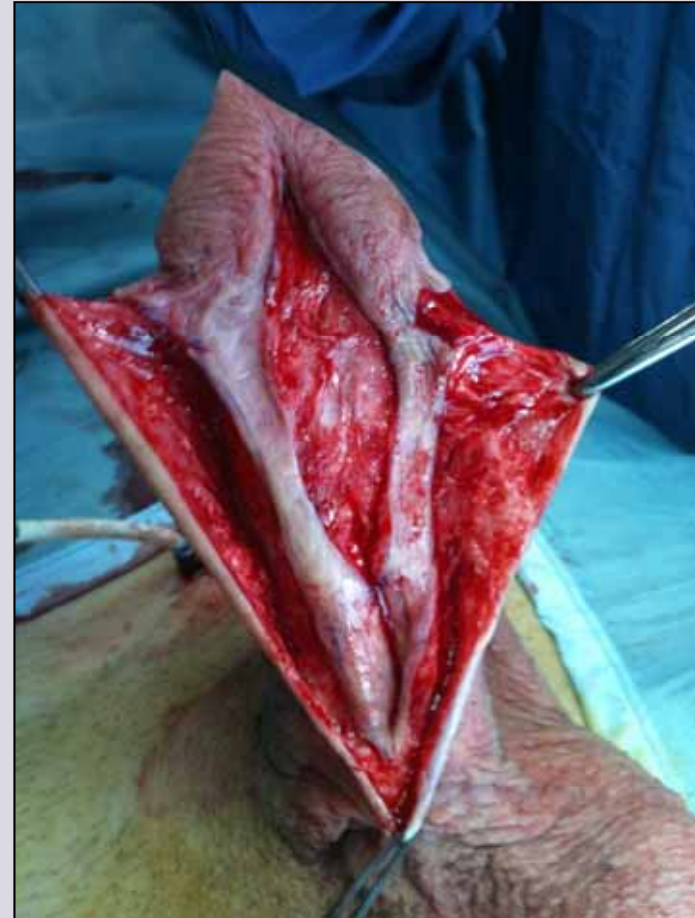
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Penile urethroplasty



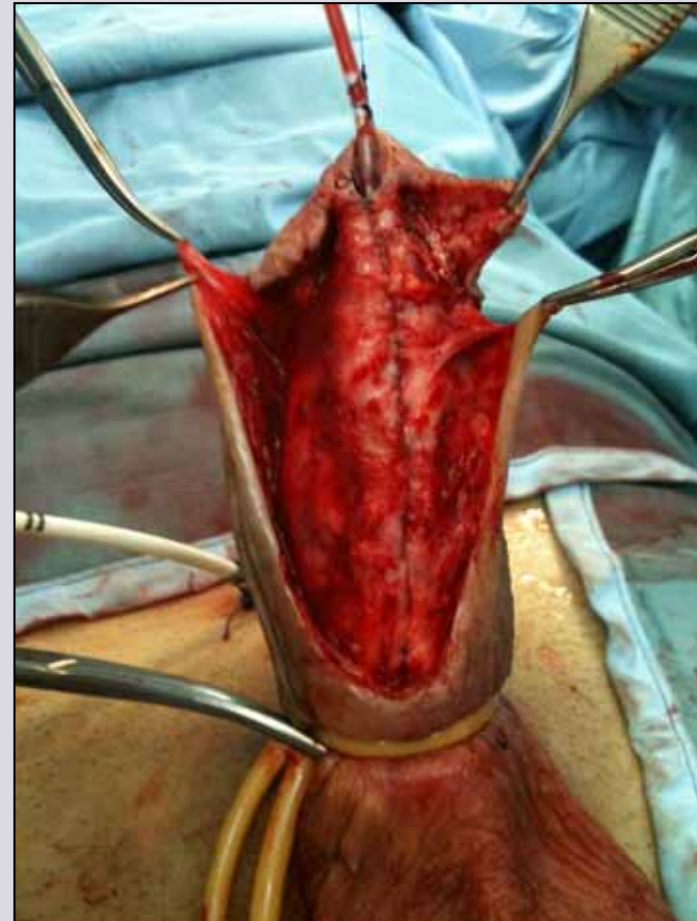
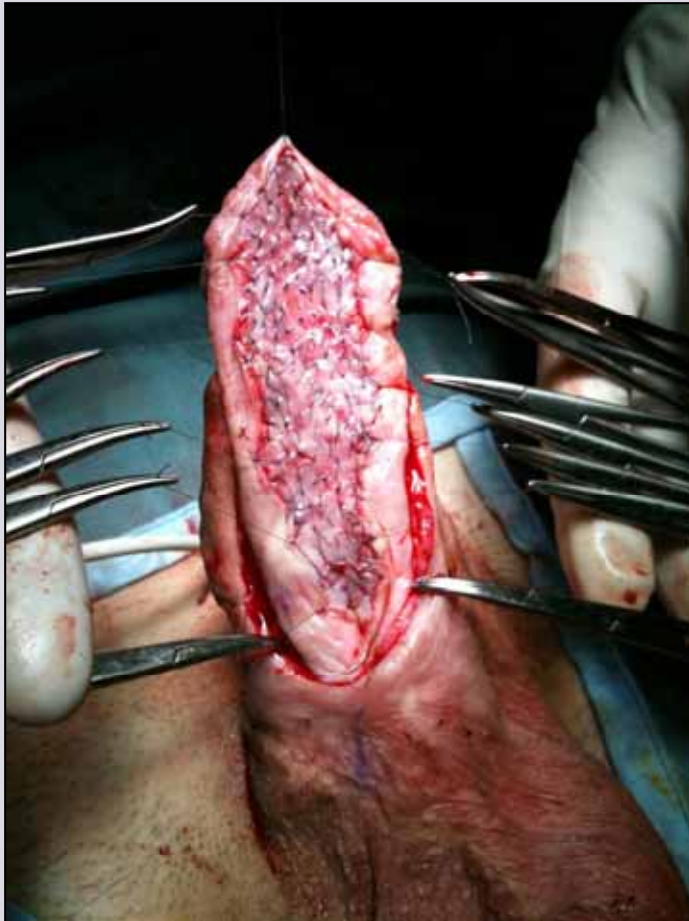
Staged urethroplasty (first stage - Johanson)

Penile urethroplasty



Staged urethroplasty (second stage)

Penile urethroplasty



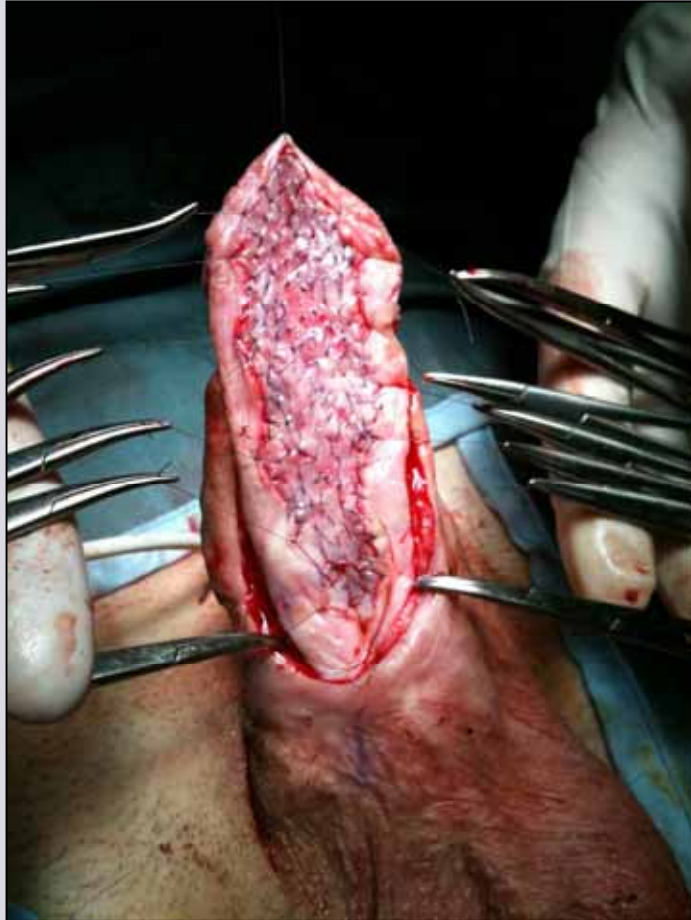
Staged urethroplasty (second stage)

Penile urethroplasty



Staged urethroplasty (second stage)

What I should do in urethroplasty



NO

What I should do in urethroplasty



Bulbar urethroplasty

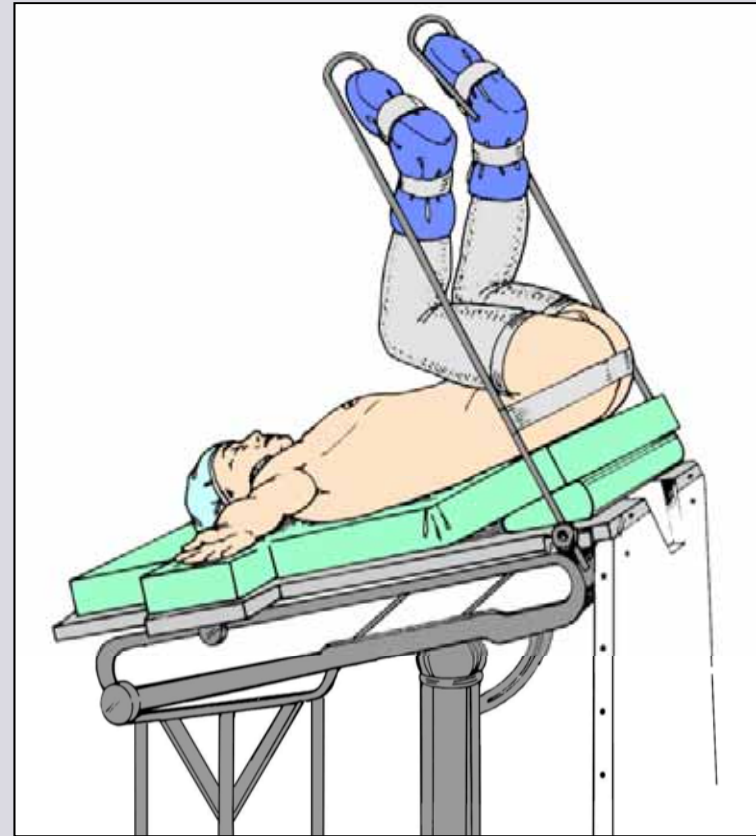
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Bulbar urethroplasty



Simple lithotomy position



NO

Bulbar urethroplasty

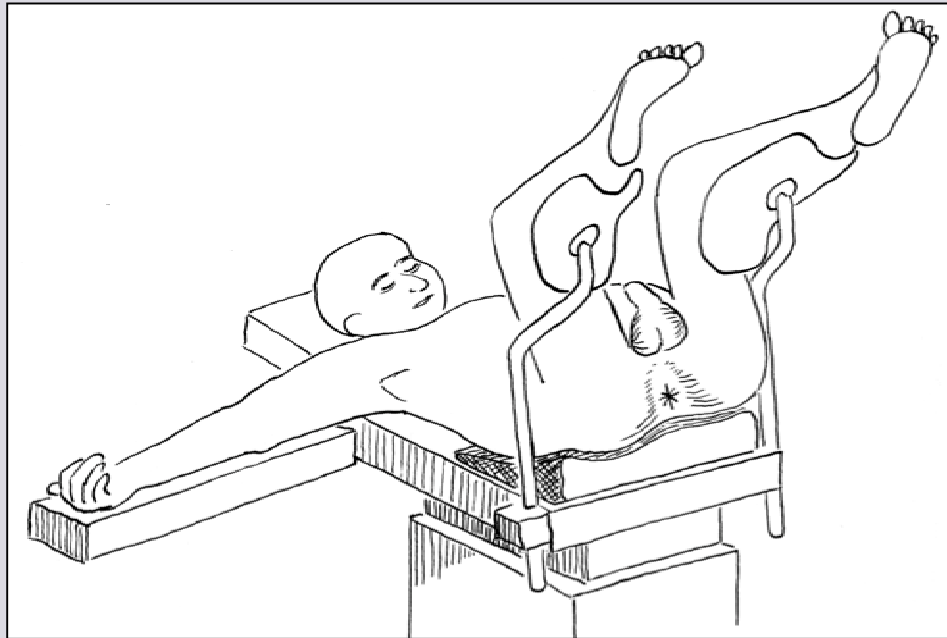


Allen stirrups with sequential inflatable compression sleeves

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What I should do in urethroplasty



NO

Bulbar urethroplasty



Pre-operative urethroscopy



Insert Sensor guide wire

Bulbar urethroplasty



Insert Sensor guide wire

Bulbar urethroplasty



**Inject methylene blue
inside the urethra**

(G. Webster)

Bulbar urethroplasty



Calibrate the distal urethra and identify the distal stop

Bulbar urethroplasty



**Transect or not transect
the urethra?**

Ventral or dorsal graft?

What I should do in urethroplasty

Trauma

End-to-end anastomosis
Augmented anastomotic repair

Instrumentation

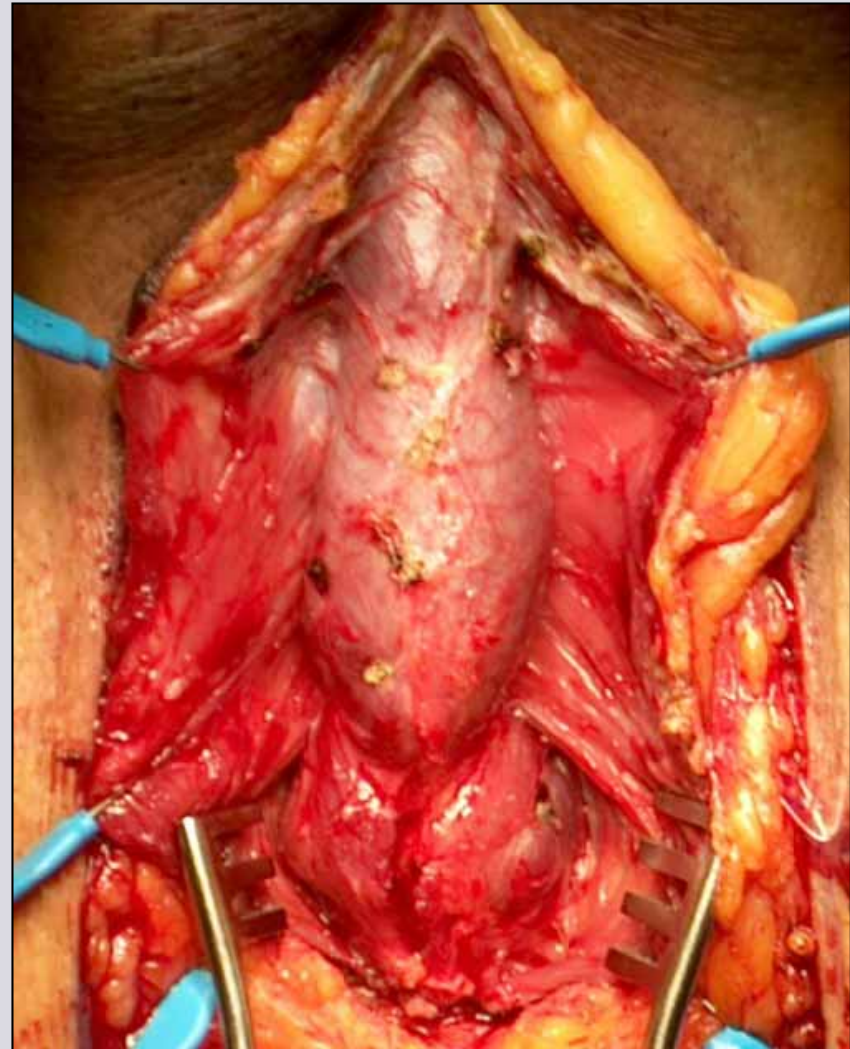
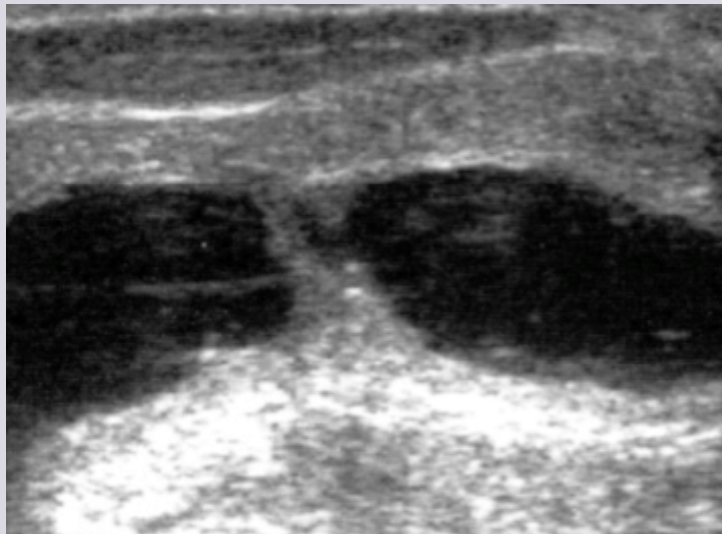
Catheter

Infection

Other

Oral mucosa onlay

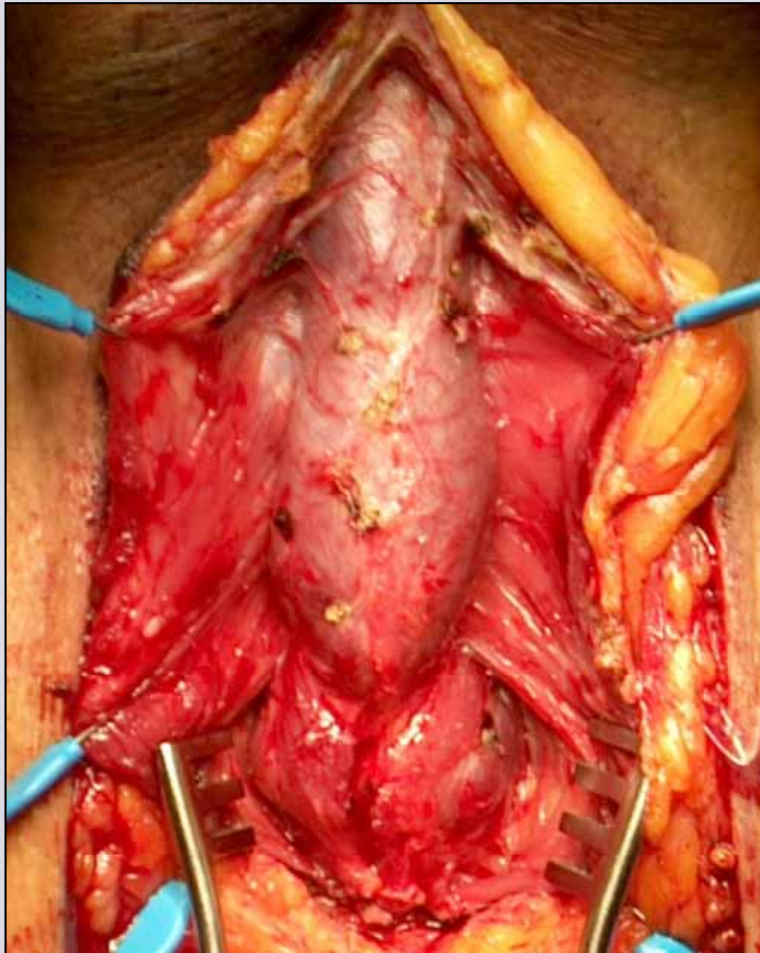
1 - 2 cm traumatic bulbar urethral stricture



