

# Management of Anorectal Malformation in Male Patients

**Alberto Peña, MD**

The 66th Workshop for the Surgical Treatment  
of Colorectal Problems in Children



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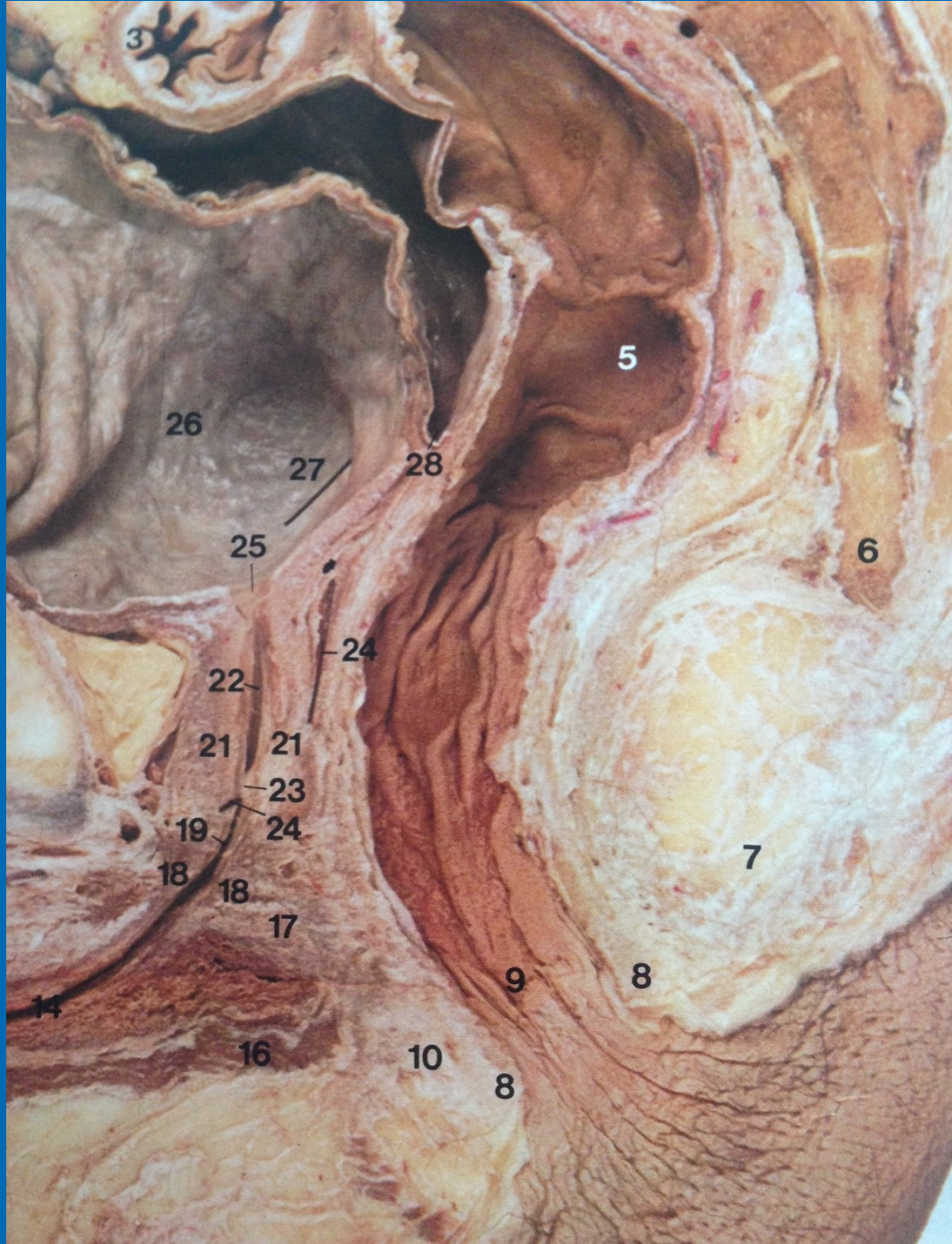
# Can you see them?



Anxious Medical  
Student

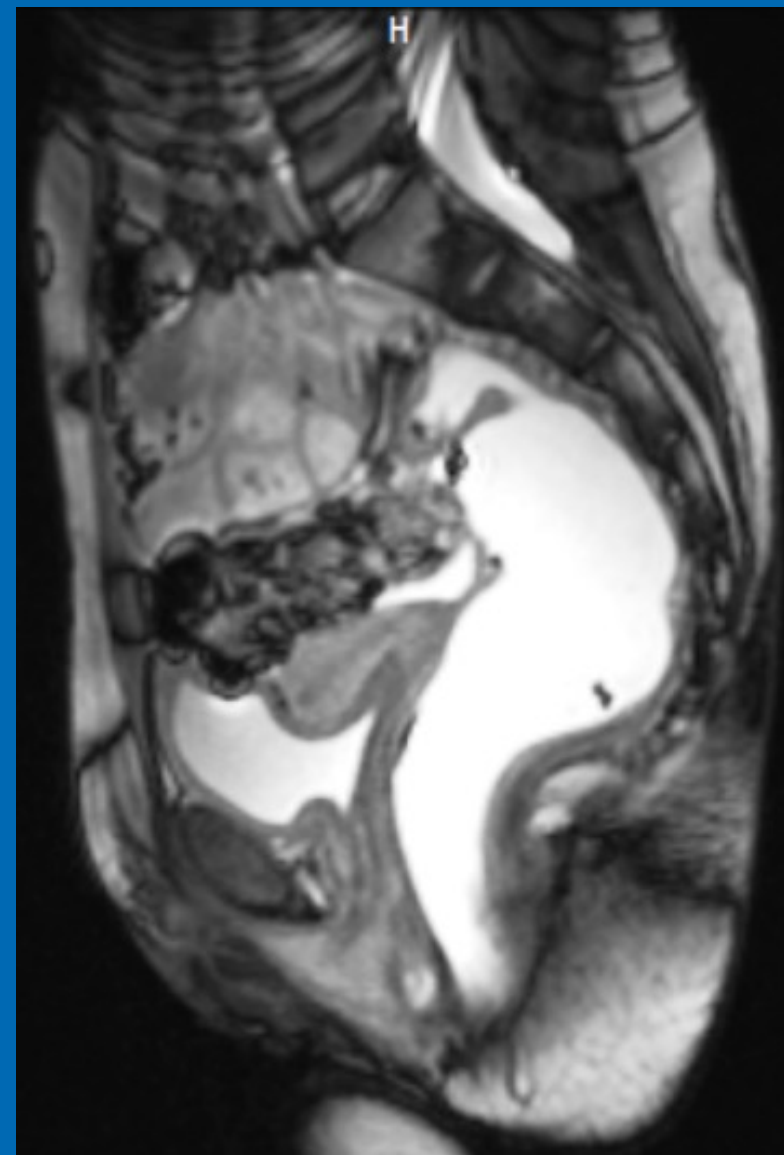
- Levator muscle
- Puborectalis
- Pubourethralis
- Pubococcygeous
- Ileococcygeous
- Ischiococcygeal
- Deep external sphincter
- Superficial external sphincter





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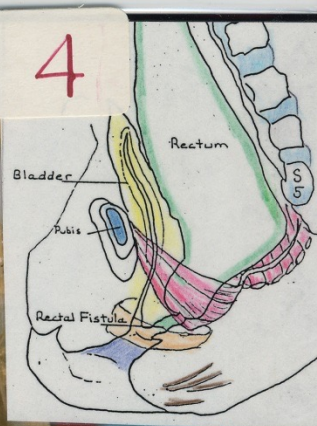
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RECTO-LOOICAL  
FISTULA  
INTERMEDIATE  
(M) KING

