

# Management of Anorectal Malformation in Male Patients

**Alberto Peña, MD**

The 65th Workshop for the Surgical Treatment  
of Colorectal Problems in Children



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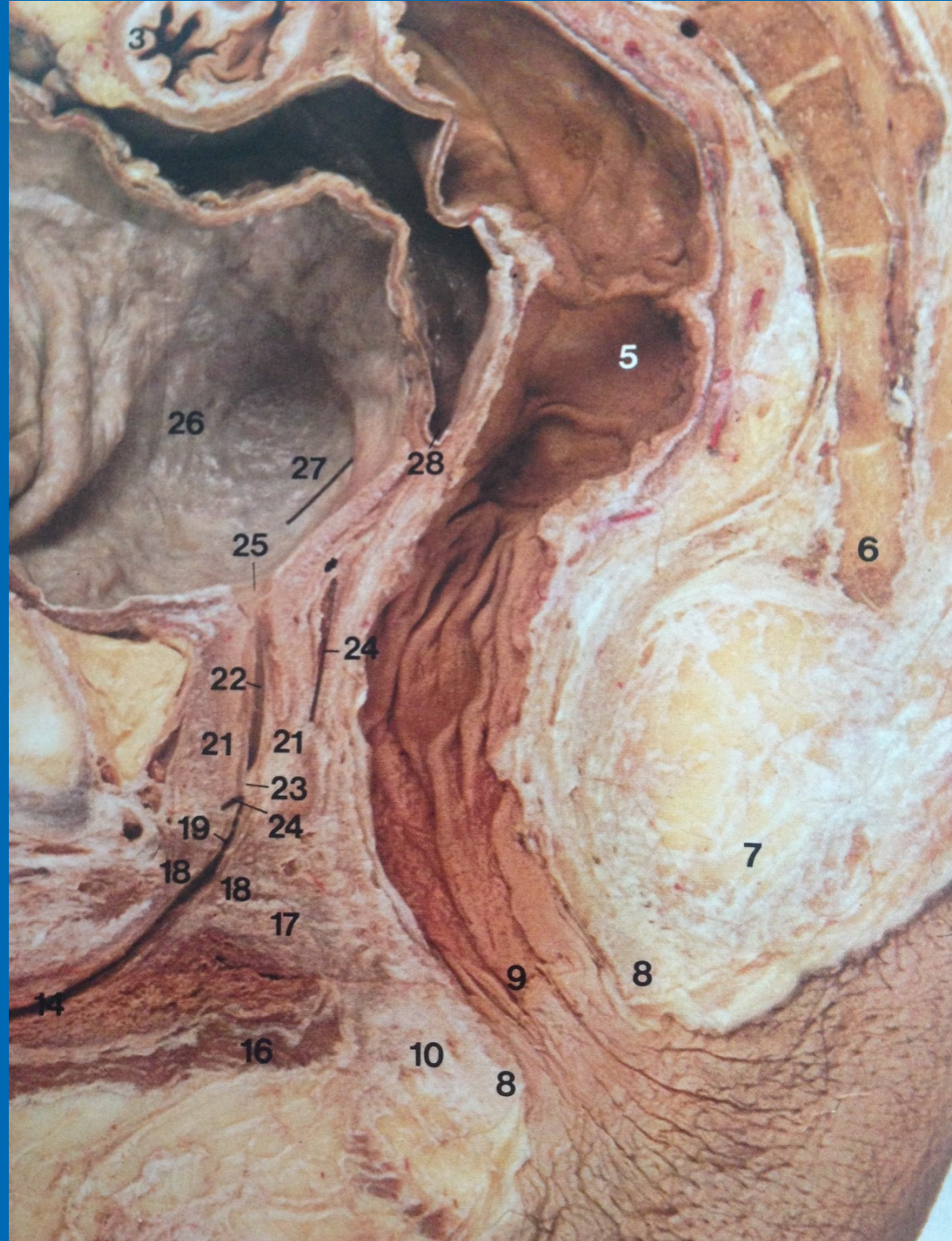
# Can you see them?



Anxious Medical Student

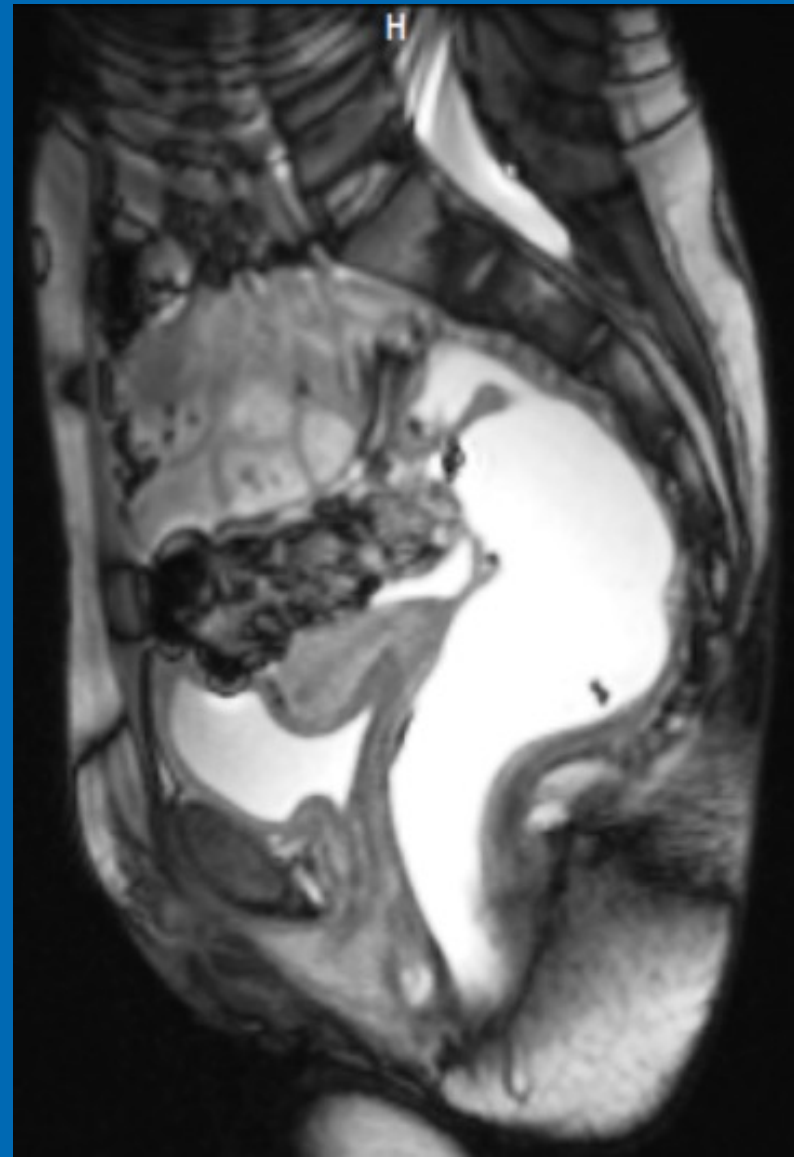
- Levator muscle
- Puborectalis
- Pubourethralis
- Pubococcygeous
- Ileococcygeous
- Ischiococcygeal
- Deep external sphincter
- Superficial external sphincter





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Video

# Normal Bowel Muscle Contraction

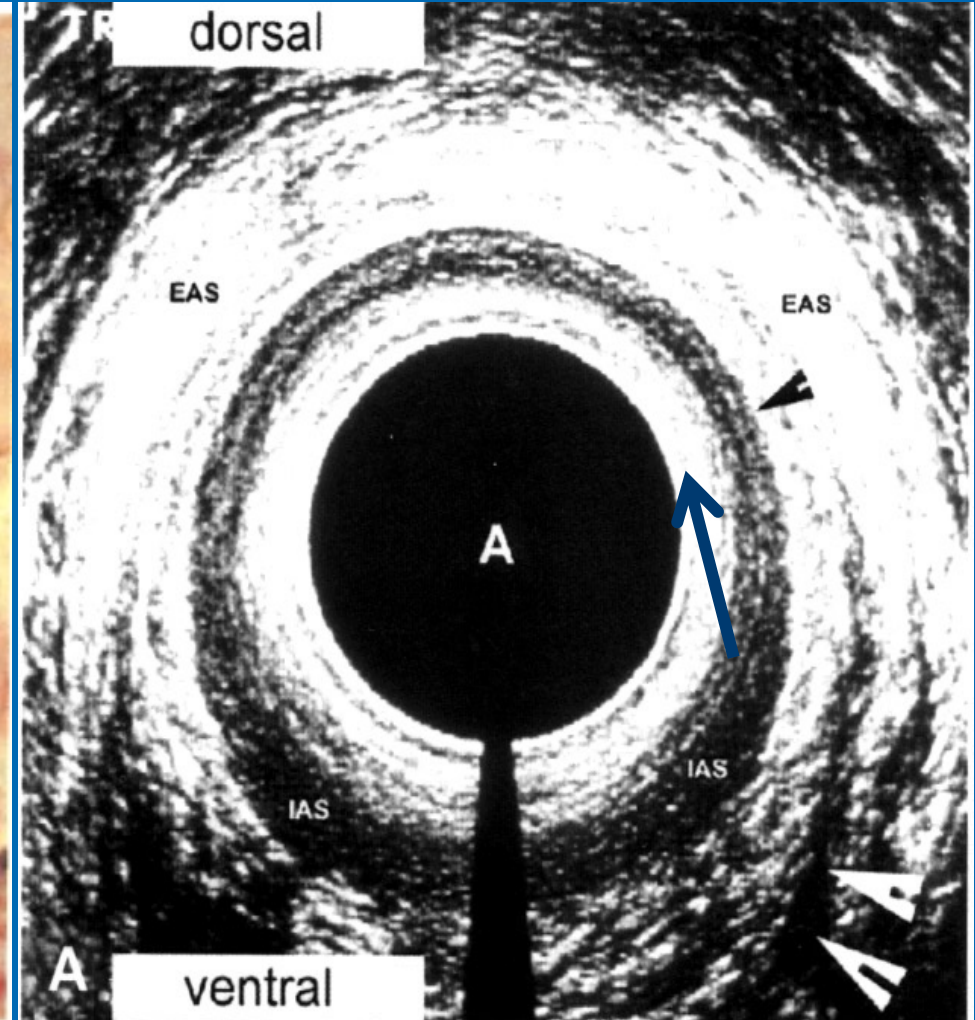
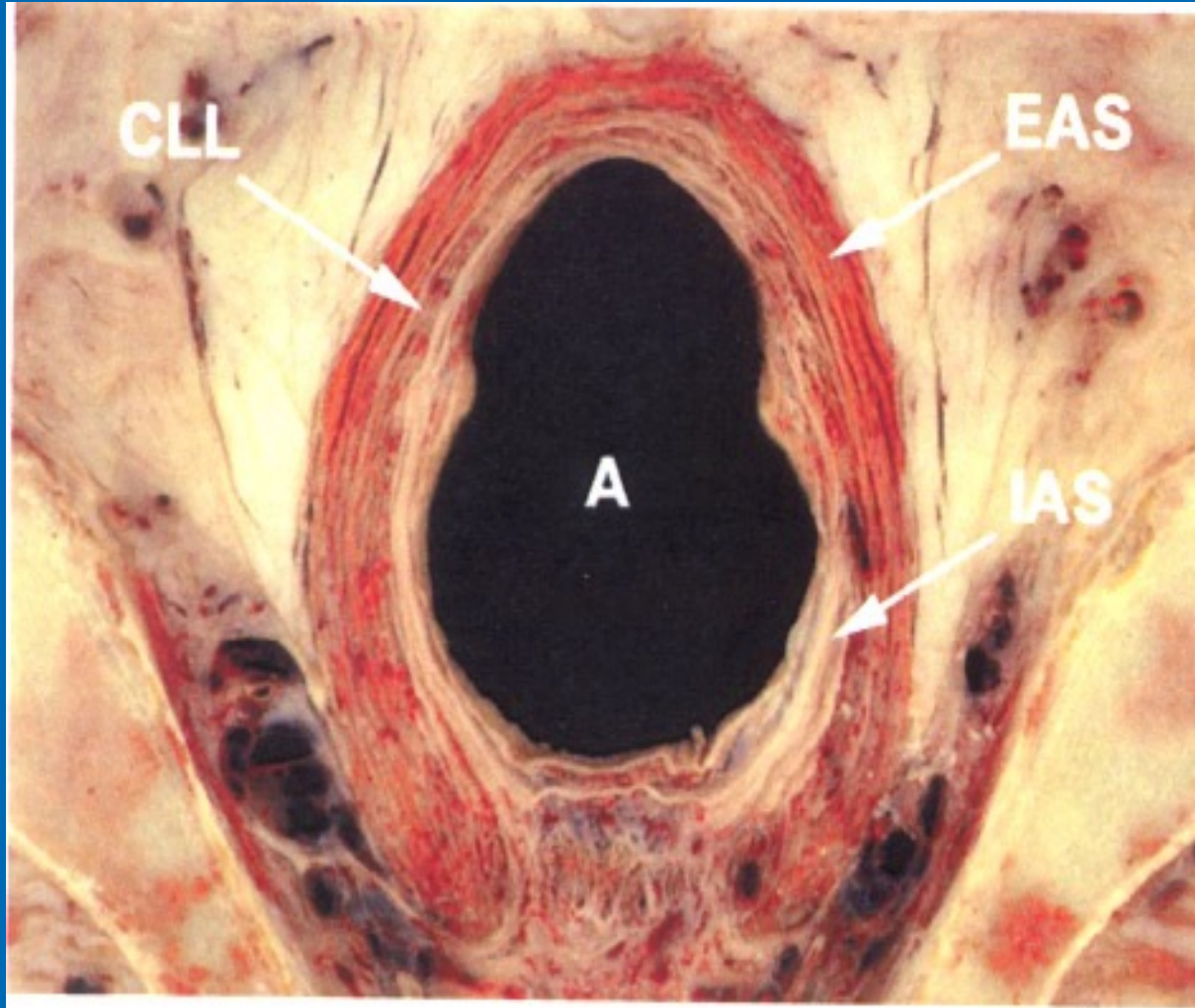


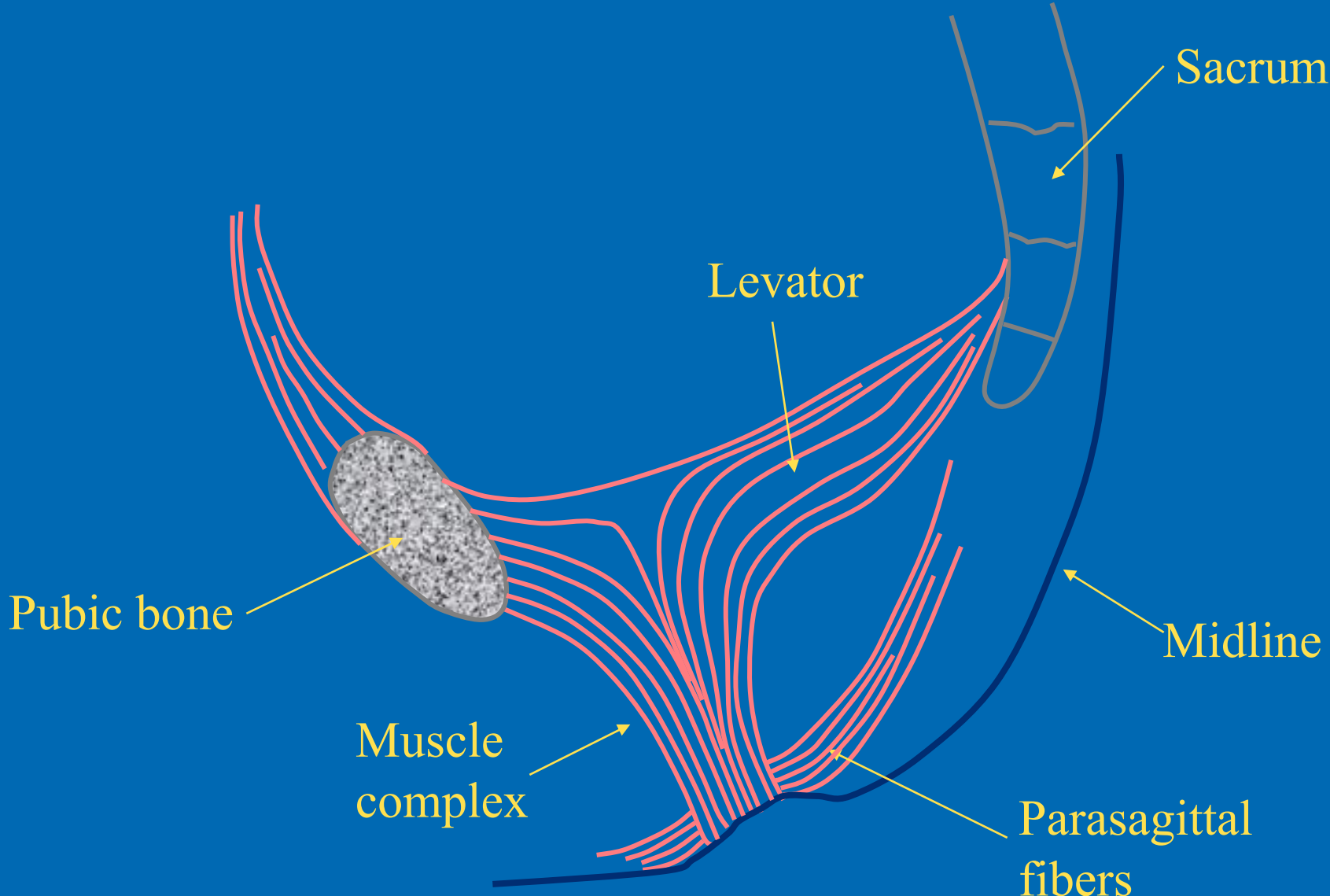
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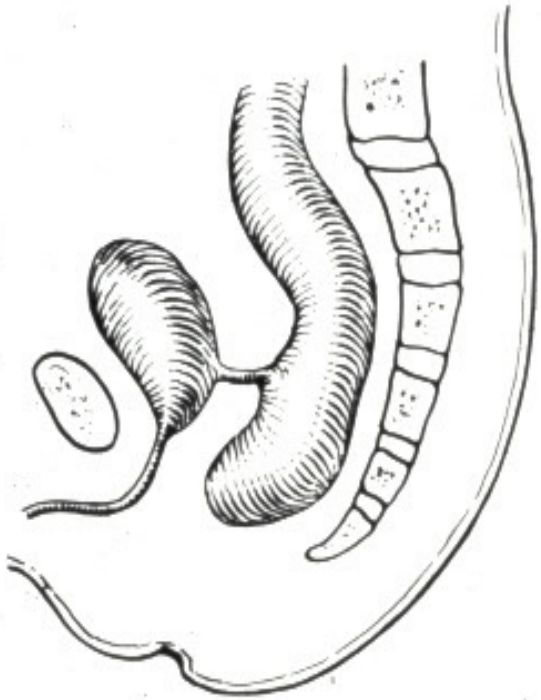
# Internal Sphincter

- Very few good quality pictures
- No precise description of size and limits
- Mainly manometric concept
- Some believe is important for bowel control
- Others believe it is not important
- Others believe it is responsible for idiopathic constipation

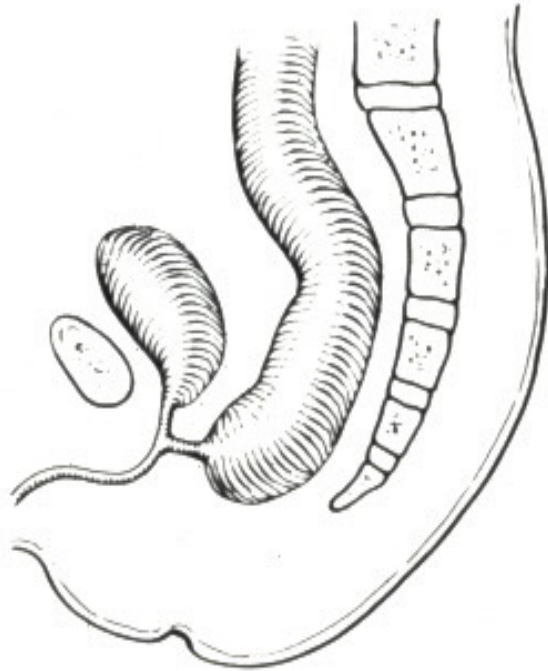




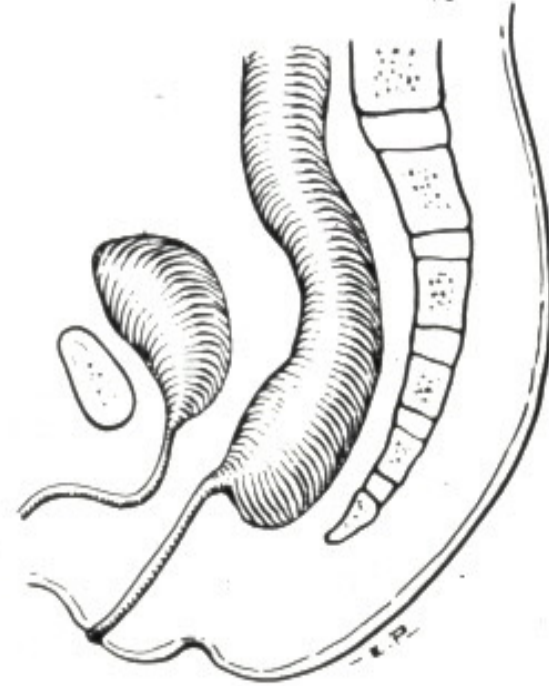




RECTOVESICAL



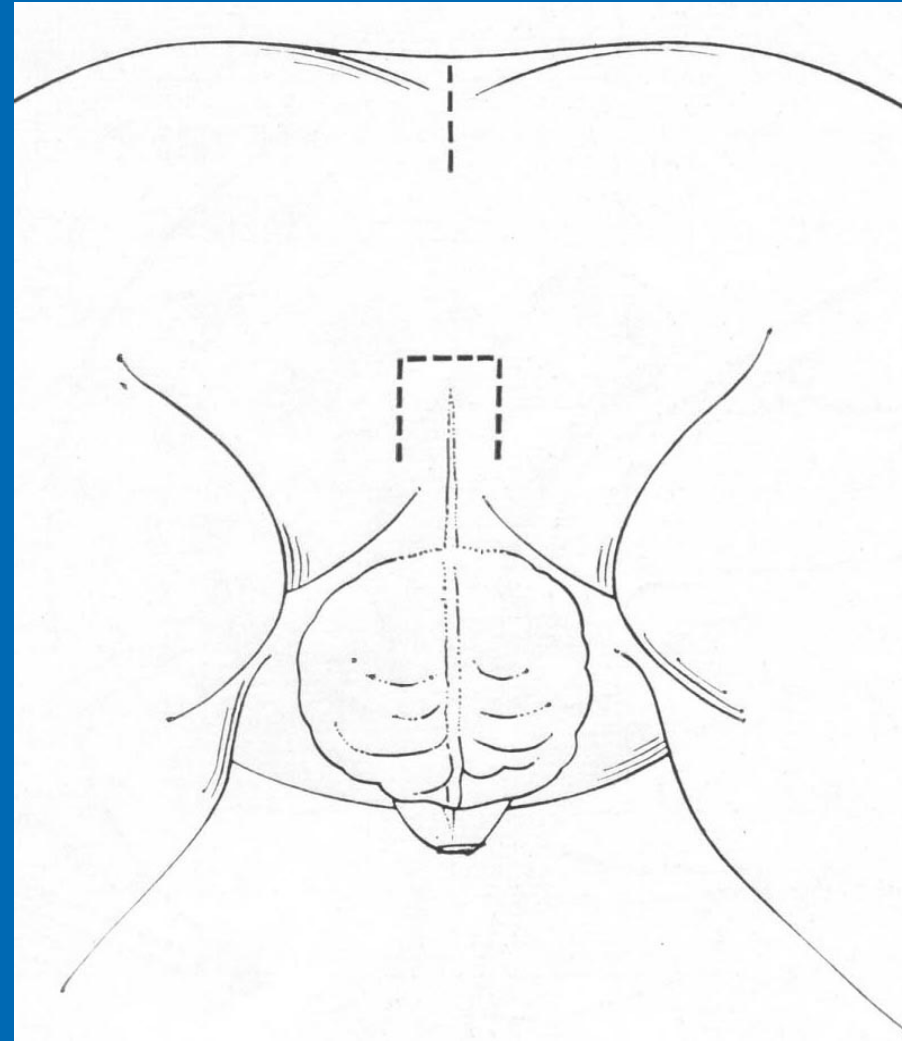
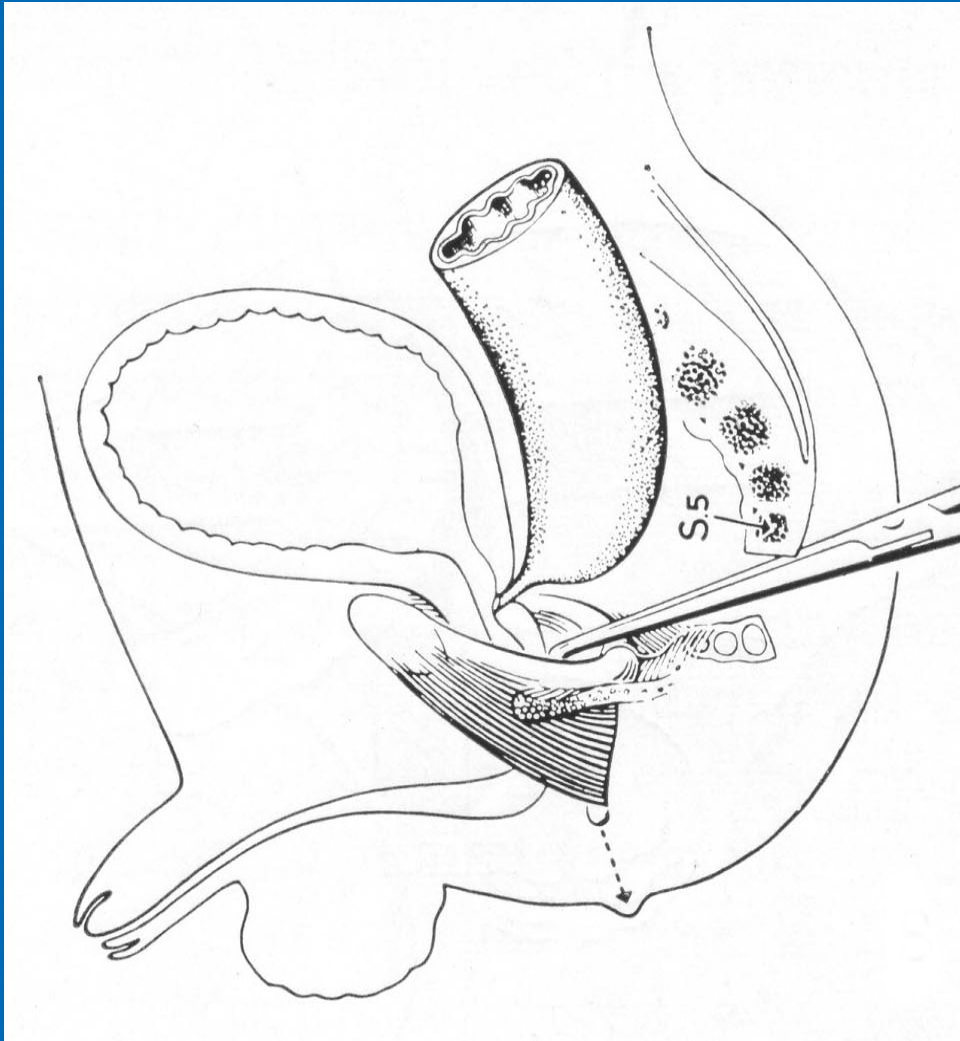
RECTOURETHRAL