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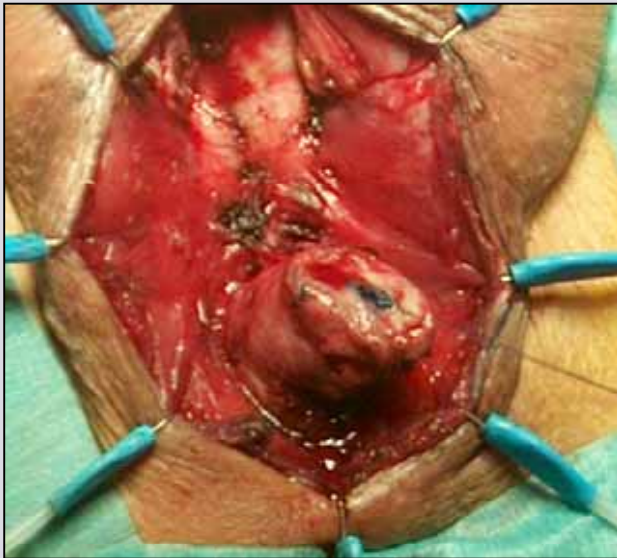
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End-to-end anastomosis



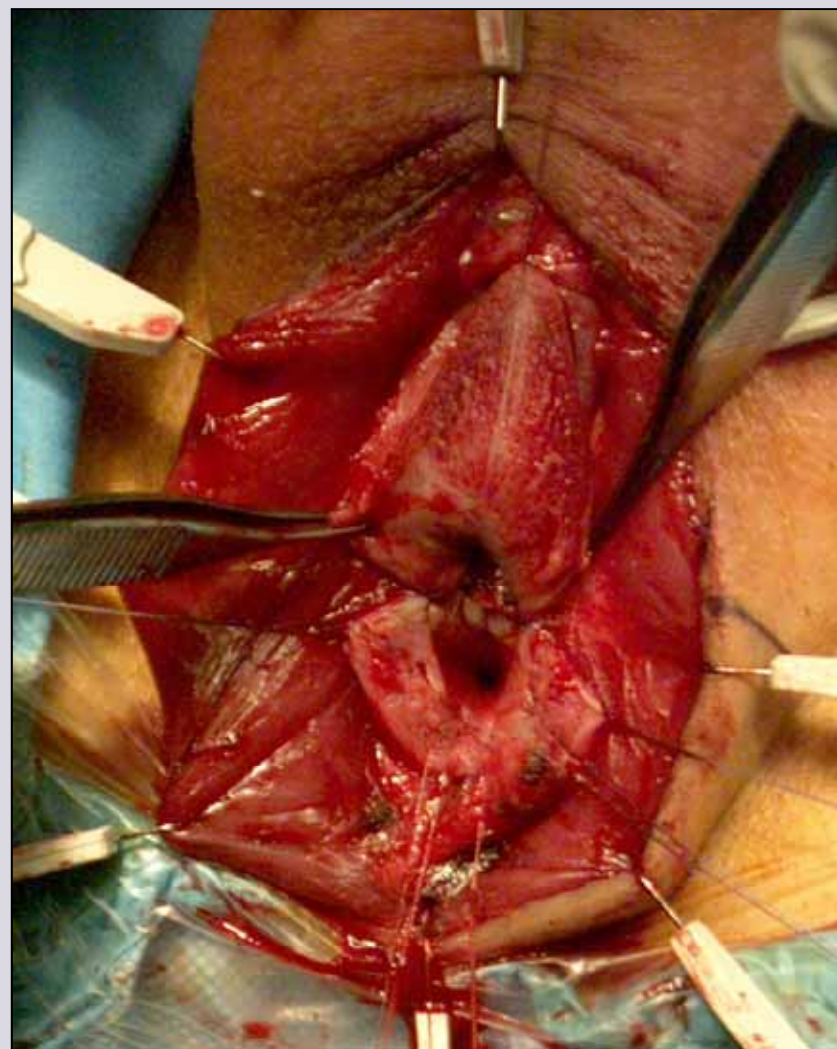
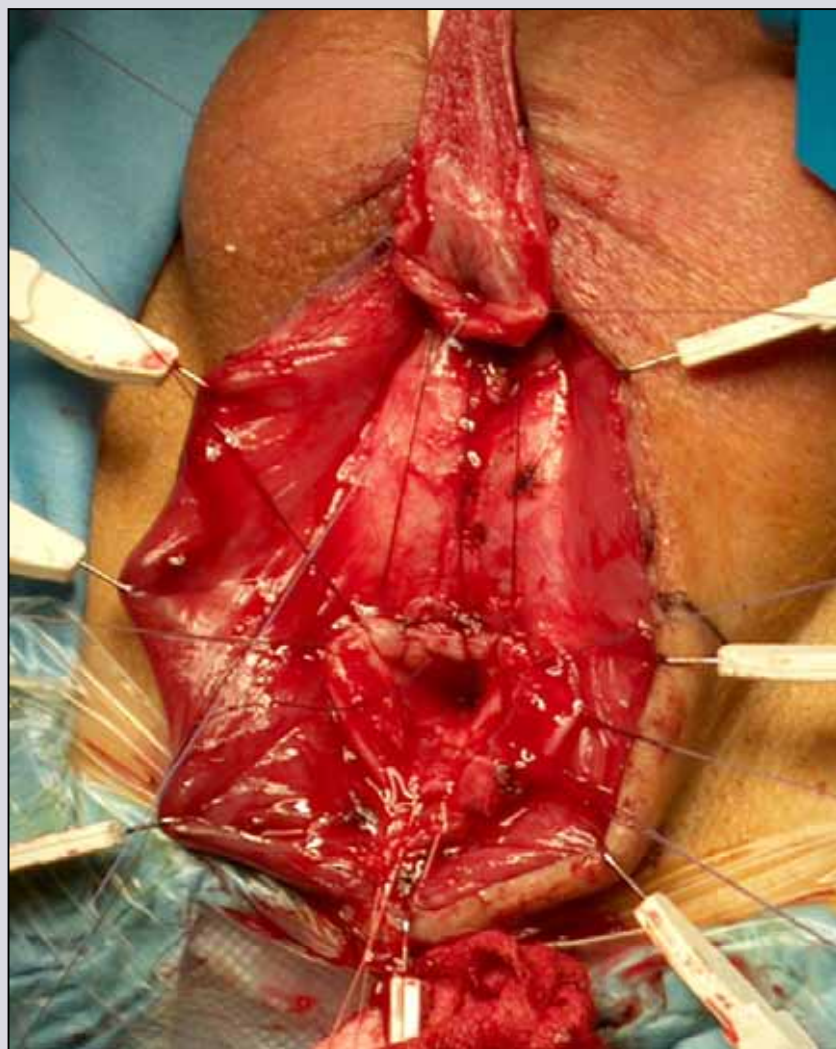


distal end



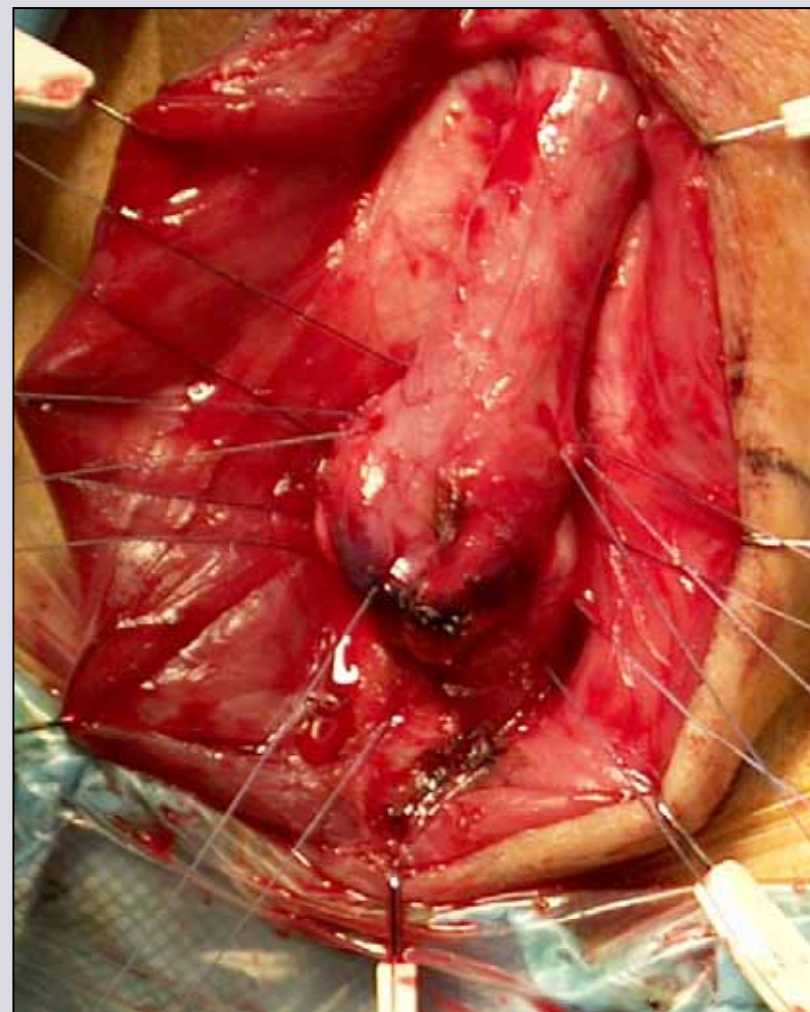
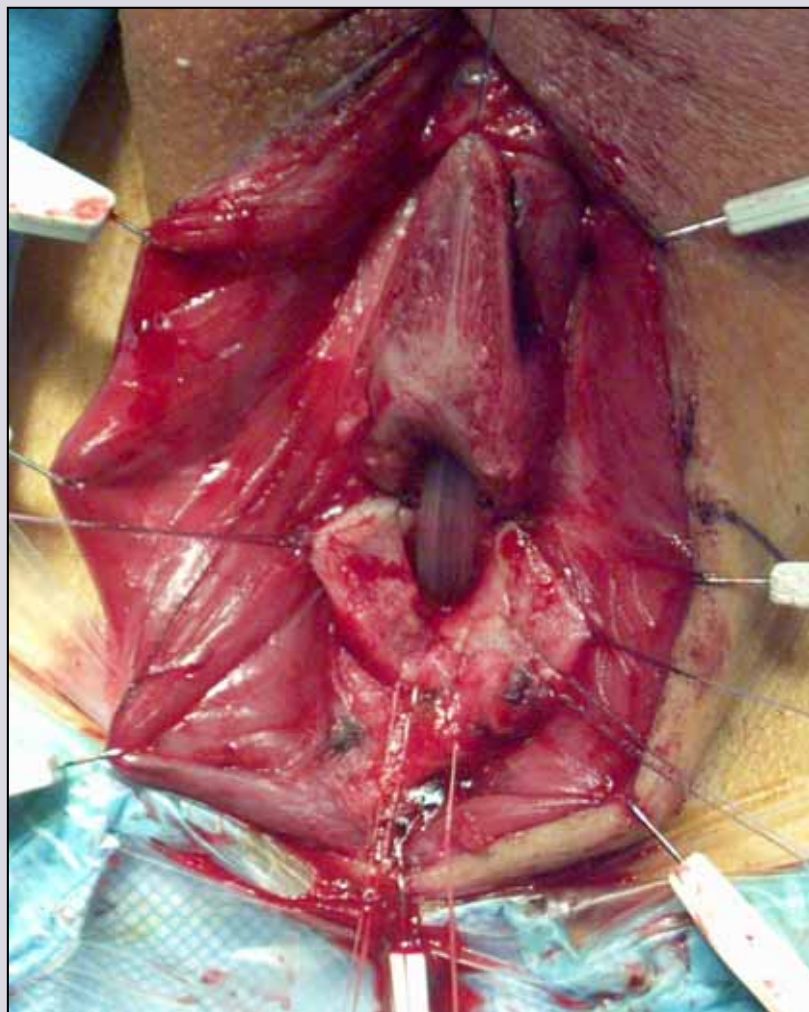
proximal end





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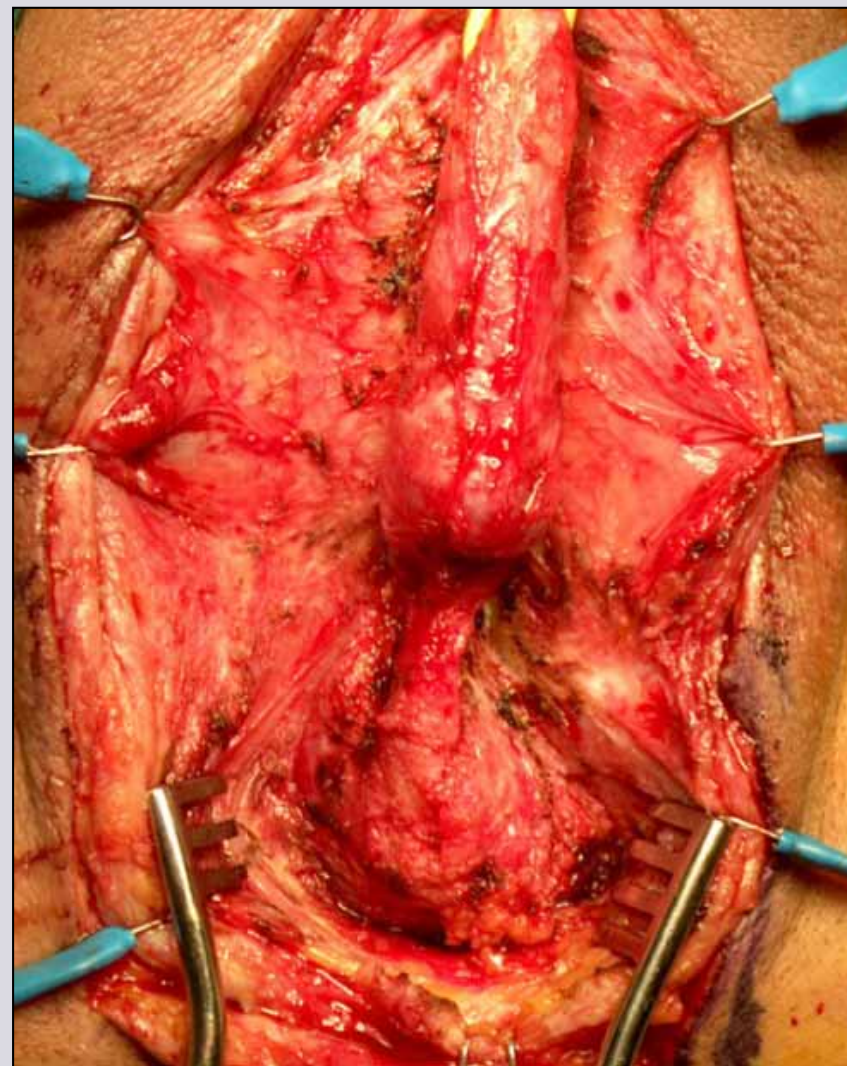
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2 - 4 cm traumatic bulbar urethral stricture



Augmented anastomotic repair



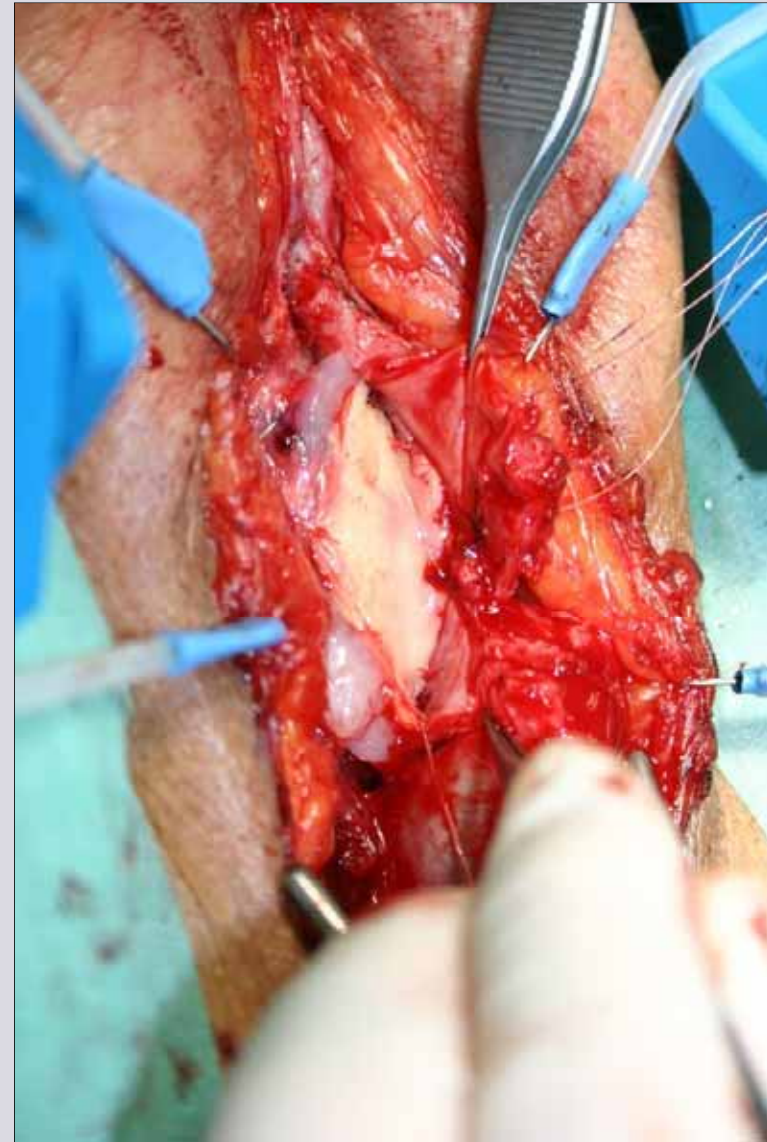
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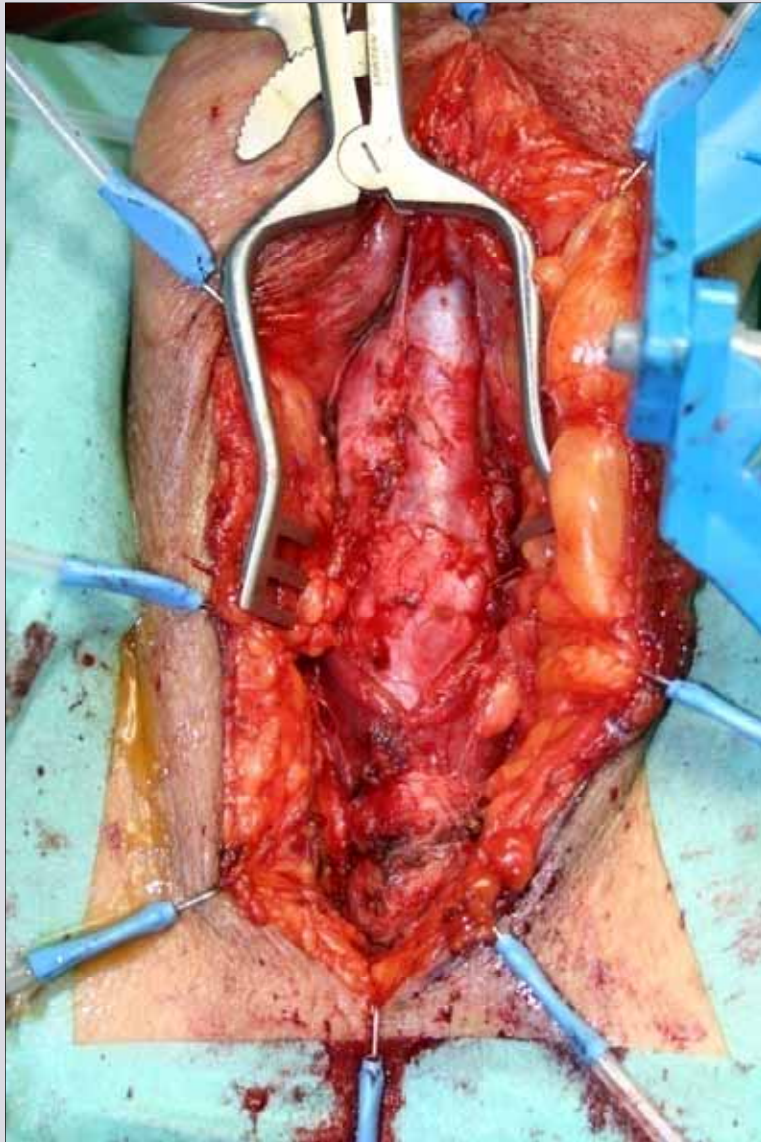
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What I should do in urethroplasty