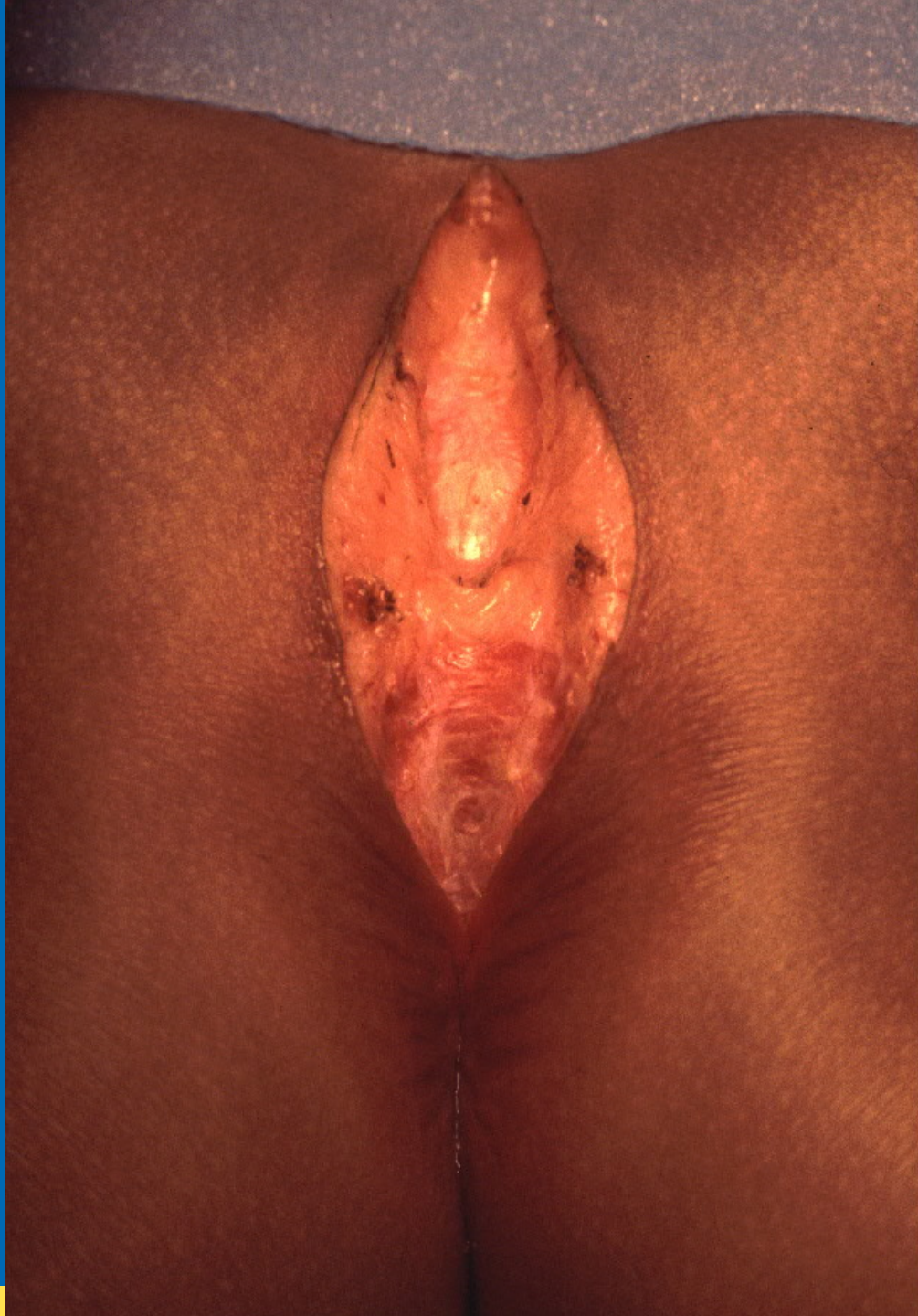
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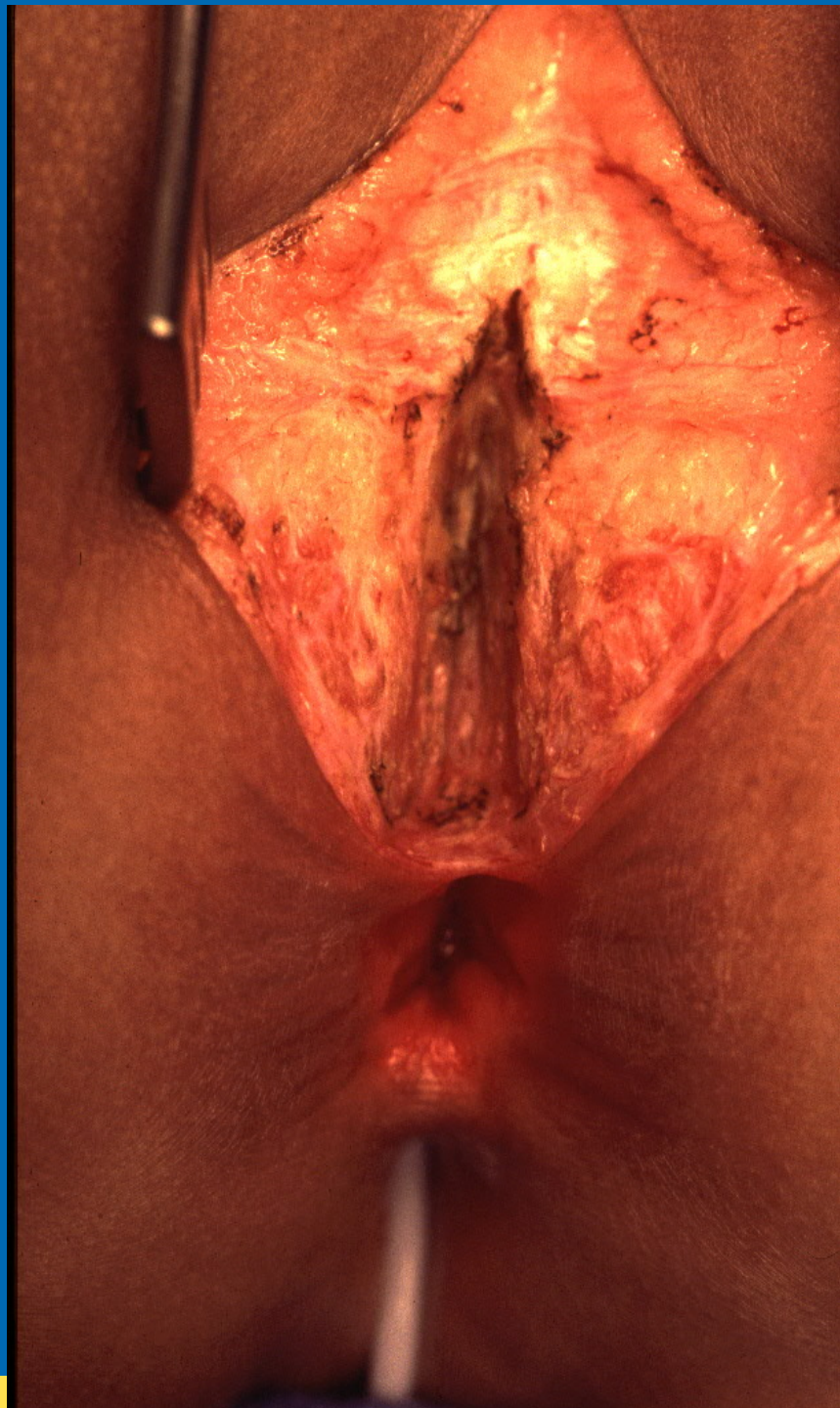
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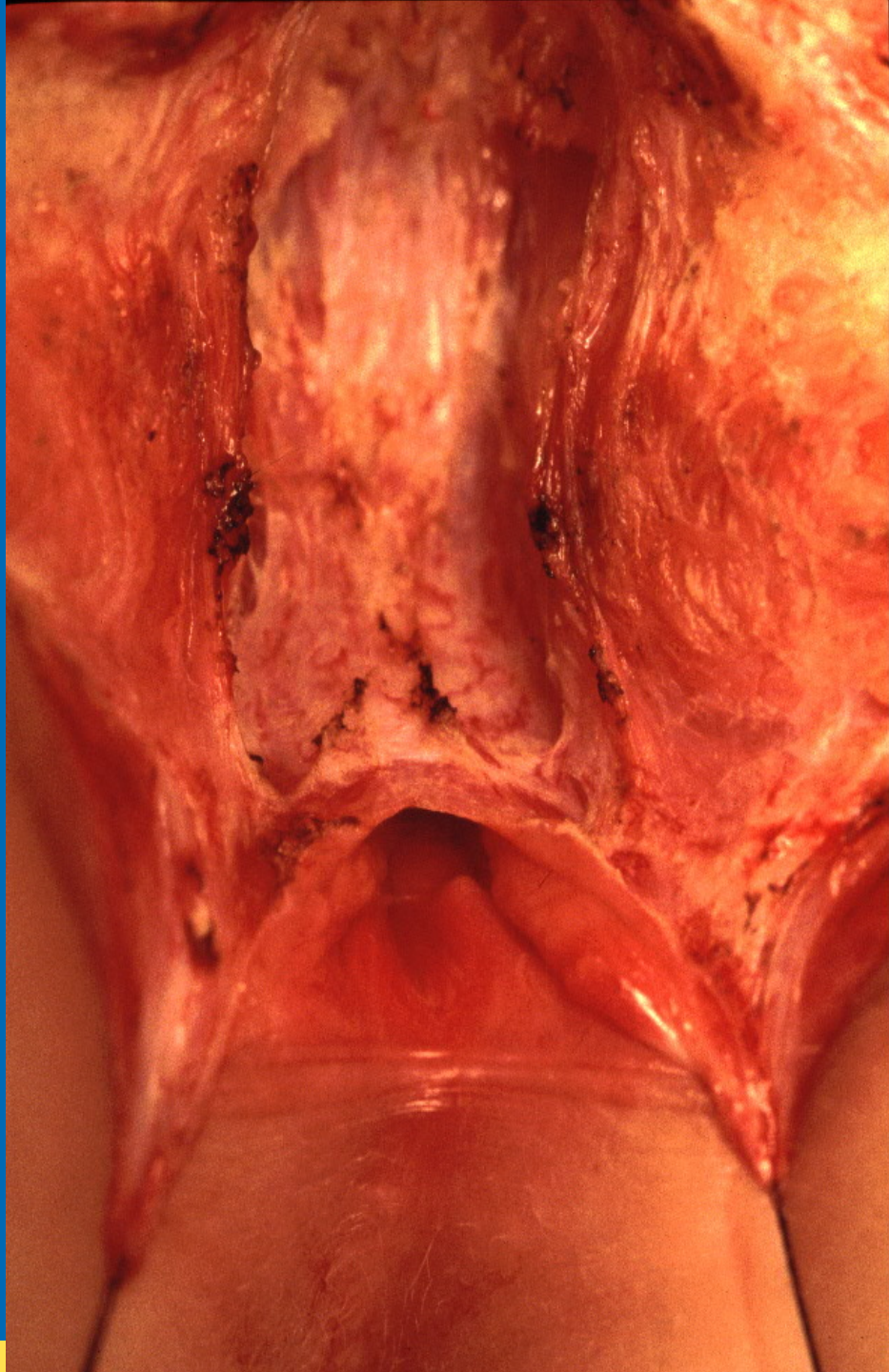
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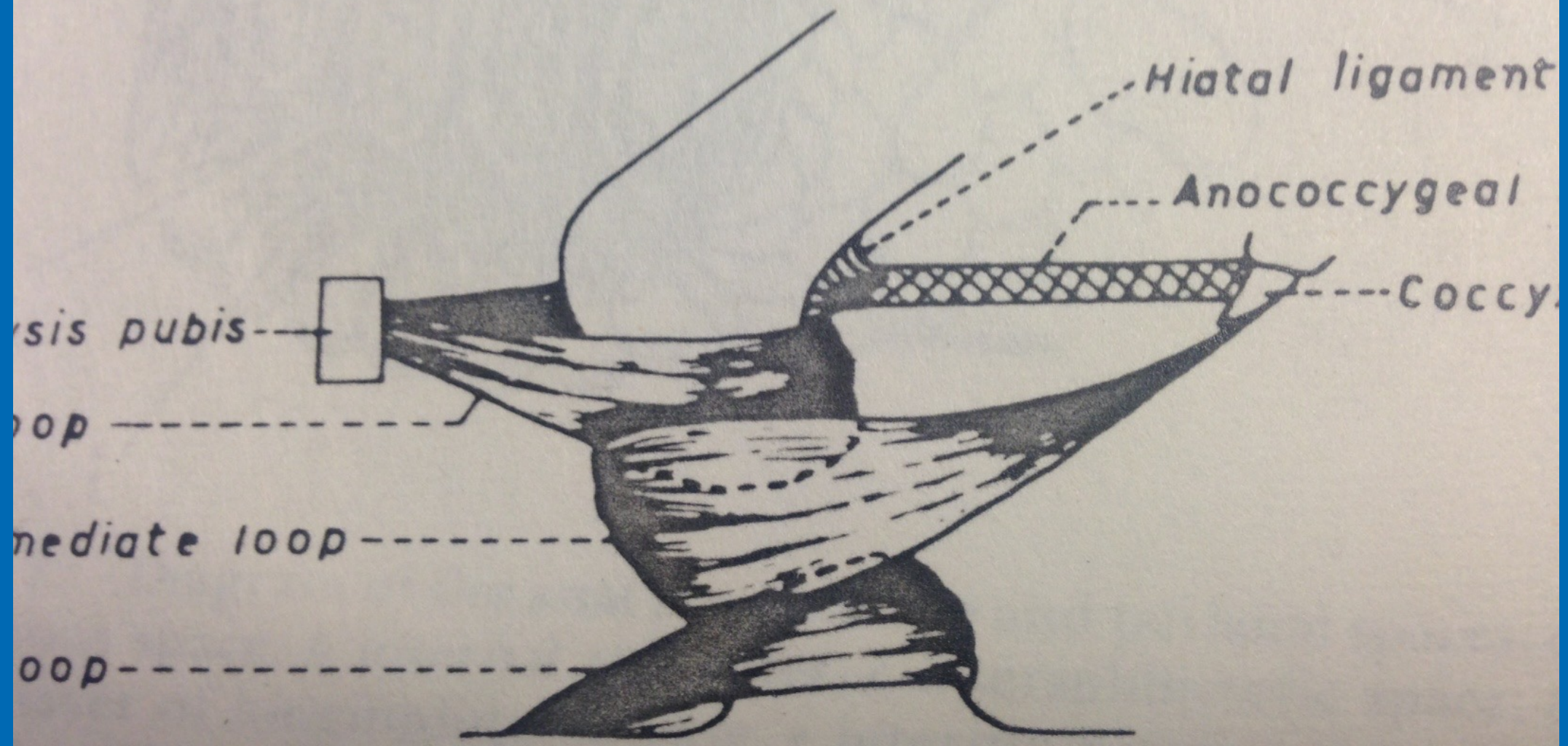
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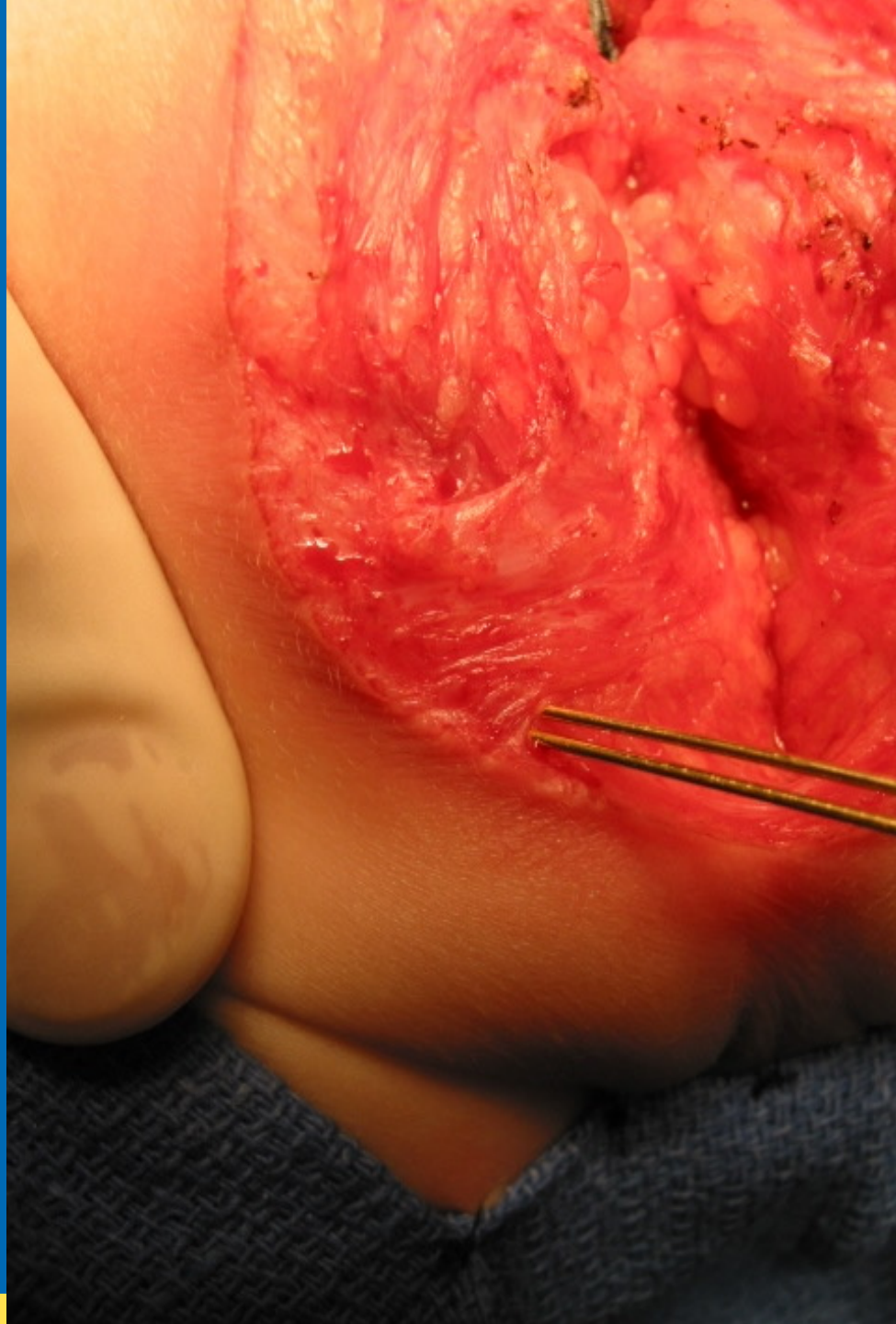
1. Triple loop system of the external anal sphincter. (Reproduced from Shafik<sup>18</sup> with permission of author and publisher.)