RECTOPERINEAL



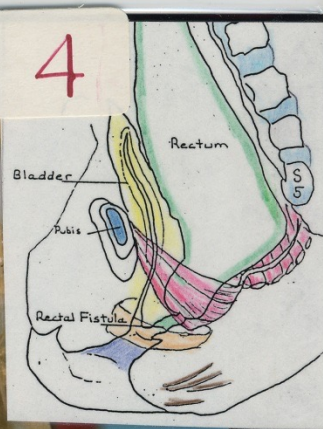
# Stephens Repair: Sacroperineal, 1953



RECTO-LOOICAL  
FISTULA  
INTERMEDIATE  
(M) KING

F

4



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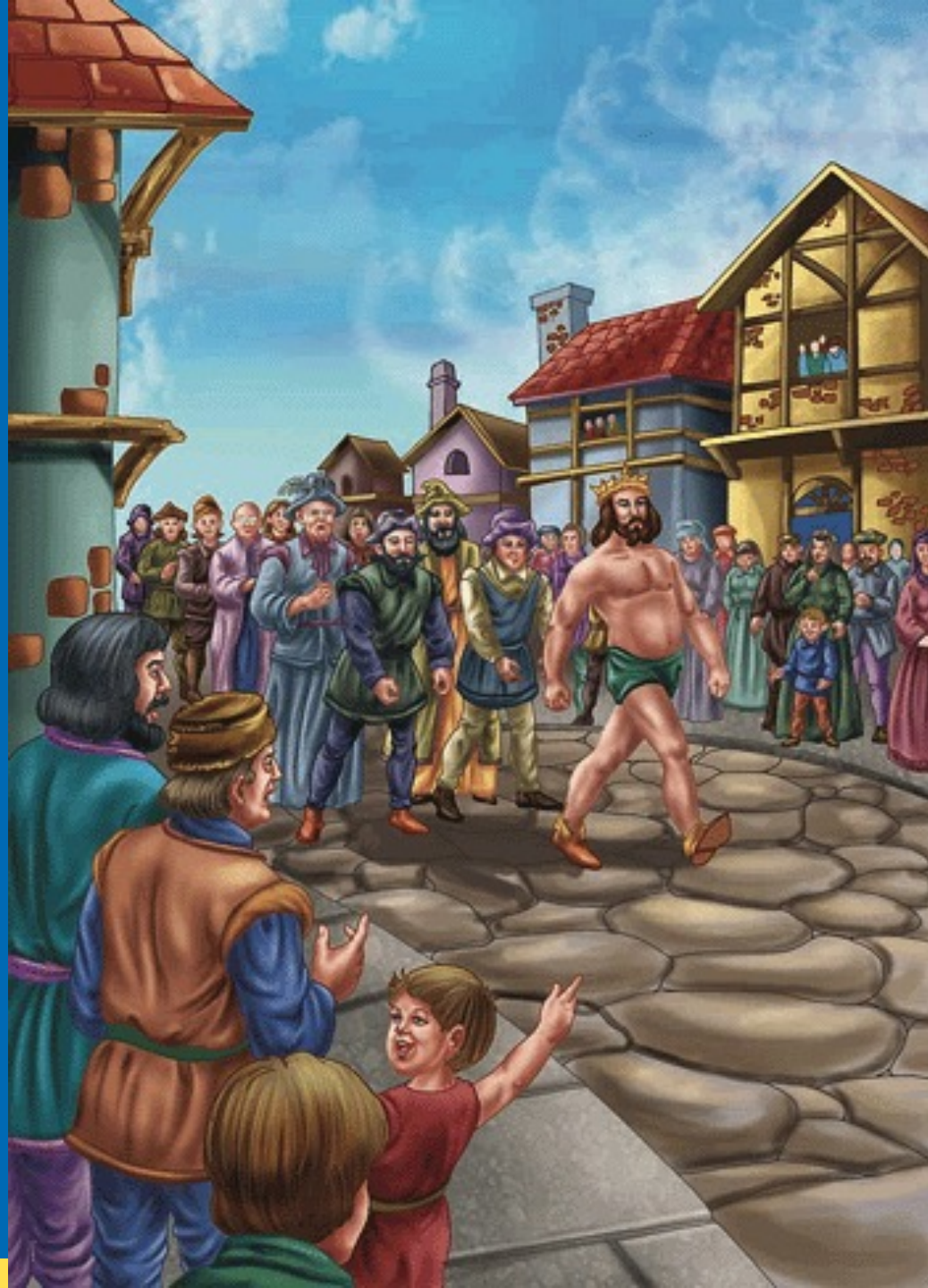
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**We were all blind  
believers**



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# First Posterior Sagittal Exploration

August 10, 1980



March 2021 – more than 3500 cases

*...Many lessons learned*



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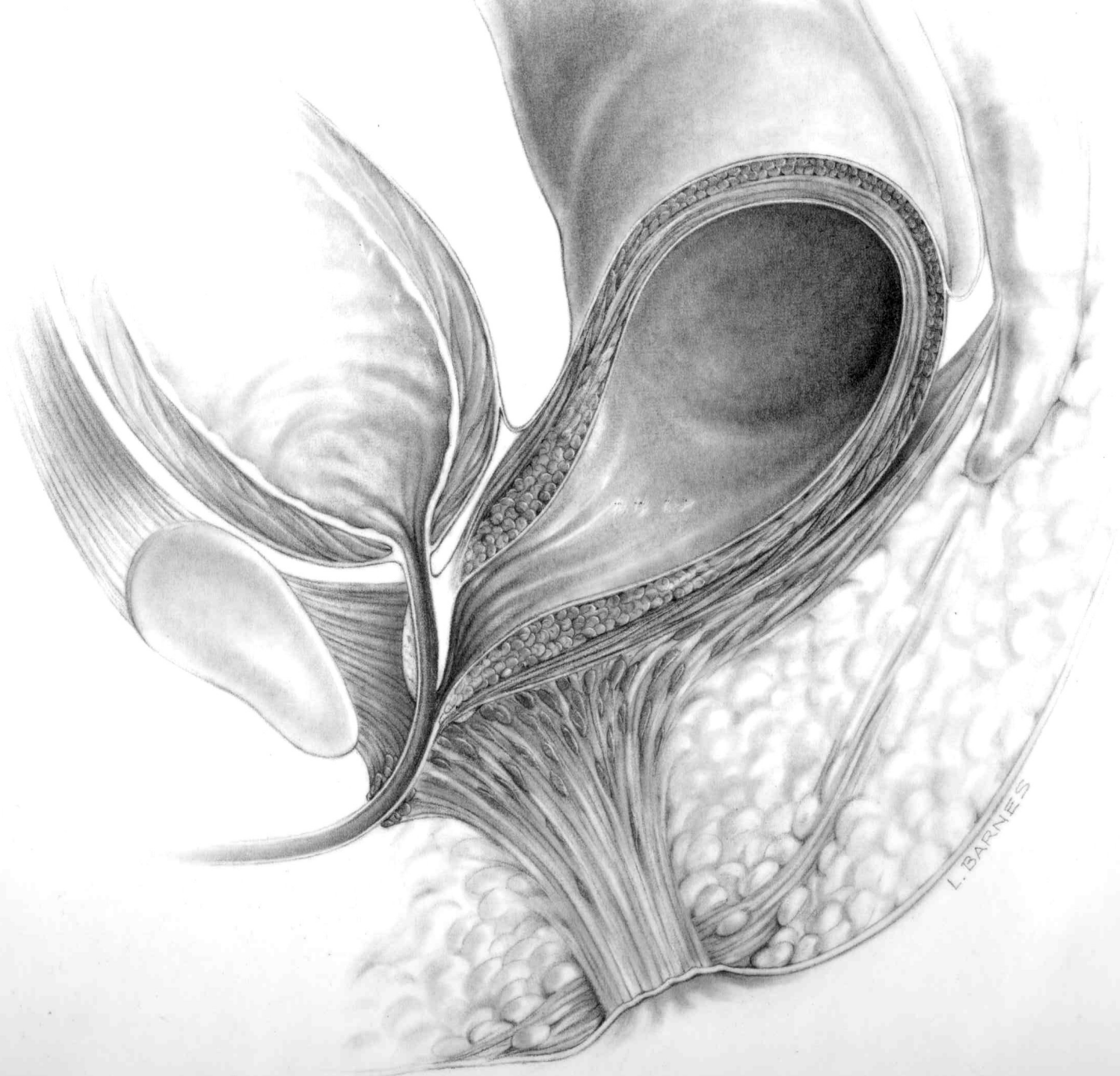
# National Institute of Pediatrics - INP - Mexico DF



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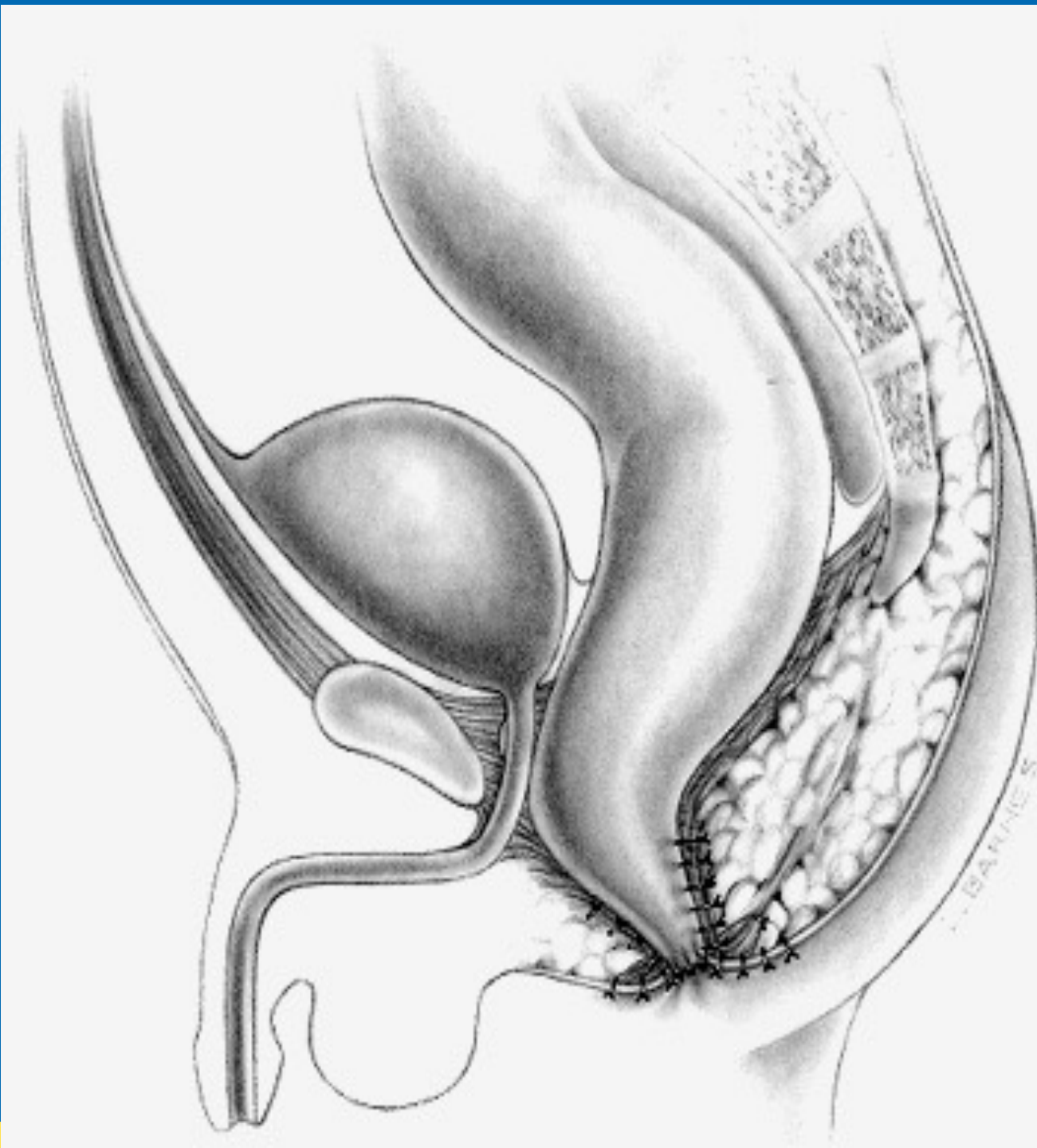
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# Low defect or Perineal fistula



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The frequency of associated defects in patients with perineal fistula is:

- A. 70%
- B. 50%
- C. 25%
- D. <15%
- E. 1%



The most common and feared intraoperative complication in the repair of a perineal fistula in a male patient is:

- A. Devascularization of the bowel
- B. Urethral injury
- C. Bleeding
- D. Bladder injury



A radiologic evaluation of a male newborn within the 1<sup>st</sup> 6 hours of life will most likely indicate that the baby has:

- A. A high anorectal malformation
- B. An intermediate anorectal malformation
- C. A low anorectal malformation
- D. A rectourethral fistula
- E. A perineal fistula





The prognosis for bowel control in a patient with perineal fistula and normal sacrum is:

- A. 10%
- B. 20%
- C. 50%
- D. 75%
- E. 100%



# The chance that a patient suffers from postoperative constipation is:

- A. The same, regardless of the type of malformation
- B. More severe the higher the malformation
- C. More severe the lower the malformation
- D. More severe when repaired laparoscopically
- E. More severe when repaired posterior sagittally





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<http://www.gpstep.org>



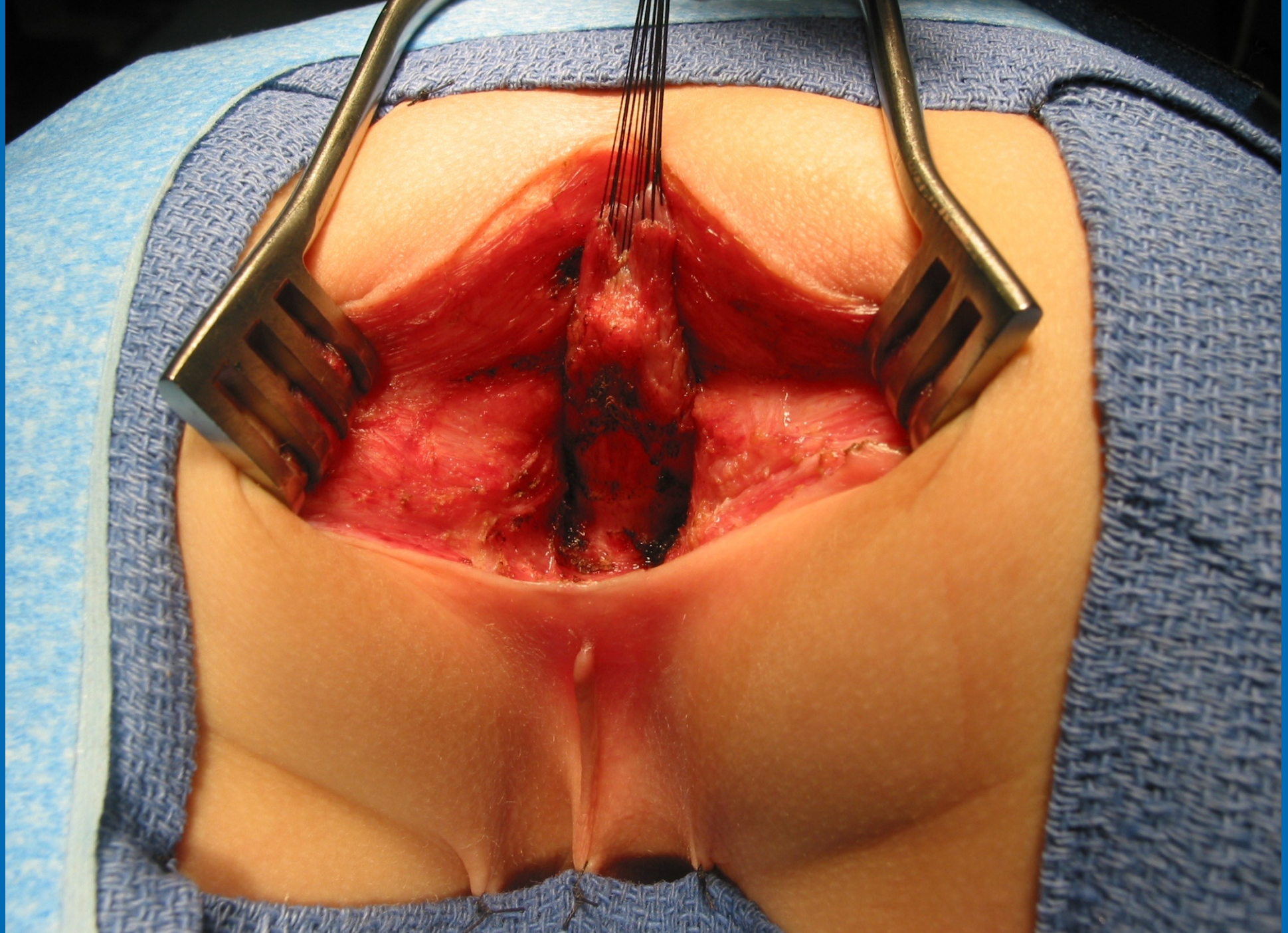
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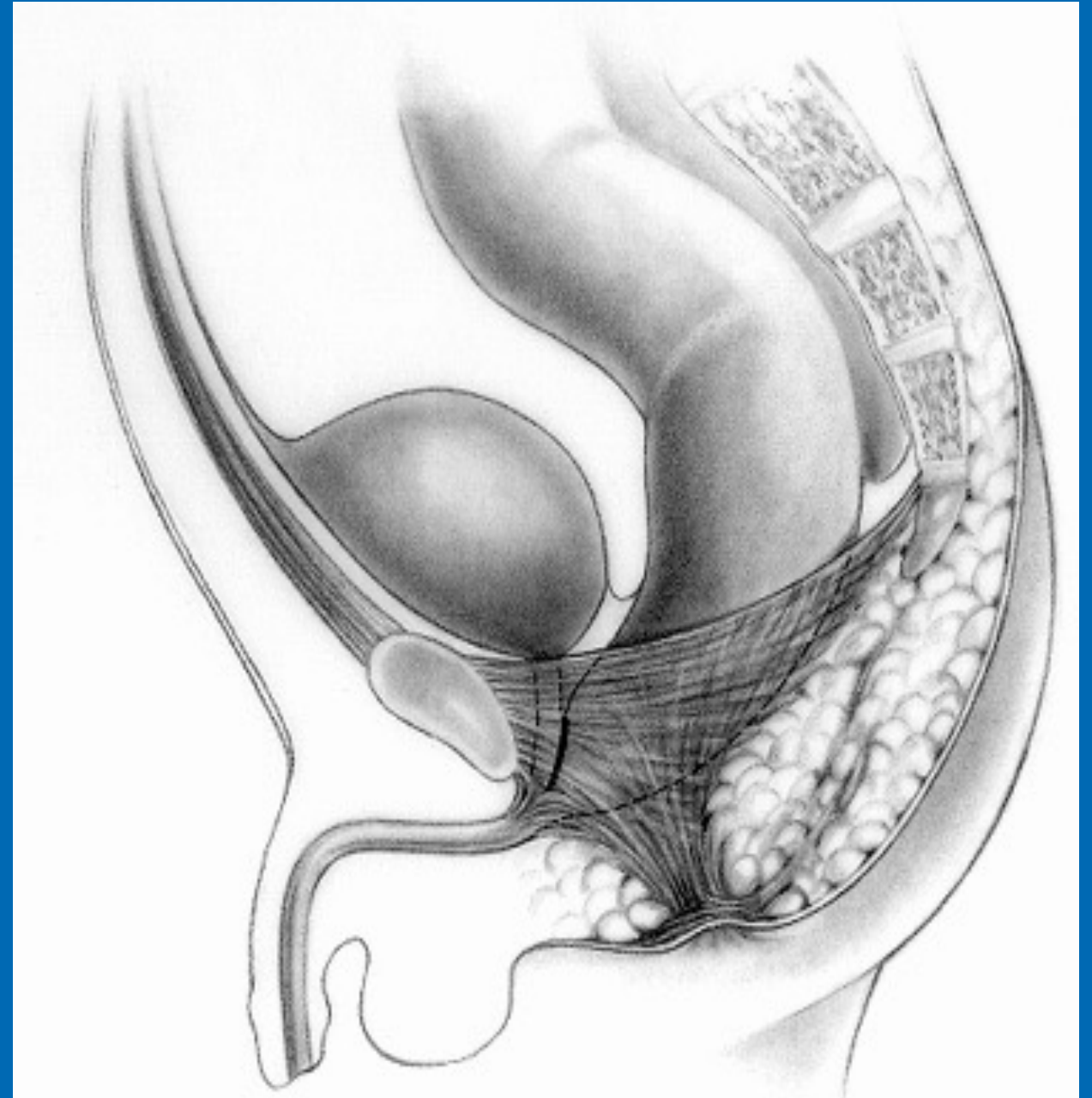
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# Rectourethral bulbar fistula



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The frequency of associated defects in patients with bulbar fistula is:

A. 5%

B. 30%

C. 75%

D. 90%



The prognosis for bowel control in bulbar fistula is:

- A. 5%
- B. 25%
- C. 50%
- D. 85%
- E. 100%



# The length of the common wall between rectum and urethra is :

- A. Longer the lower the malformation
- B. Longer the higher the malformation
- C. The same regardless of the height of malformation
- D. There is no common wall