Trauma

End-to-end anastomosis
Augmented anastomotic repair

Instrumentation

Catheter

Infection

Other

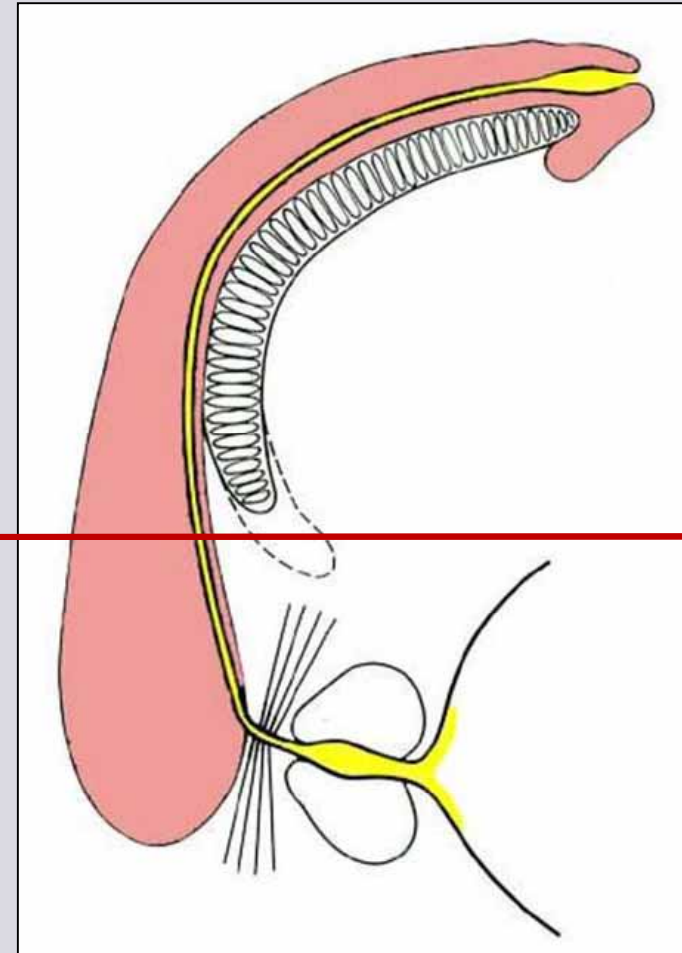
Oral mucosa onlay

What I should do in urethroplasty



Distal

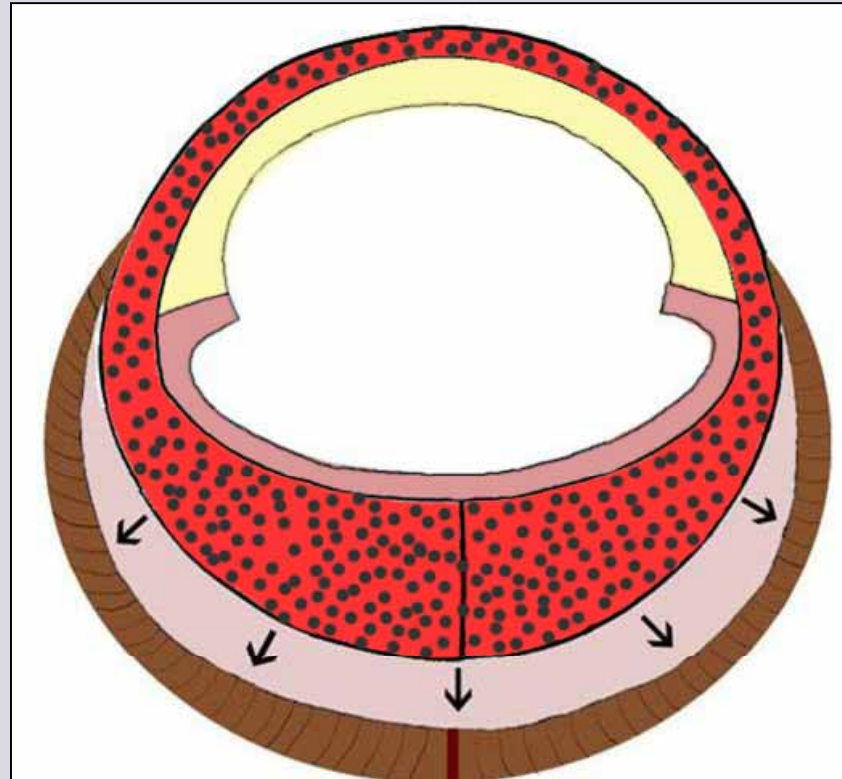
Dorsal onlay



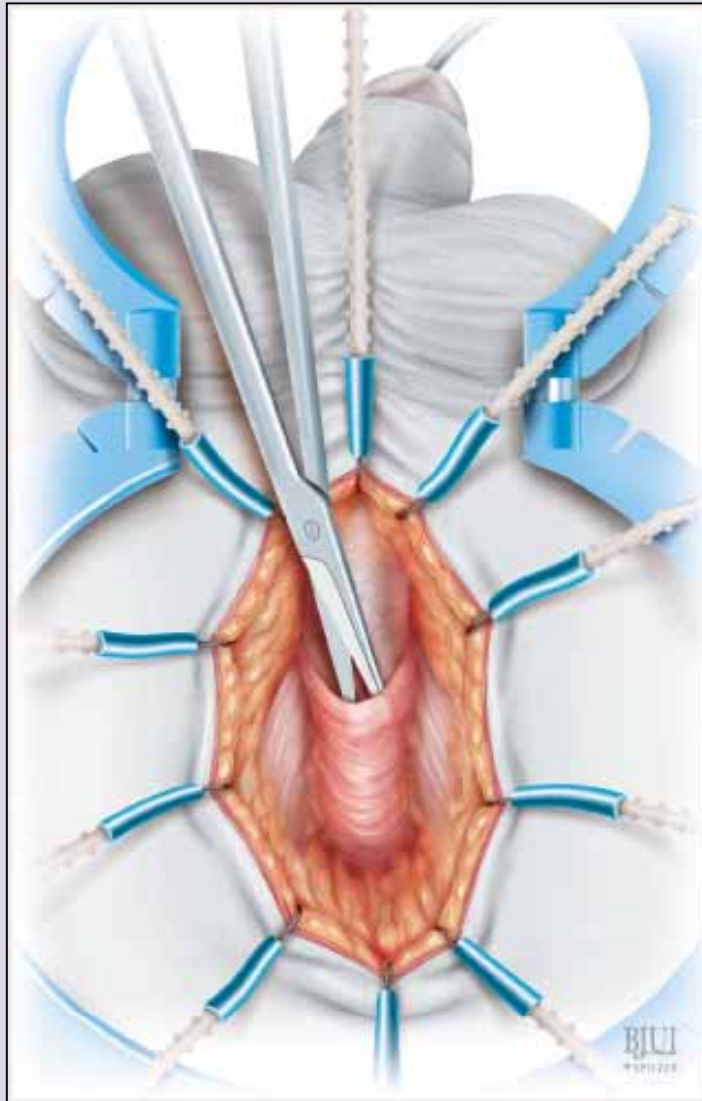
Proximal

Ventral onlay

What I should do in urethroplasty



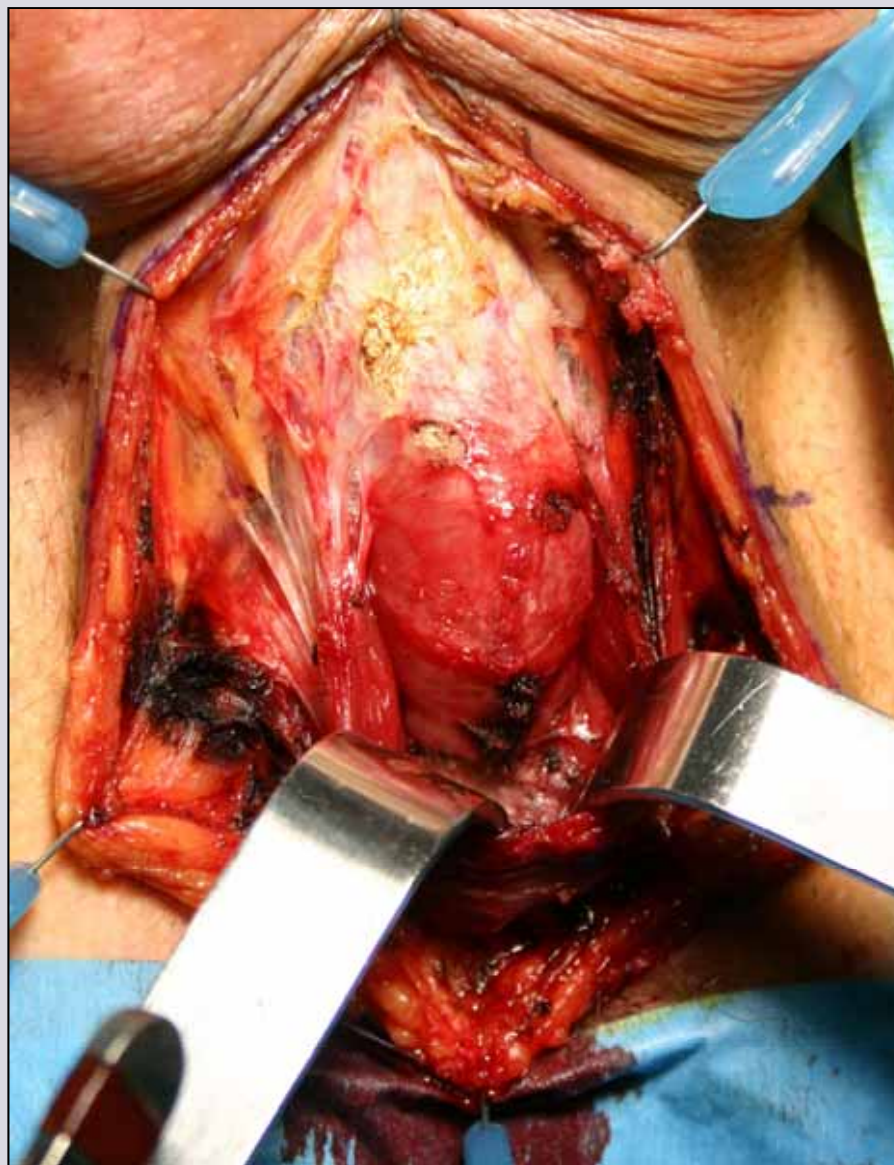
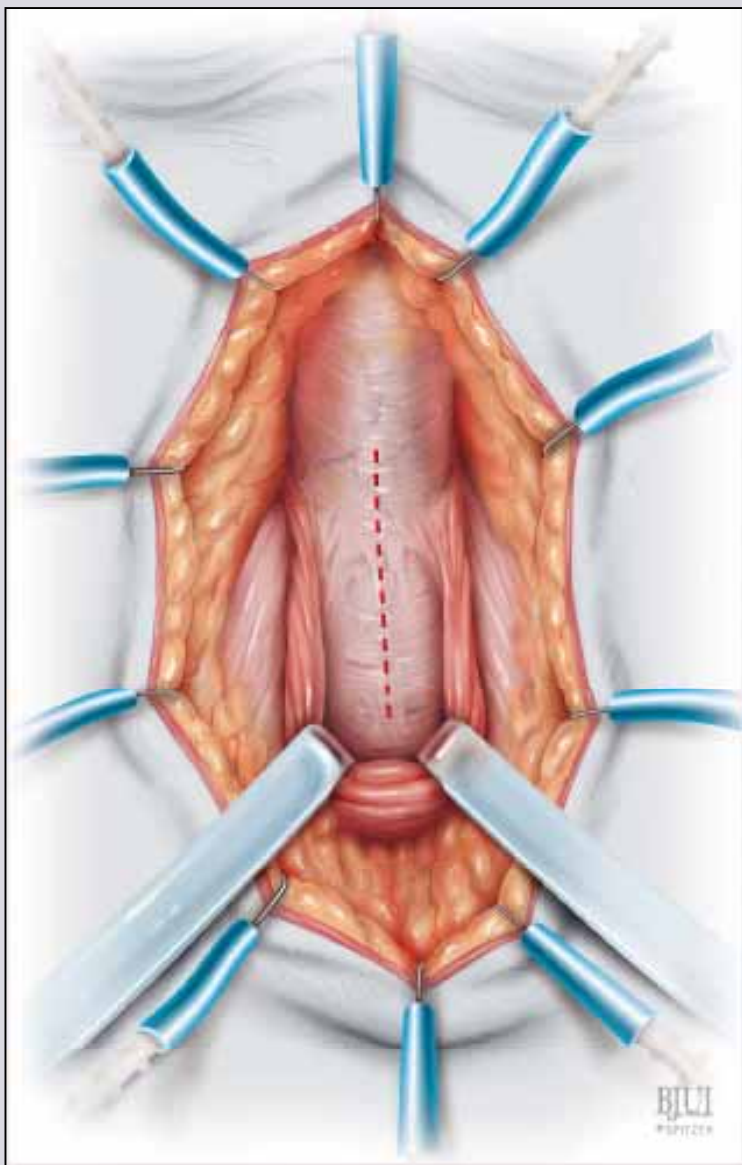
**Muscle and nerve-sparing ventral onlay graft
bulbar urethroplasty**