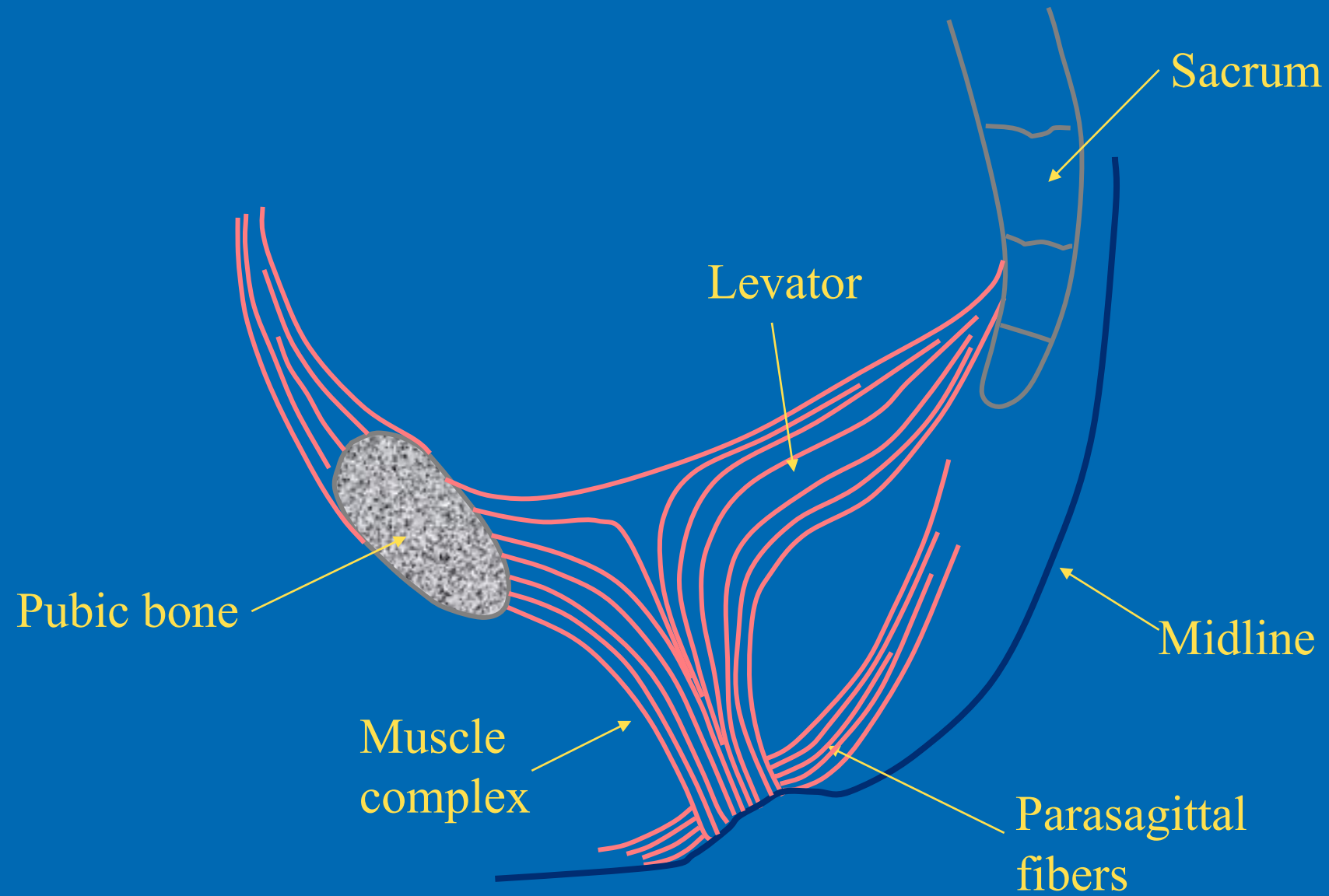
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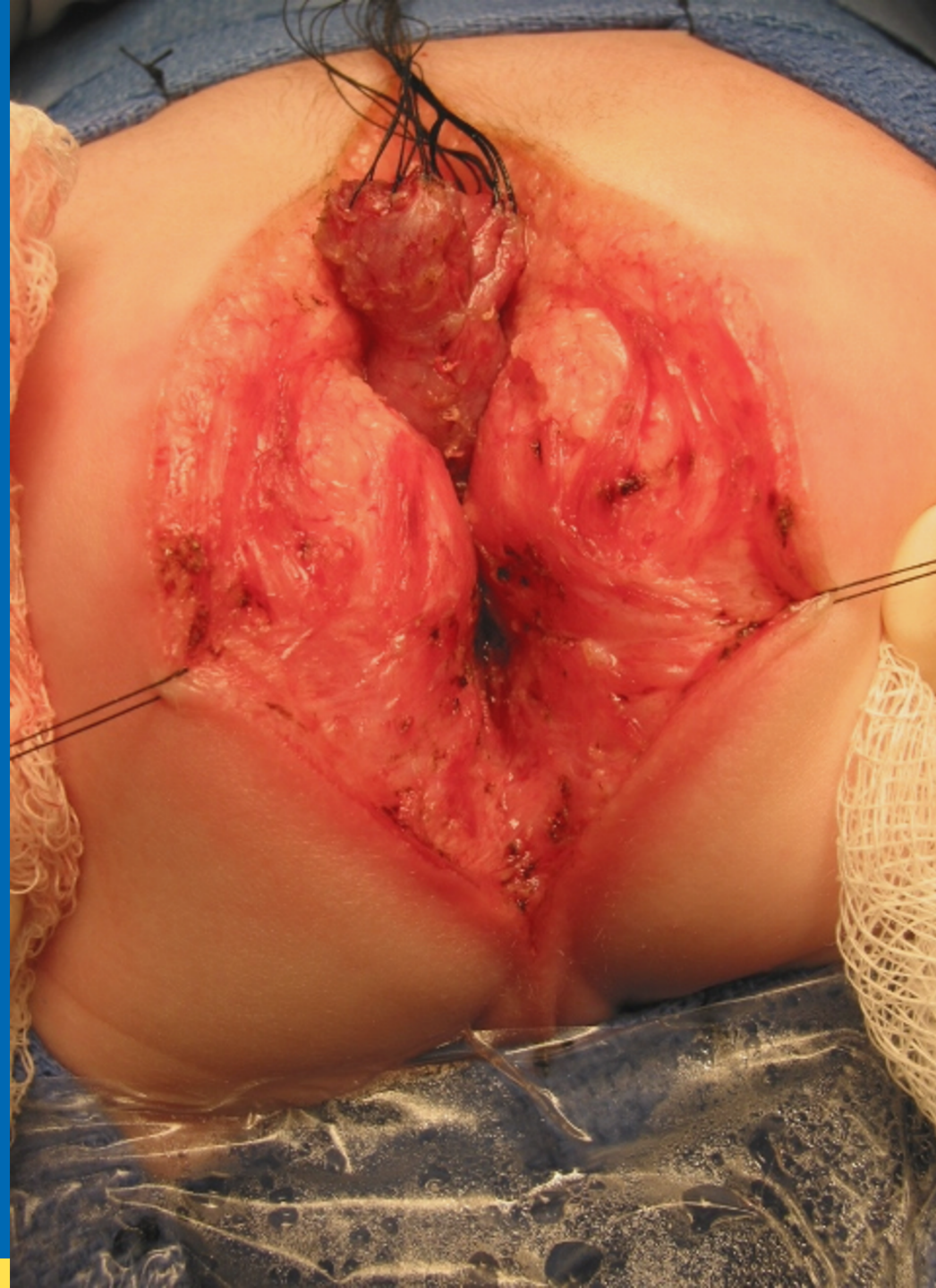
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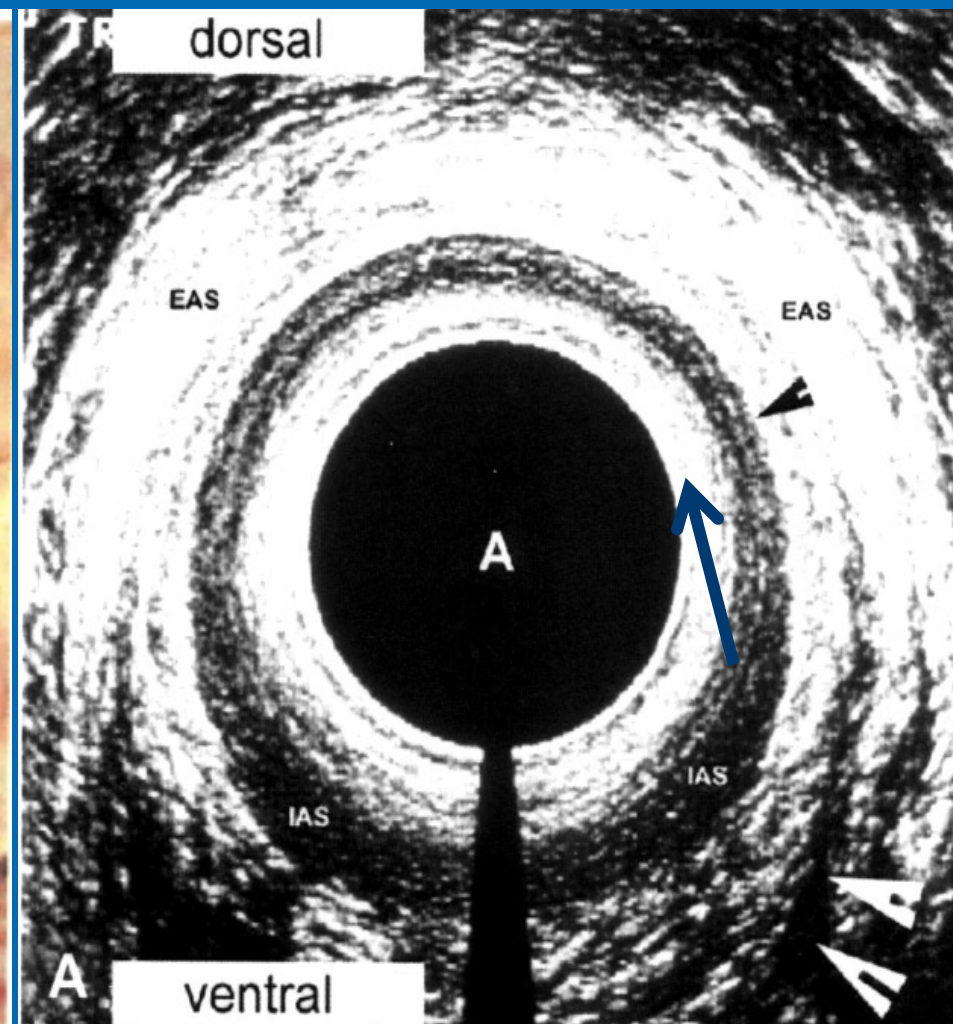
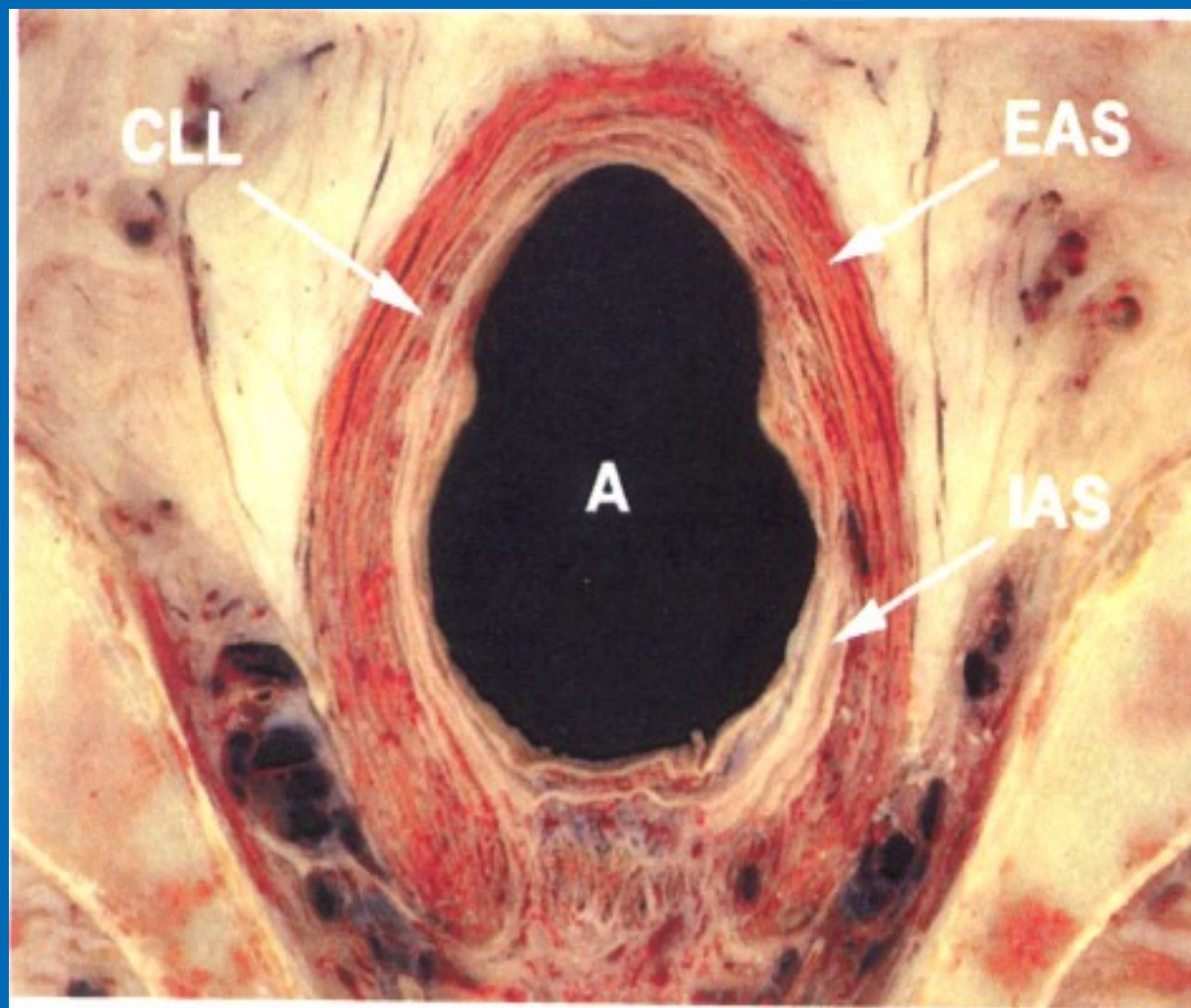