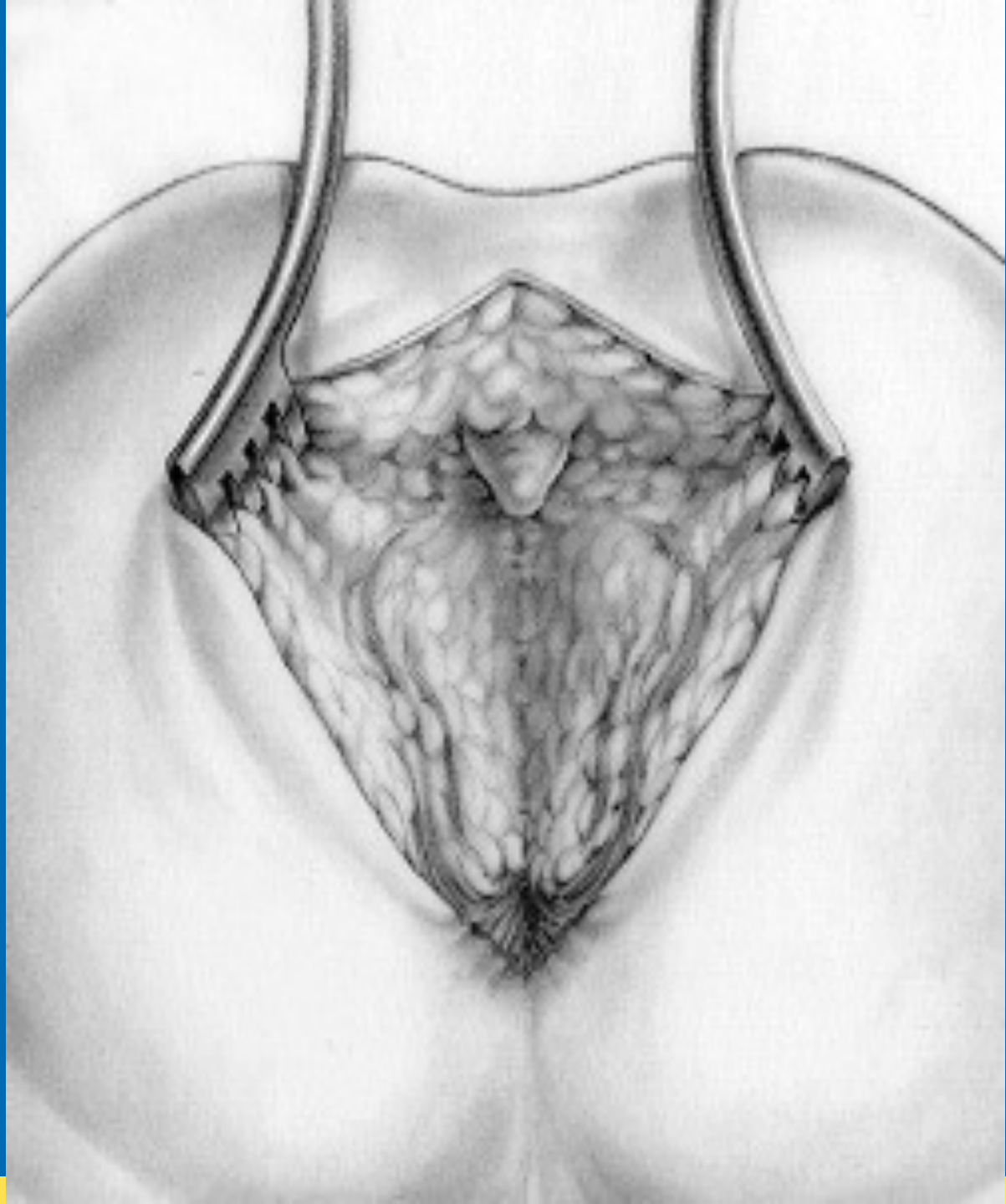
Video

# Posterior Sagittal Repair of Rectal Urethral Bulbar Fistula



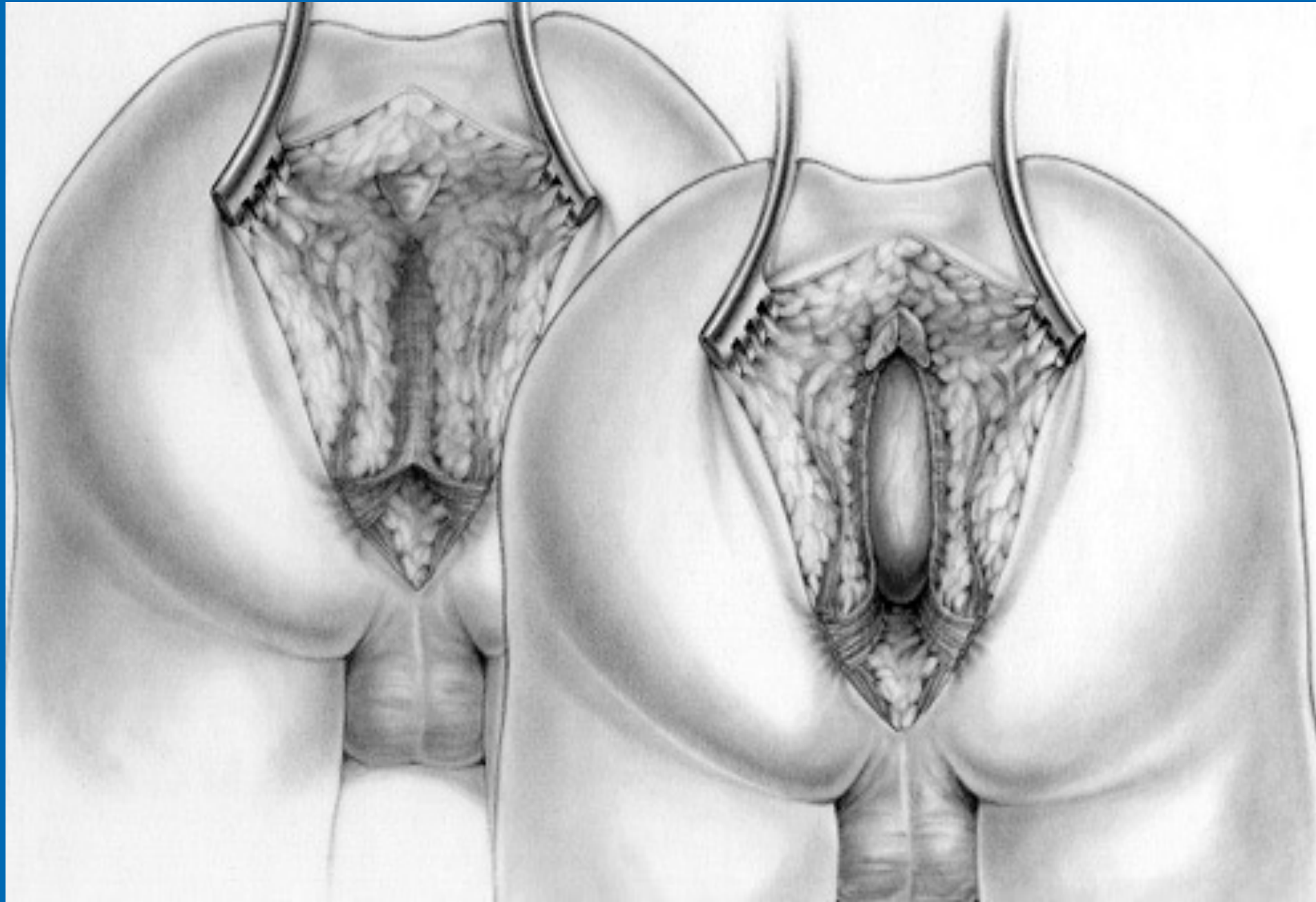
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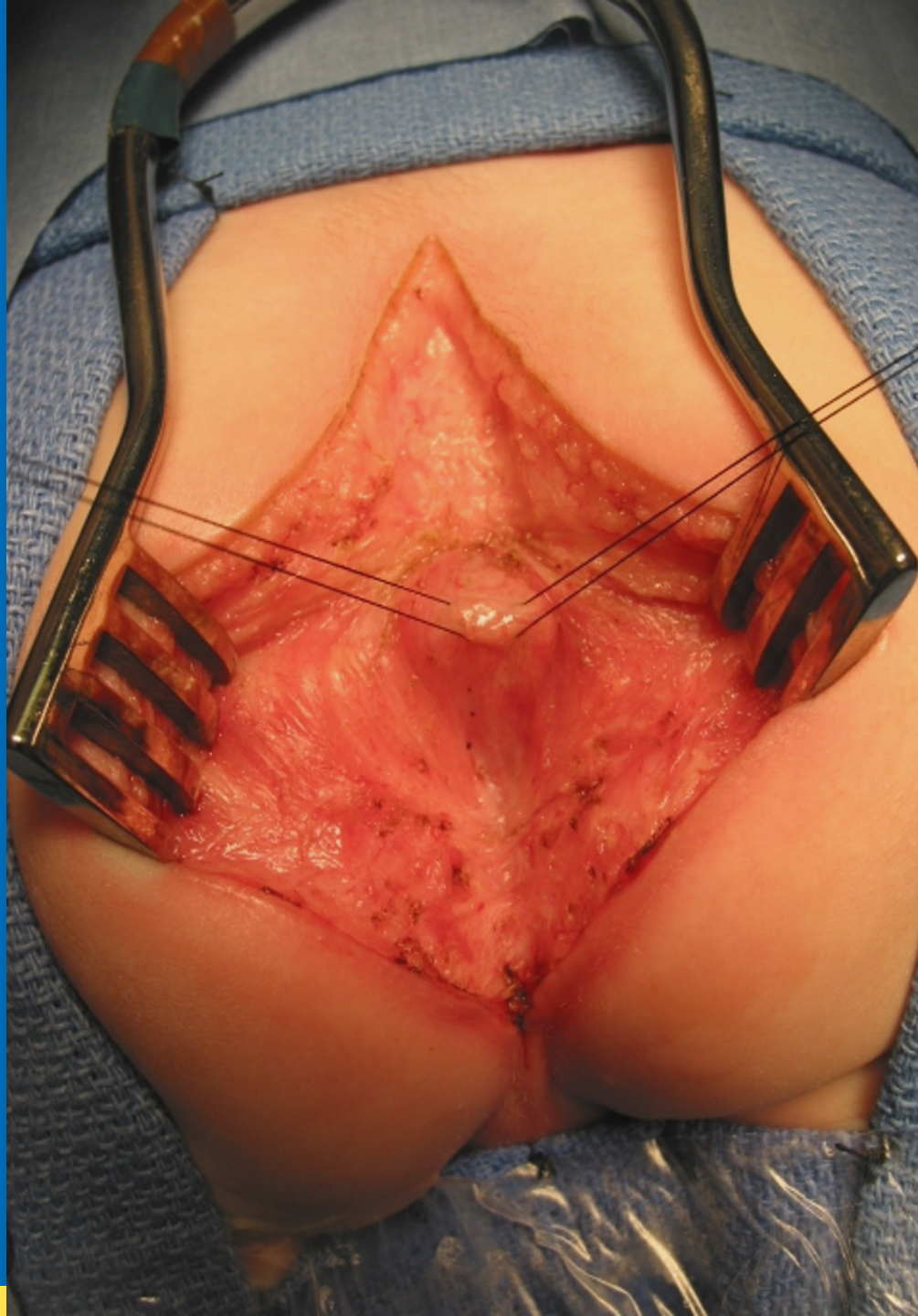
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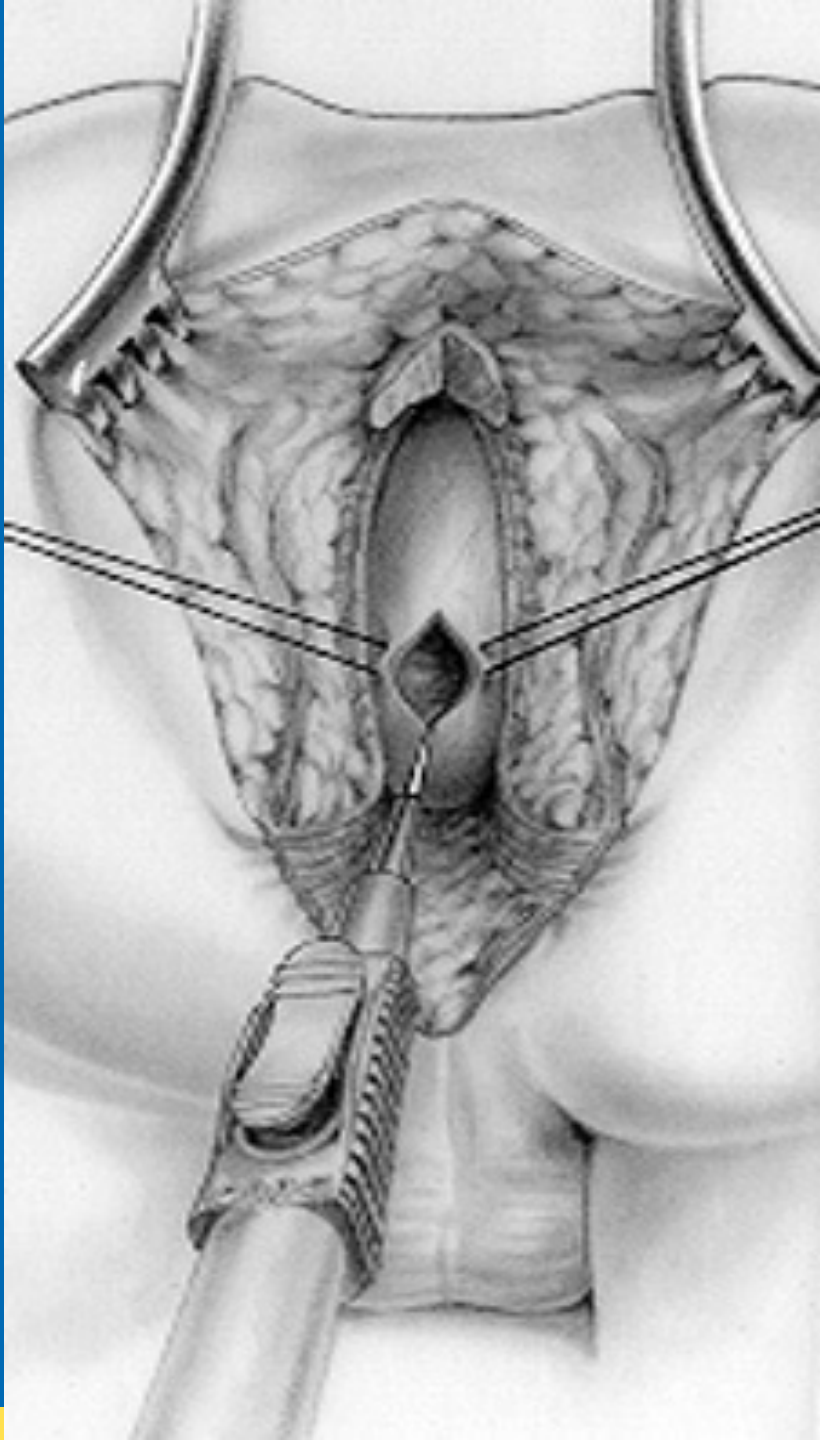




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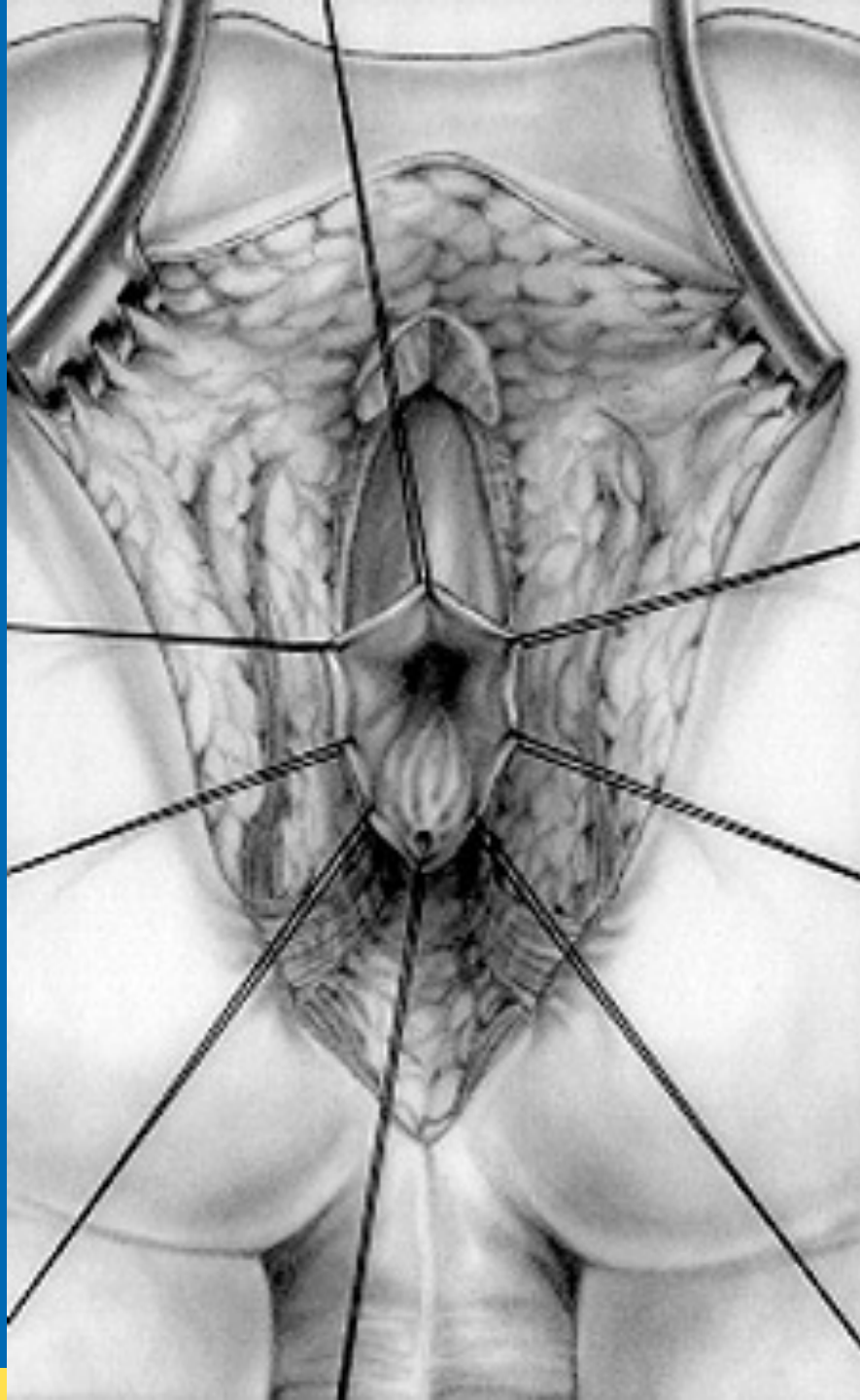
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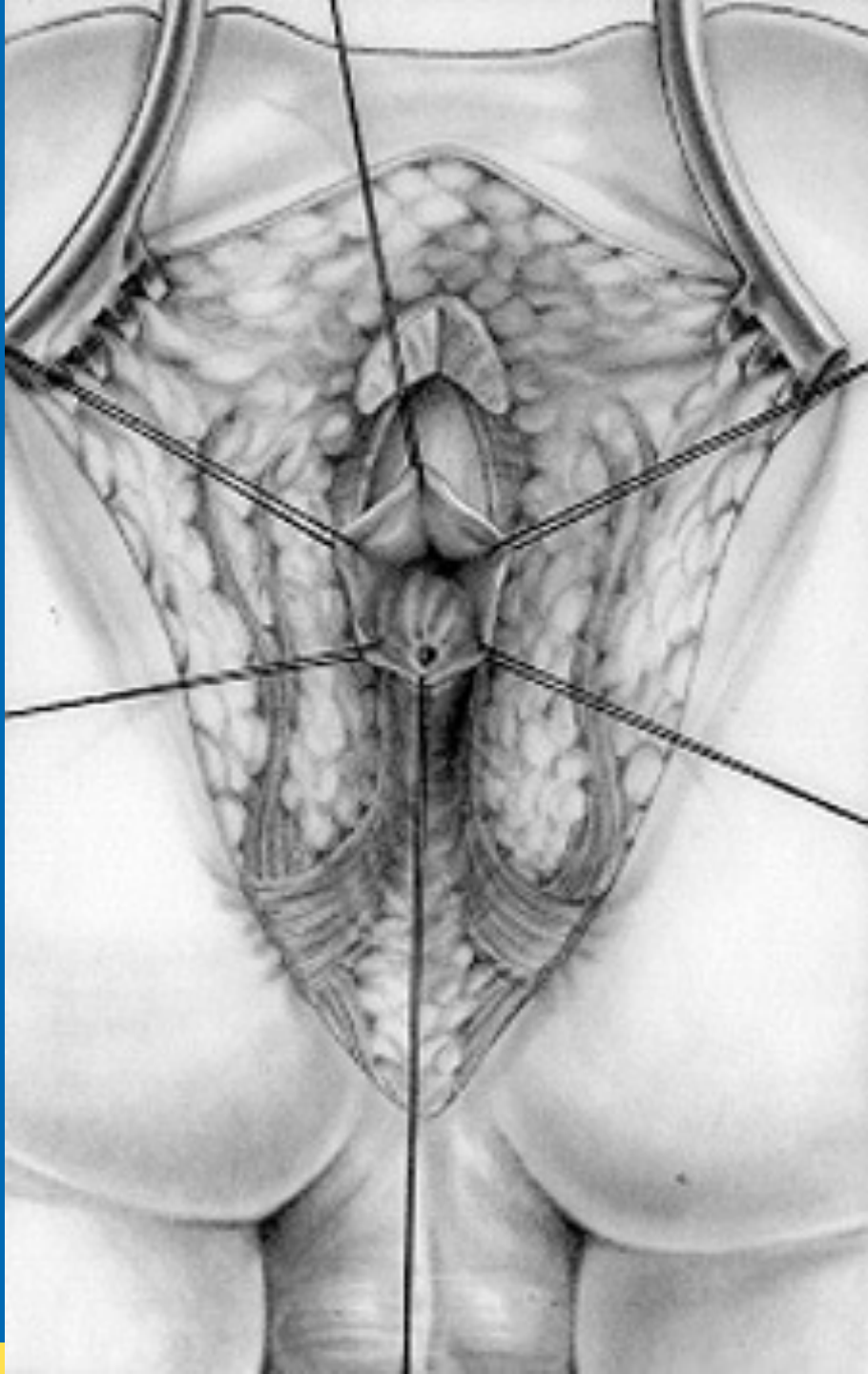
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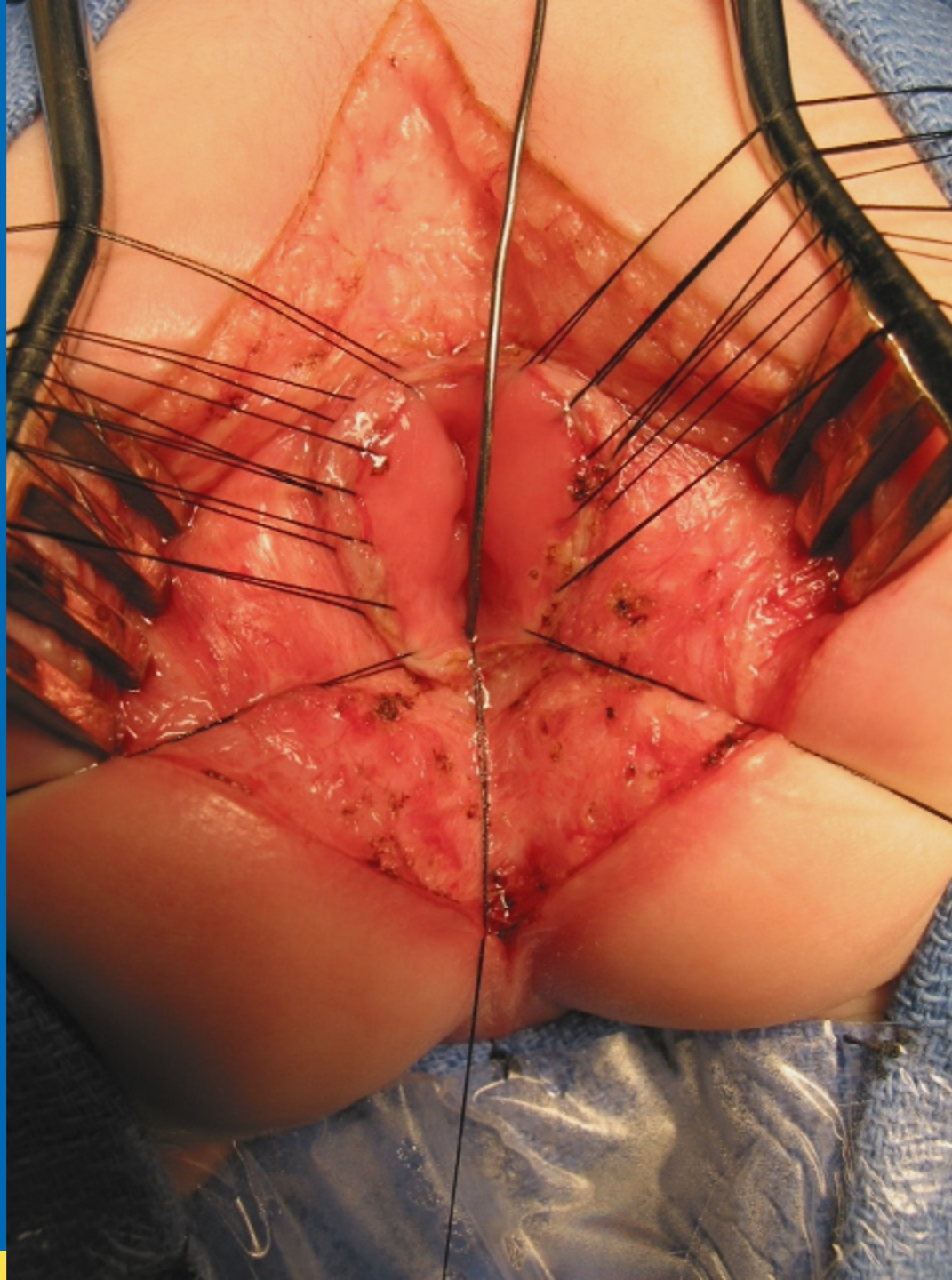
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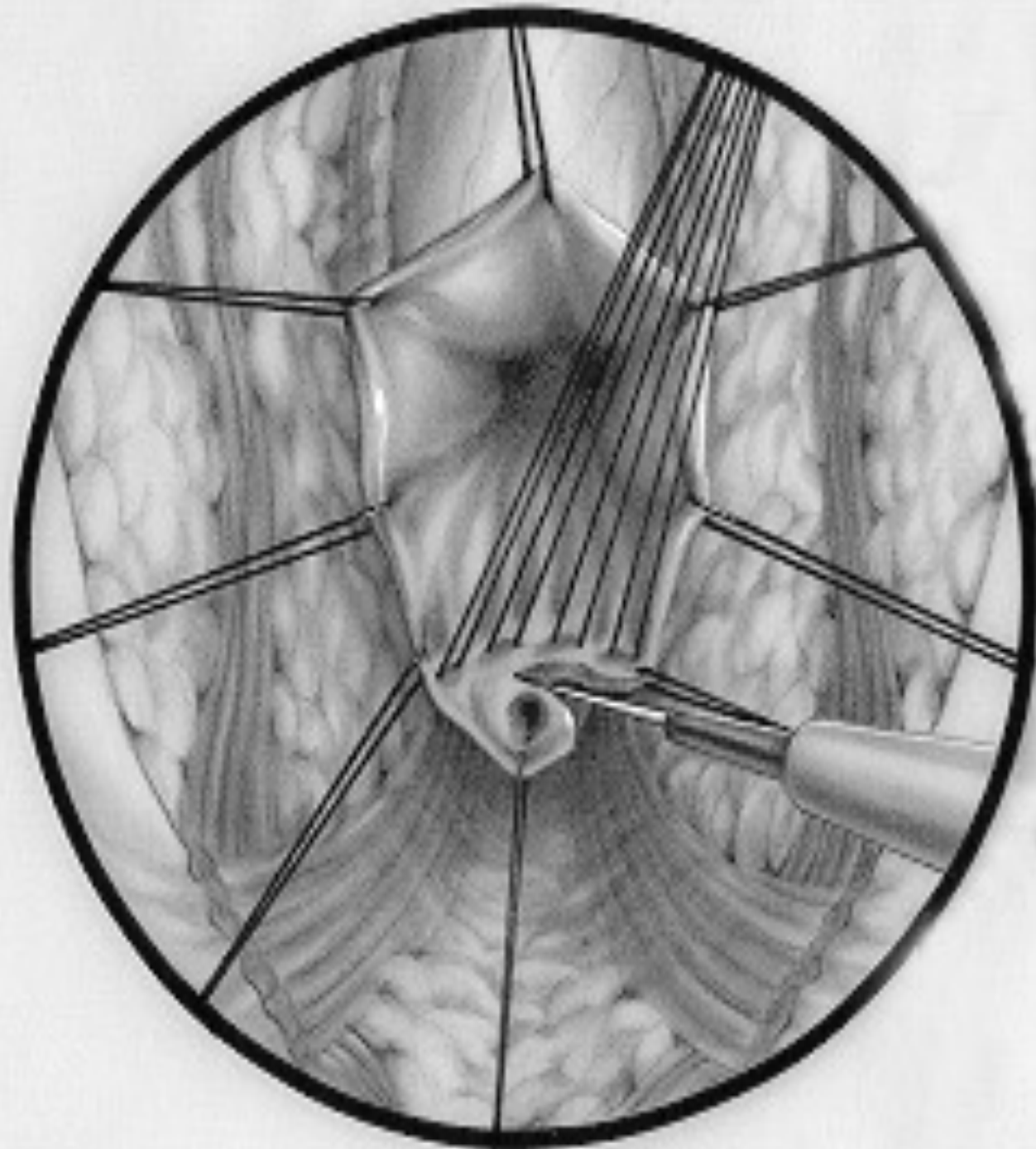
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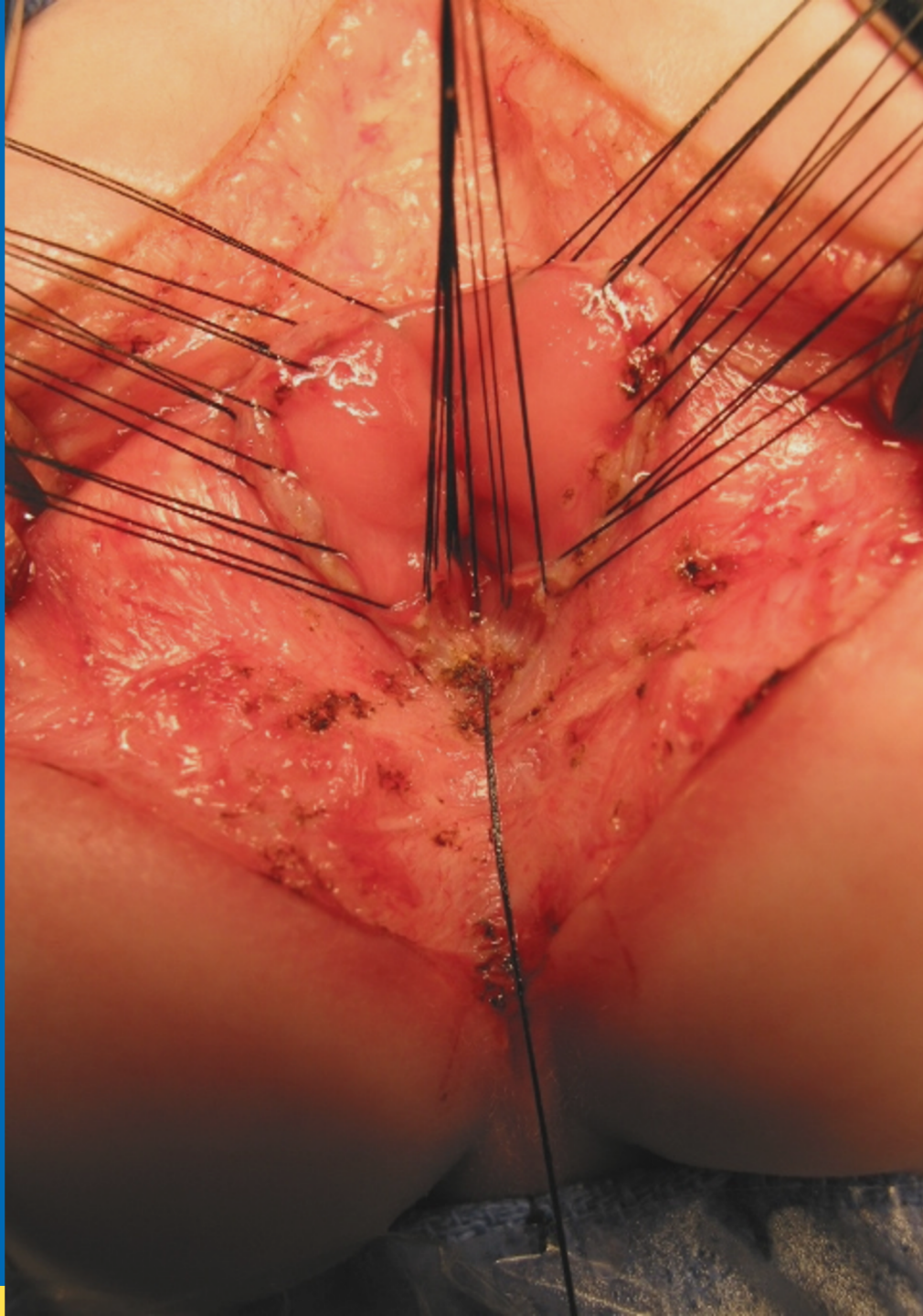
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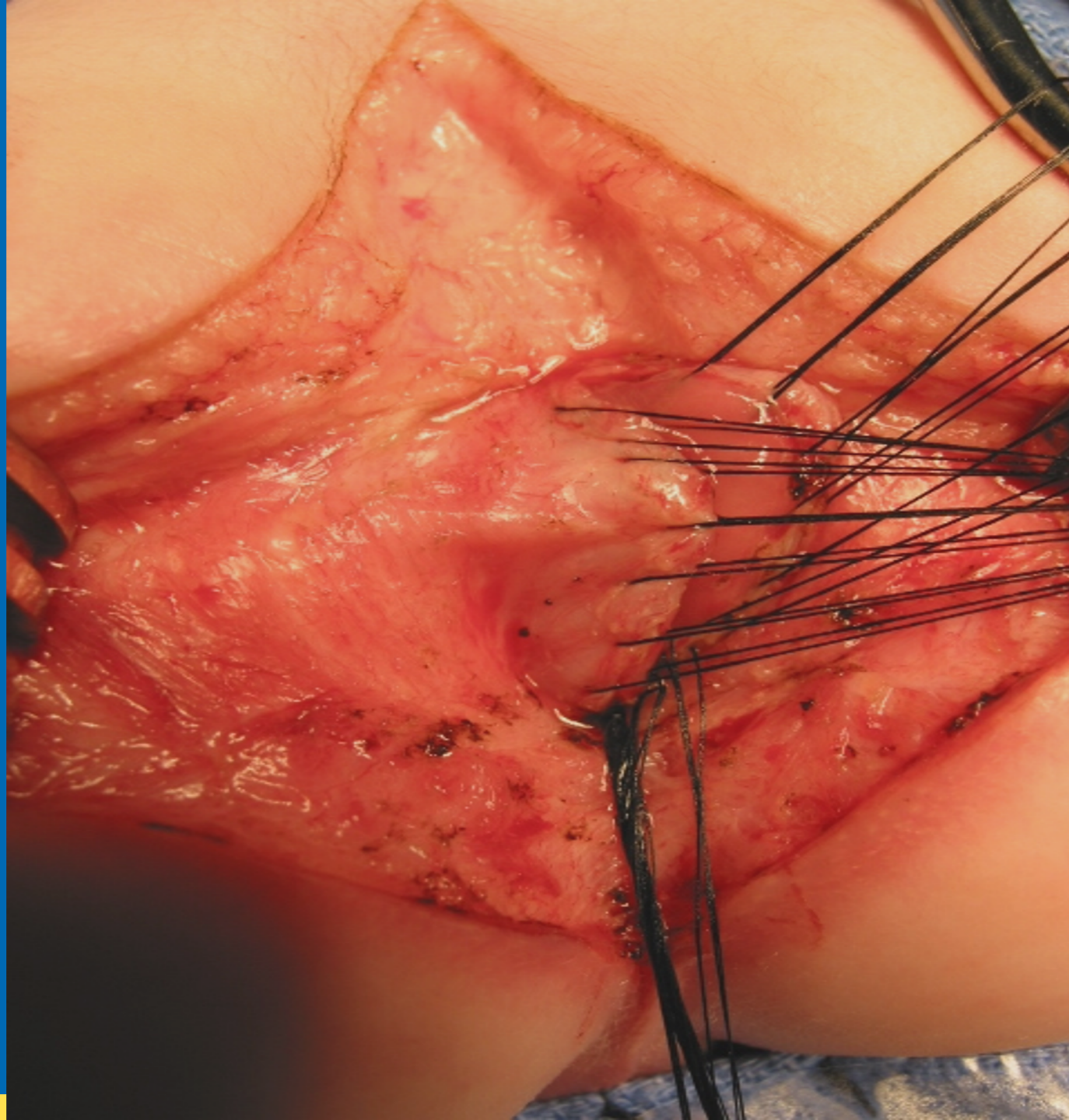
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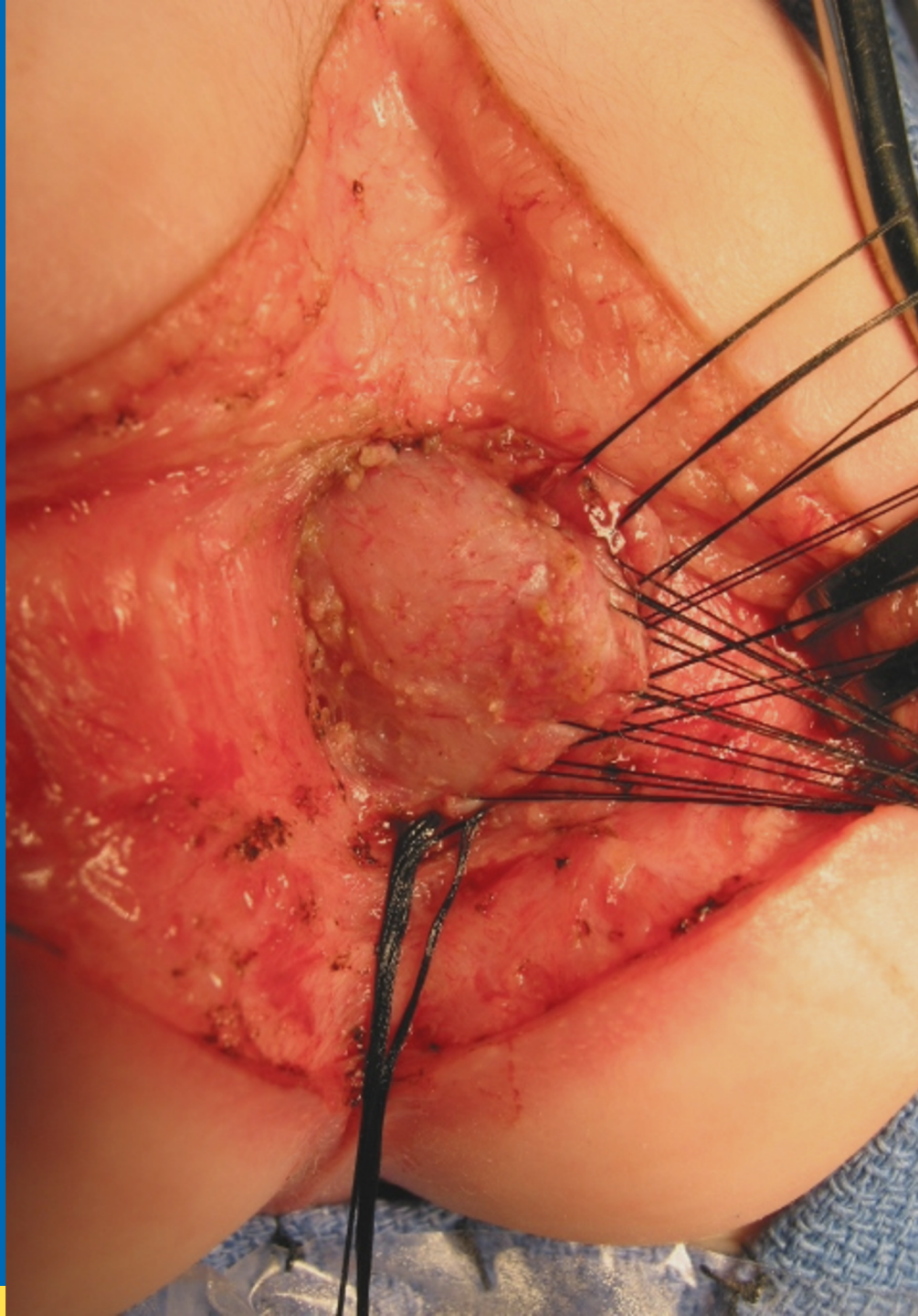
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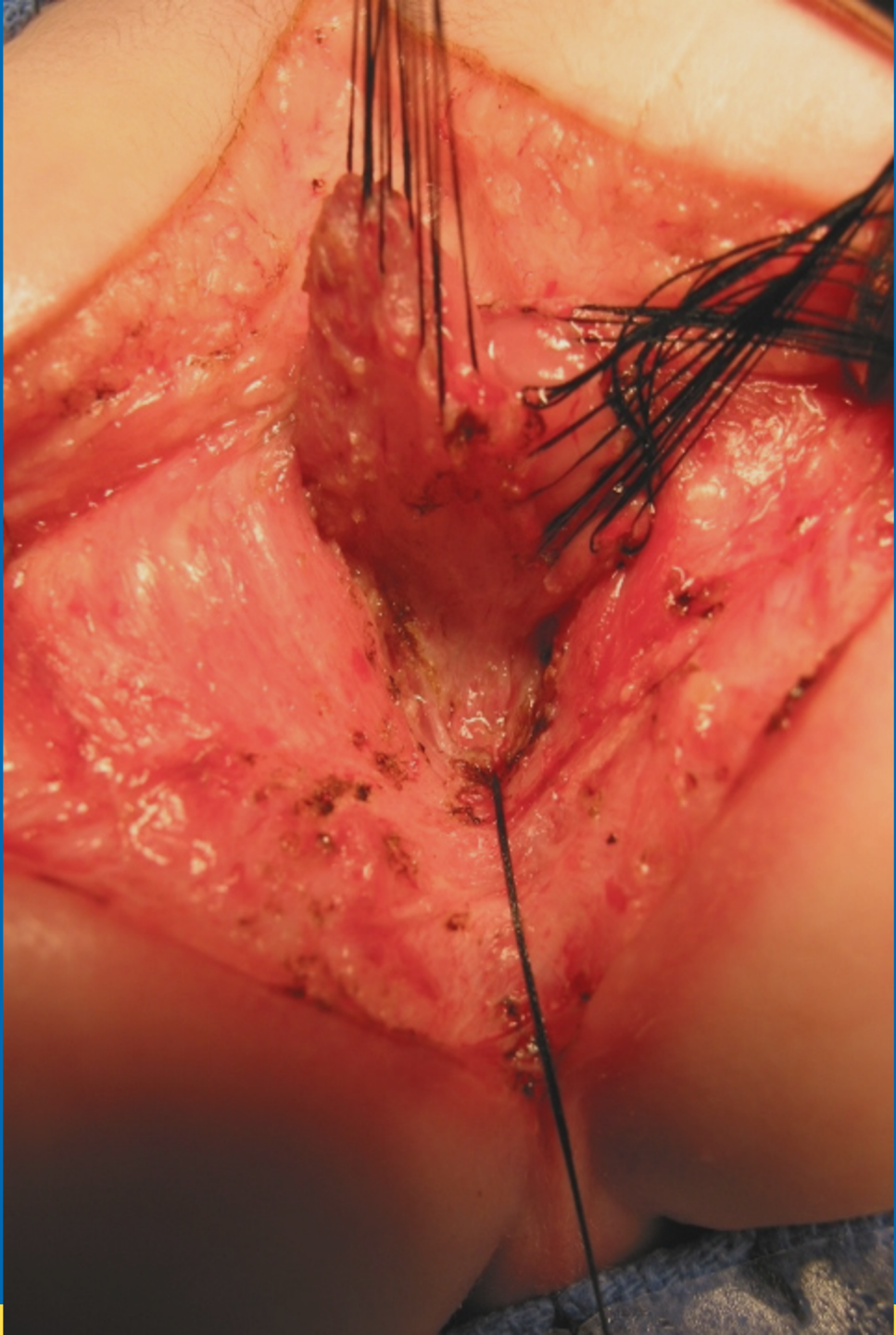
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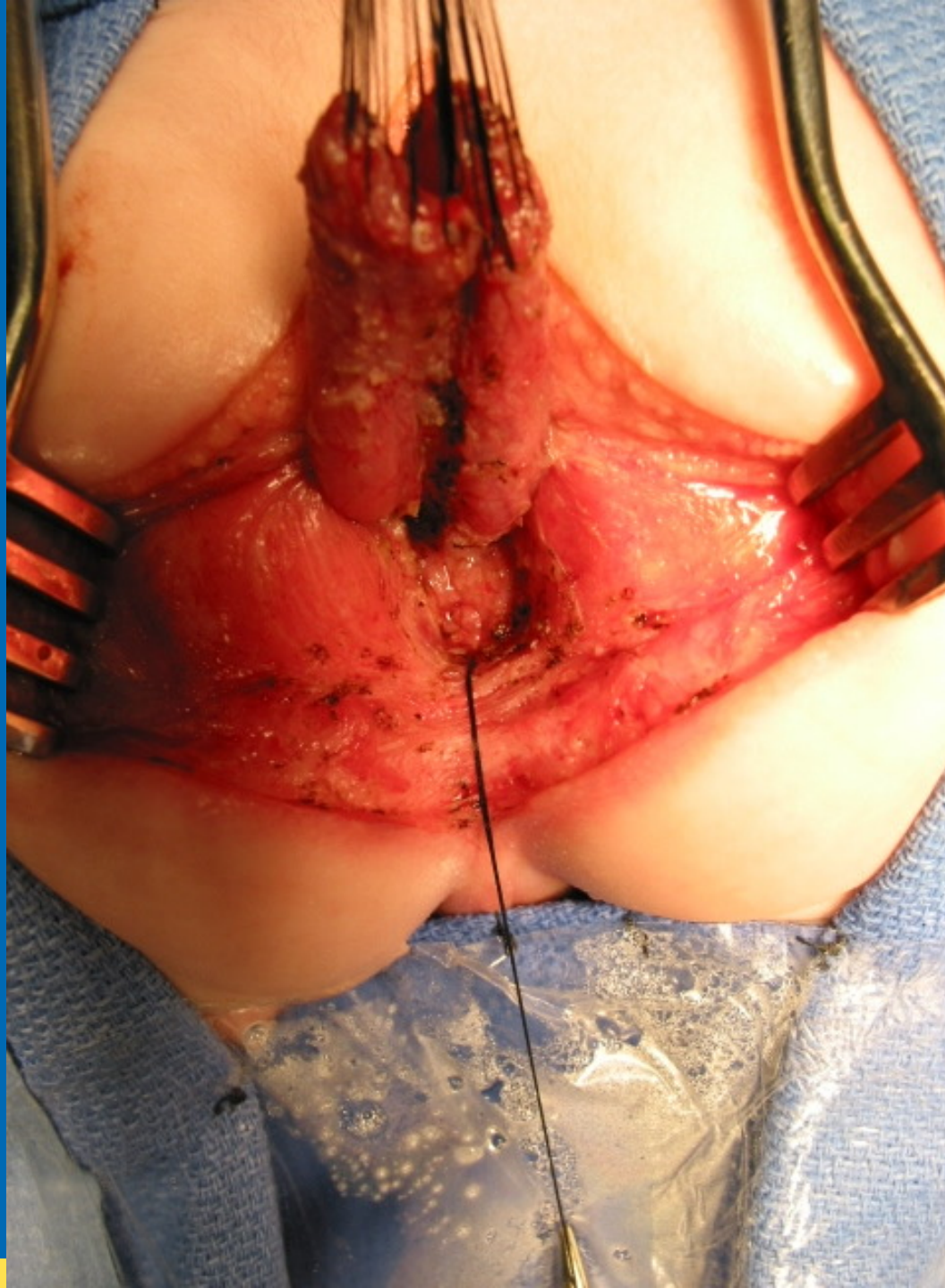