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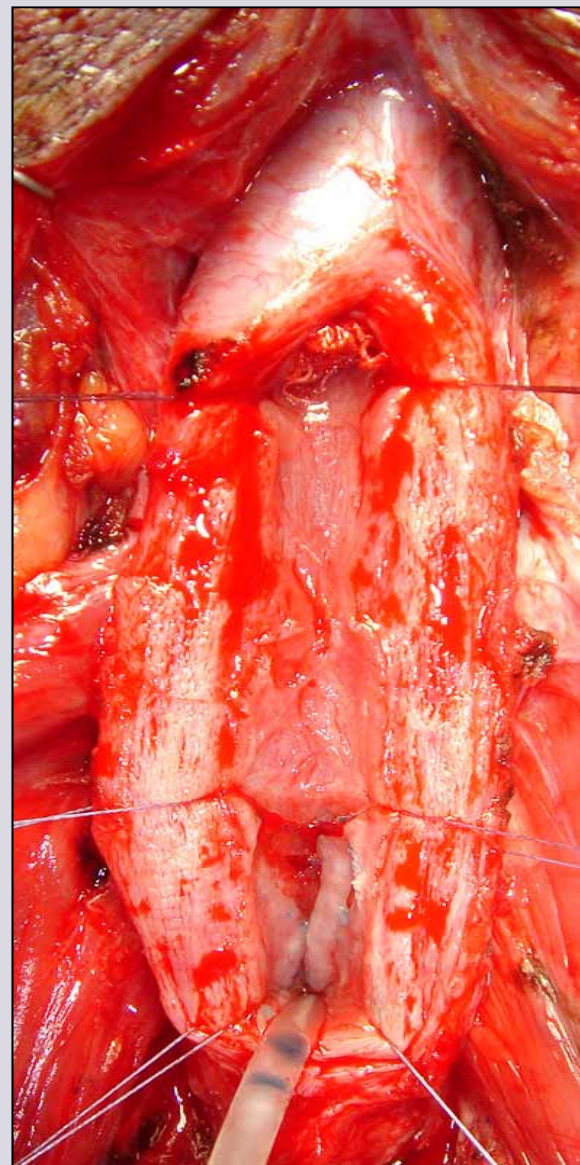
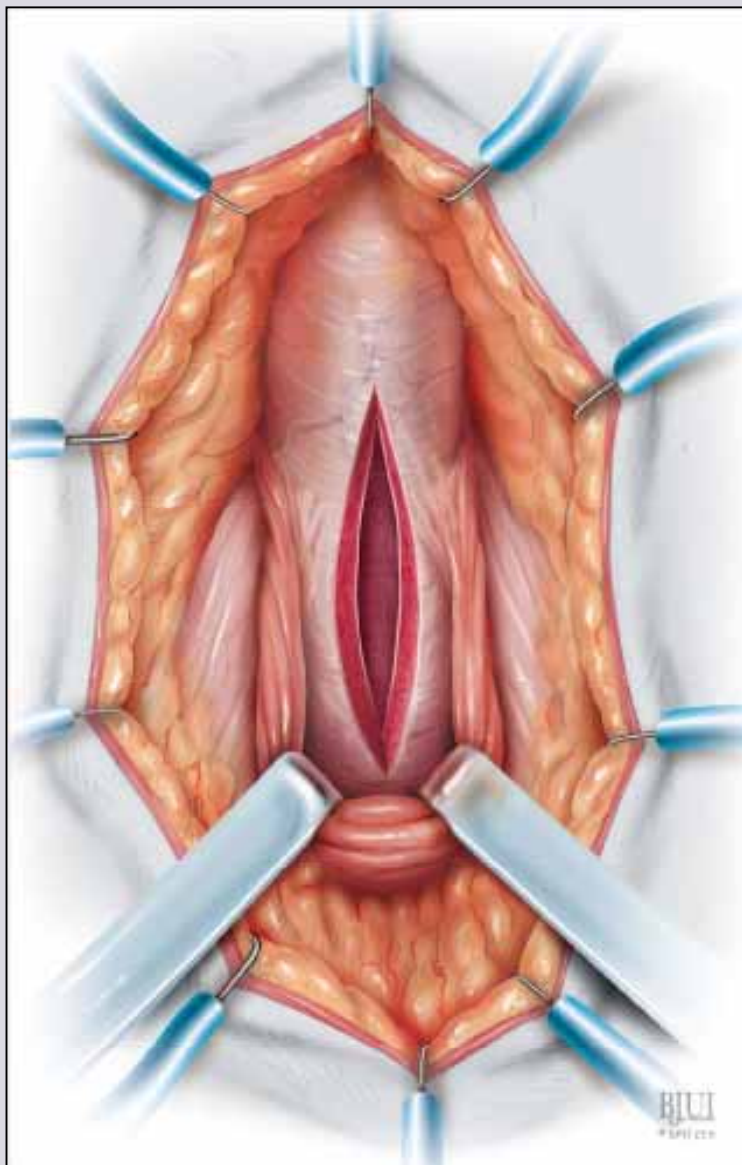
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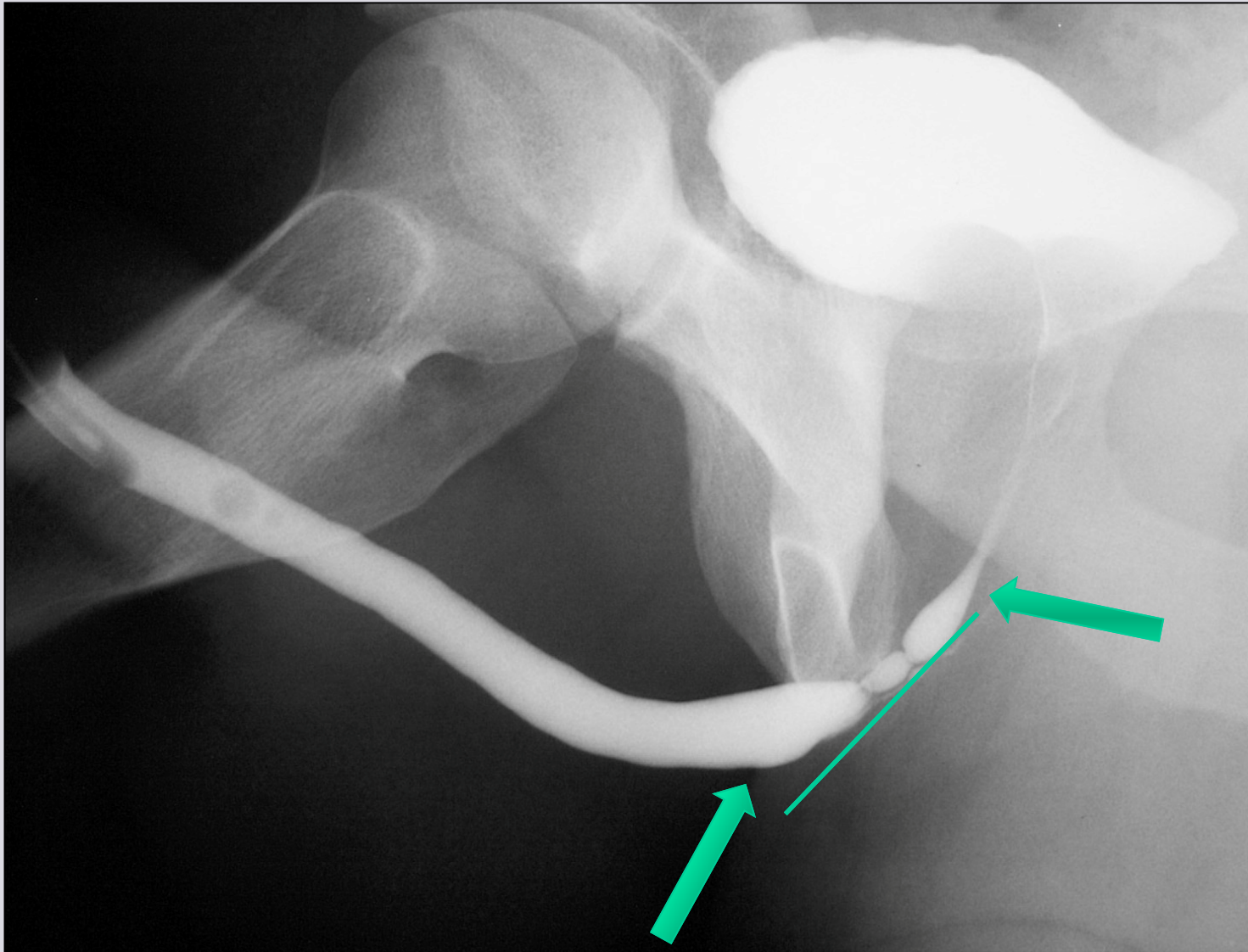
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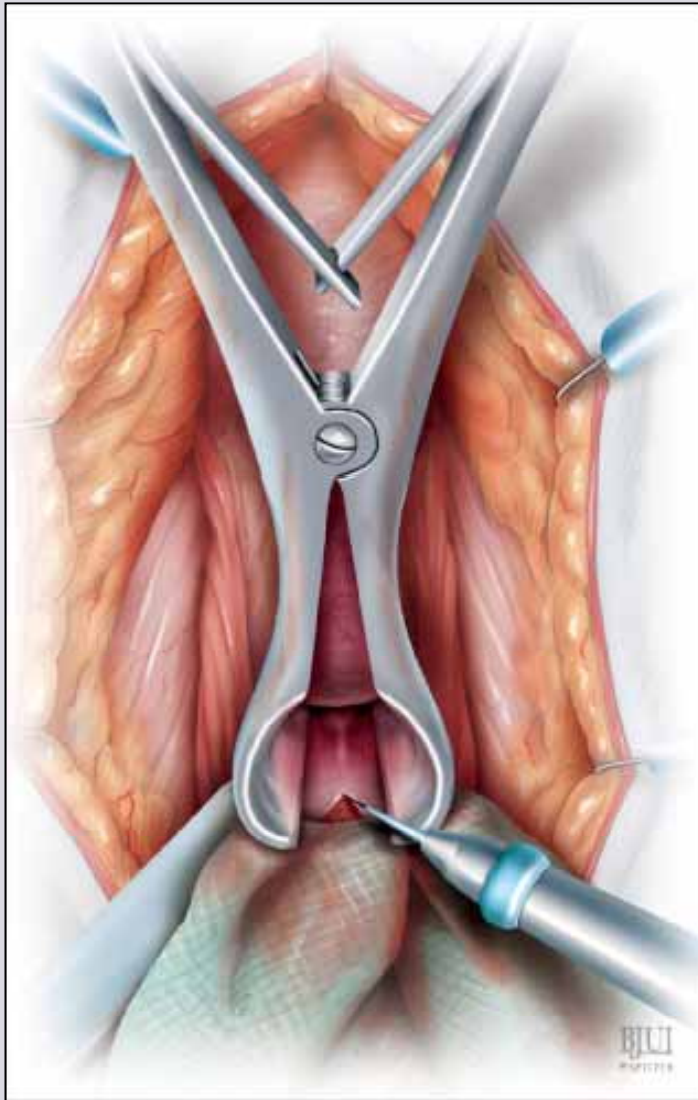
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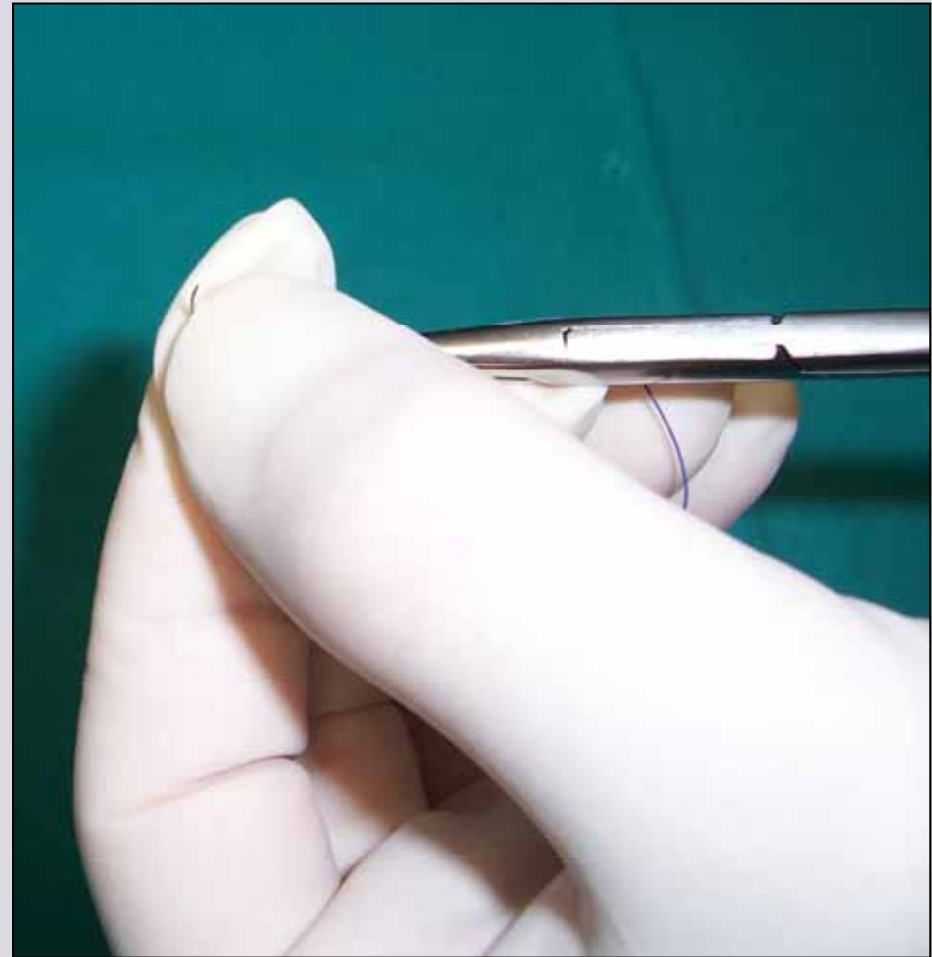
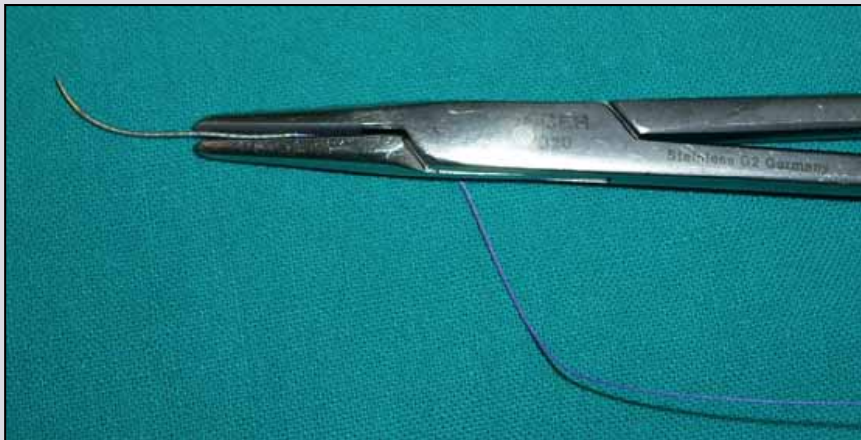
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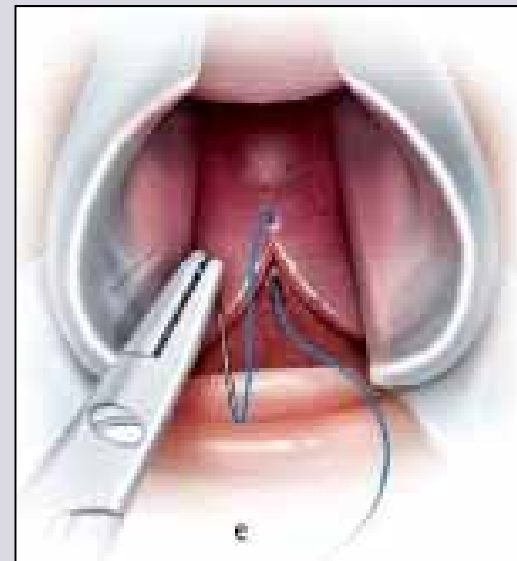
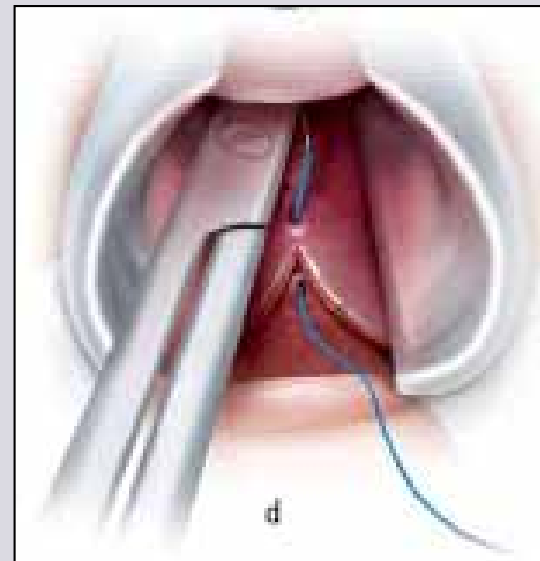
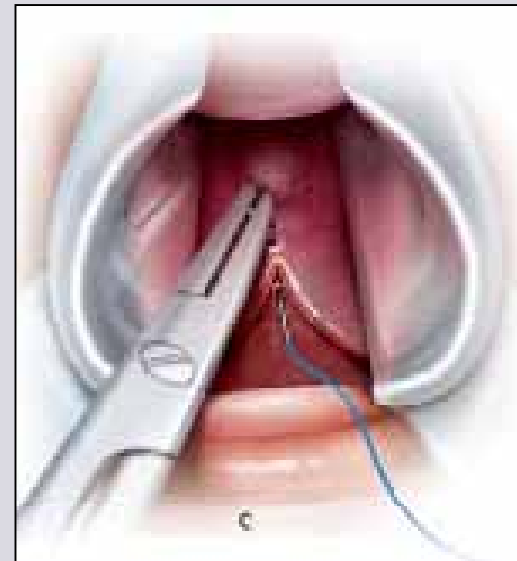
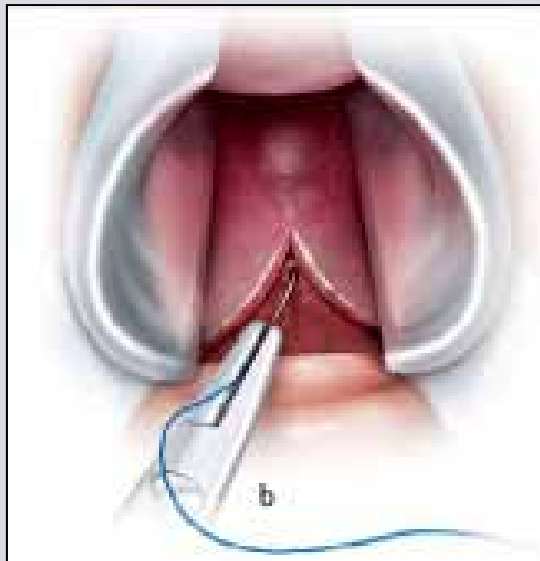
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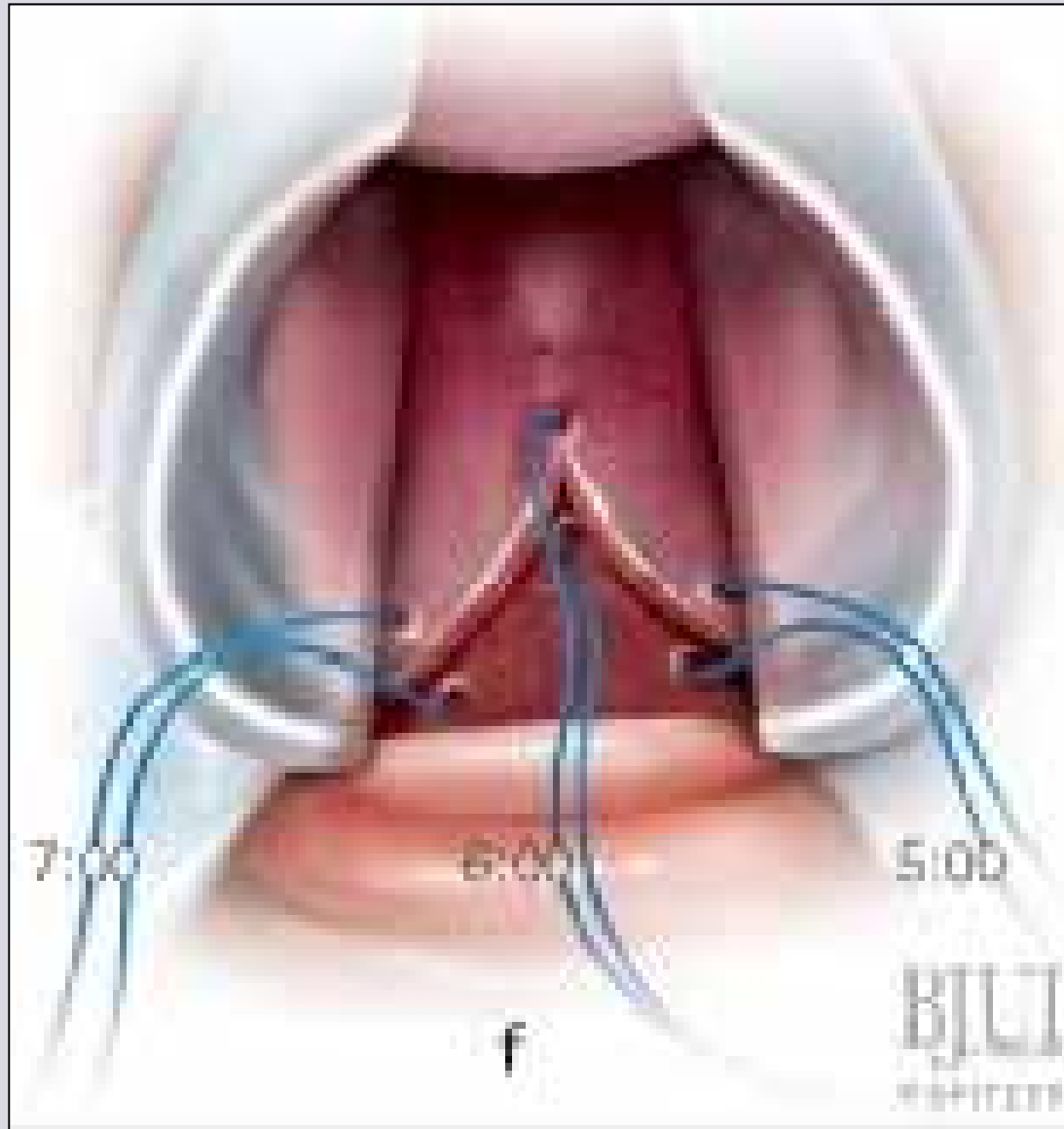
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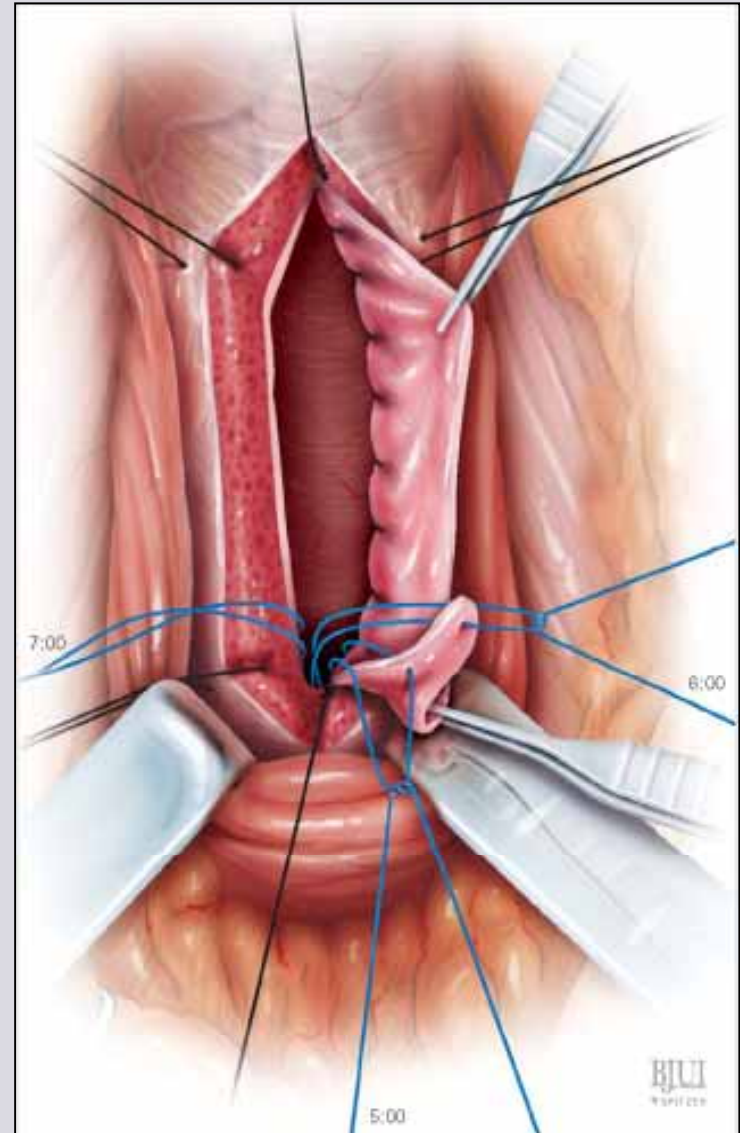
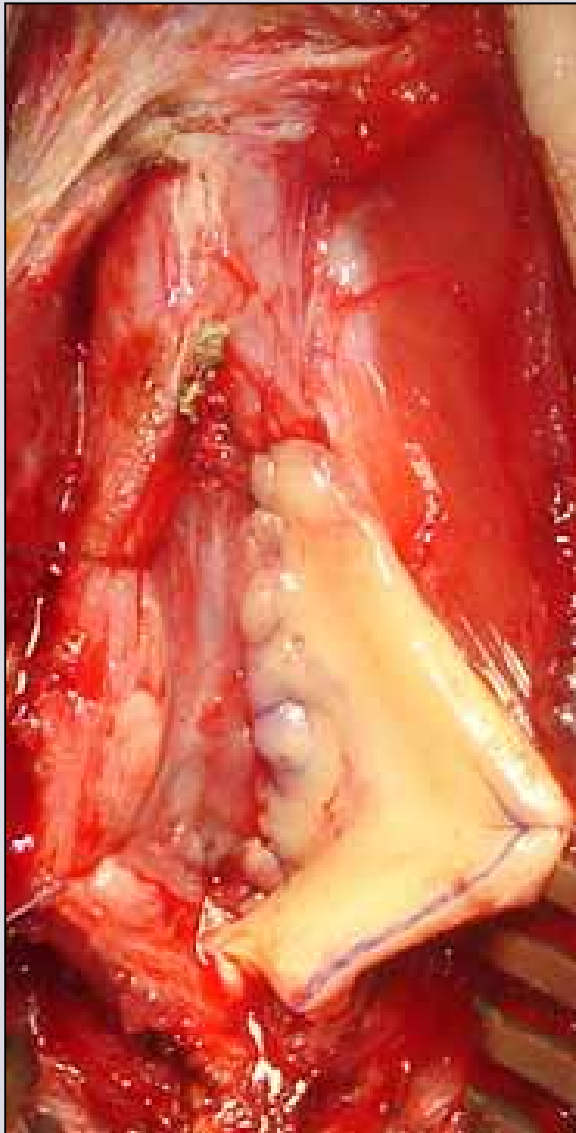
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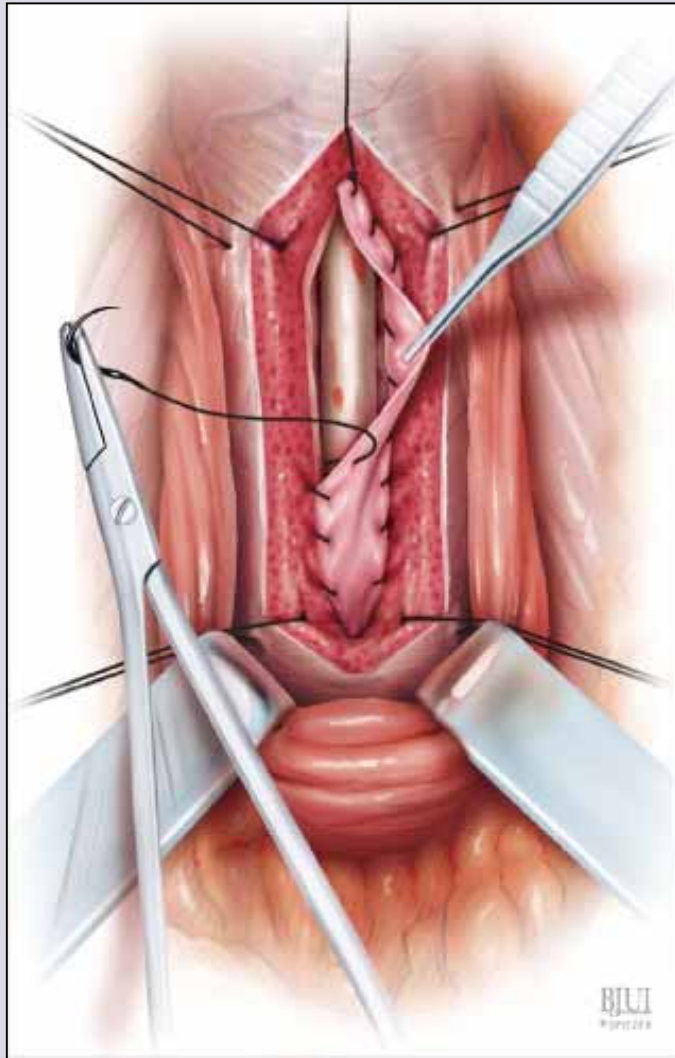
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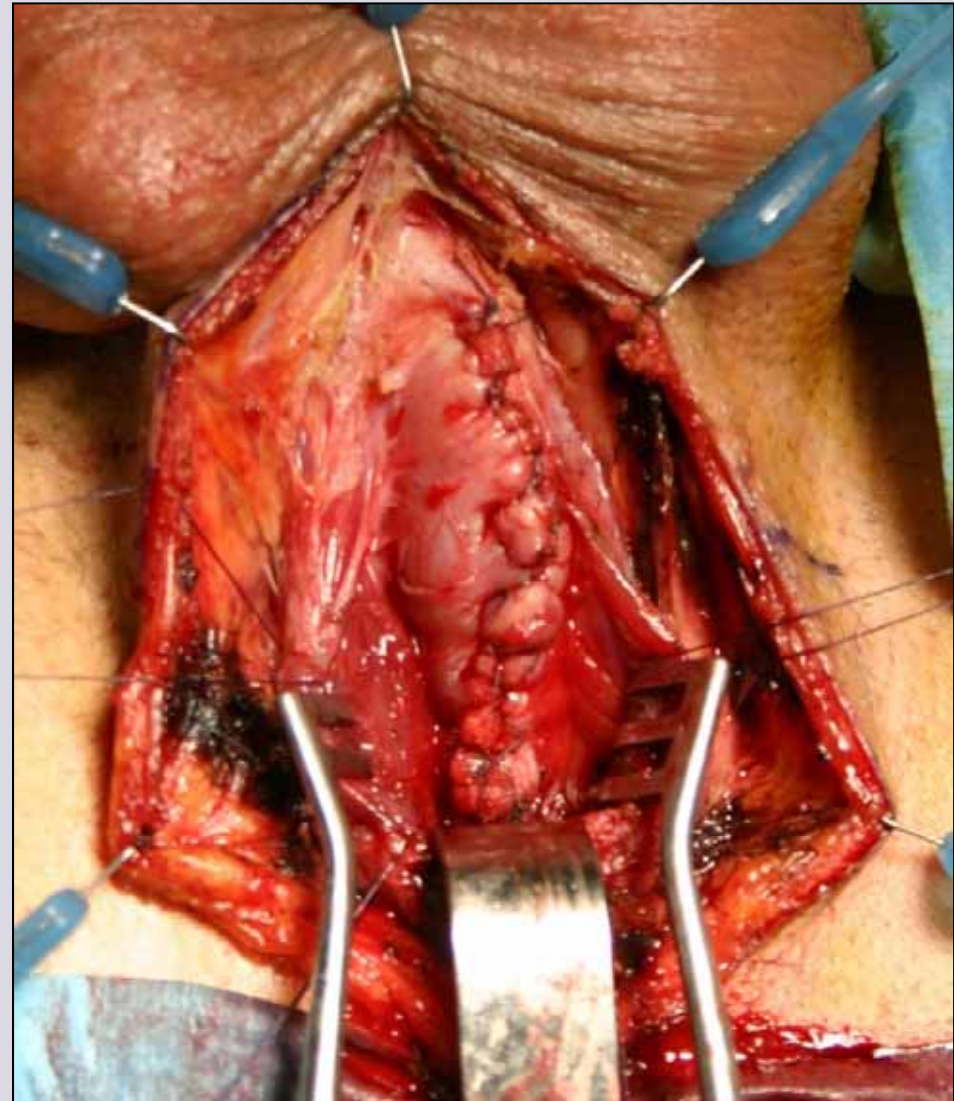
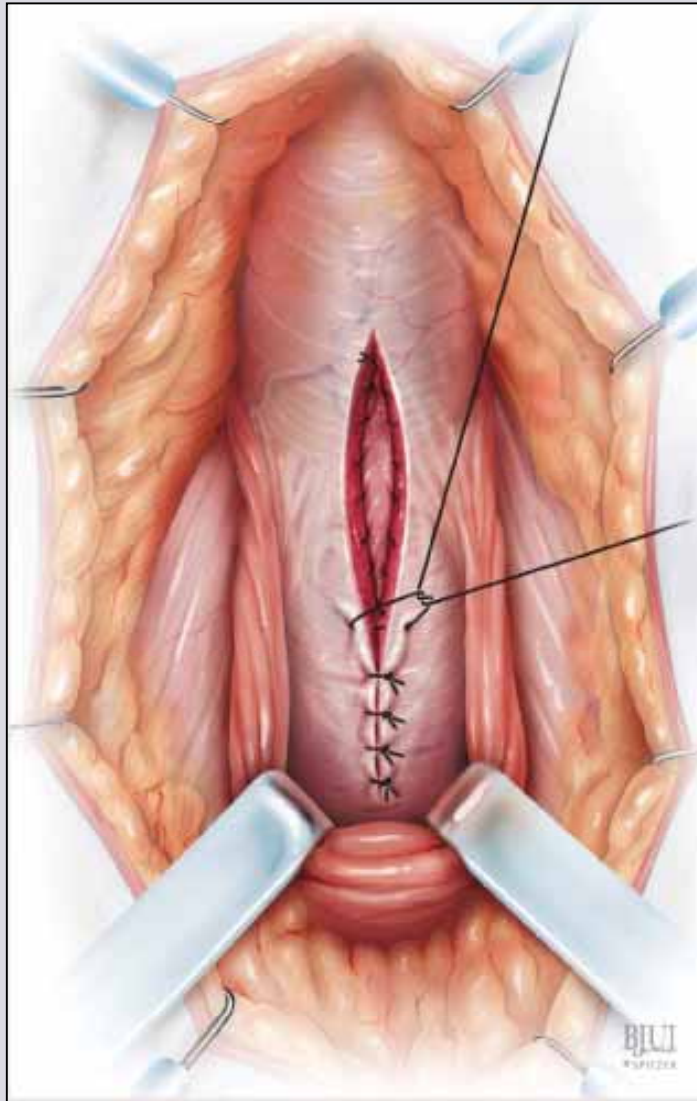
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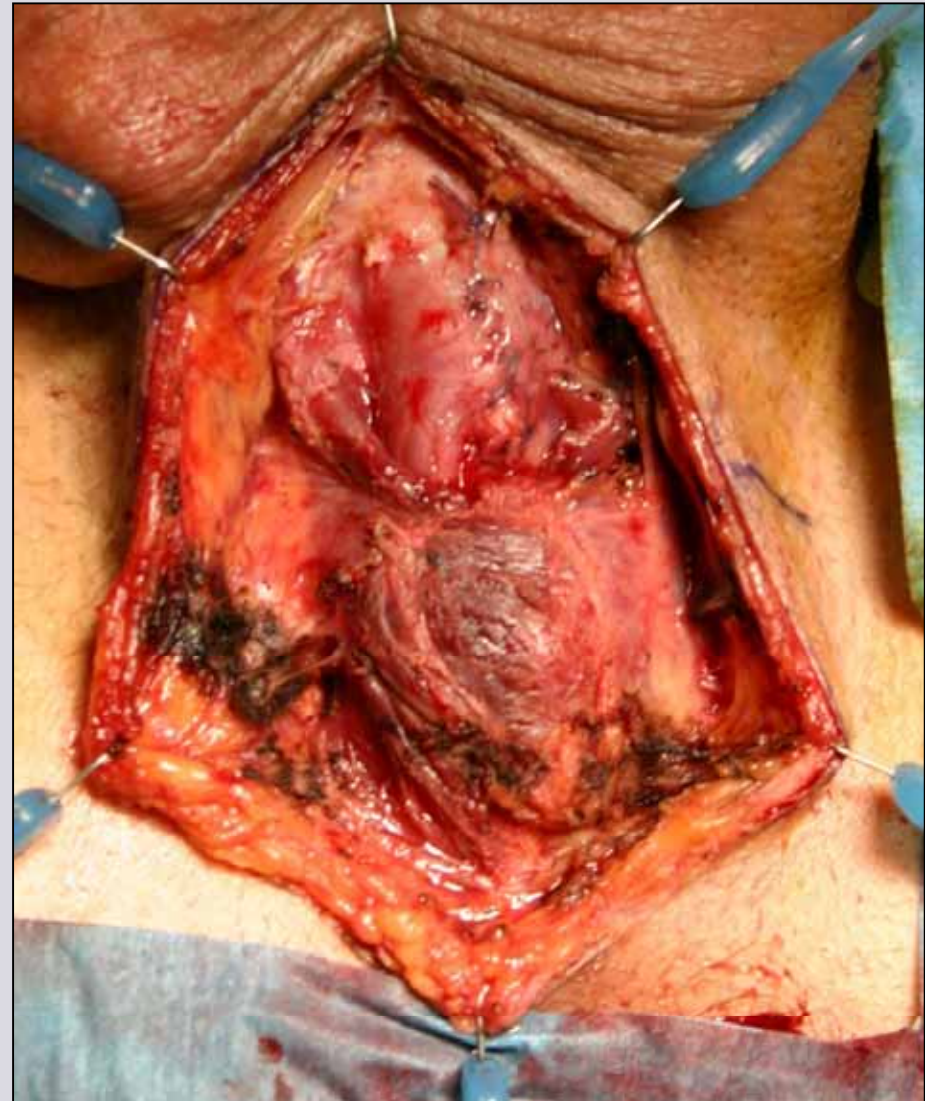
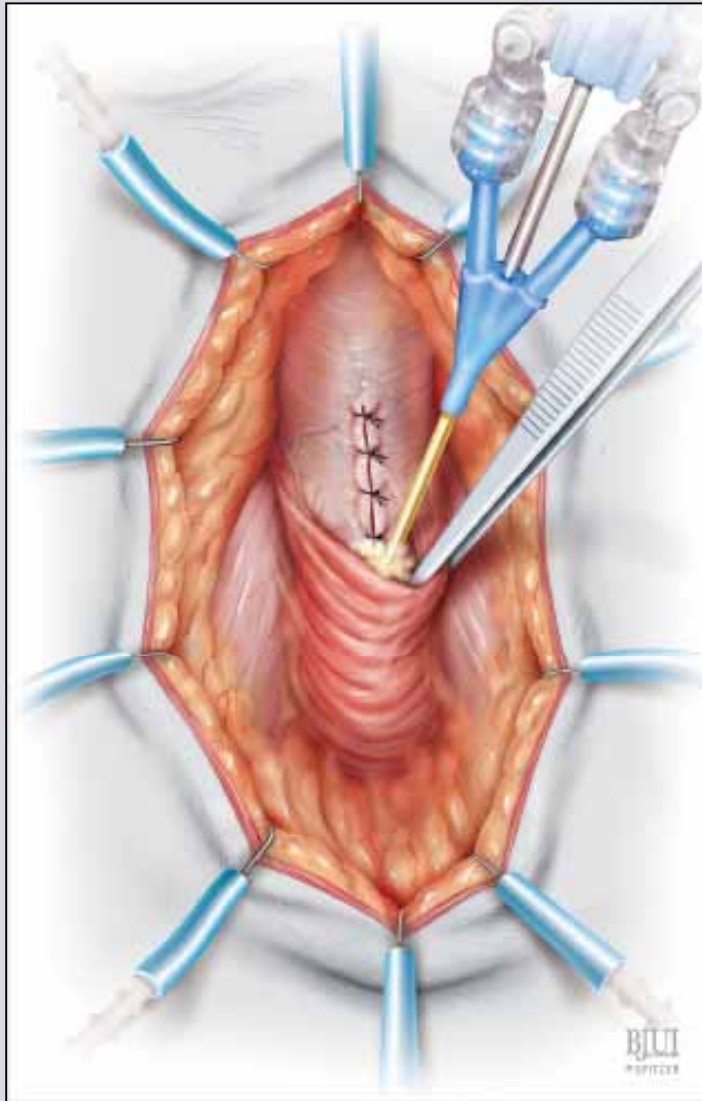
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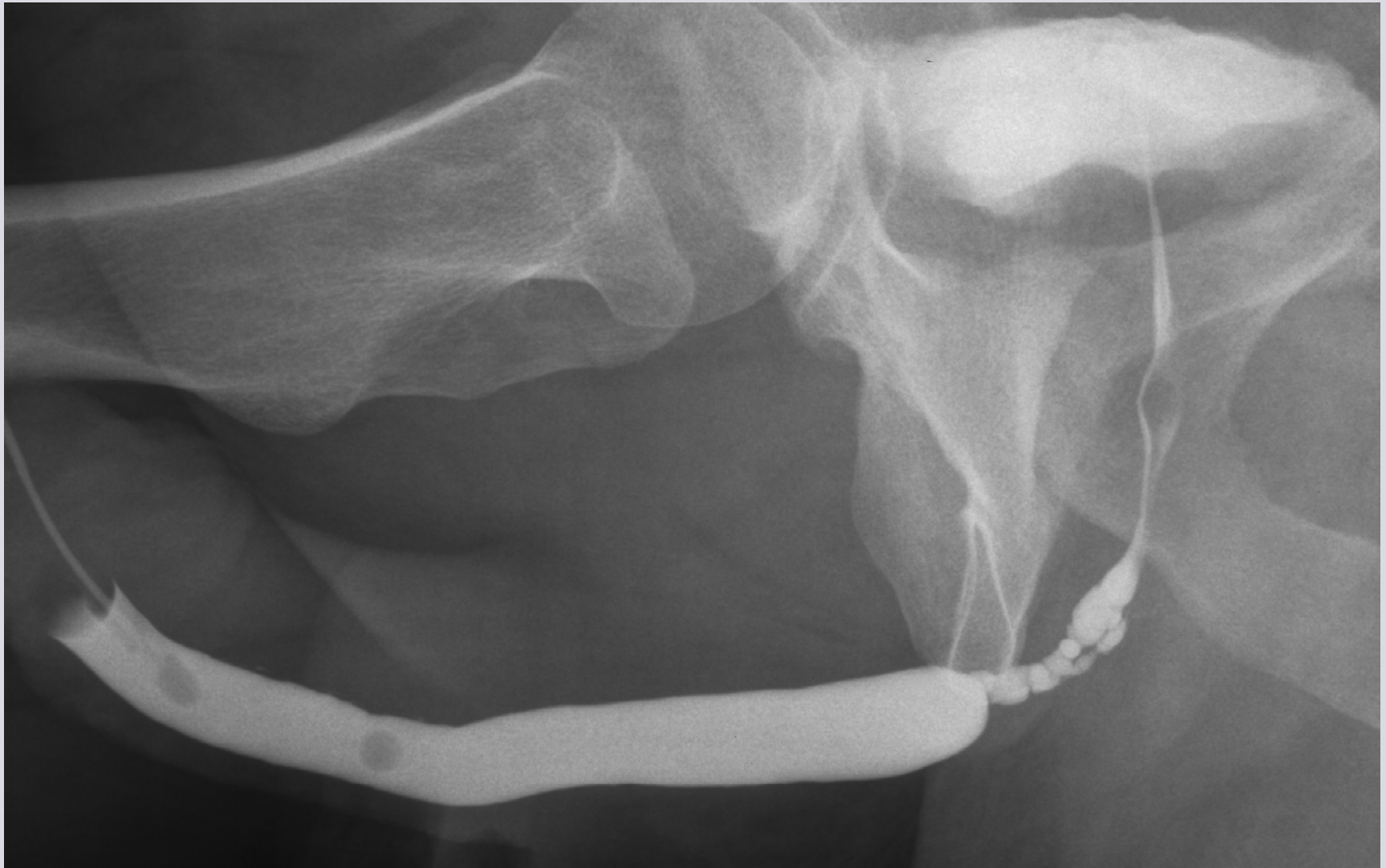
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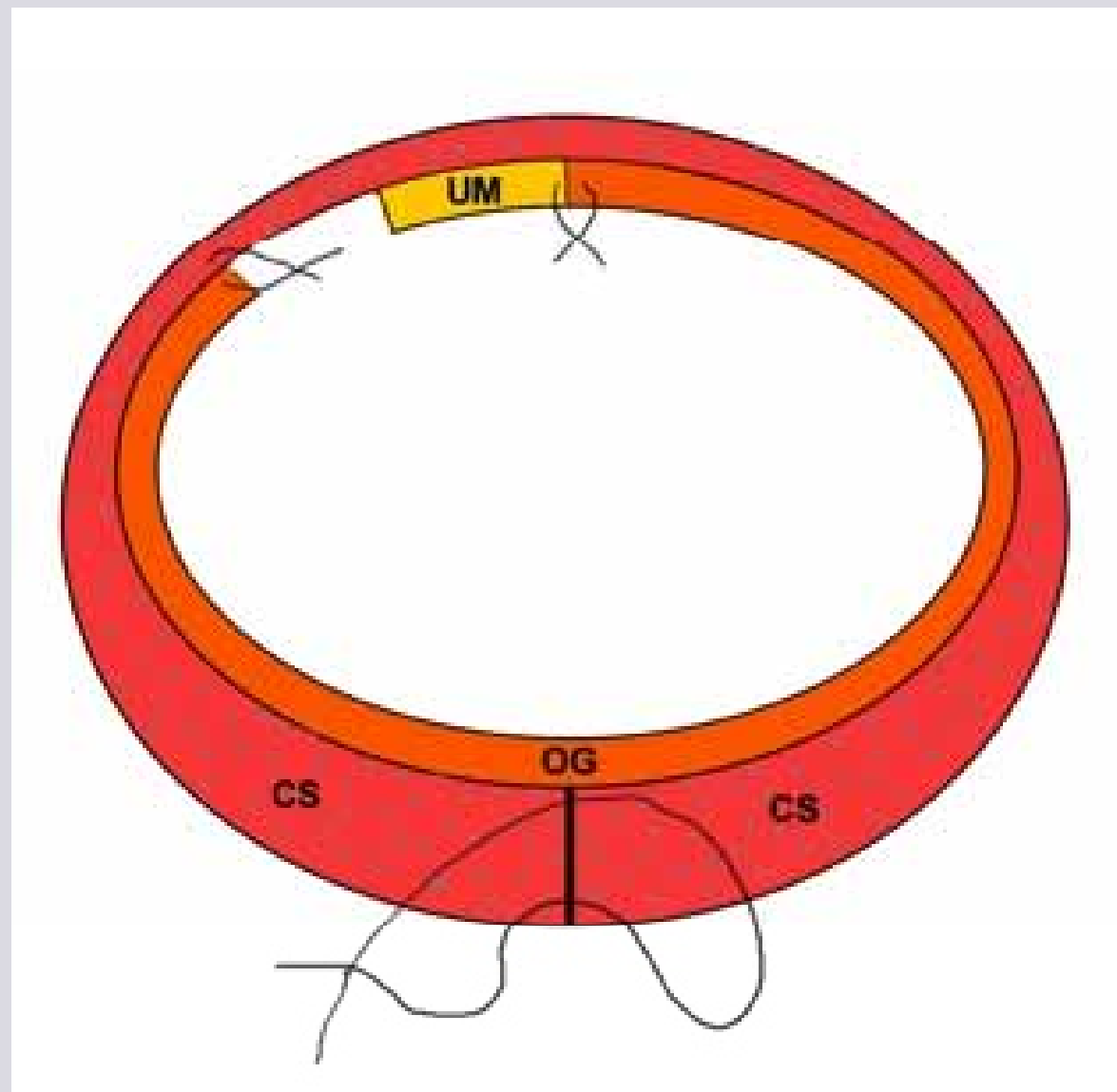
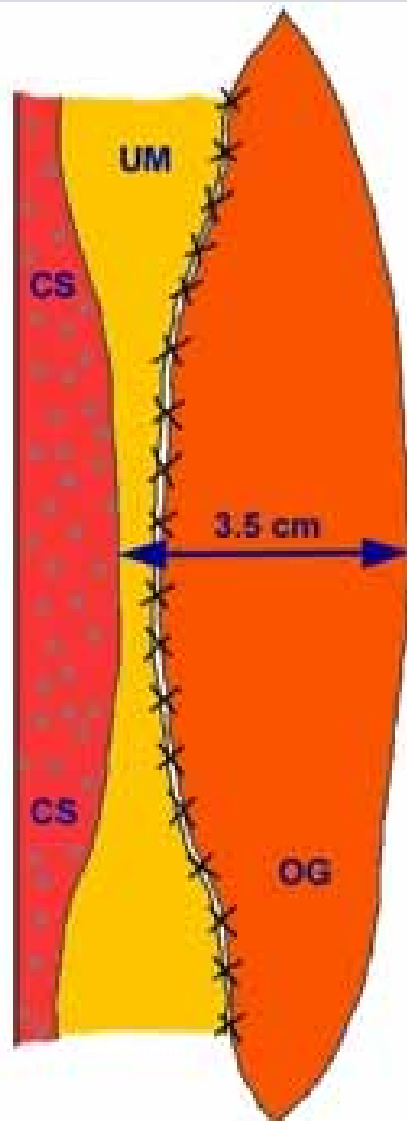
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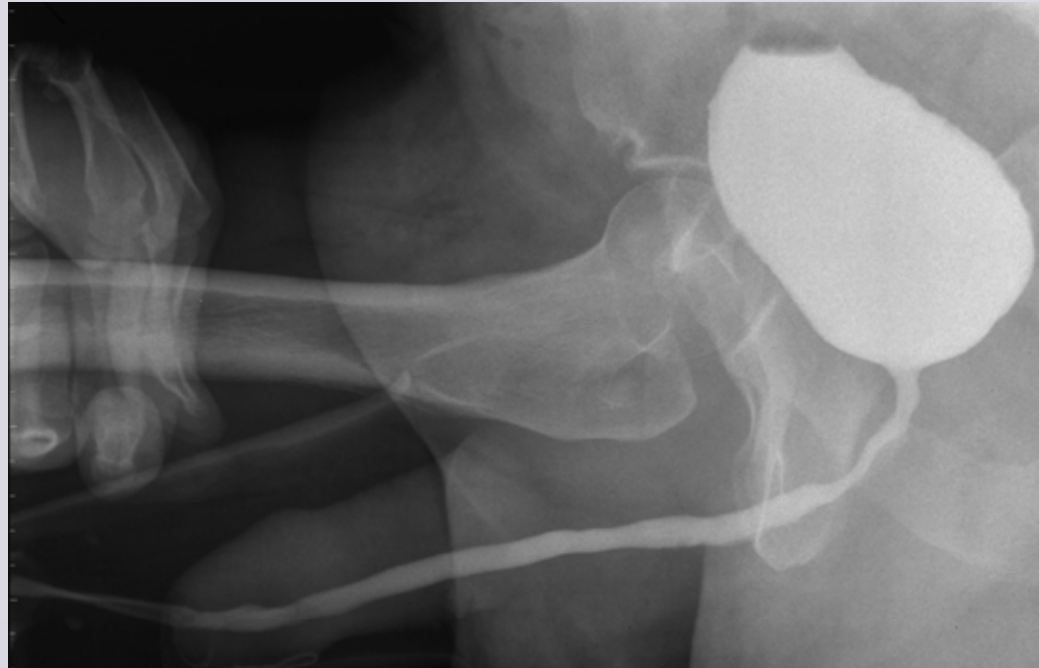
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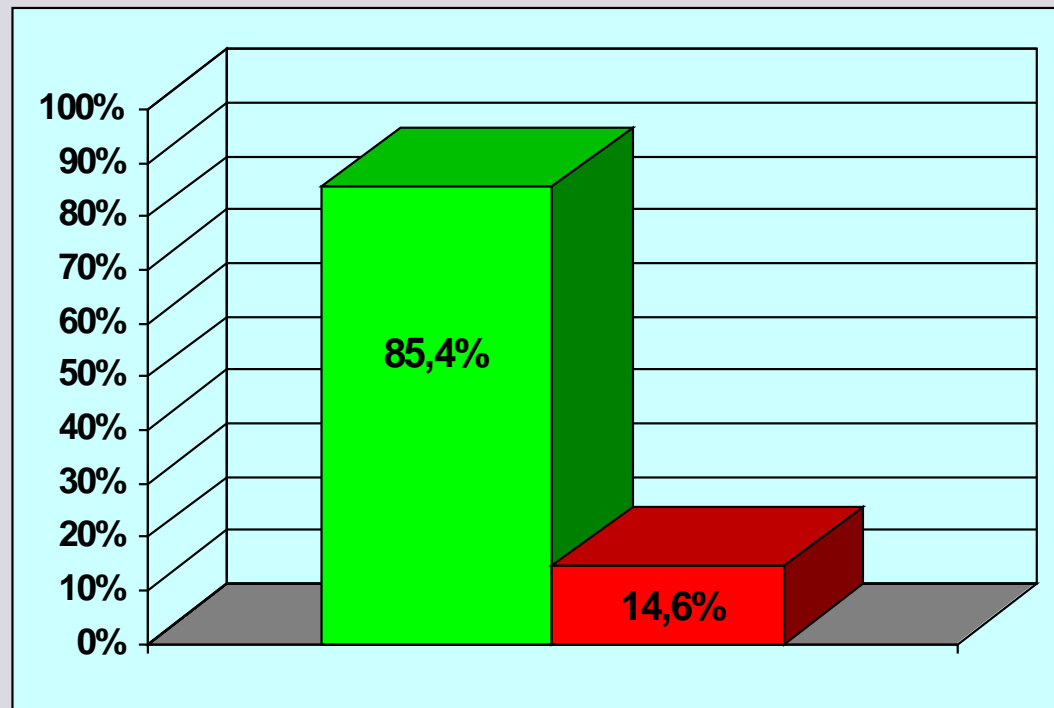