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# Internal Sphincter

- 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

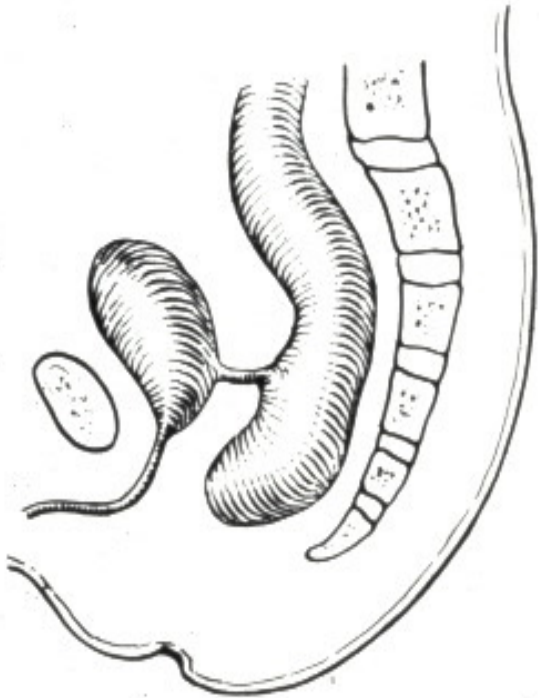


# We were all blind believers

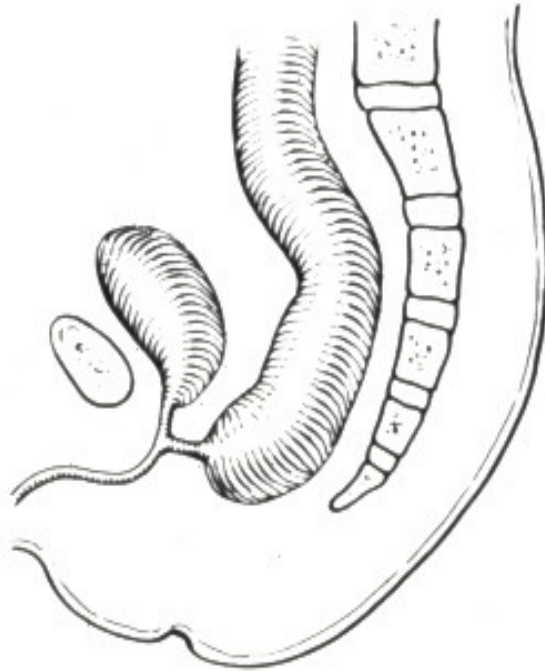


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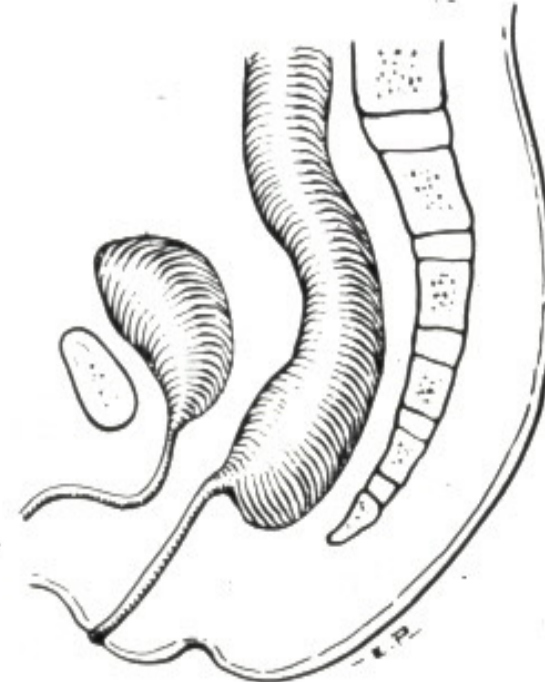
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RECTOVESICAL