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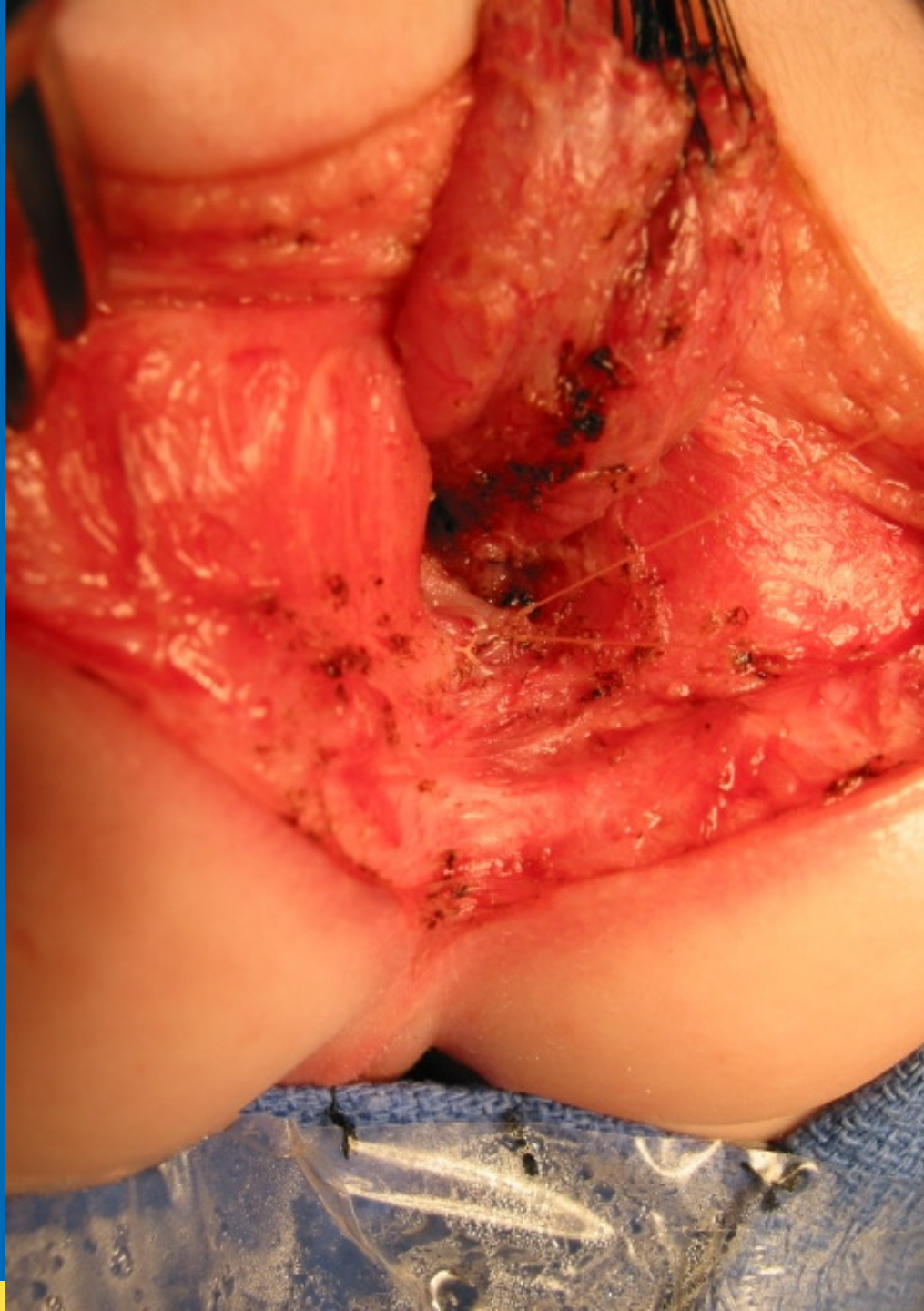
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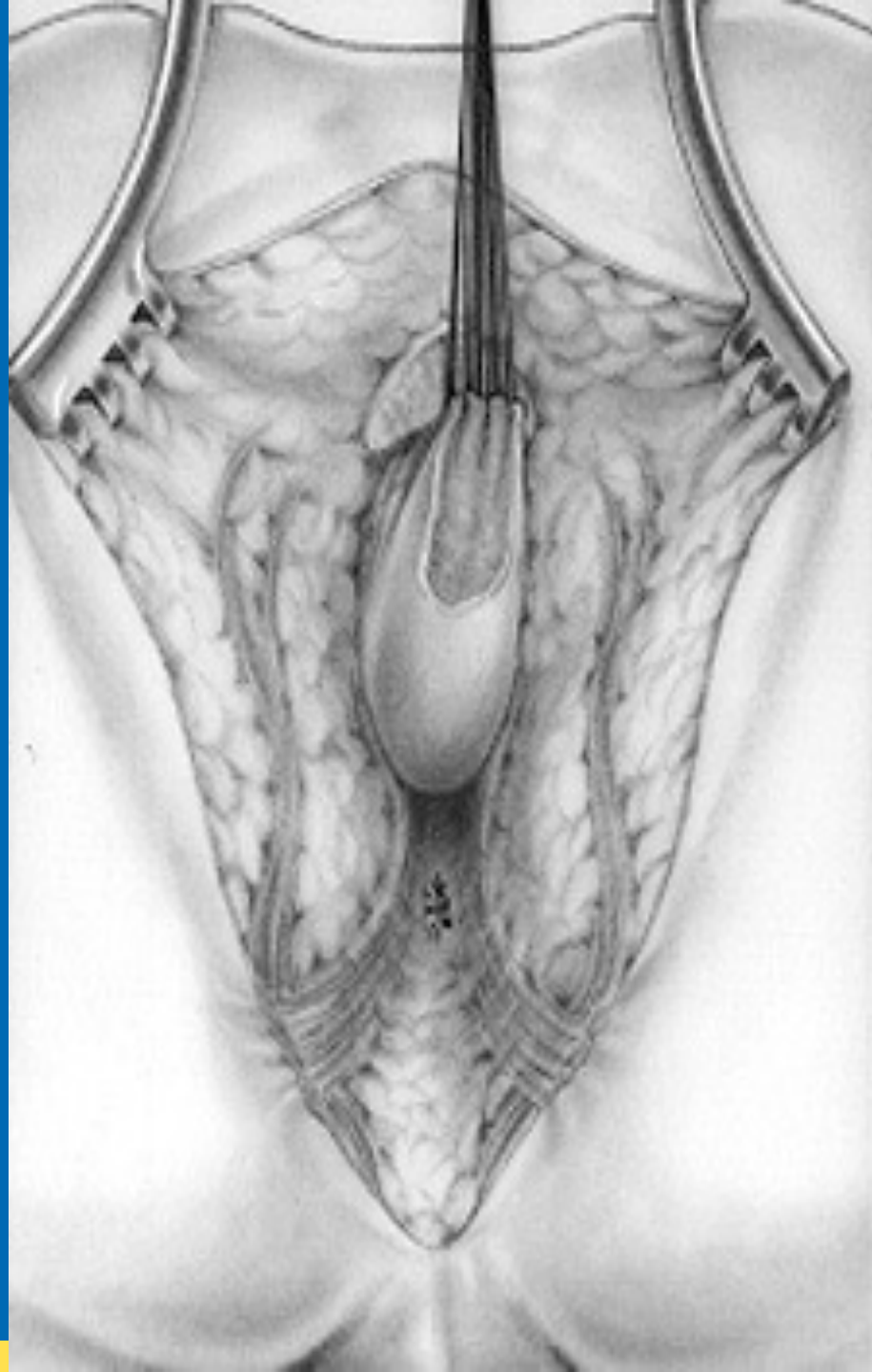
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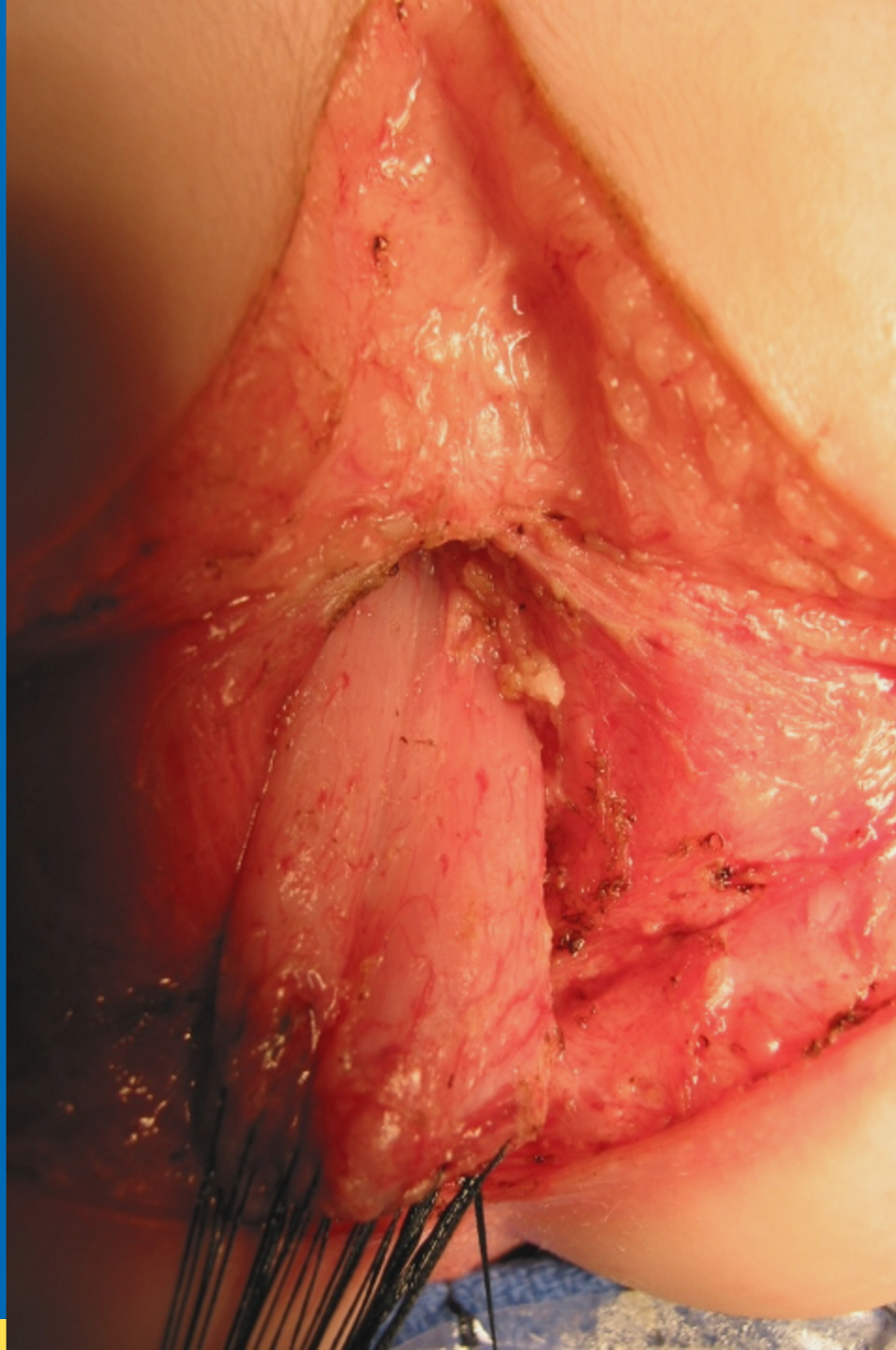
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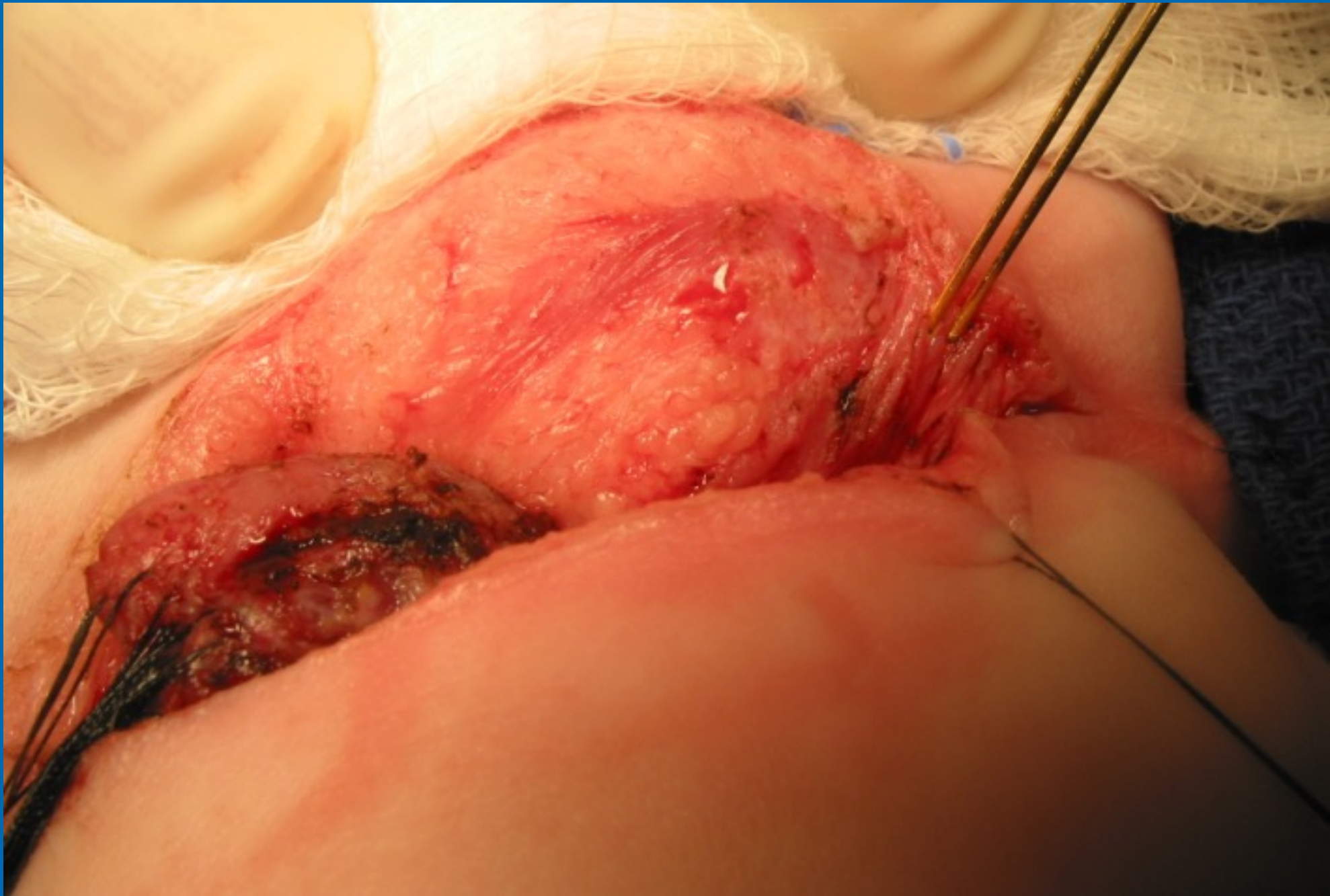
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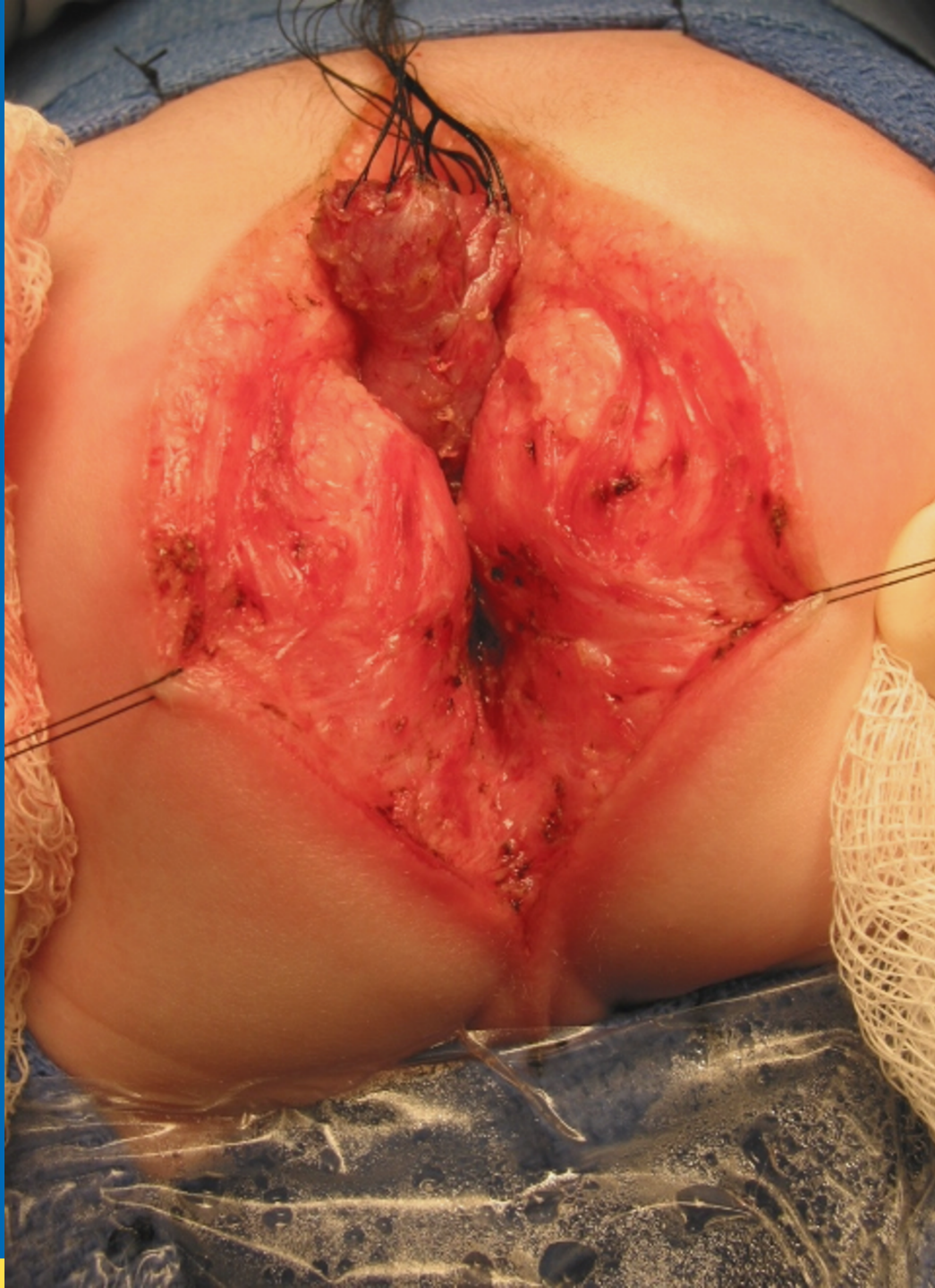