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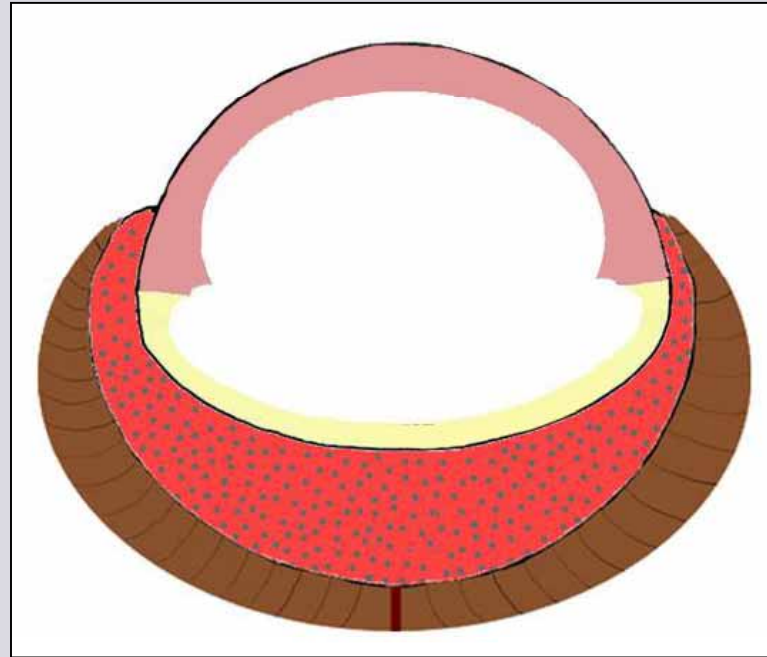
Patients: 219 (Mean age 39 years)