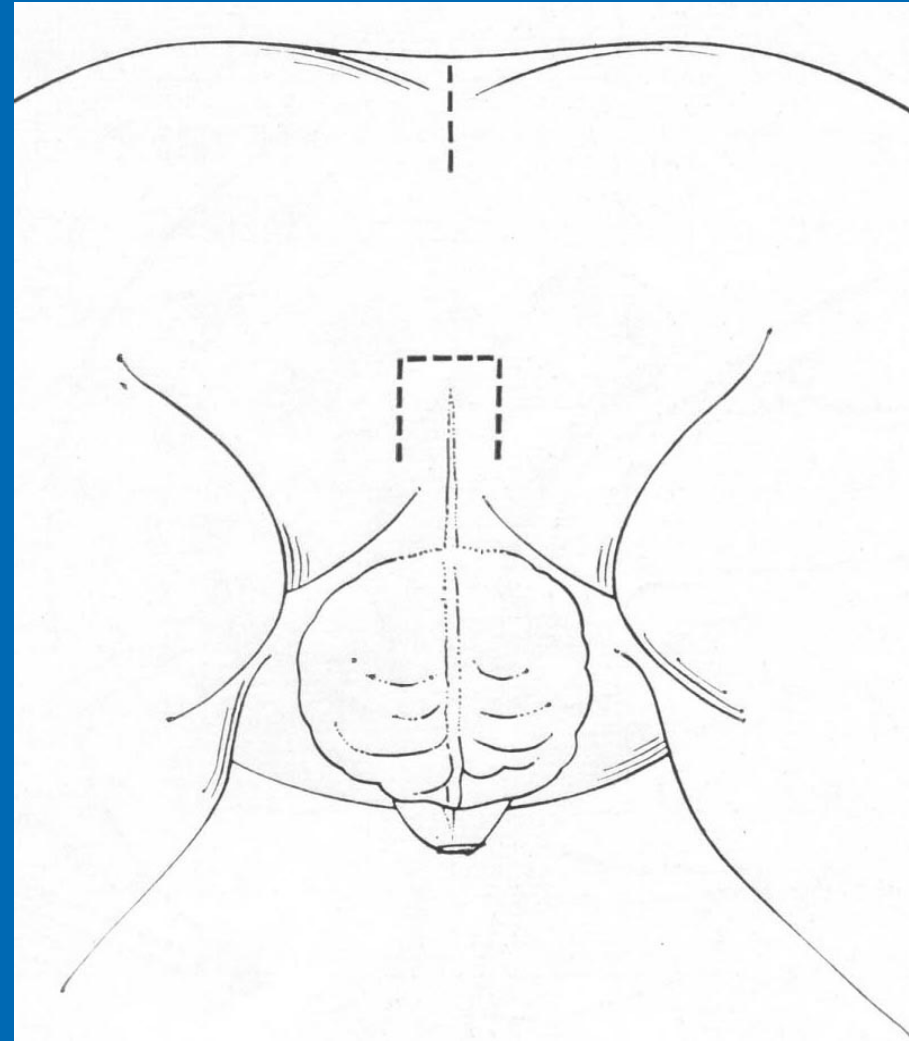
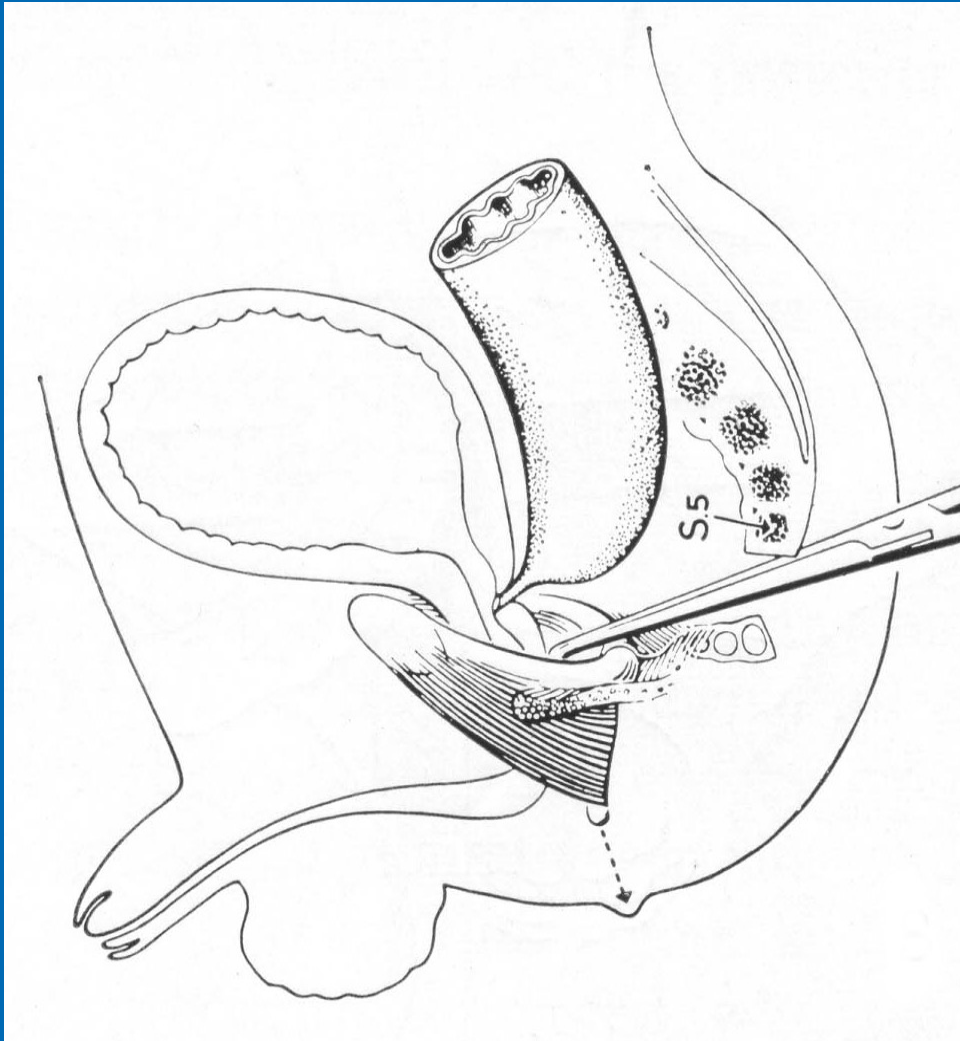
RECTOURETHRAL