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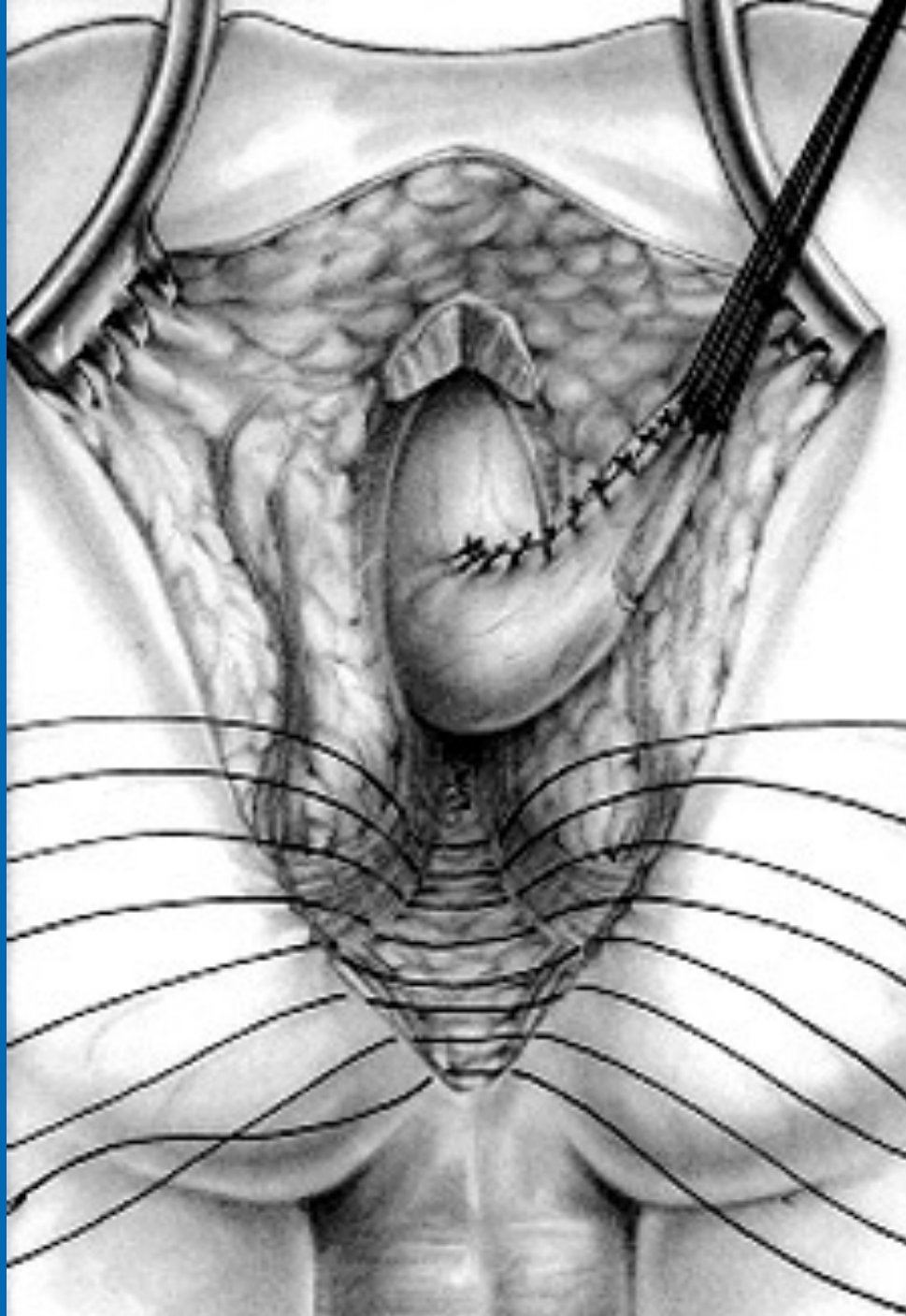


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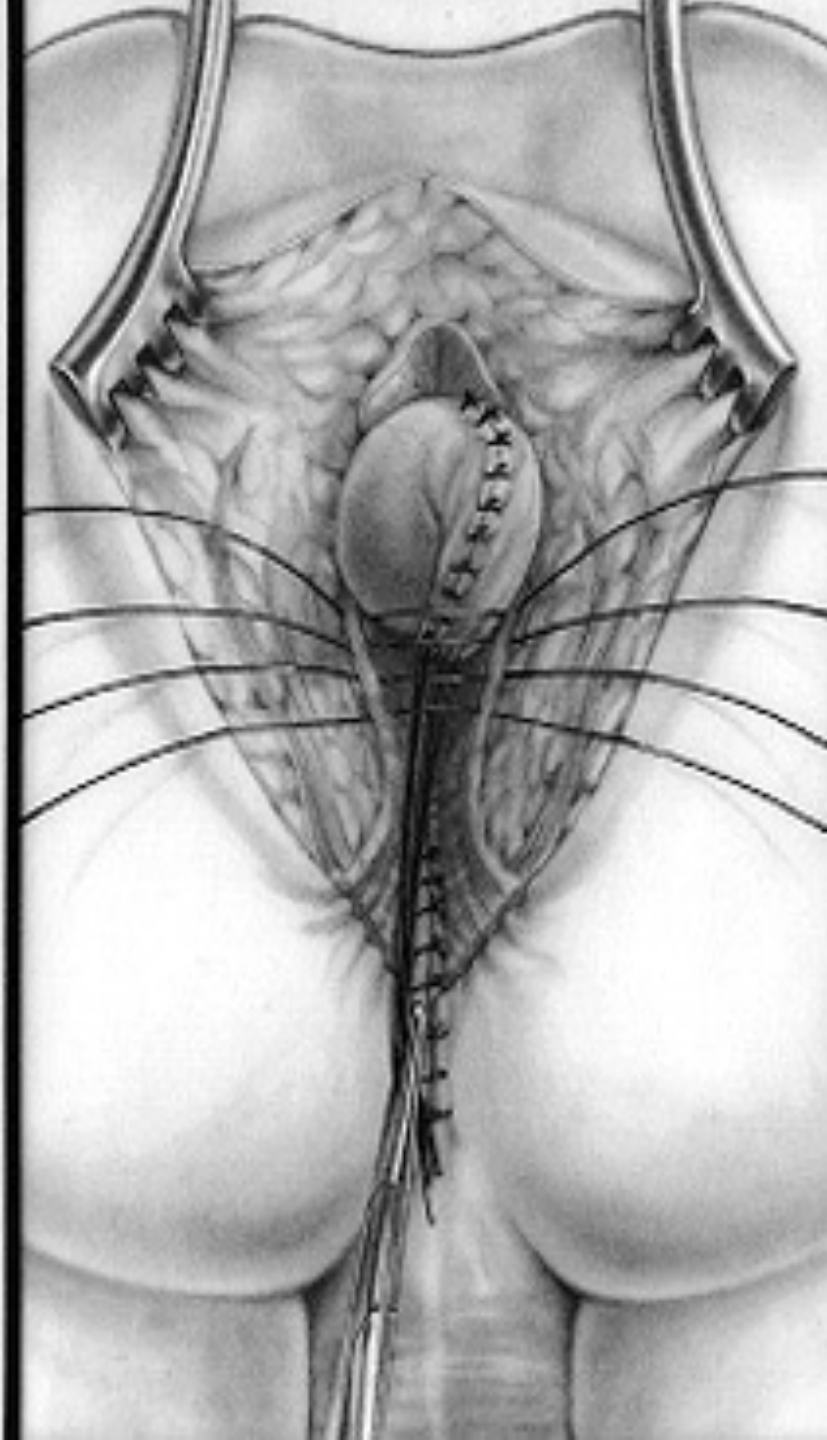
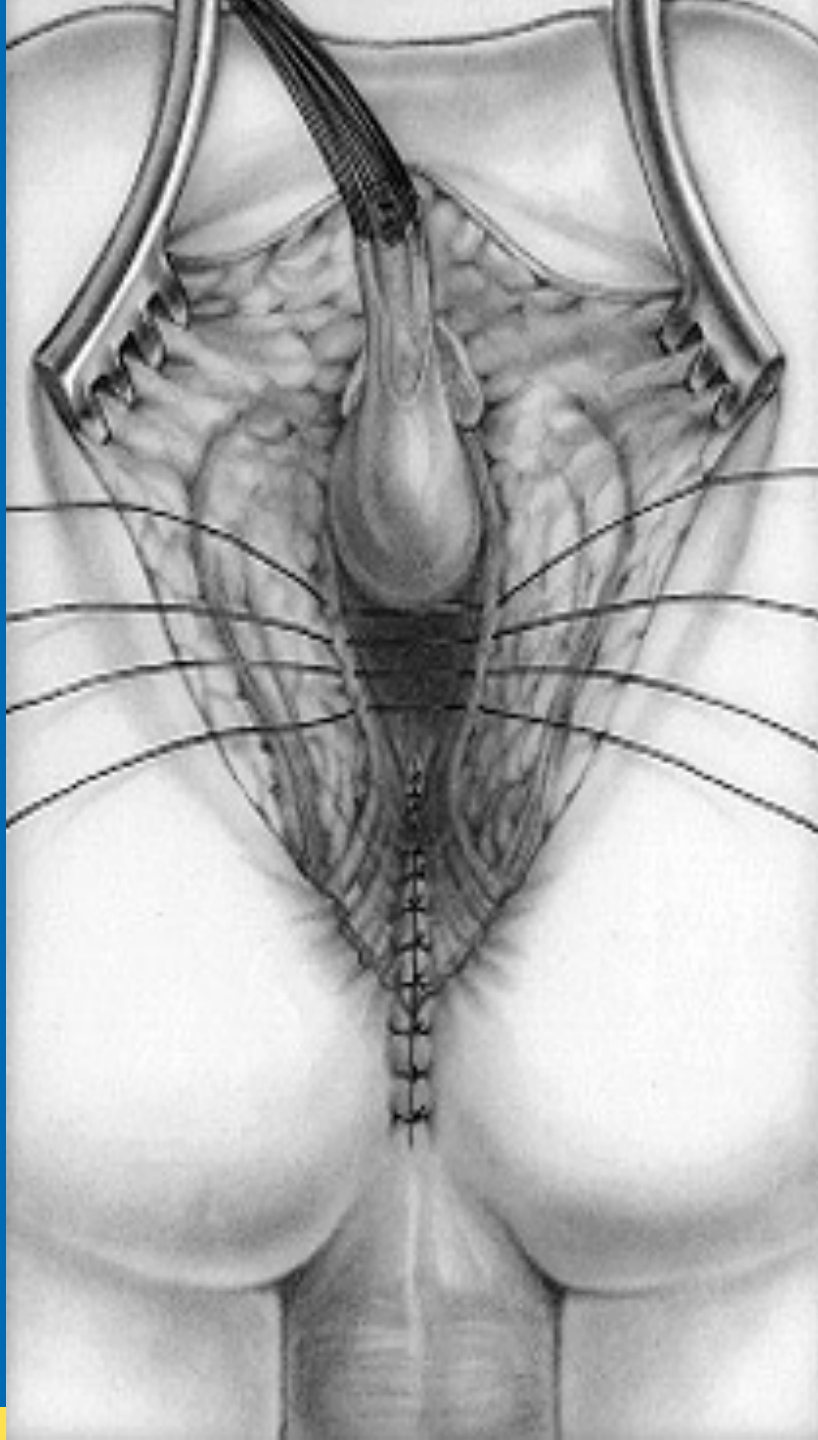
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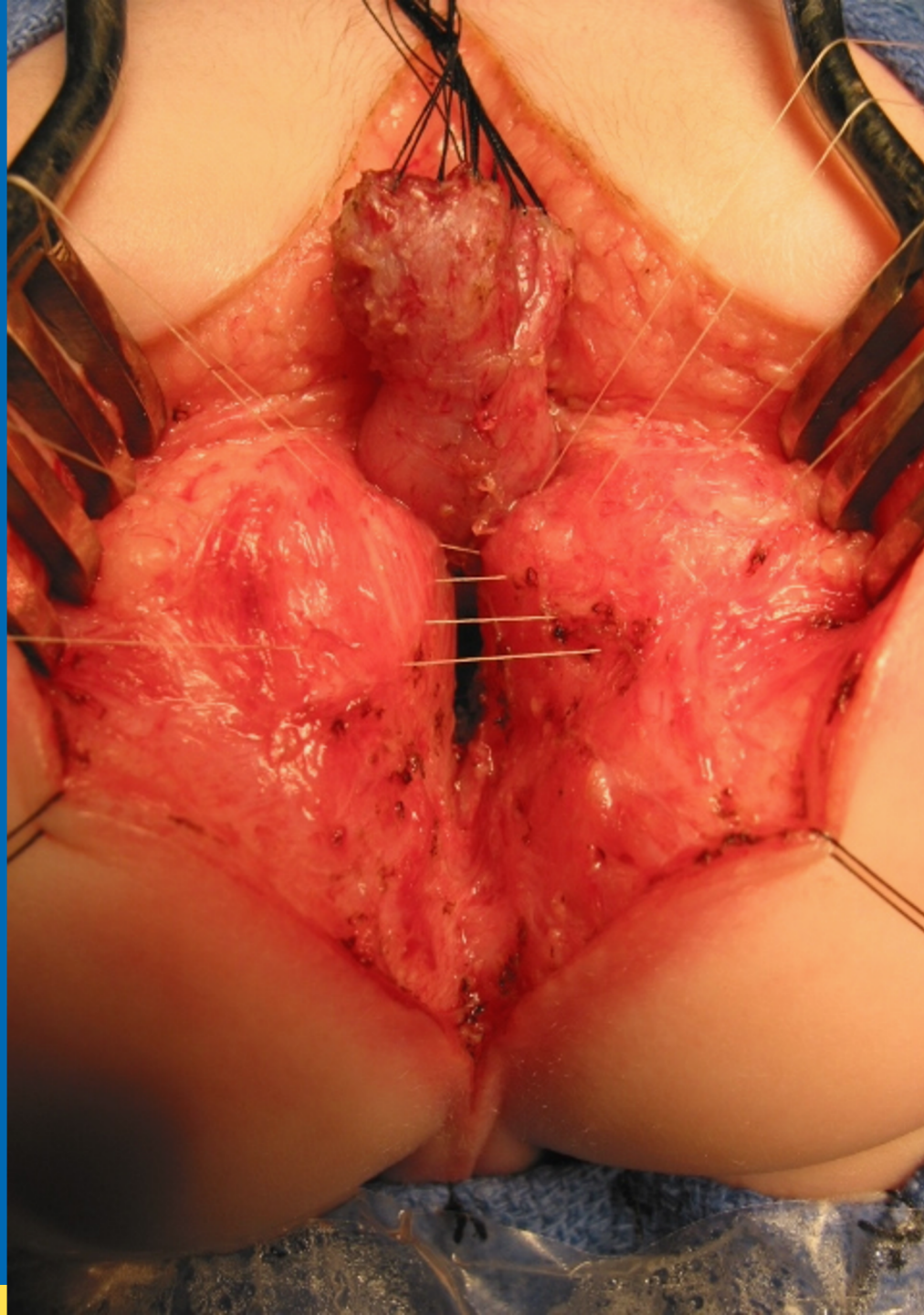
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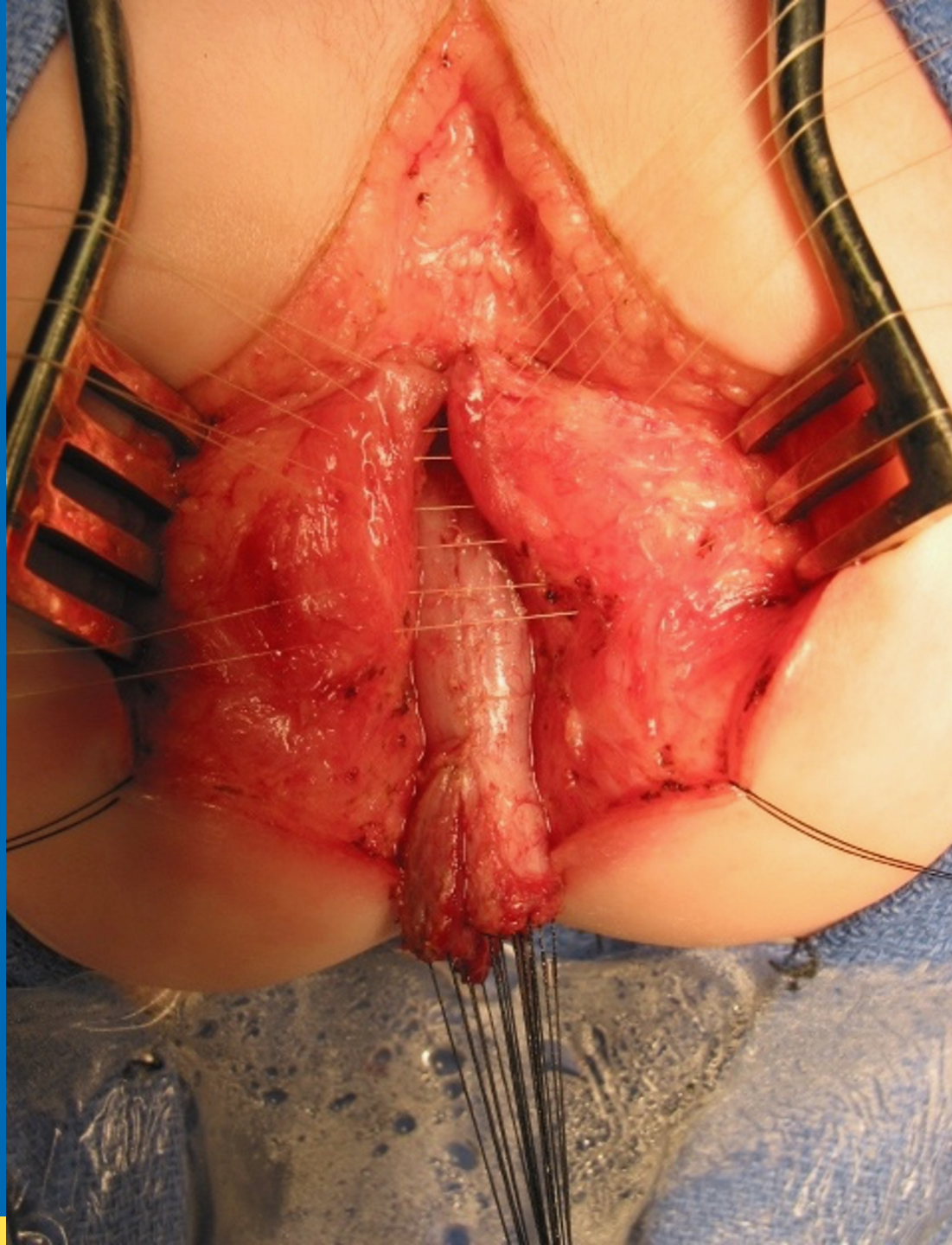
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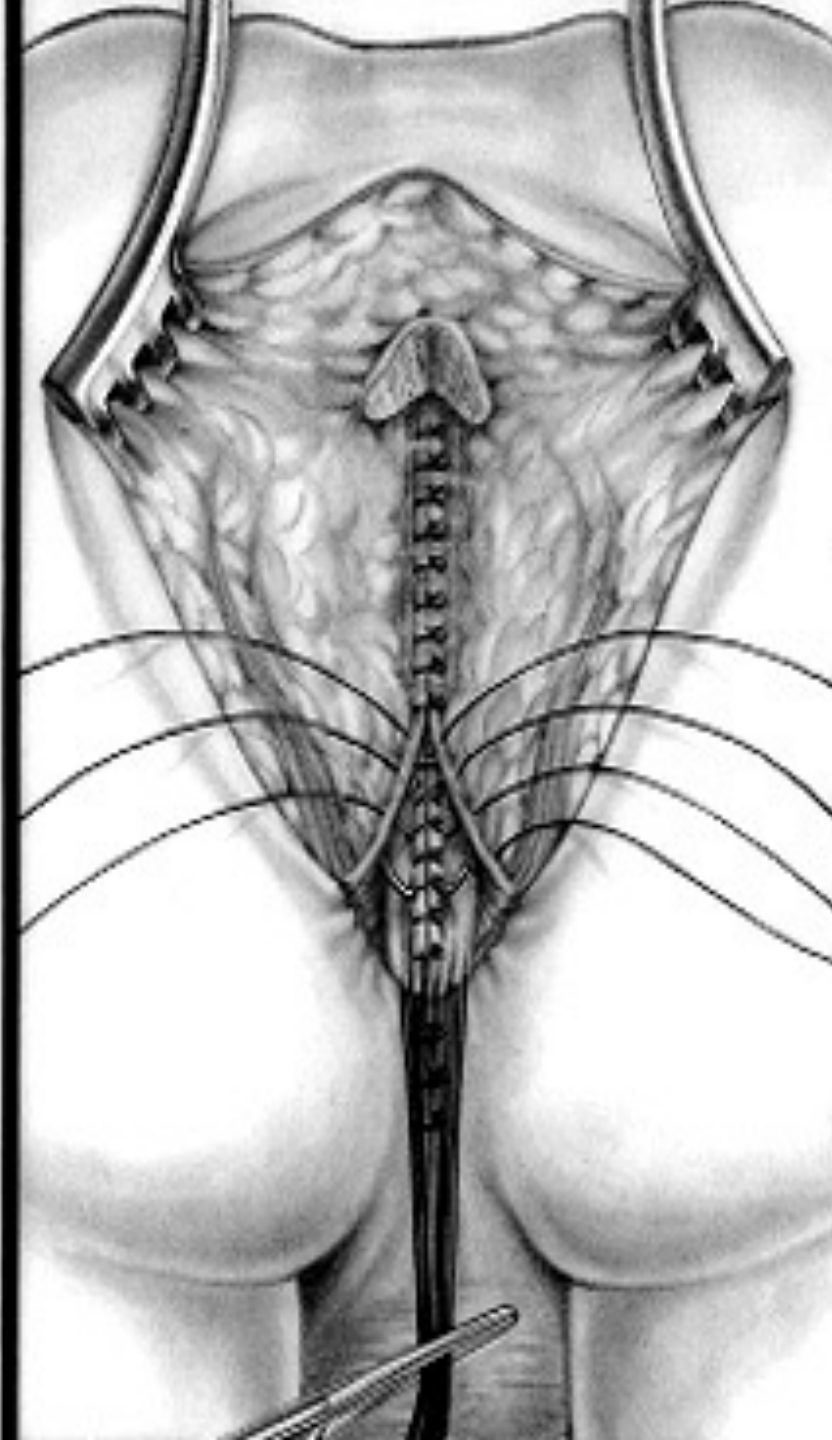
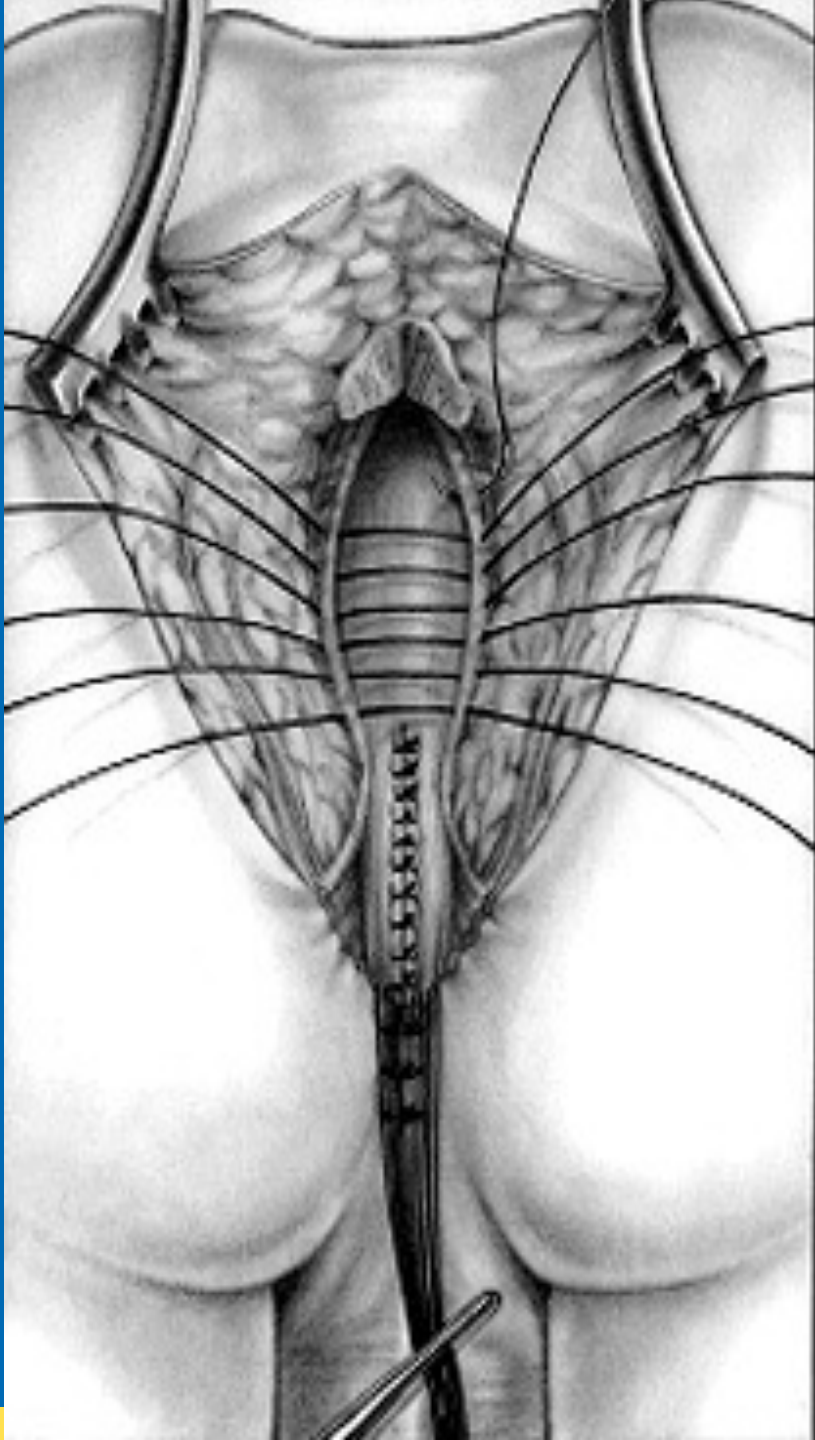
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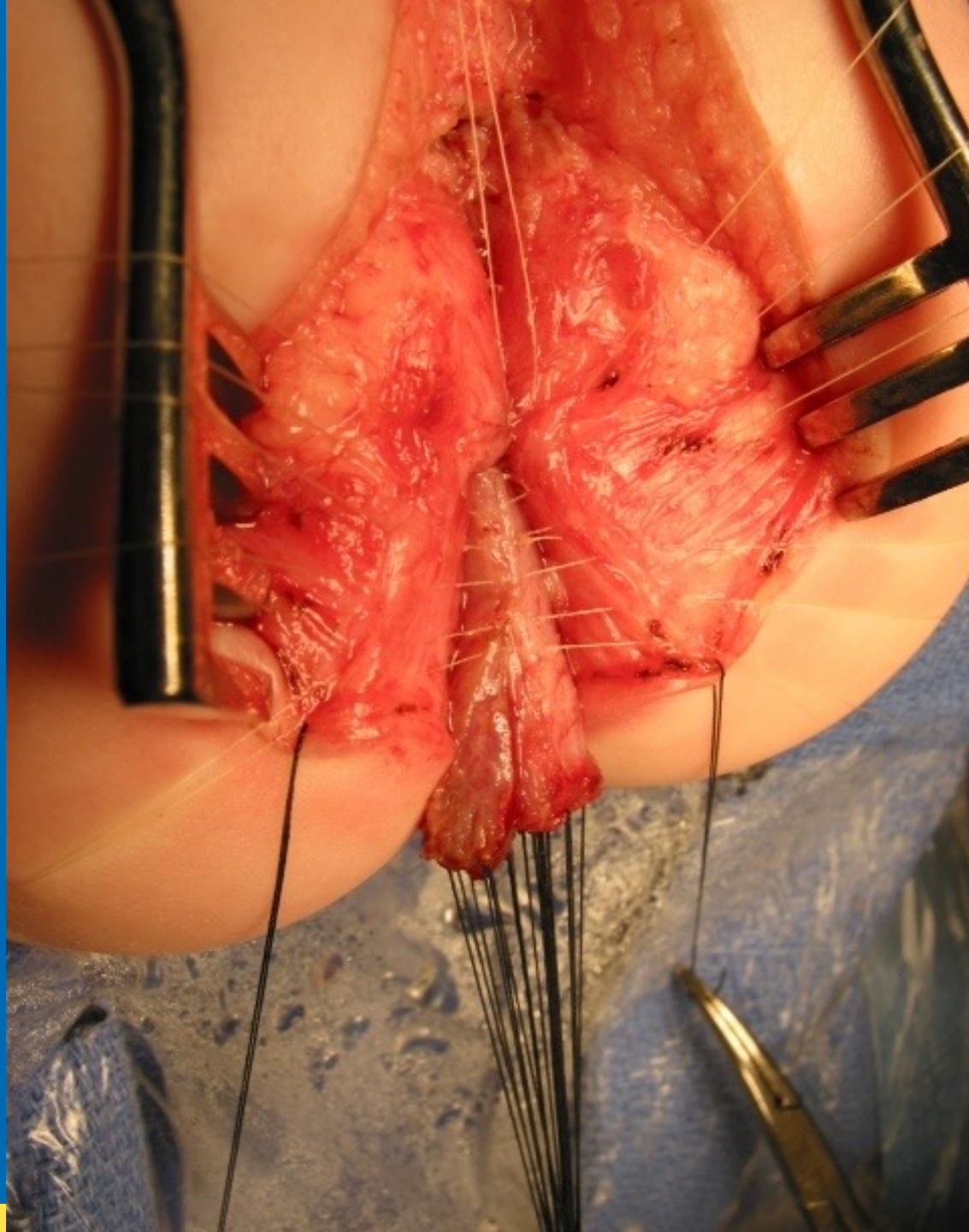