Mean follow-up 51 months (12 – 139)

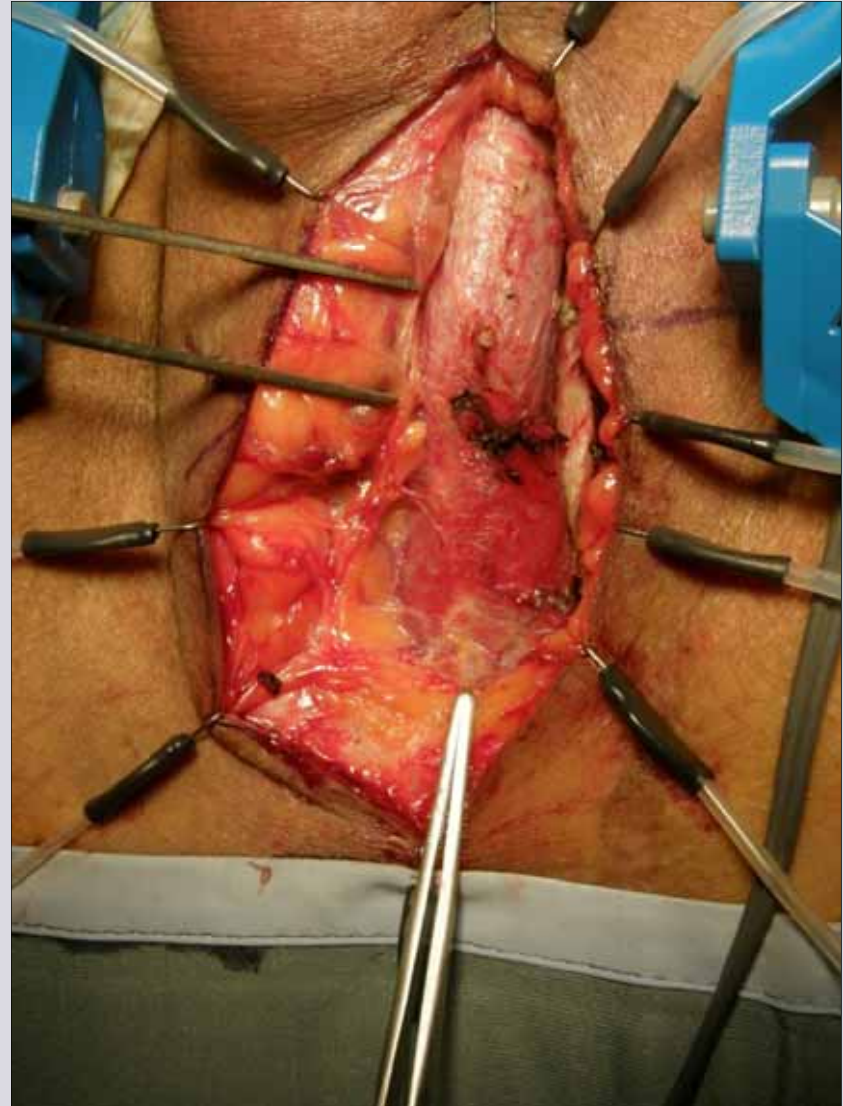
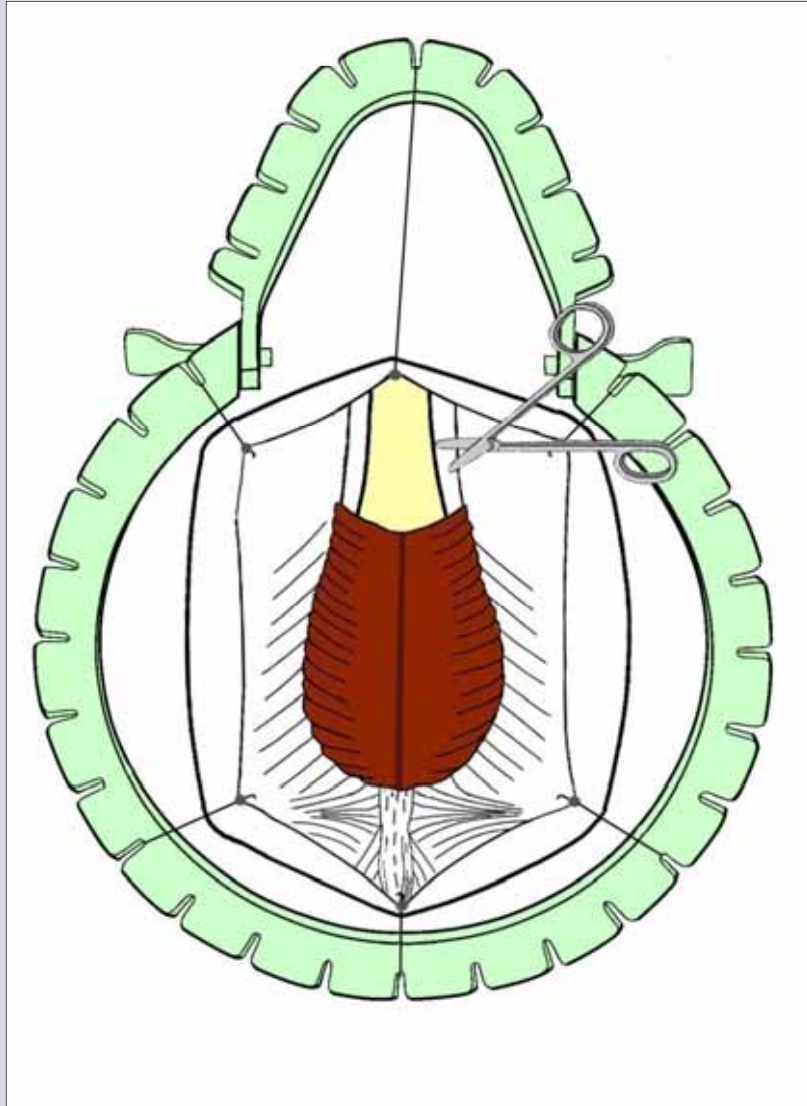


 success	187 (85.4%)
 failure	32 (14.6%)