RECTOPERINEAL

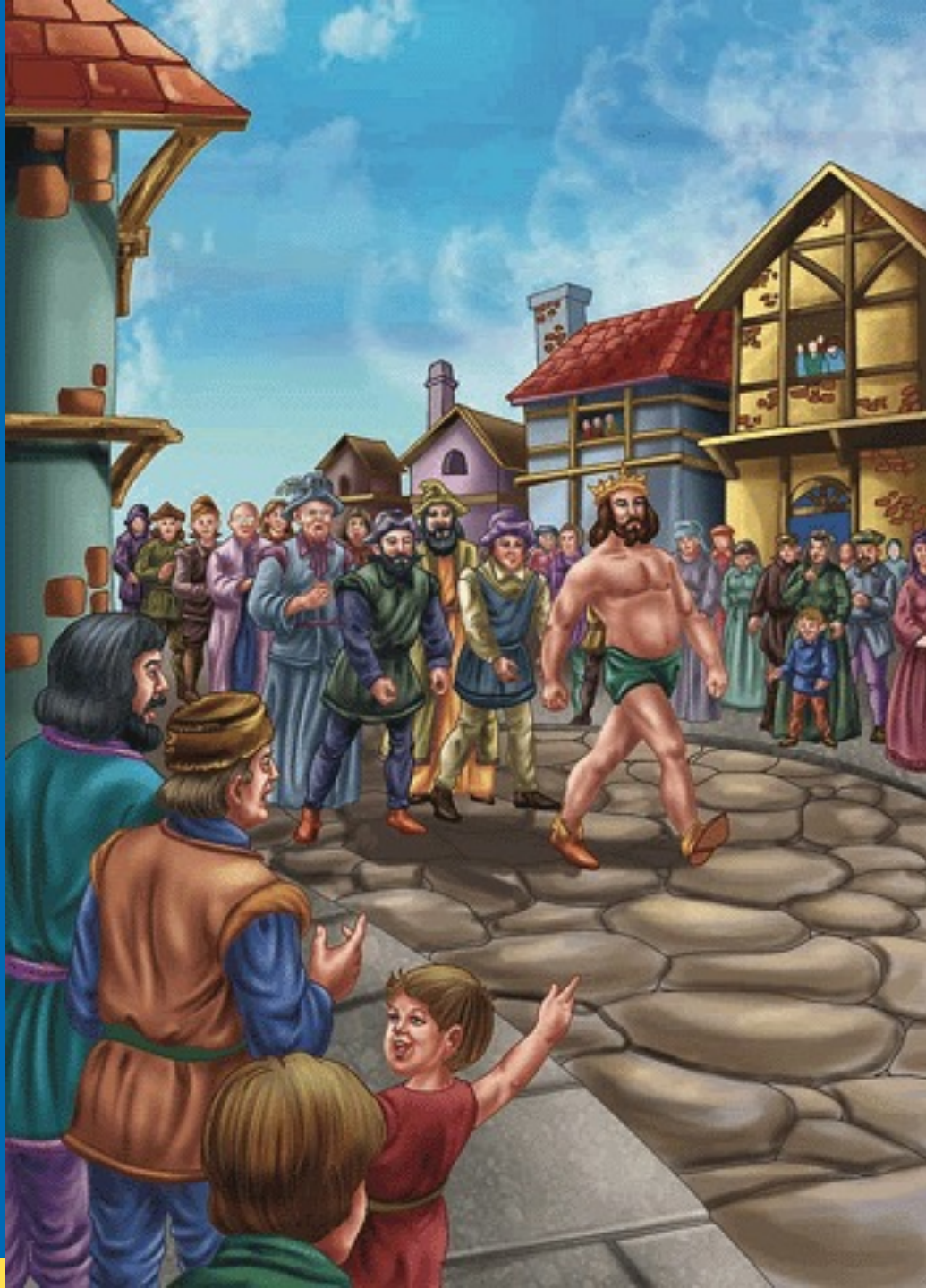


# Stephens Repair: Sacroperineal , 1953



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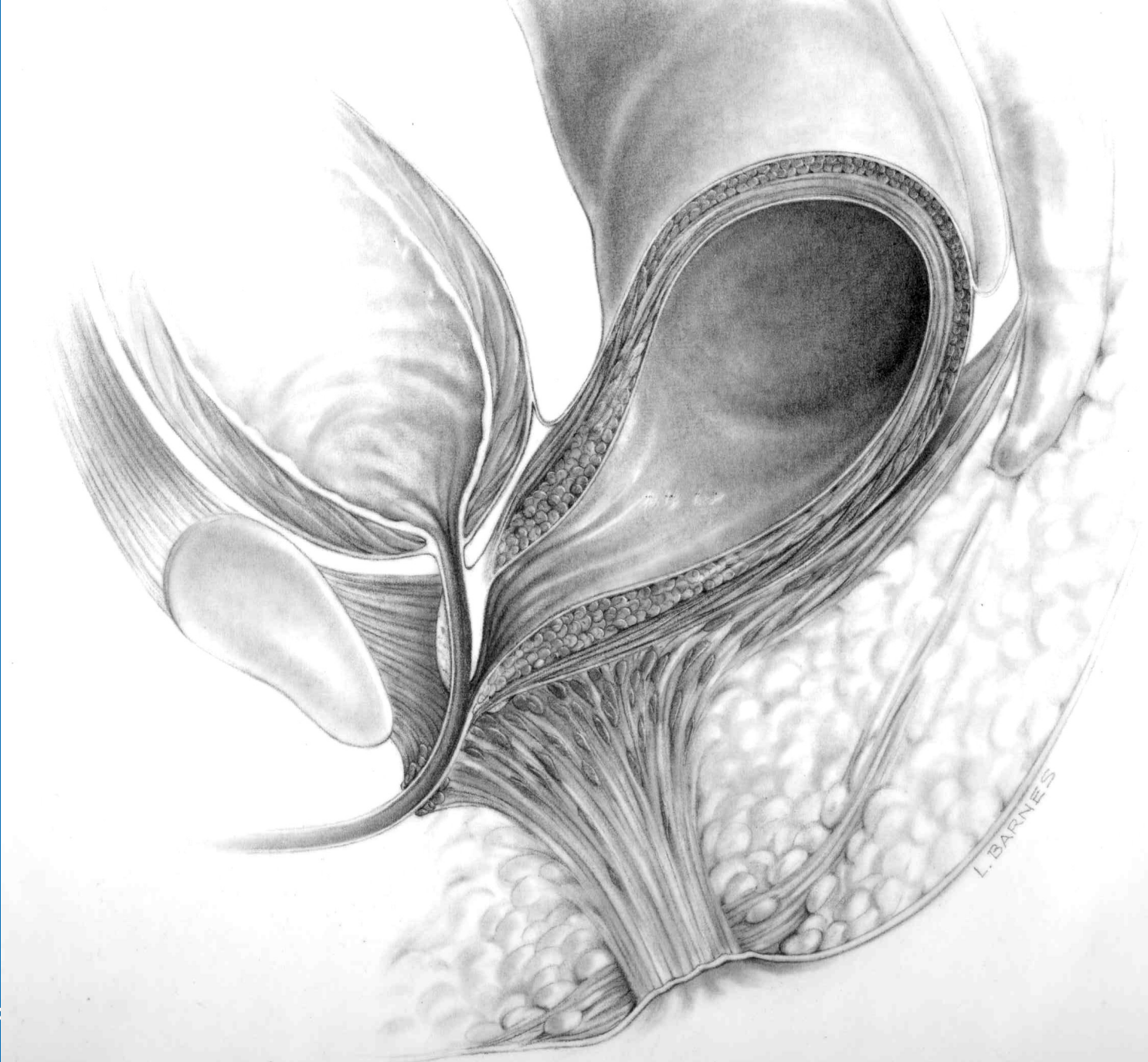
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# National Institute of Pediatrics - INP - Mexico DF



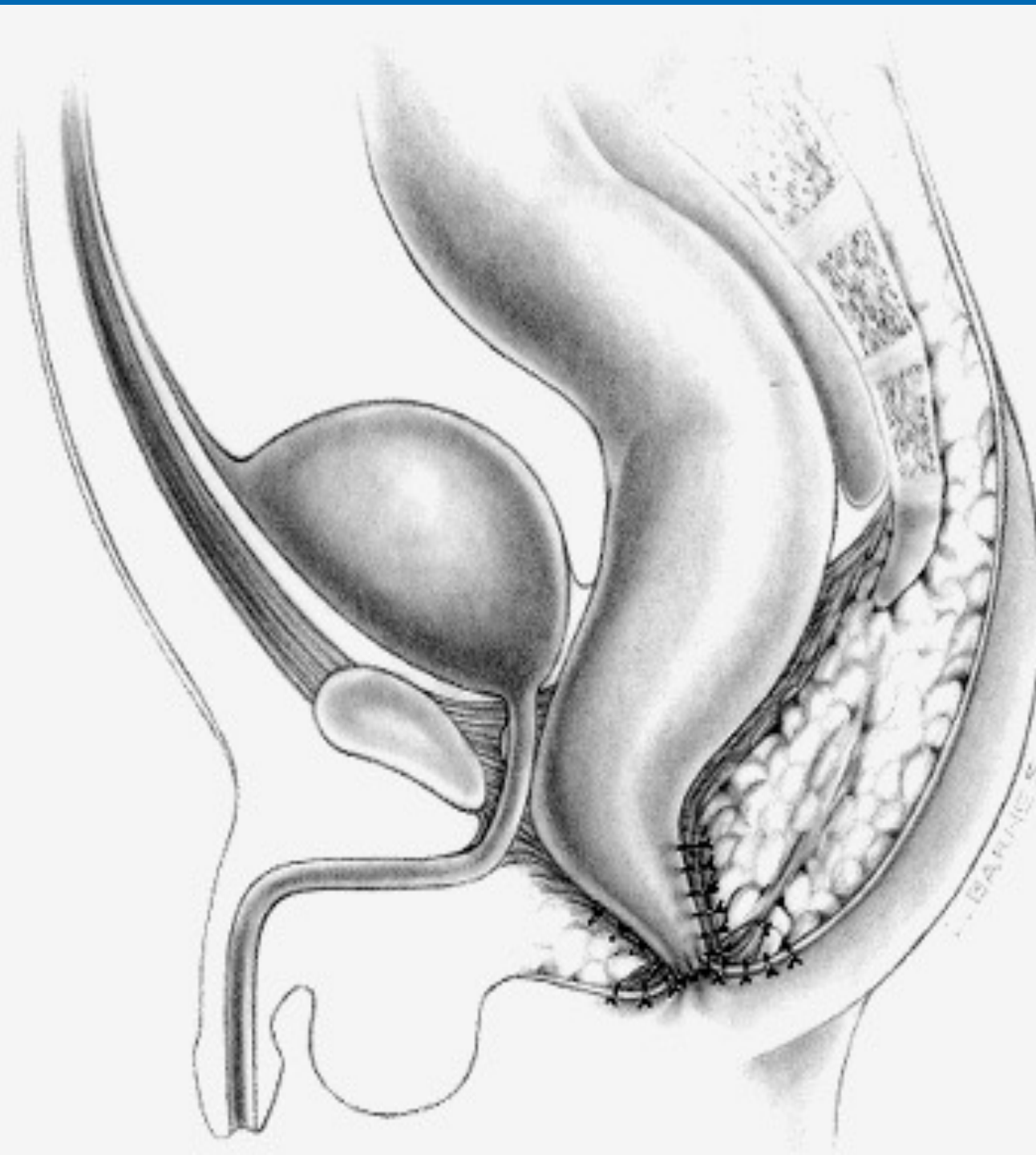
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# First Posterior Sagittal Exploration

August 10<sup>th</sup>, 1980



March 2022 – more than 3500 cases

*...Many lessons learned*



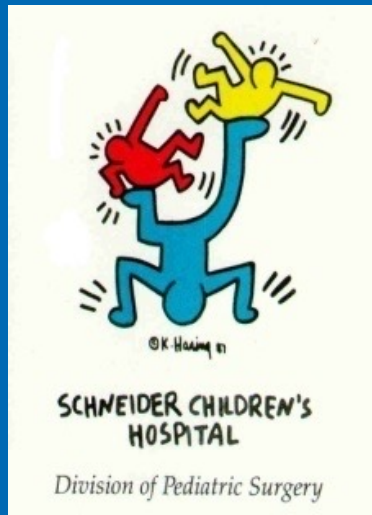
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# Spectrum of Anorectal Malformations