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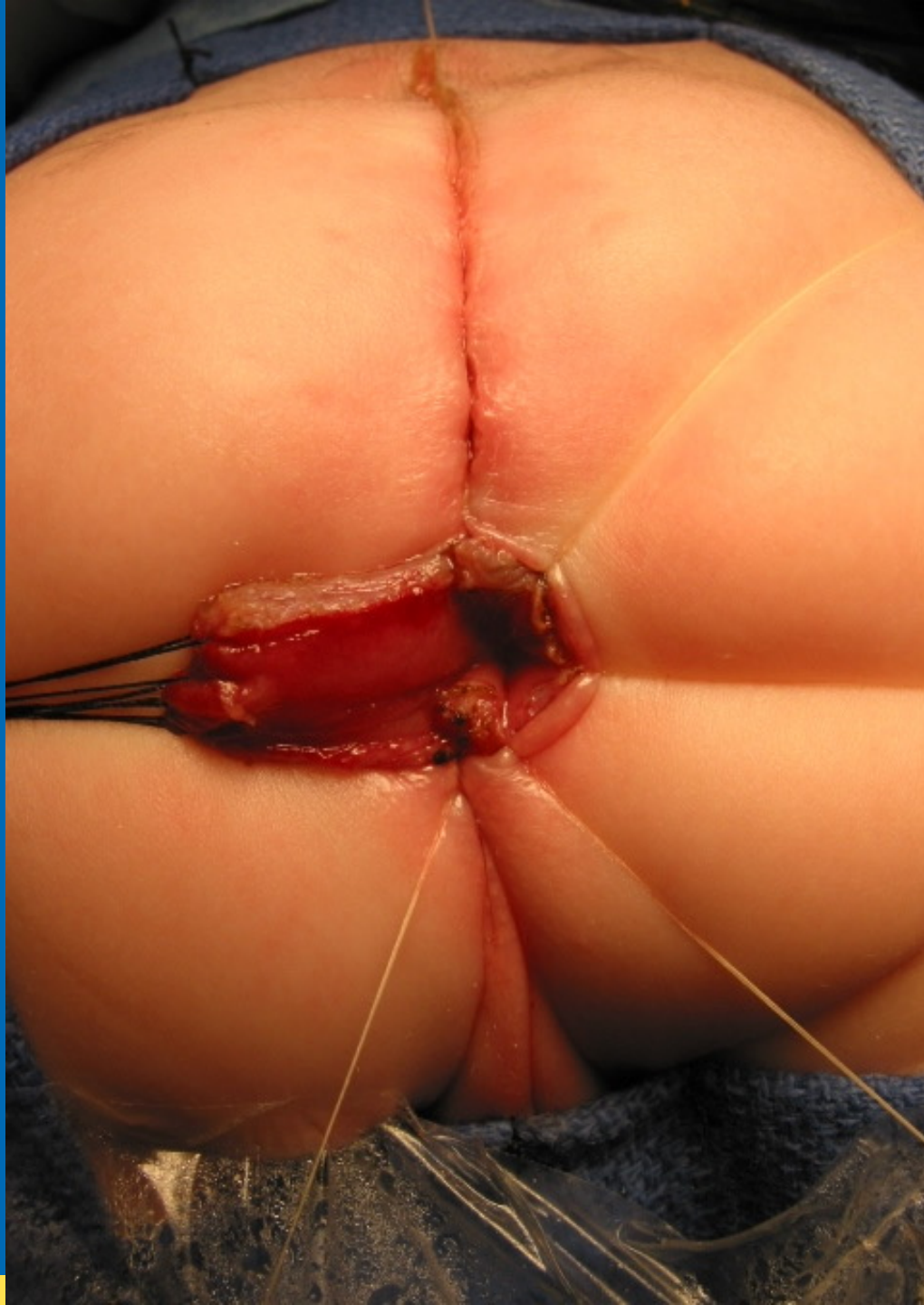
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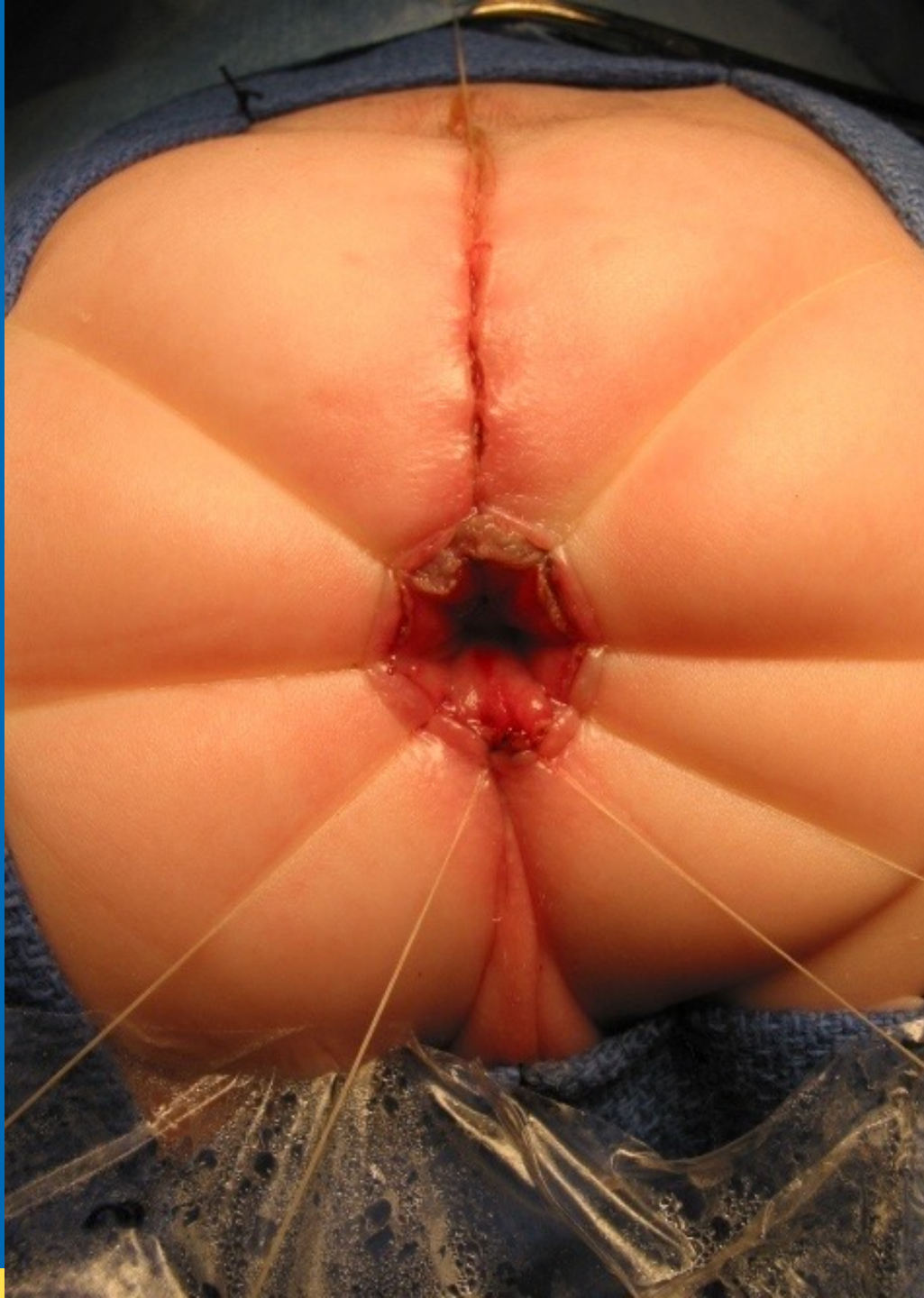
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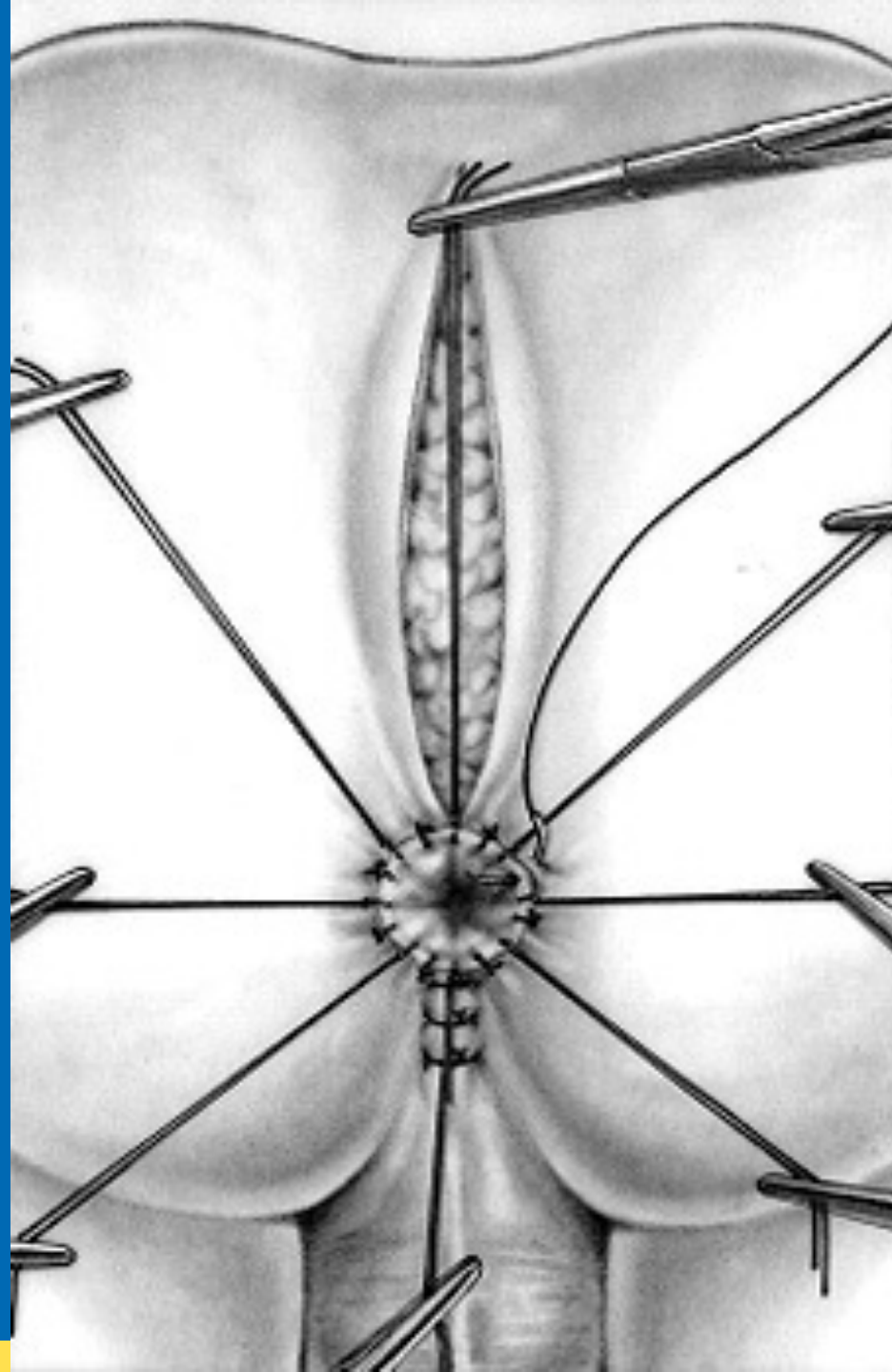
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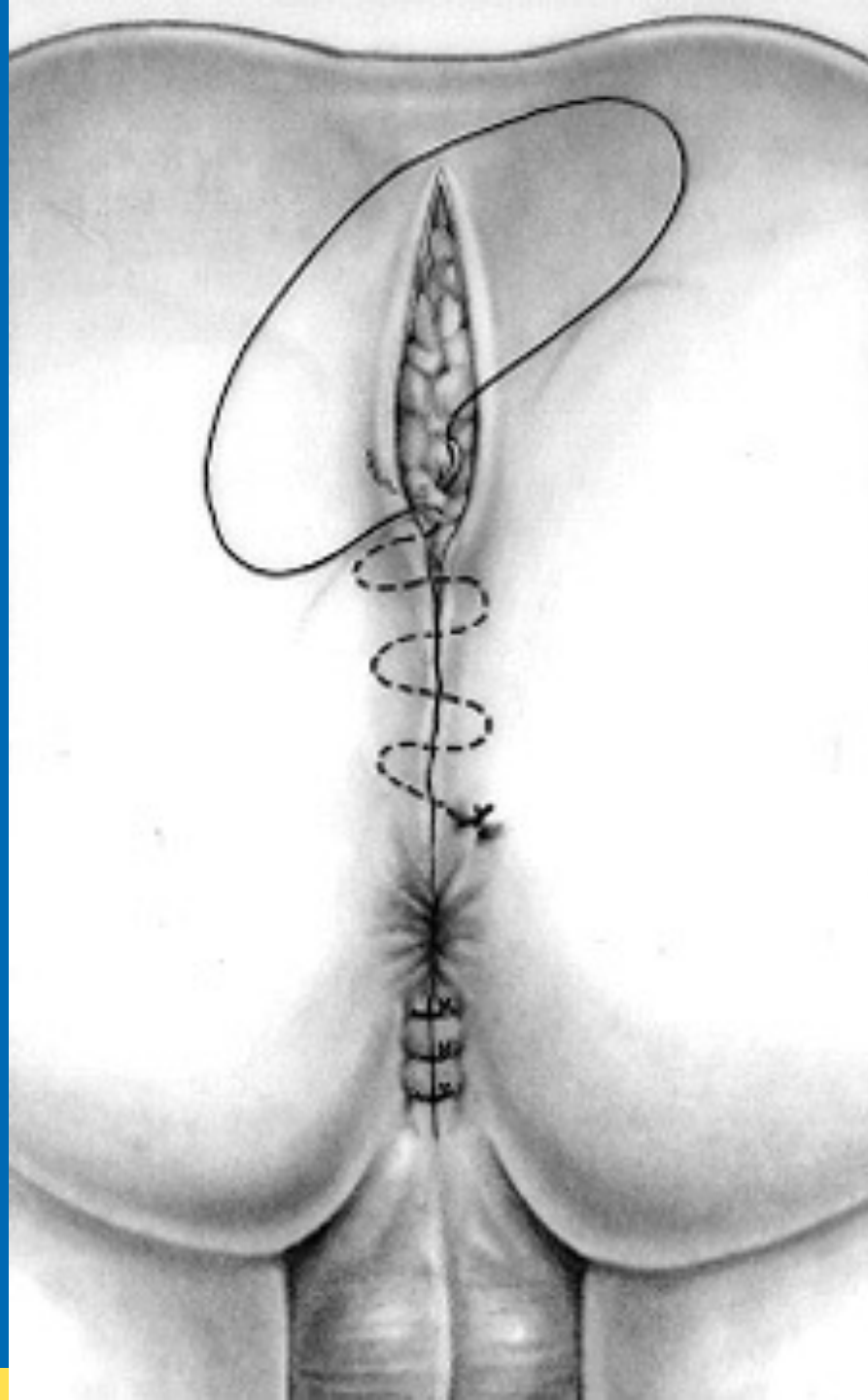
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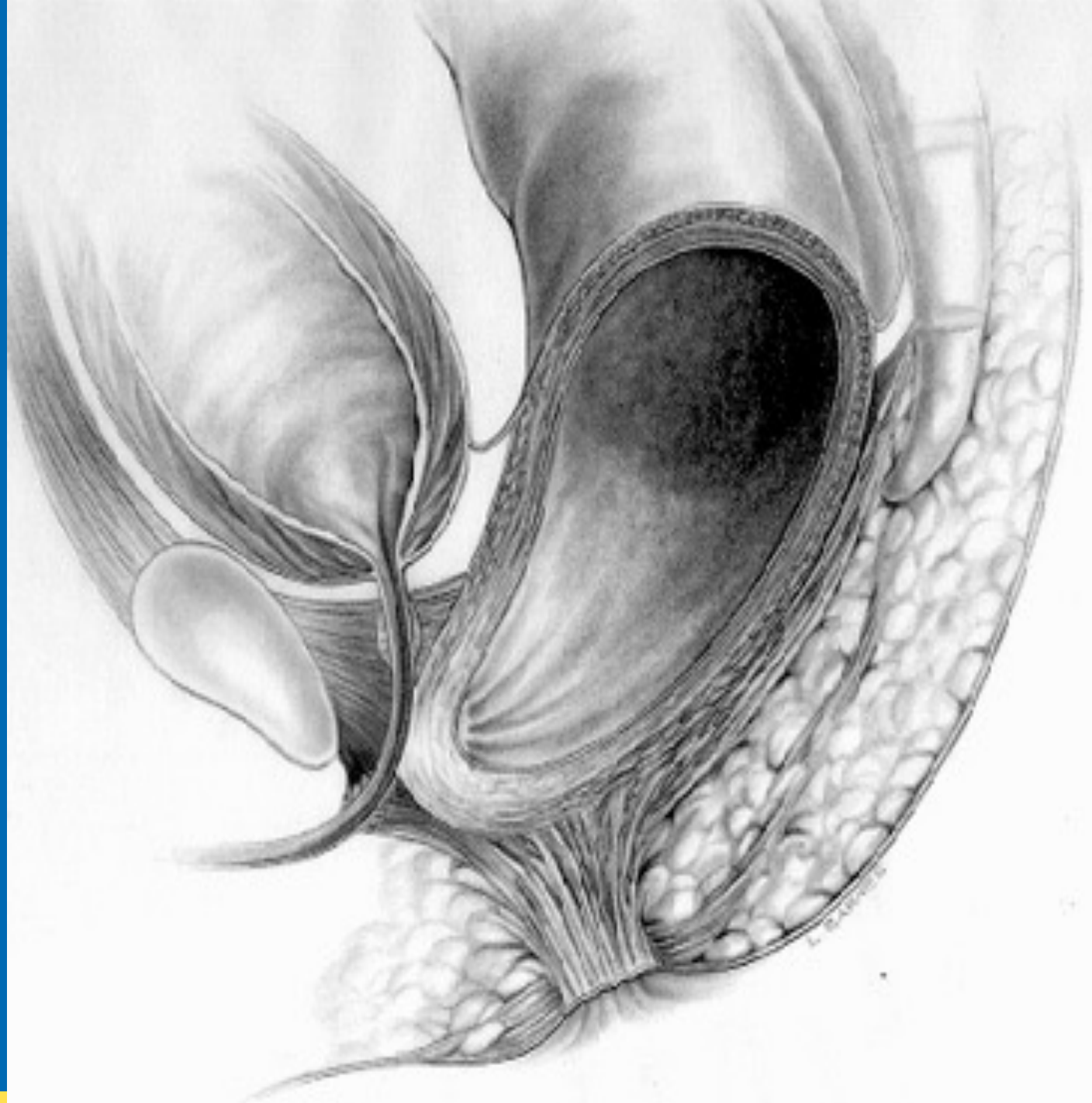
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# Imperforate anus without fistula