What I should do in urethroplasty

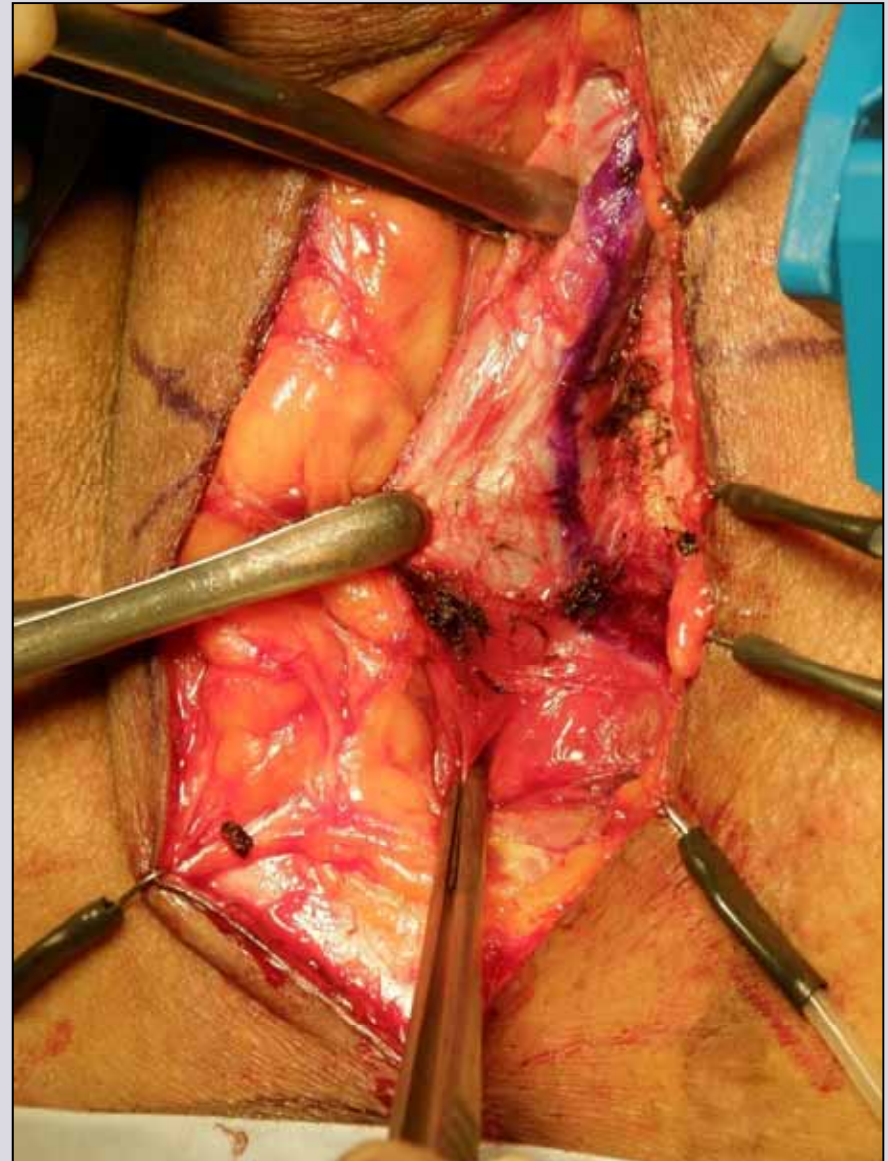
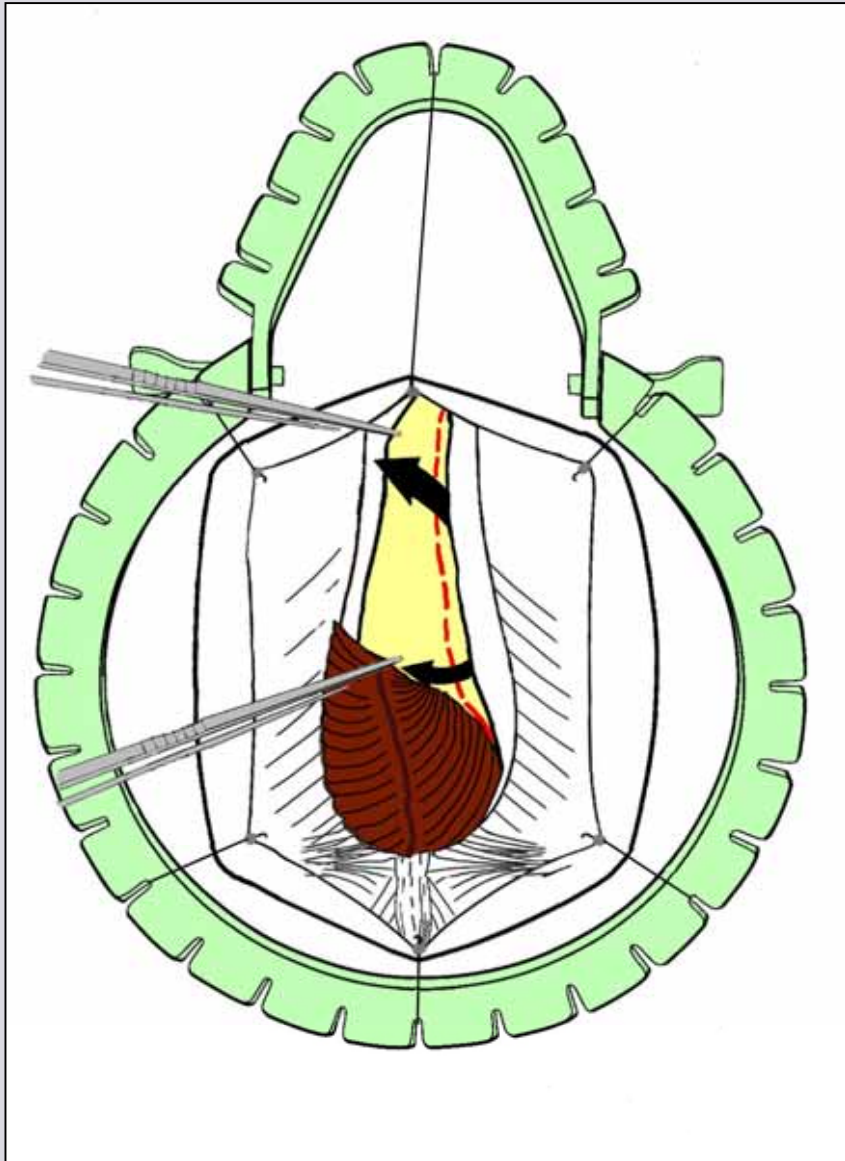