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

## July 1985



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# June 2005



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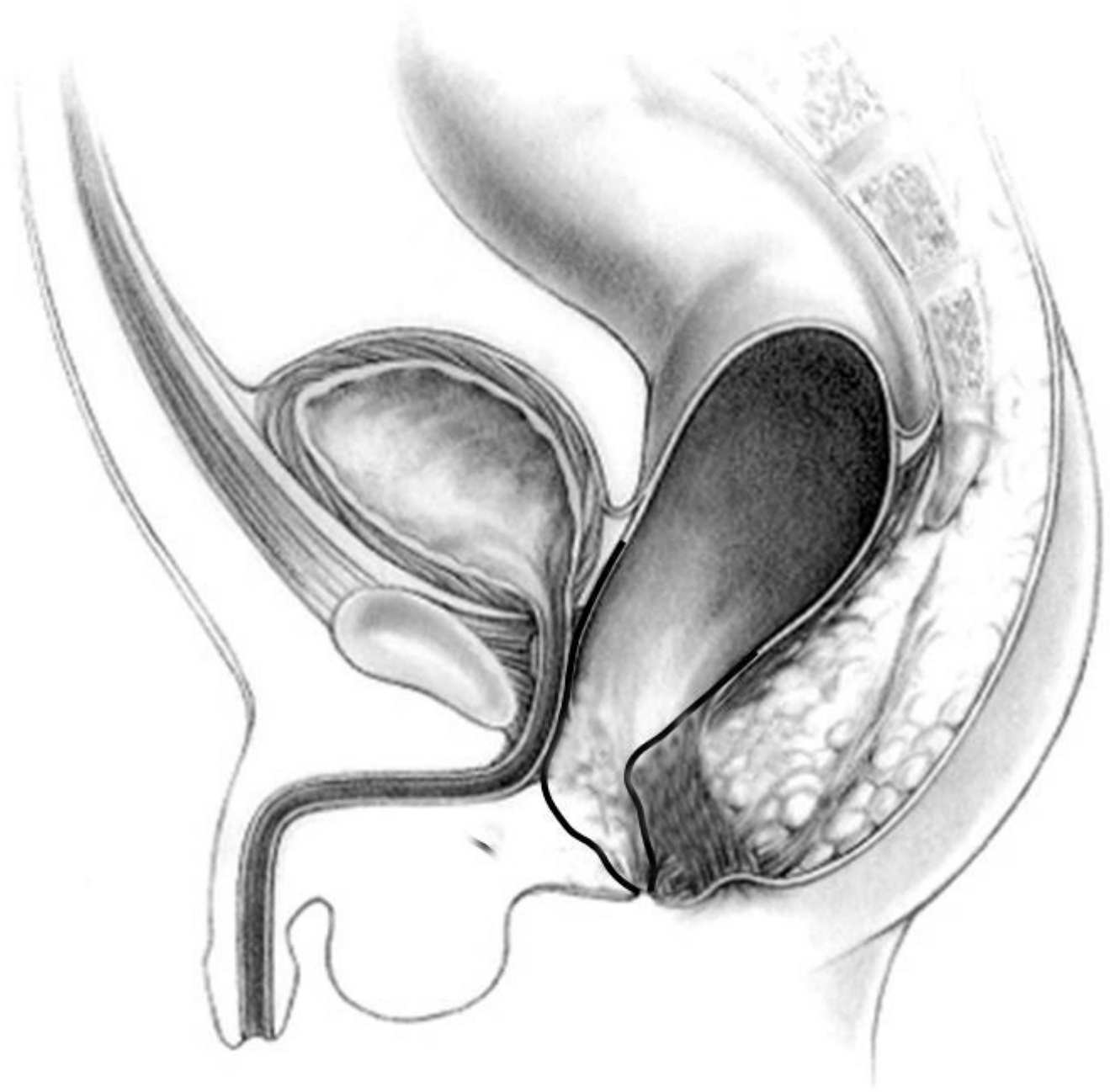
 Cincinnati  
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# February 2016



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# Low defect or Perineal fistula

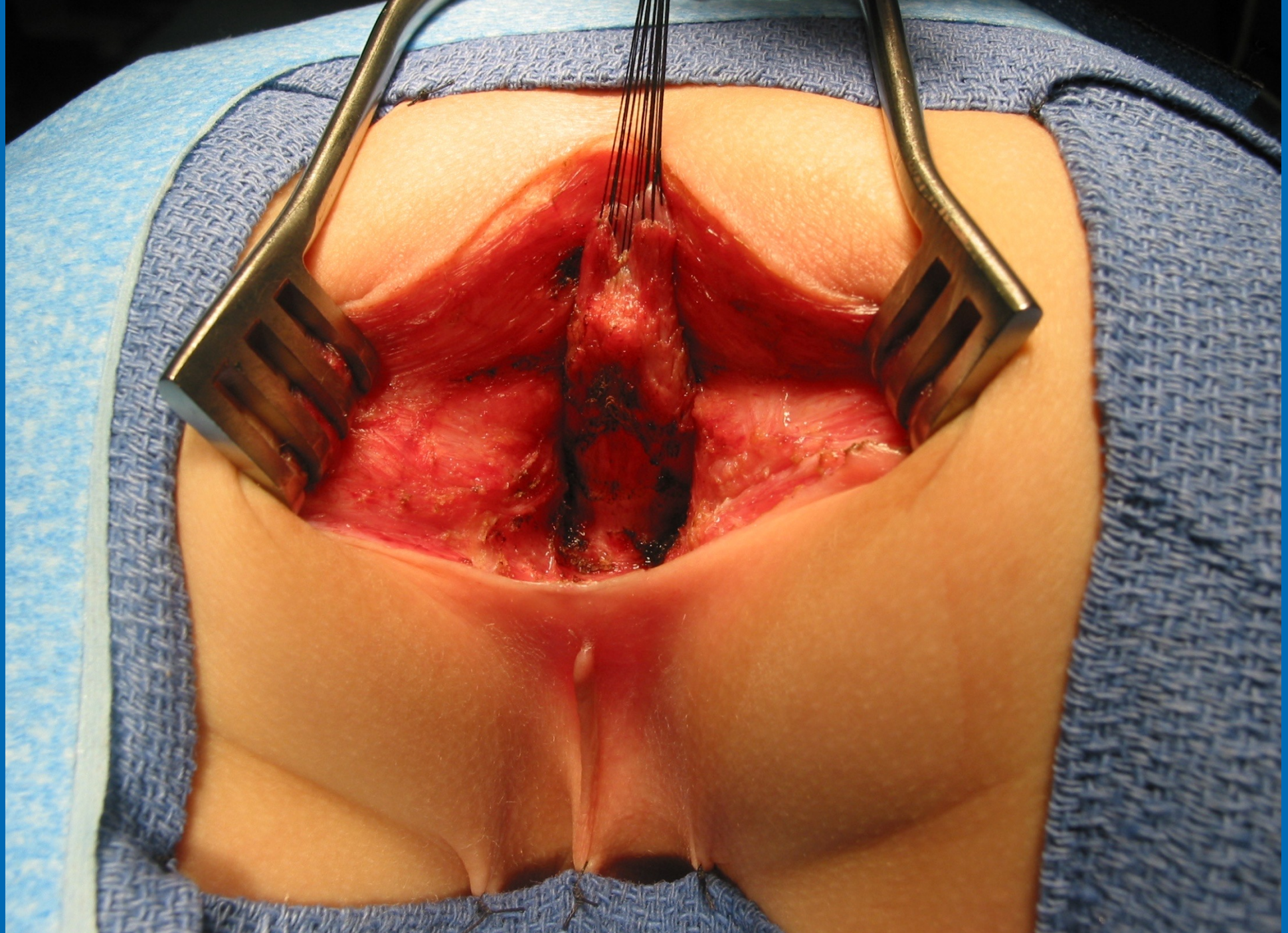


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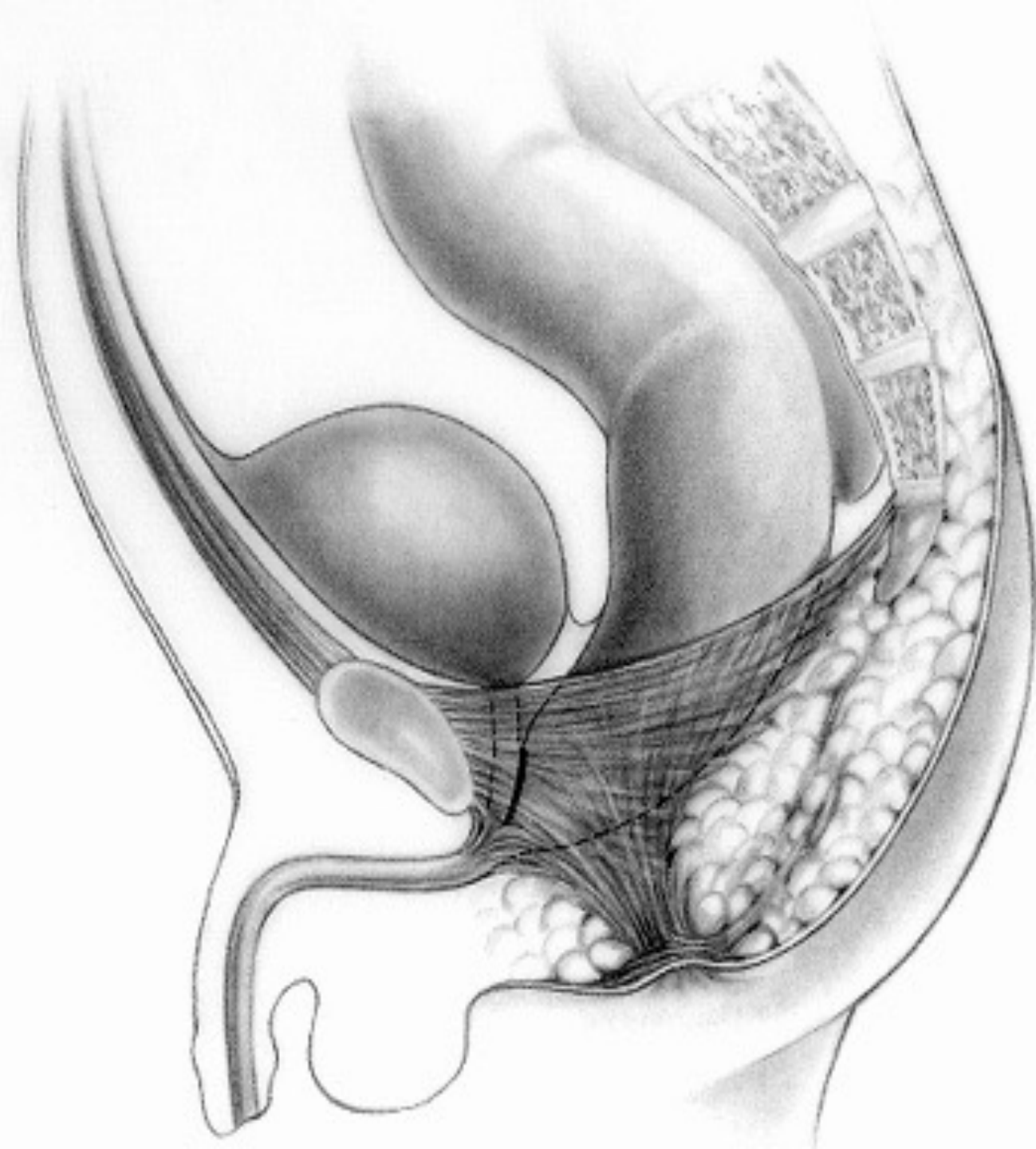


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# Rectourethral bulbar fistula