# The frequency of Down's syndrome and anorectal malformations is:

- A. Higher the higher the malformation
- B. Higher the lower the malformation
- C. More common in females
- D. The highest in anorectal malformations with no fistula
- E. The highest in vestibular fistulas



# The rectum in imperforate anus with no fistula is located:

- A. At the level of the bladderneck
- B. At the level of the prostate
- C. At the level of the bulbar urethra
- D. 2mm from perineal skin
- E. All of the above are possible



The prognosis for bowel control in the no fistula defect without Down's syndrome is:

- A. 5%
- B. 15%
- C. 40%
- D. 85%
- E. 100%



The prognosis for bowel control in the no fistula defect with Down's syndrome is:

A. 5%

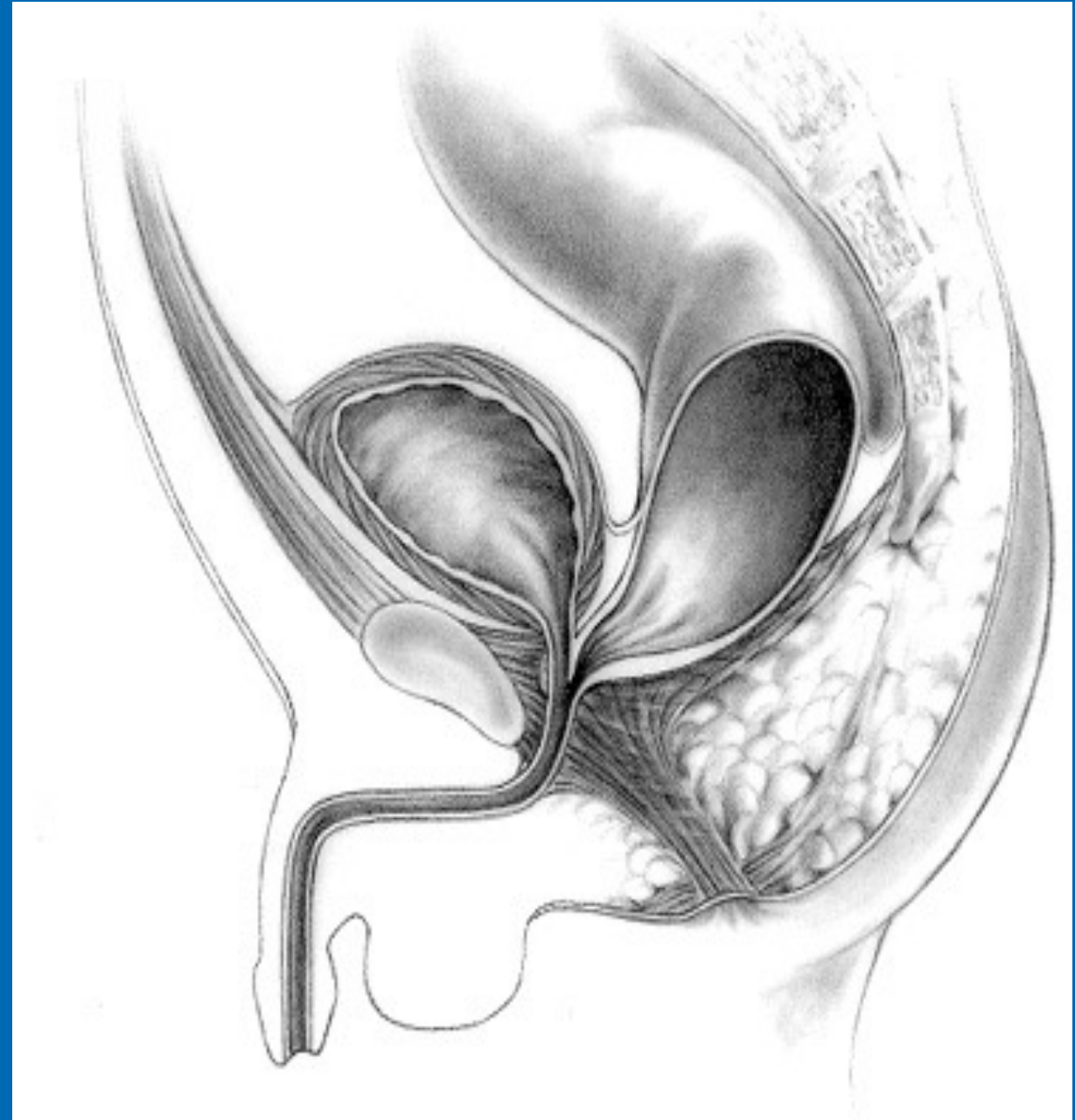
B. 15%

C. 60%

D. 90%



# Rectourethral prostatic fistula



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The prognosis for bowel control in prostatic fistula is:

- A. 5%
- B. 25%
- C. 60%
- D. 85%
- E. 100%



The frequency of associated malformations in prostatic fistula is

A. 5%

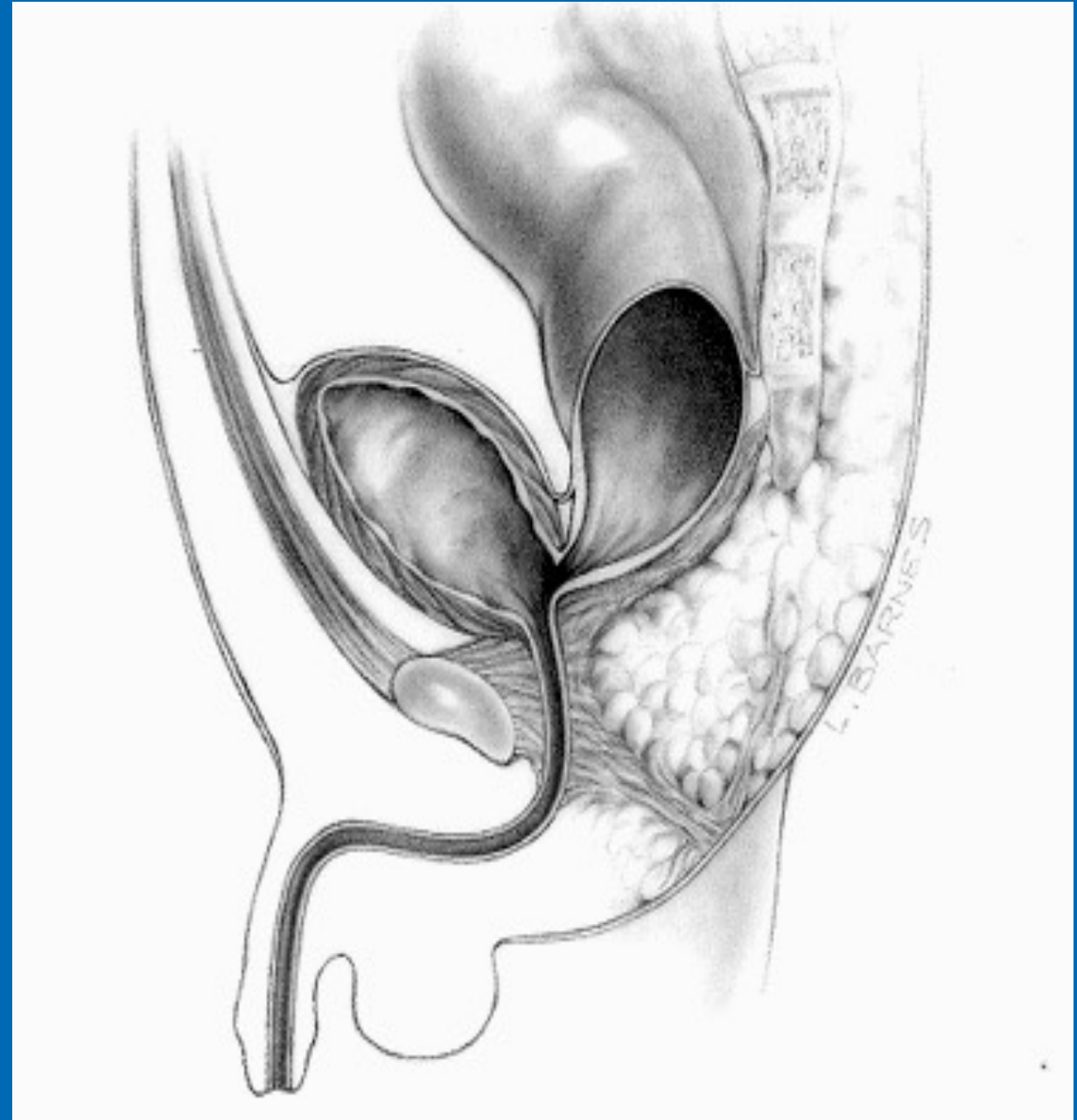
B. 25%

C. 60%

D. 90%



# Rectobladderneck fistula



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The percentage of male cases in which the rectum is only reachable transabdominally is:

- A. 10%
- B. 25%
- C. 50%
- D. 75%
- E. 100%



The frequency of associated malformations in bladderneck fistula is:

A. 5%

B. 25%

C. 60%

D. 90%



The prognosis for bowel control in bladderneck fistula is:

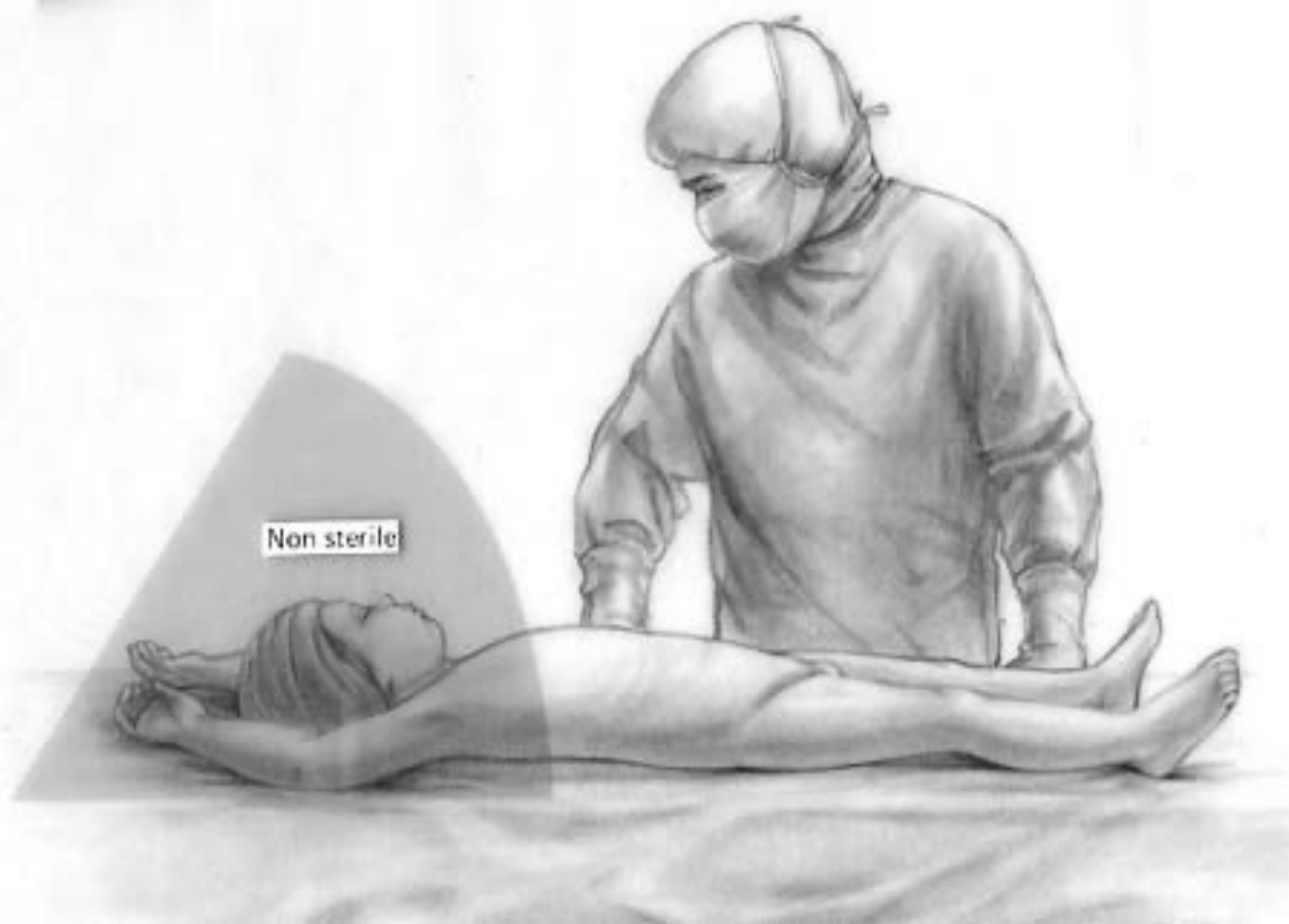
- A. 3%
- B. 15%
- C. 50%
- D. 75%
- E. 90%



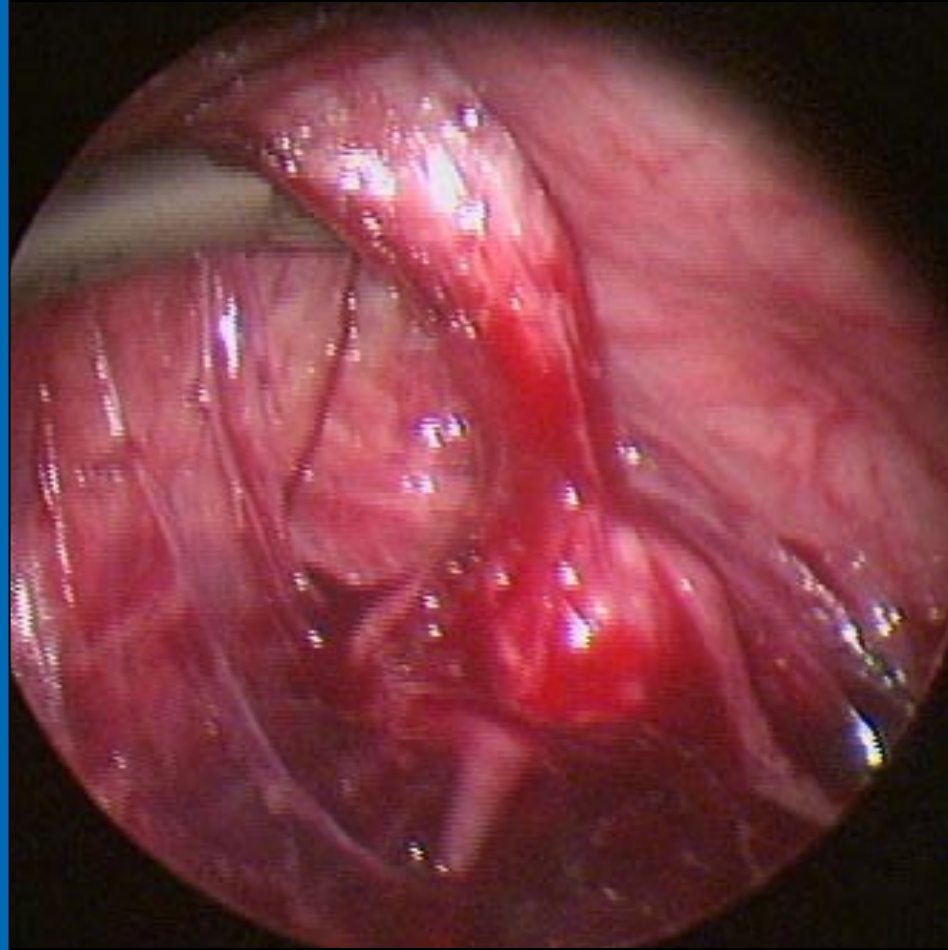


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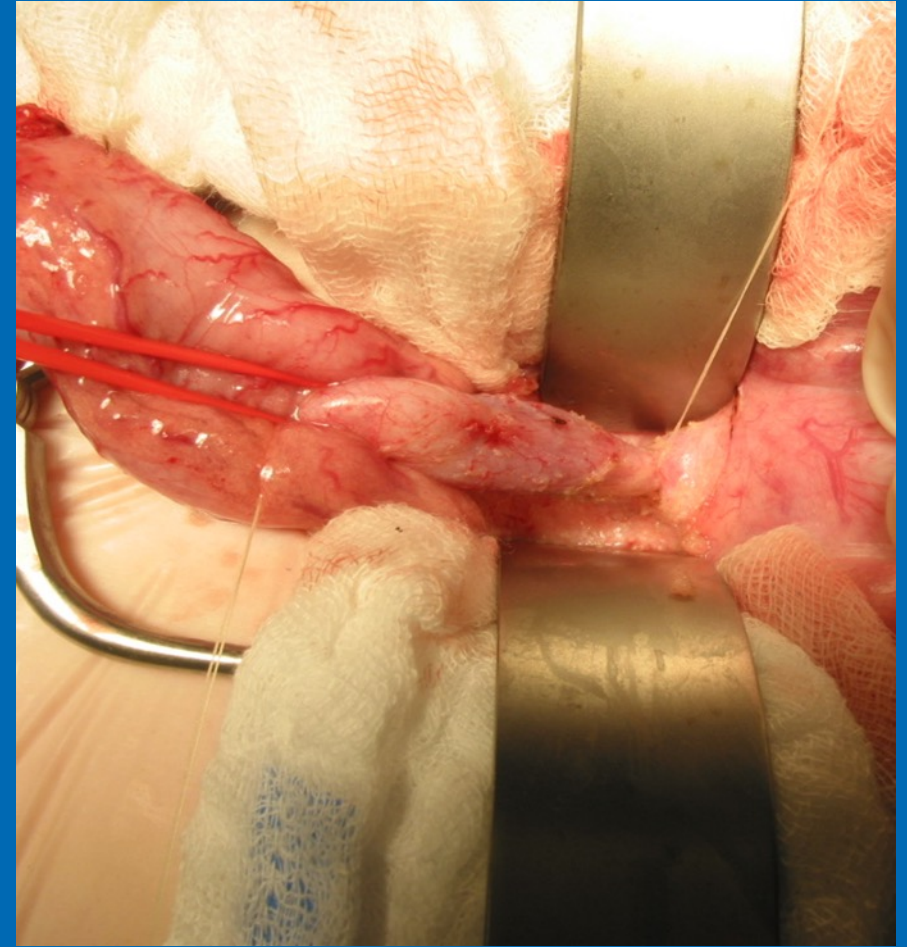
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# Ligation of a bladderneck fistula

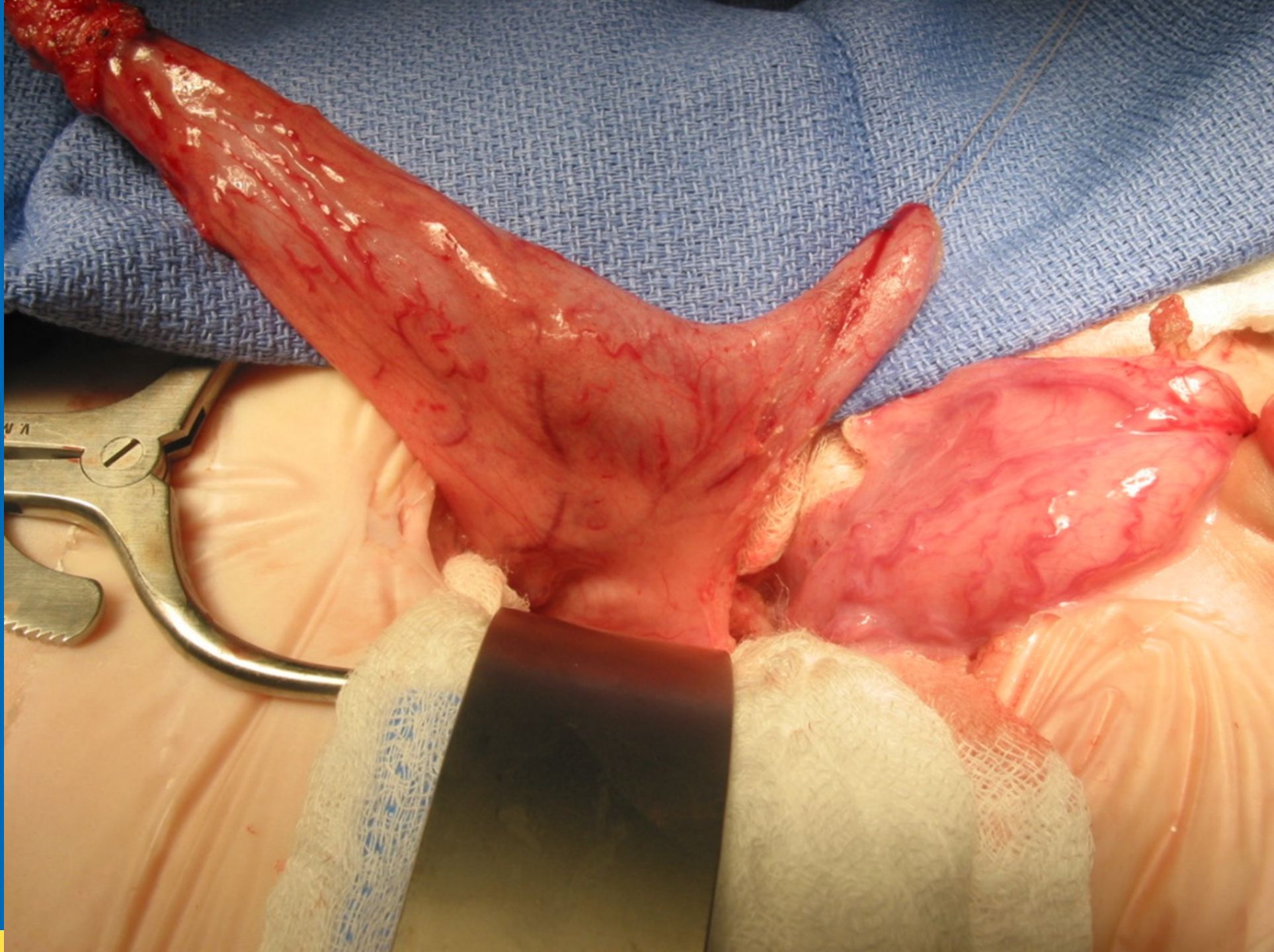


Laparoscopic view

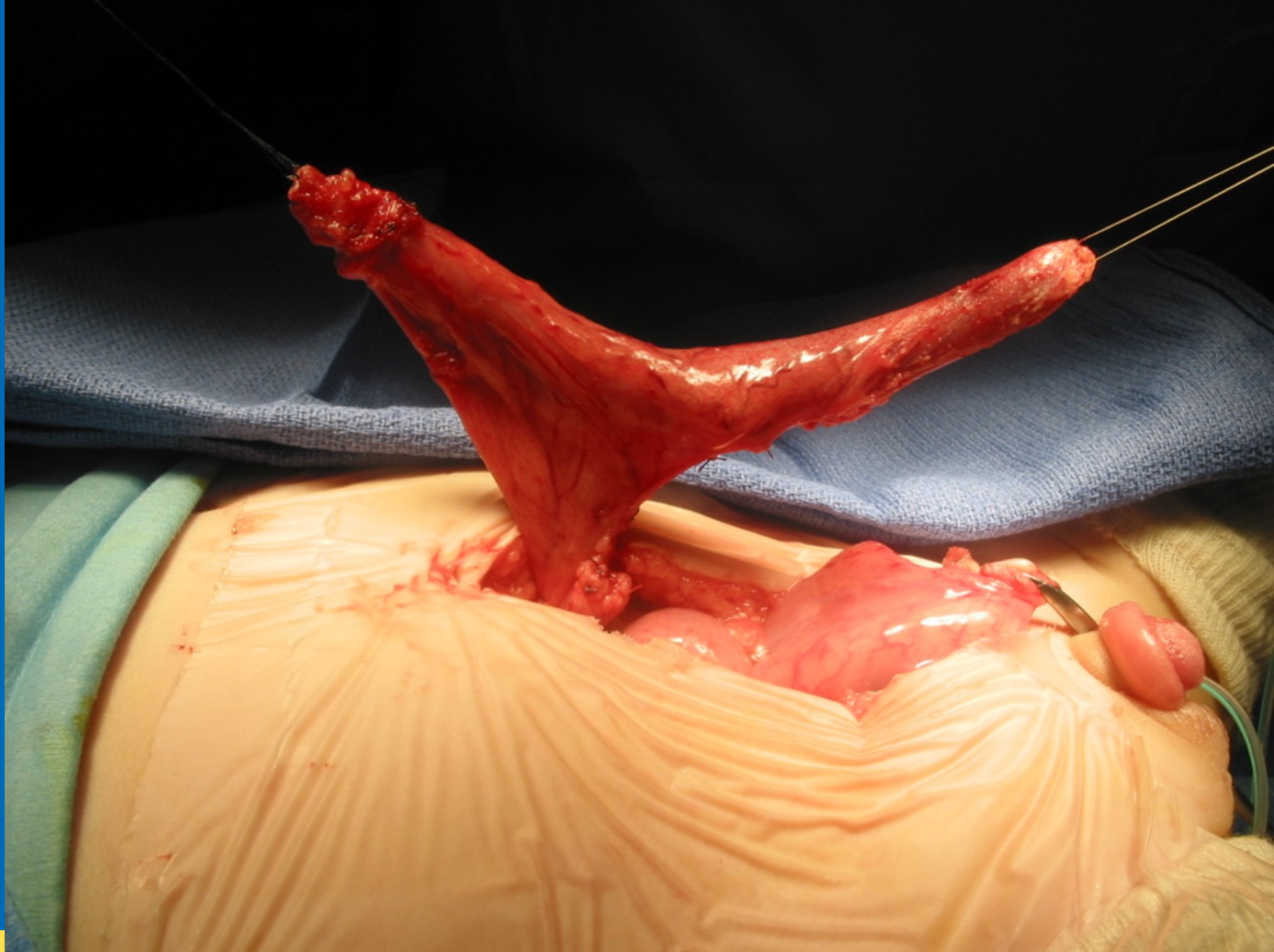


Laparotomy view





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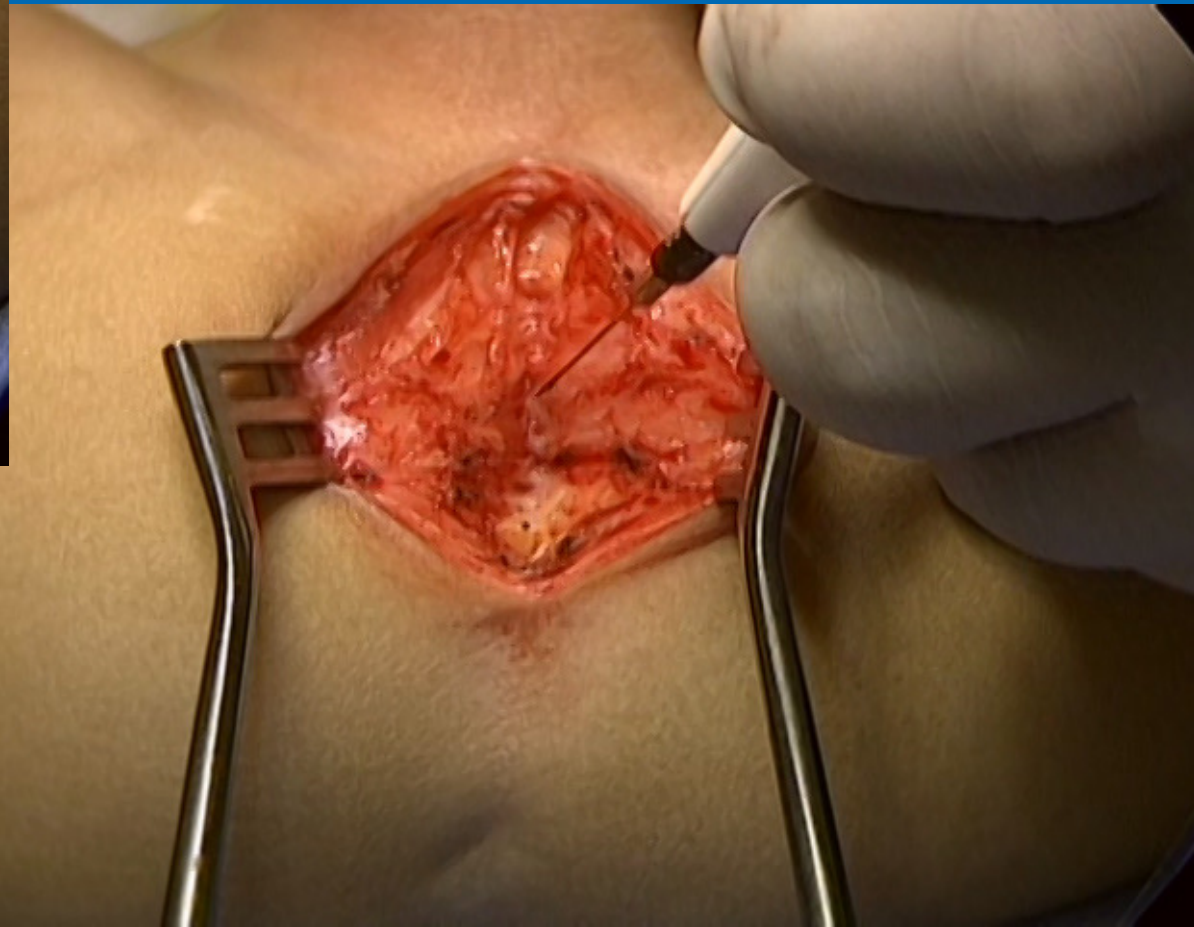