**Muscle and nerve-sparing dorsal onlay graft
bulbar urethroplasty**



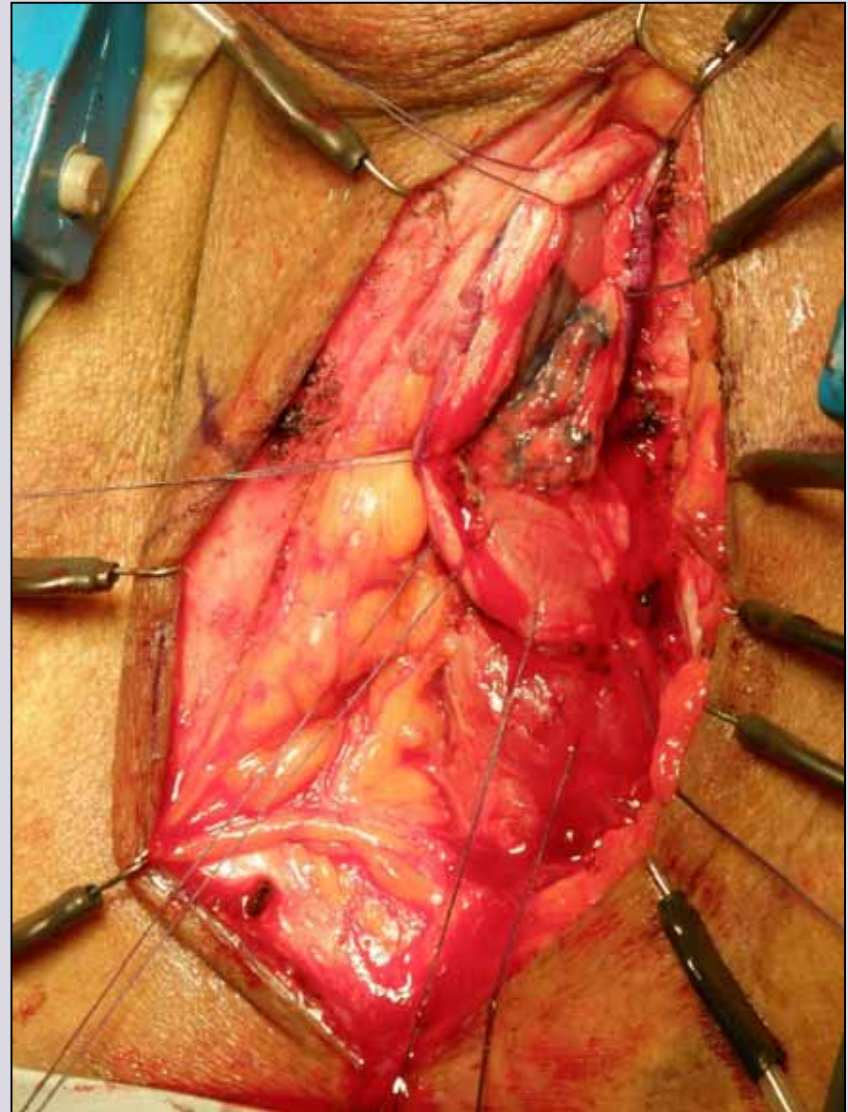
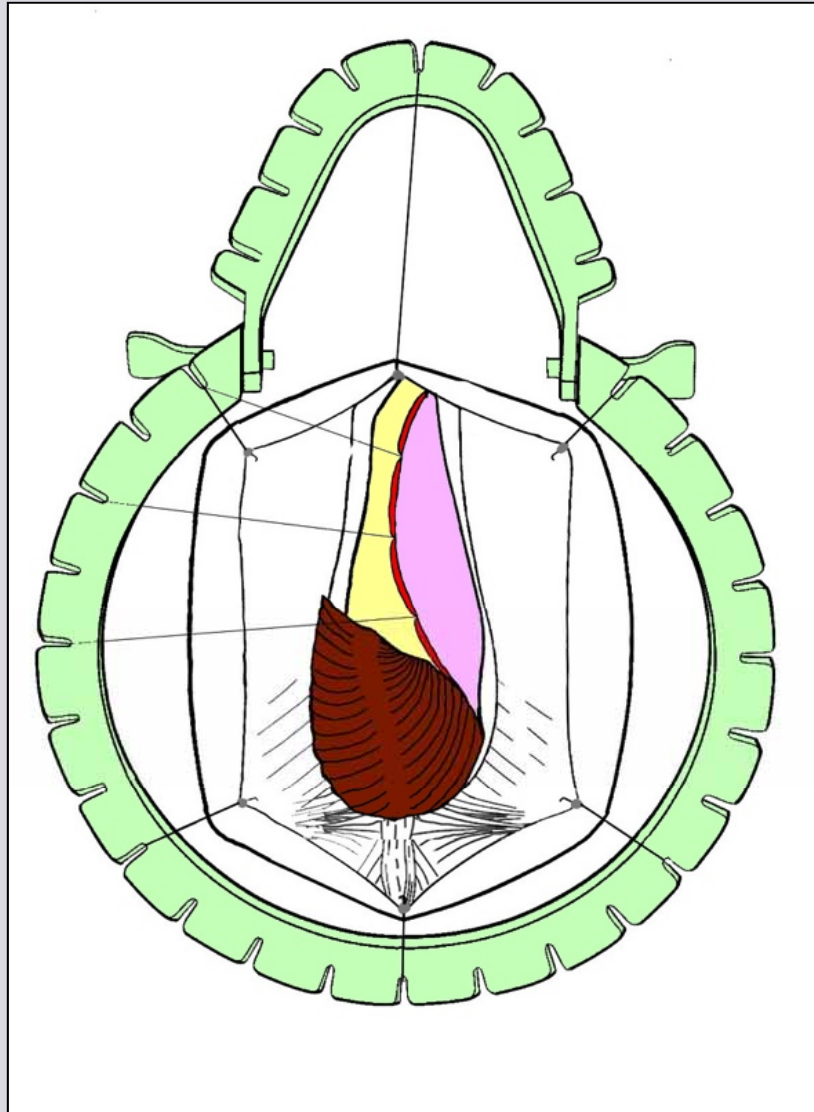
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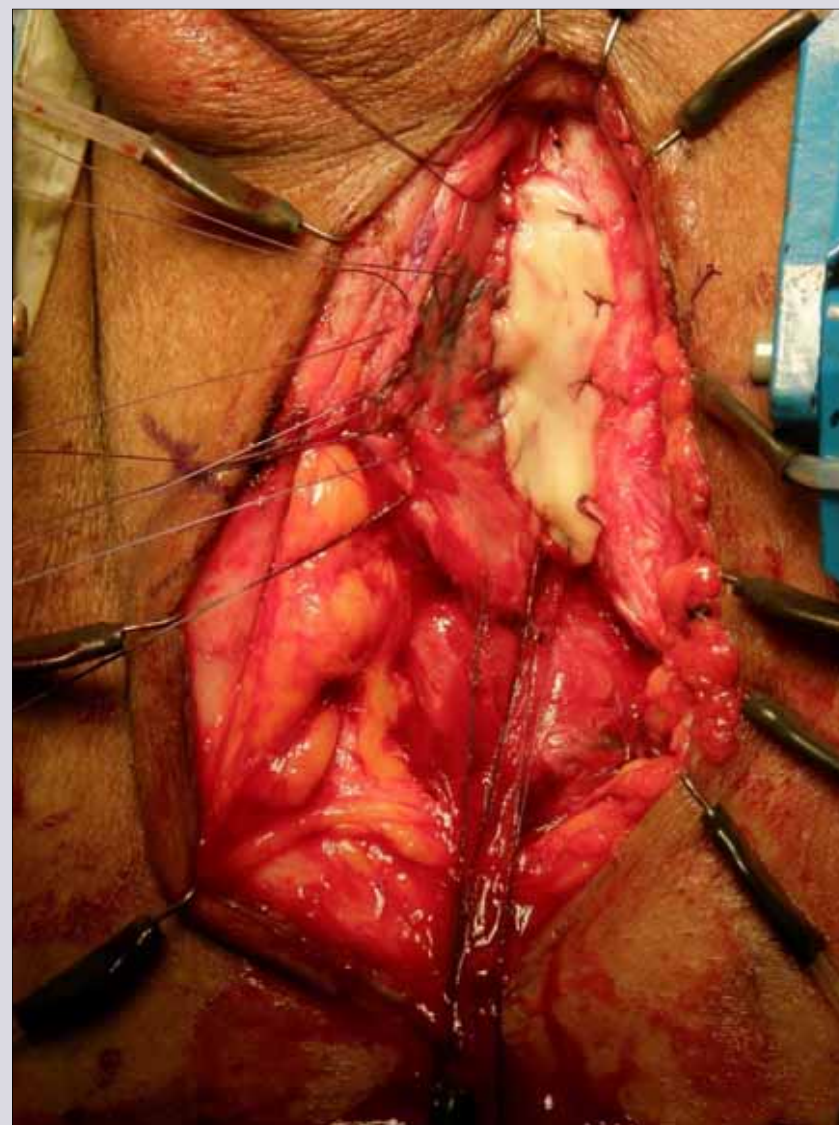
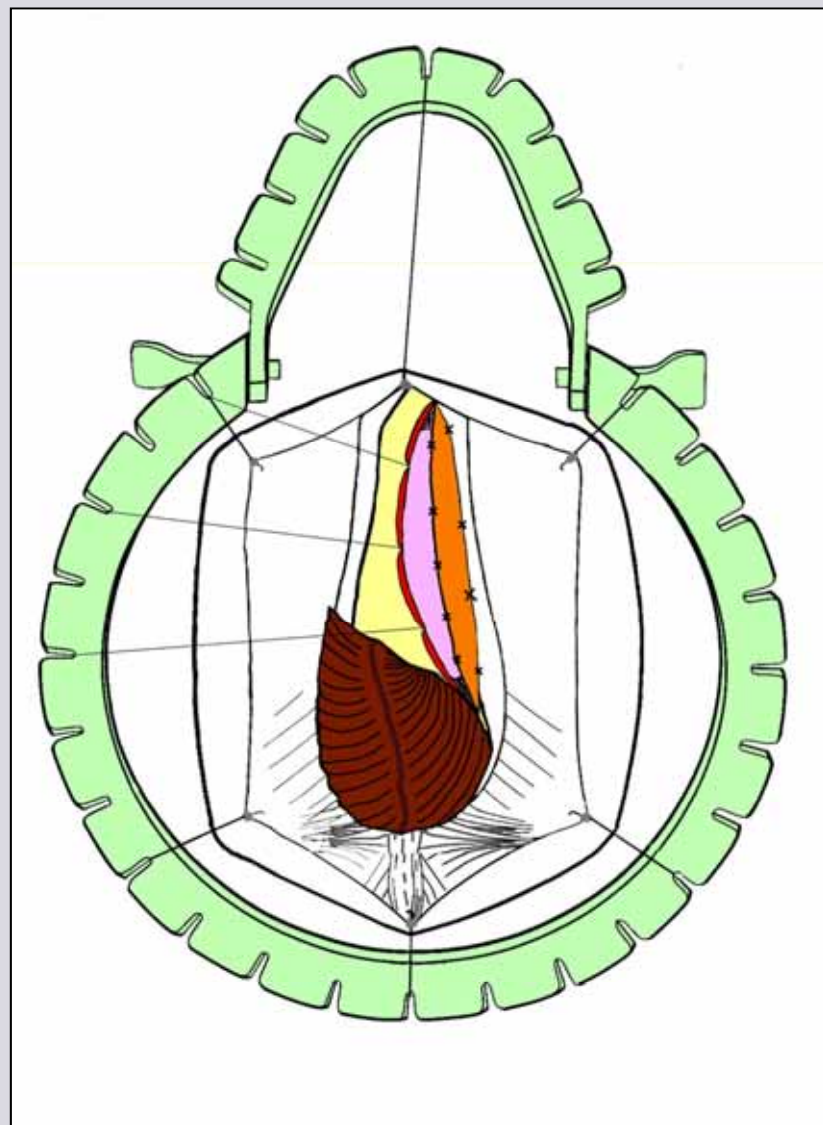
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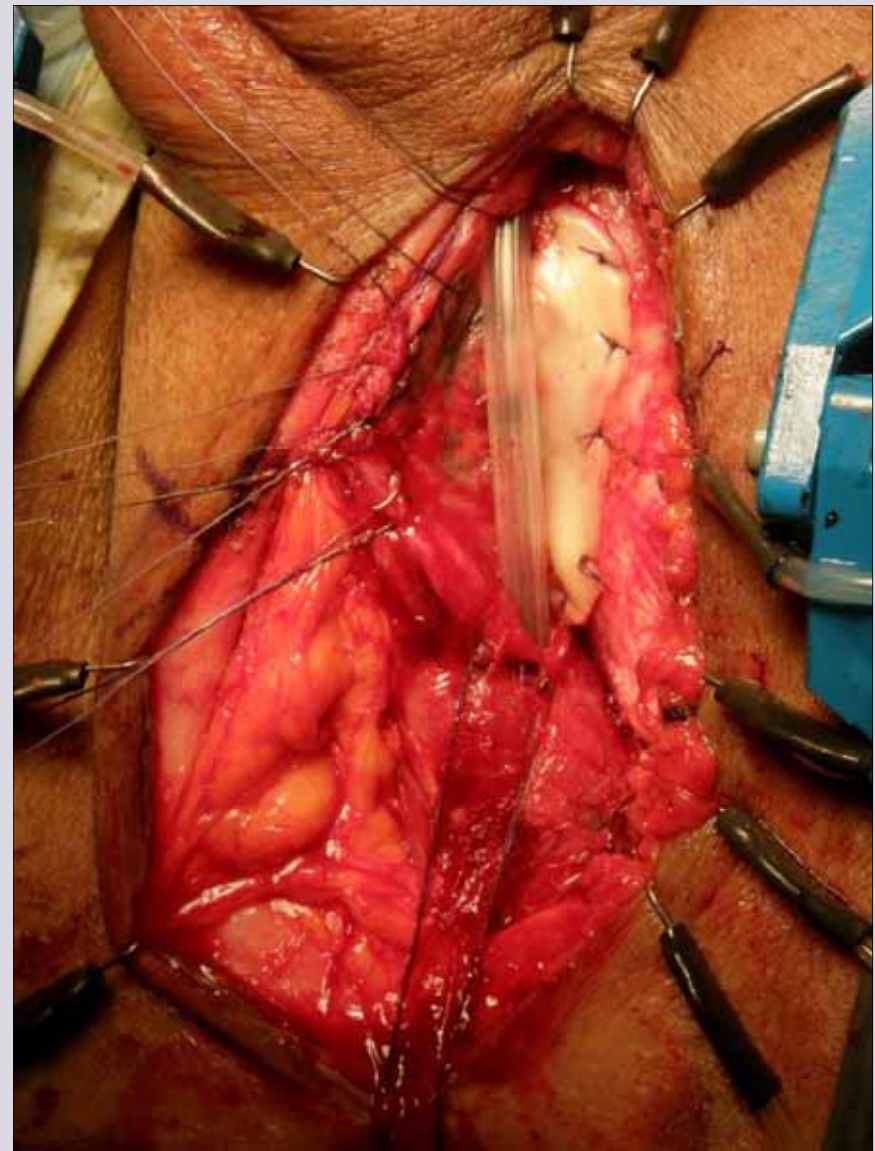
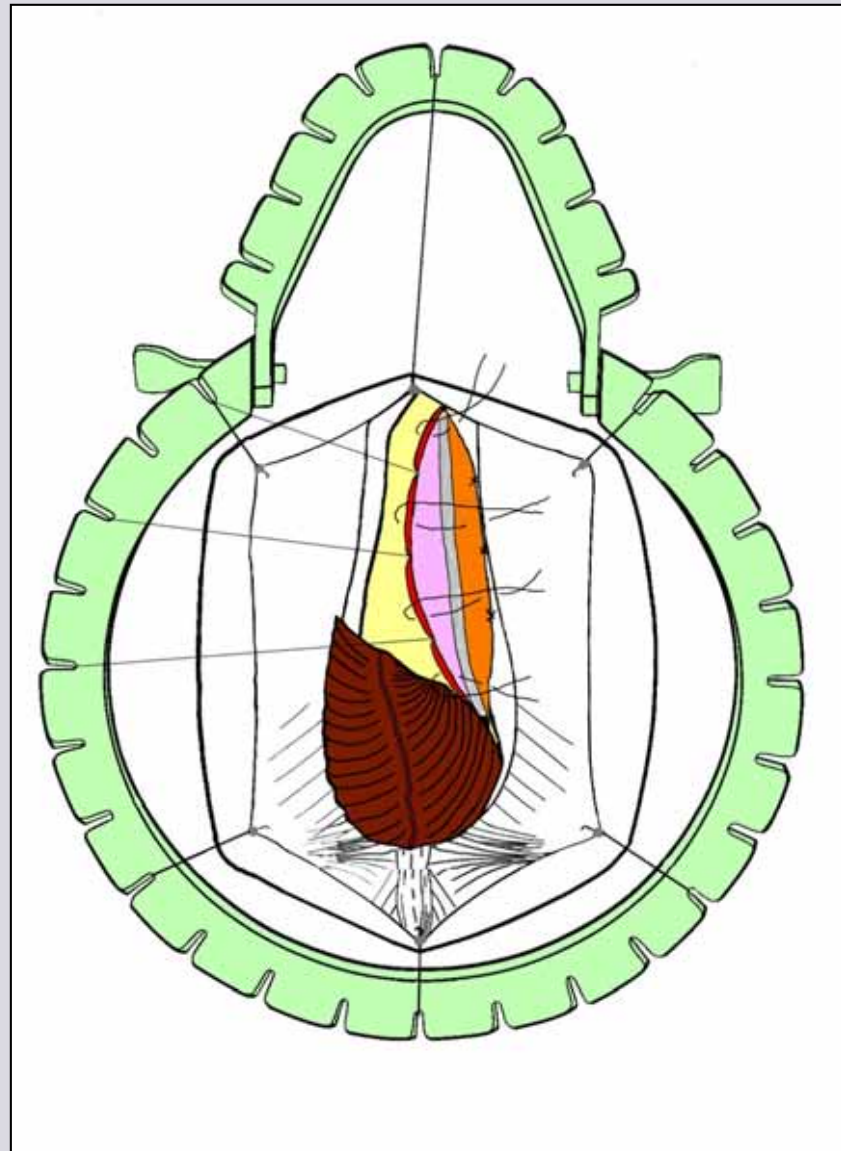
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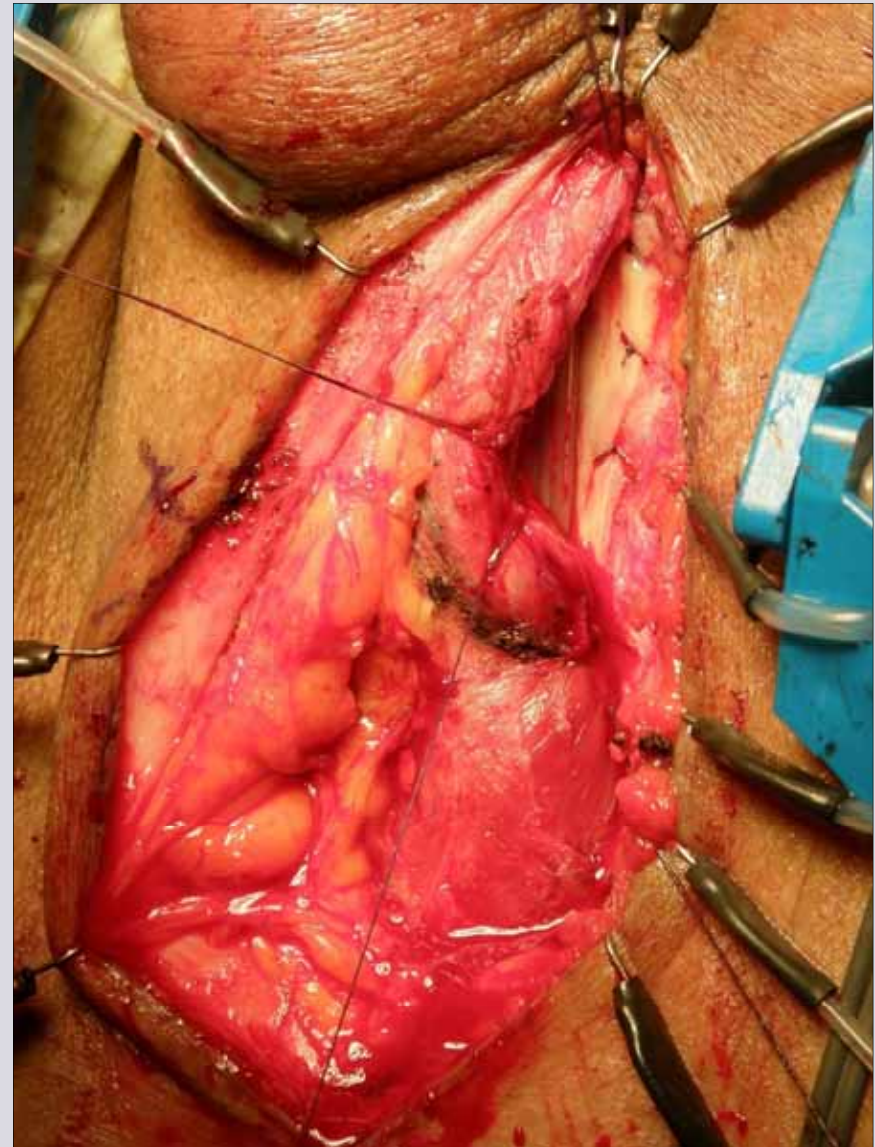
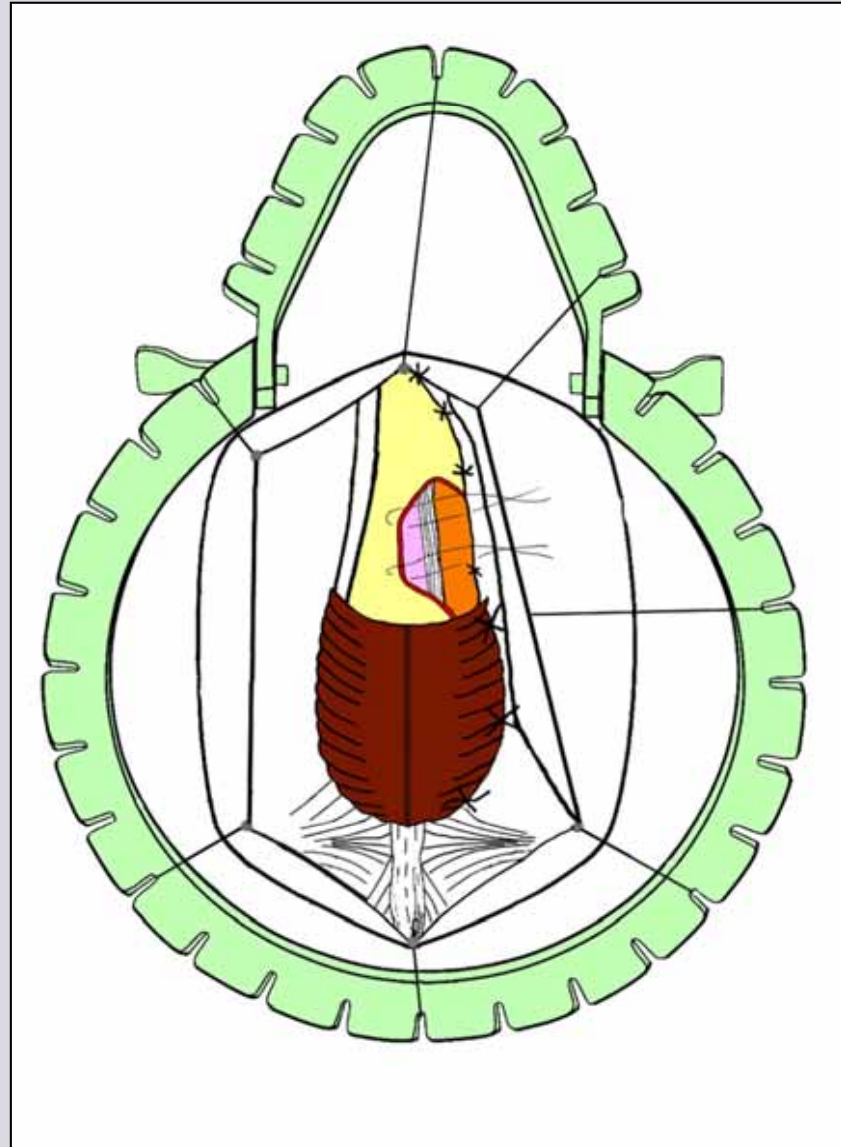
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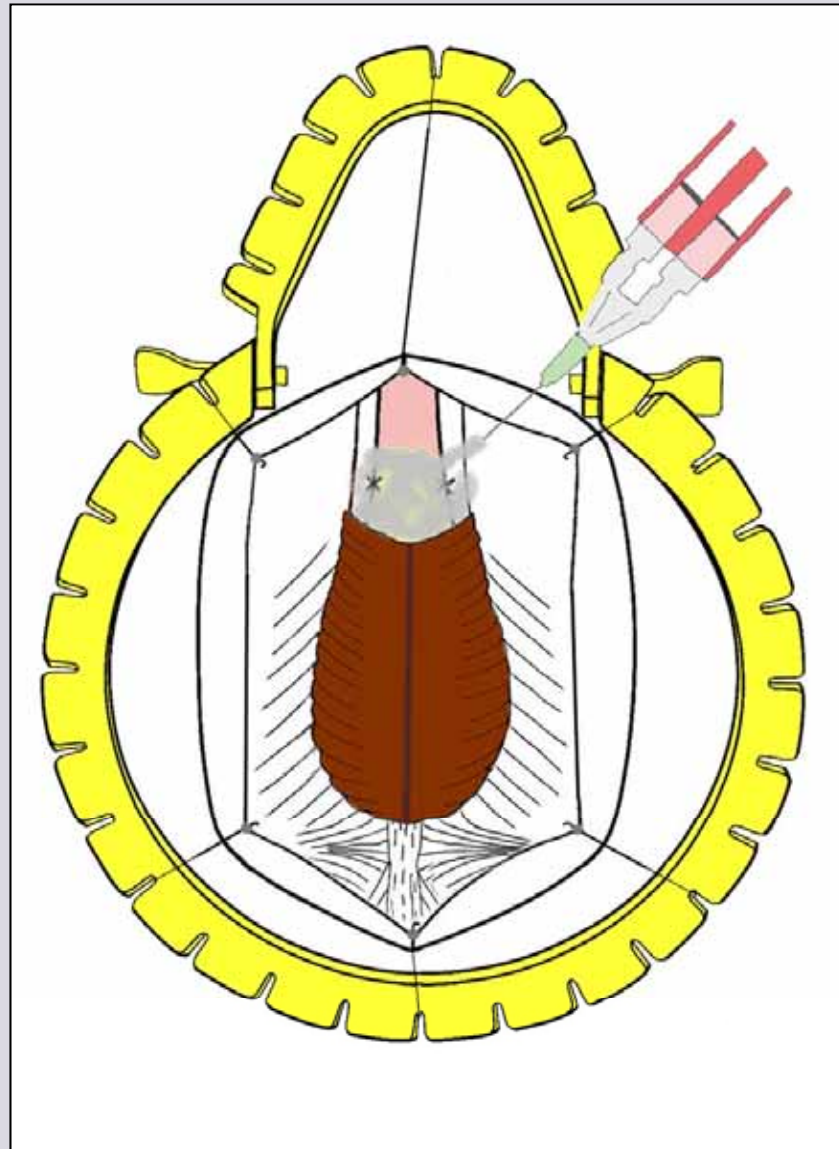
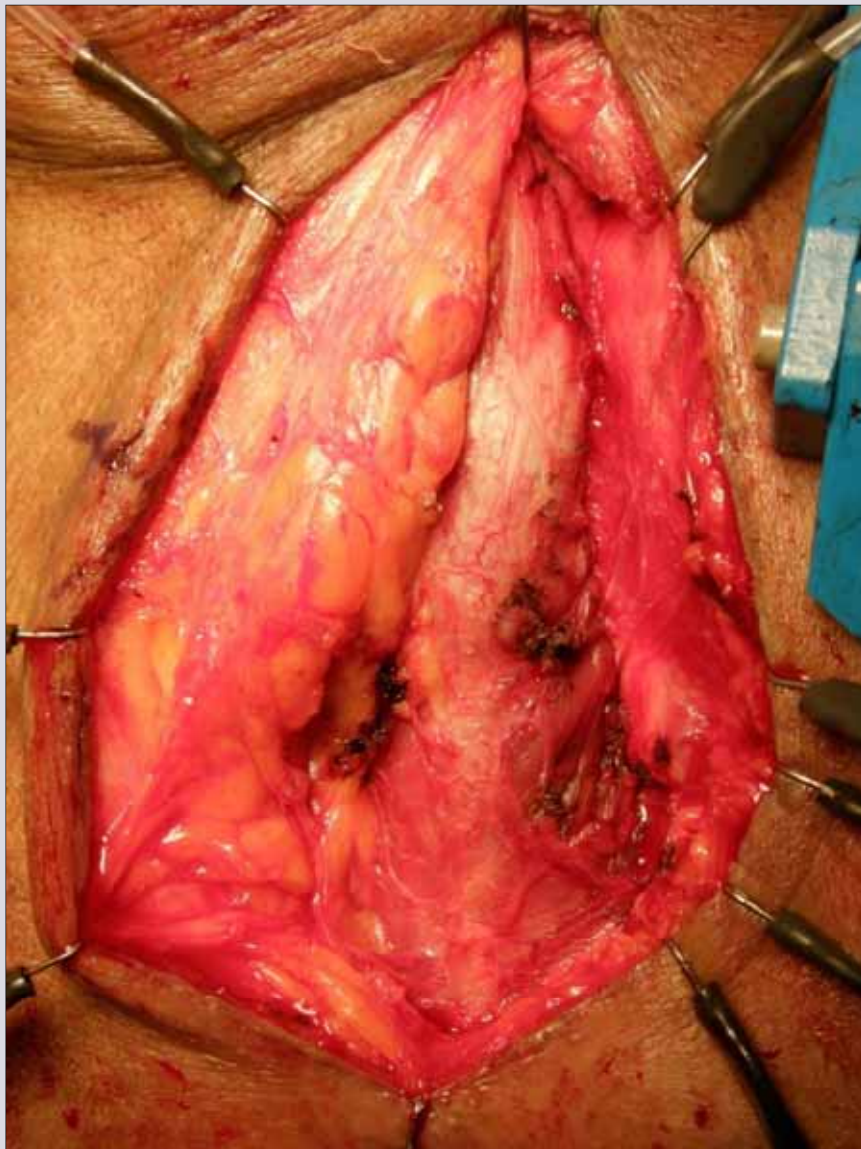
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