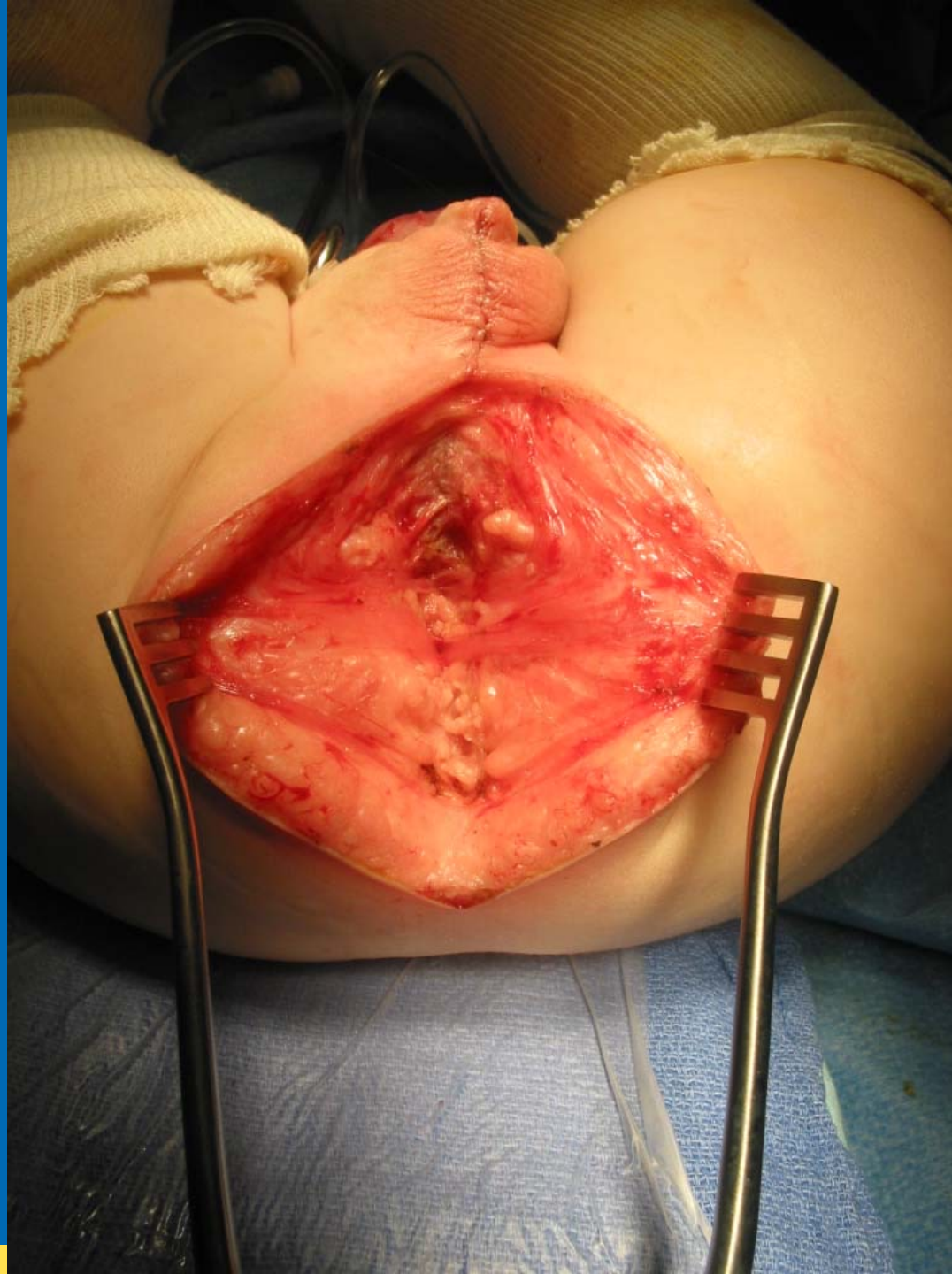
L. BARNES



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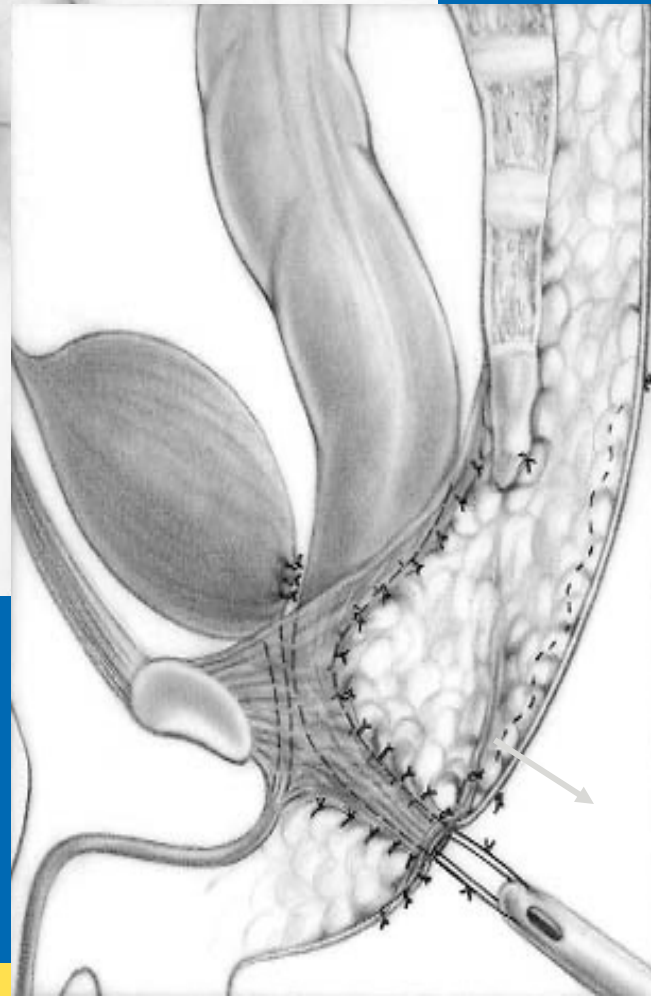
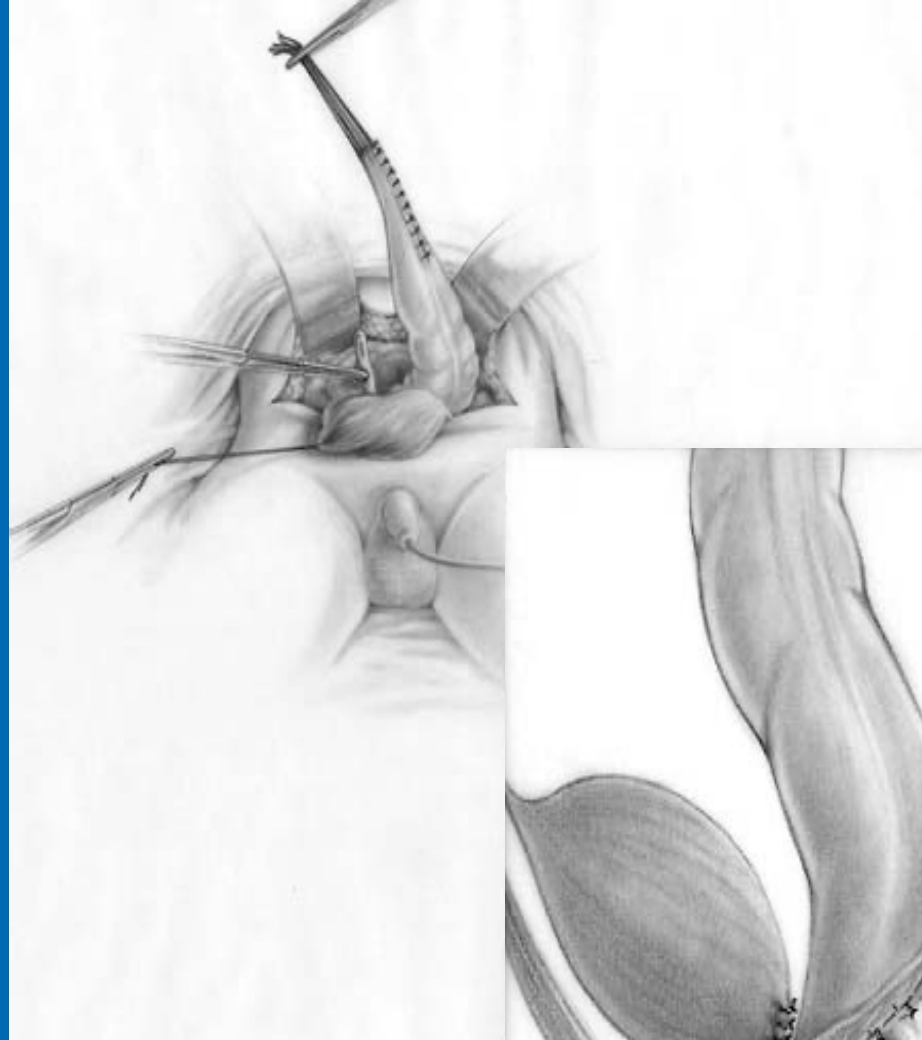


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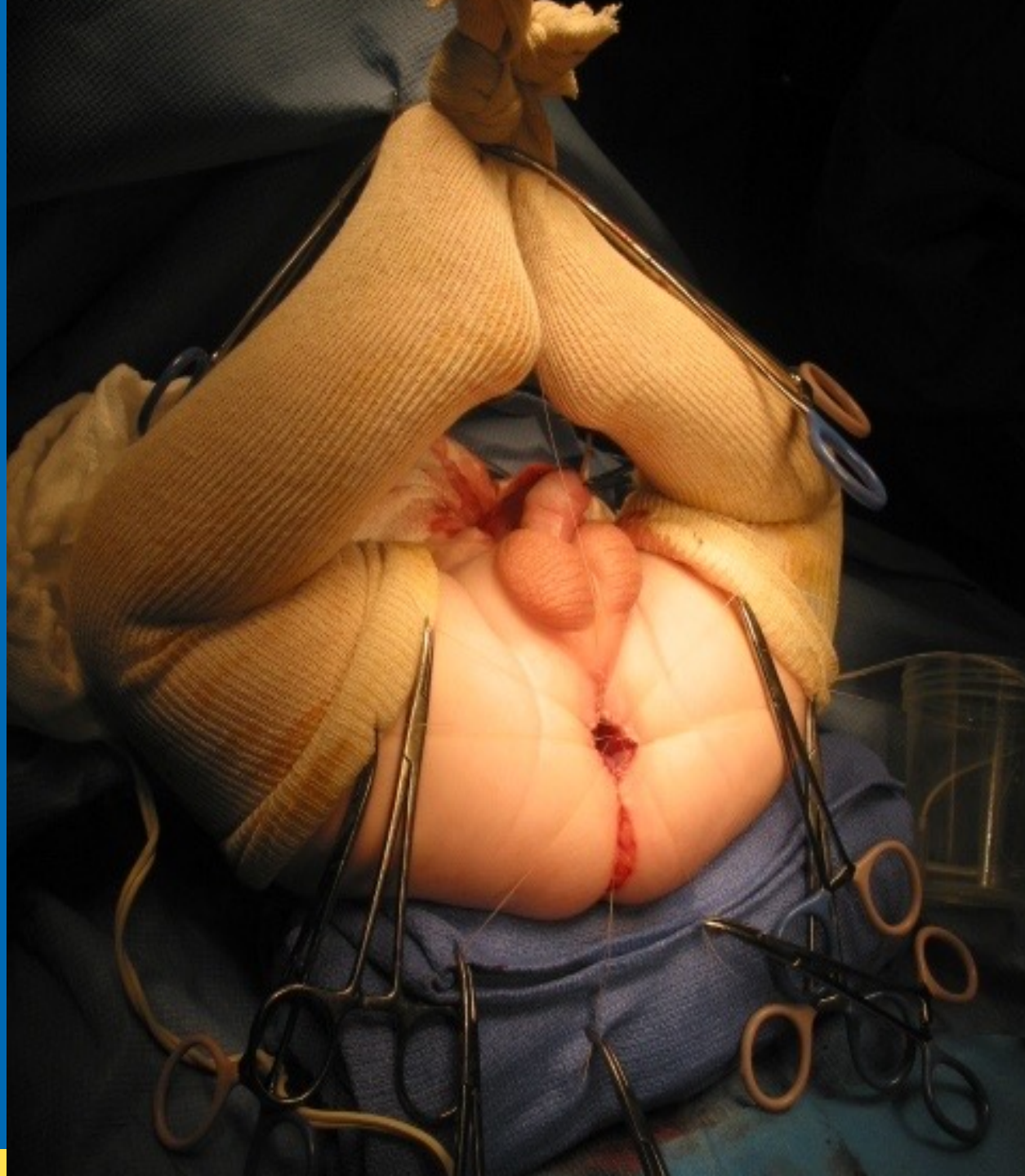
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# Laparoscopy in Anorectal Malformations



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# Video

## Posterior Urethral Diverticulum After Laparoscopic Repair of an Anorectal Malformation



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# Bowel Control

- Sensation
- Sphincters
- Recto-sigmoid motility  
(reservoir)



# Postoperative anal stricture depends upon:

- A. How many sutures are used for anoplasty
- B. Tension of the distal rectum
- C. Whether the intramural blood supply was injured during the dissection
- D. The height of the malformation
- E. B and C





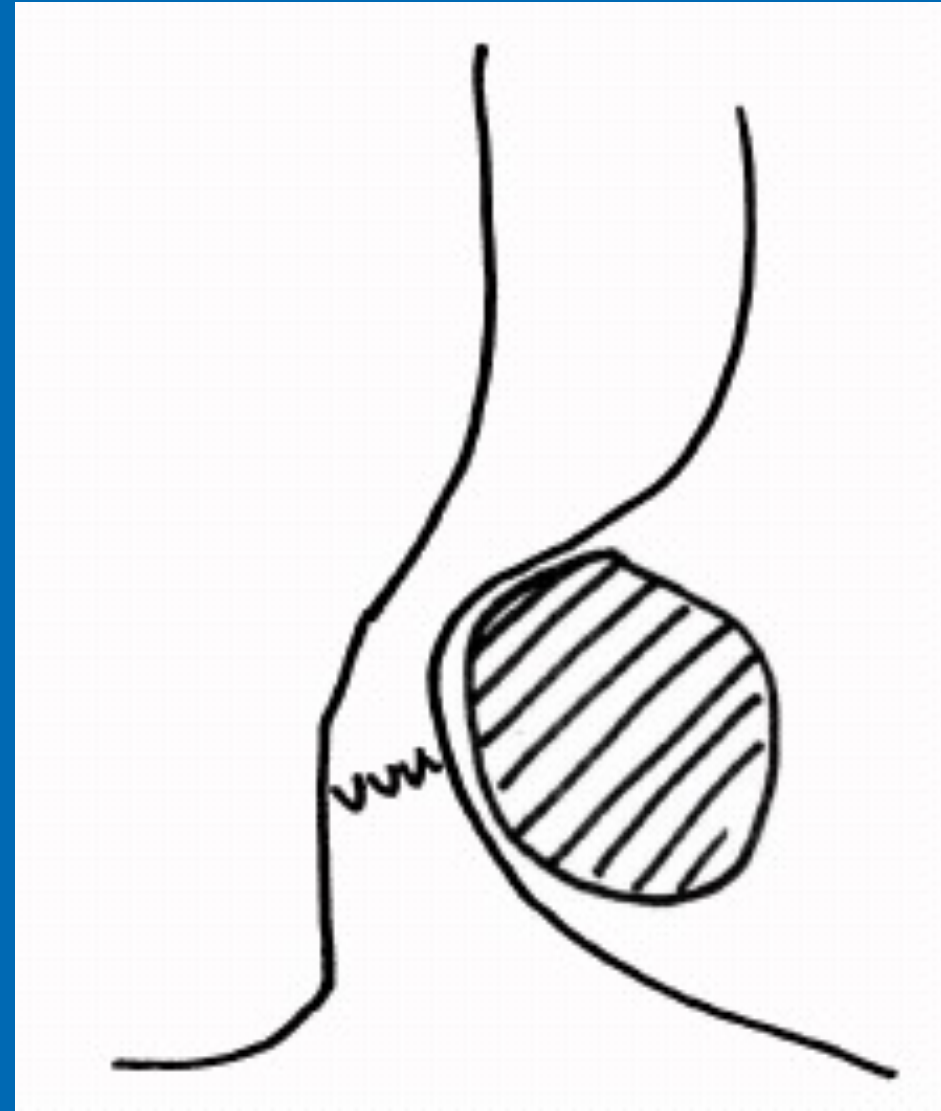
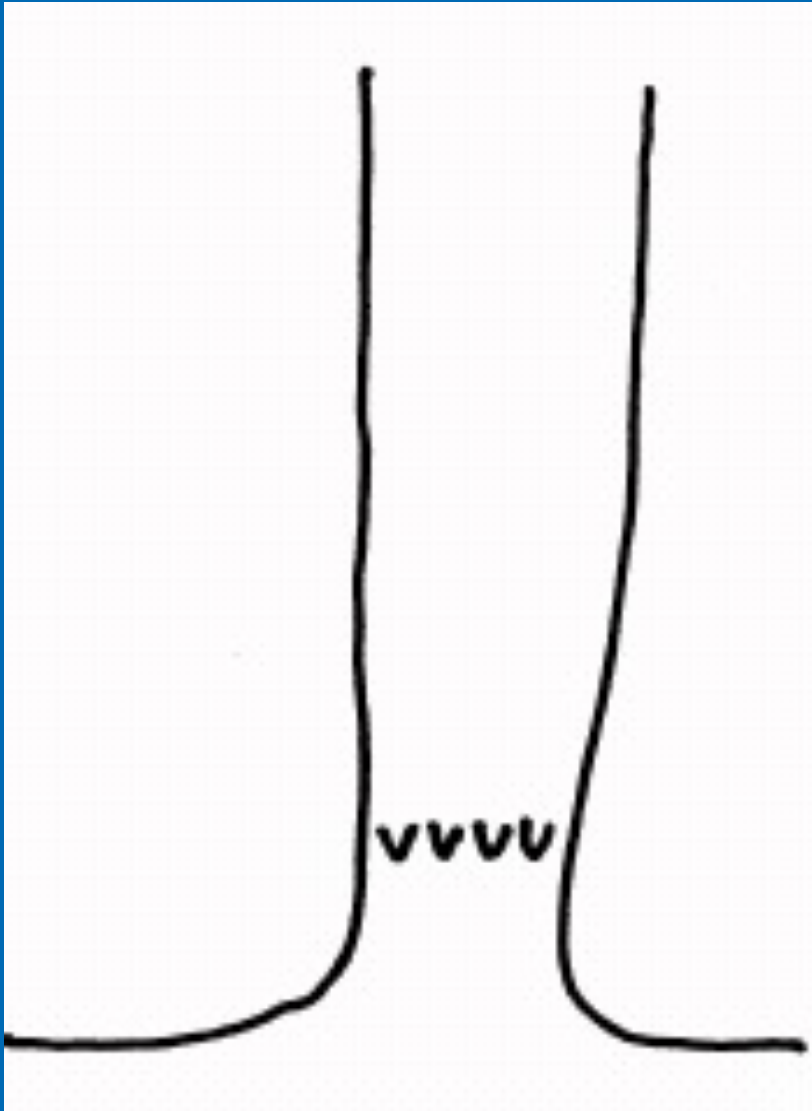
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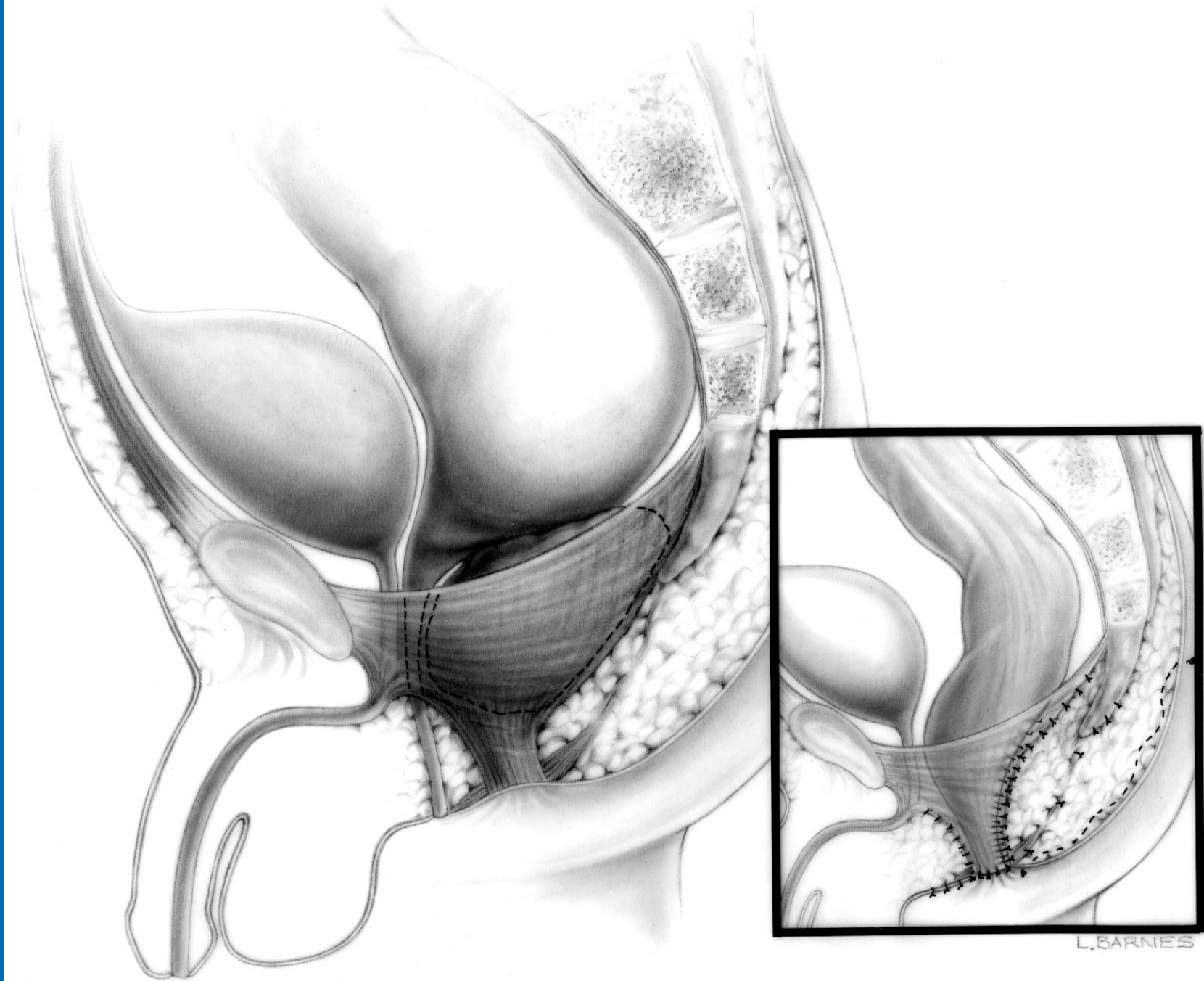


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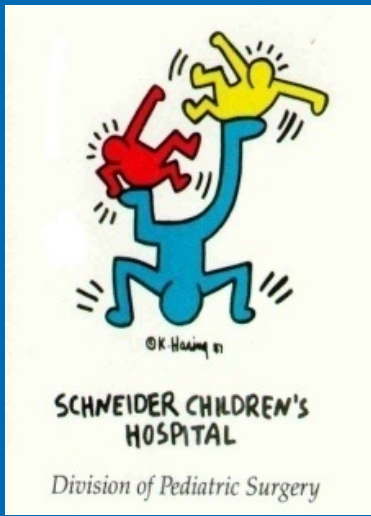




# The association of presacral mass and anorectal malformation occurs most frequently in:

- A. Bladderneck fistulas
- B. Perineal fistula
- C. Rectovaginal fistulas





# Schneider Children's Hospital, New Hyde Park, NY

## July 1985



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# Colorectal Center



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# June 2005



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# February 2016



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