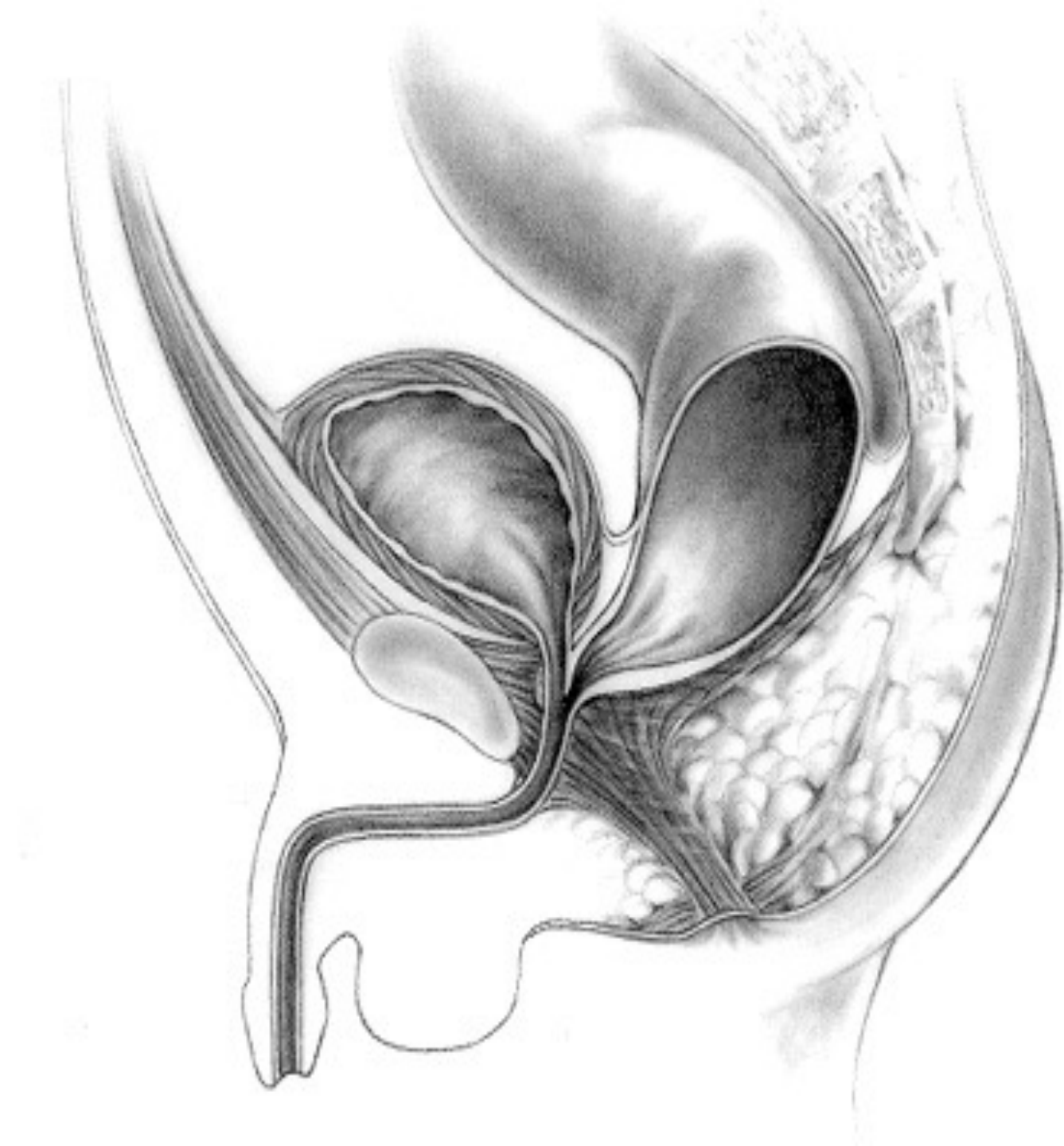
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# Rectourethral prostatic fistula



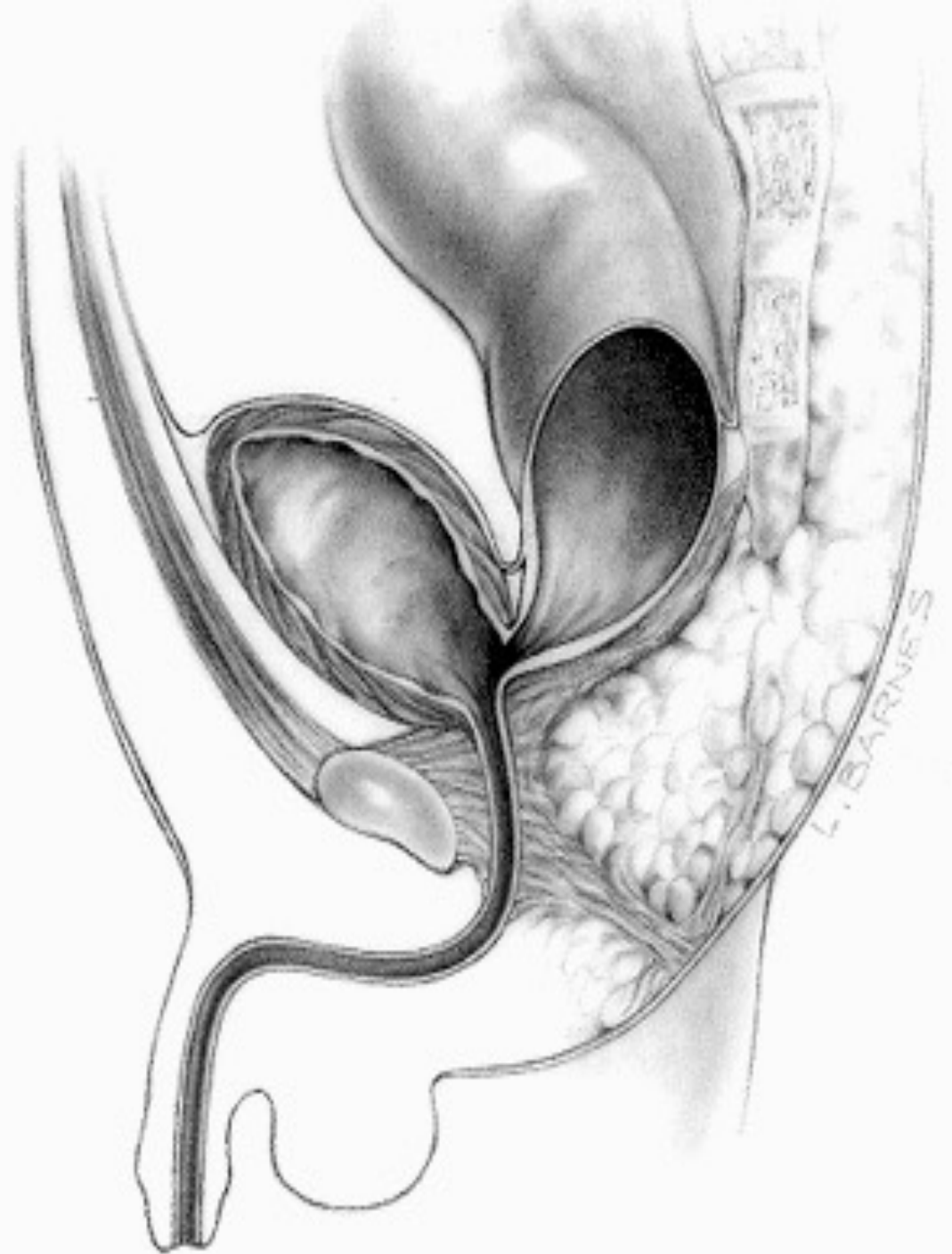
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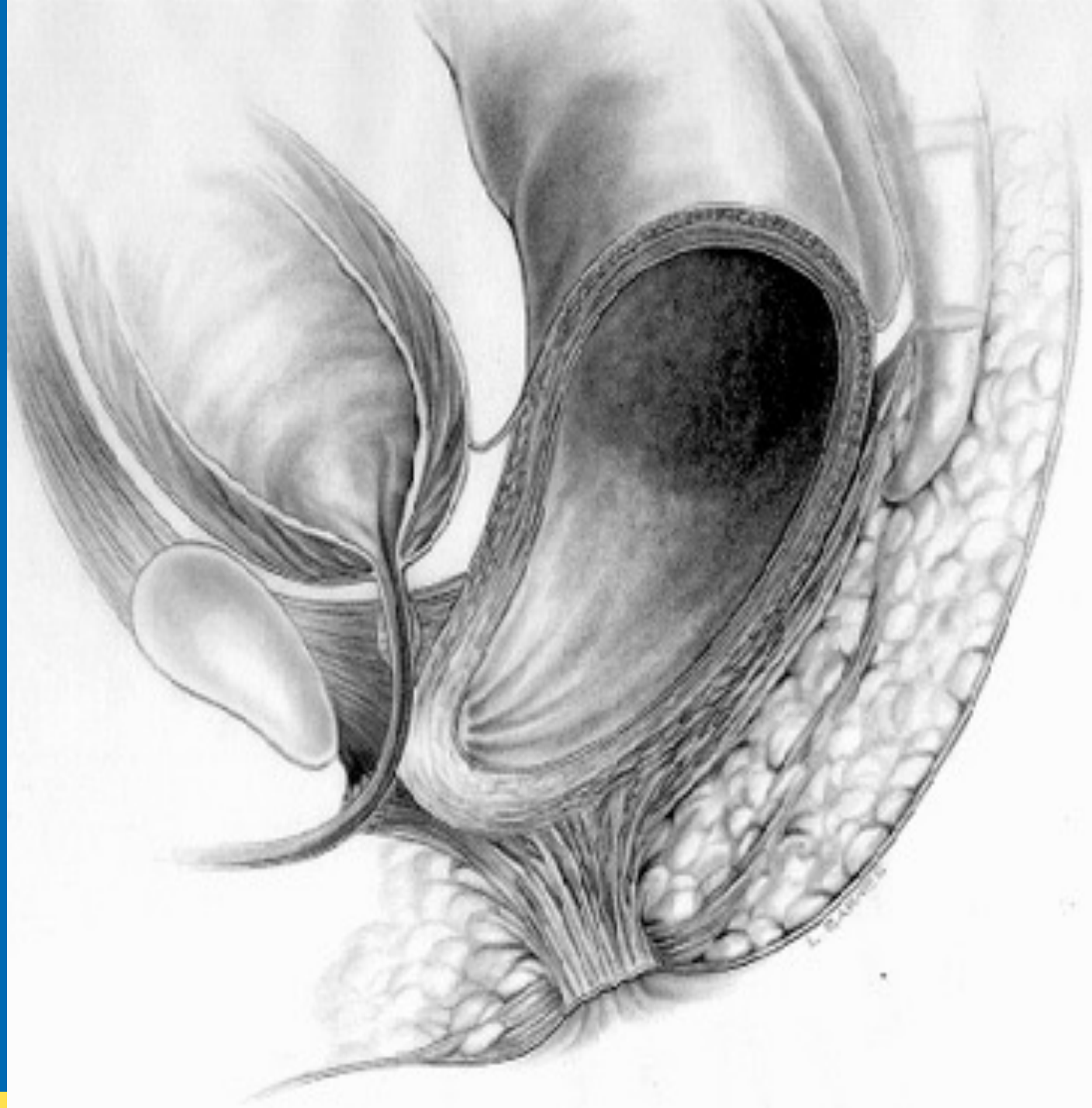
# Rectobladderneck fistula



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# Imperforate anus without fistula



# Males Classification

- Low defect or Perineal fistula
- Rectourethral bulbar fistula
- Rectourethral prostatic fistula
- Rectobladderneck fistula
- Imperforate anus without fistula

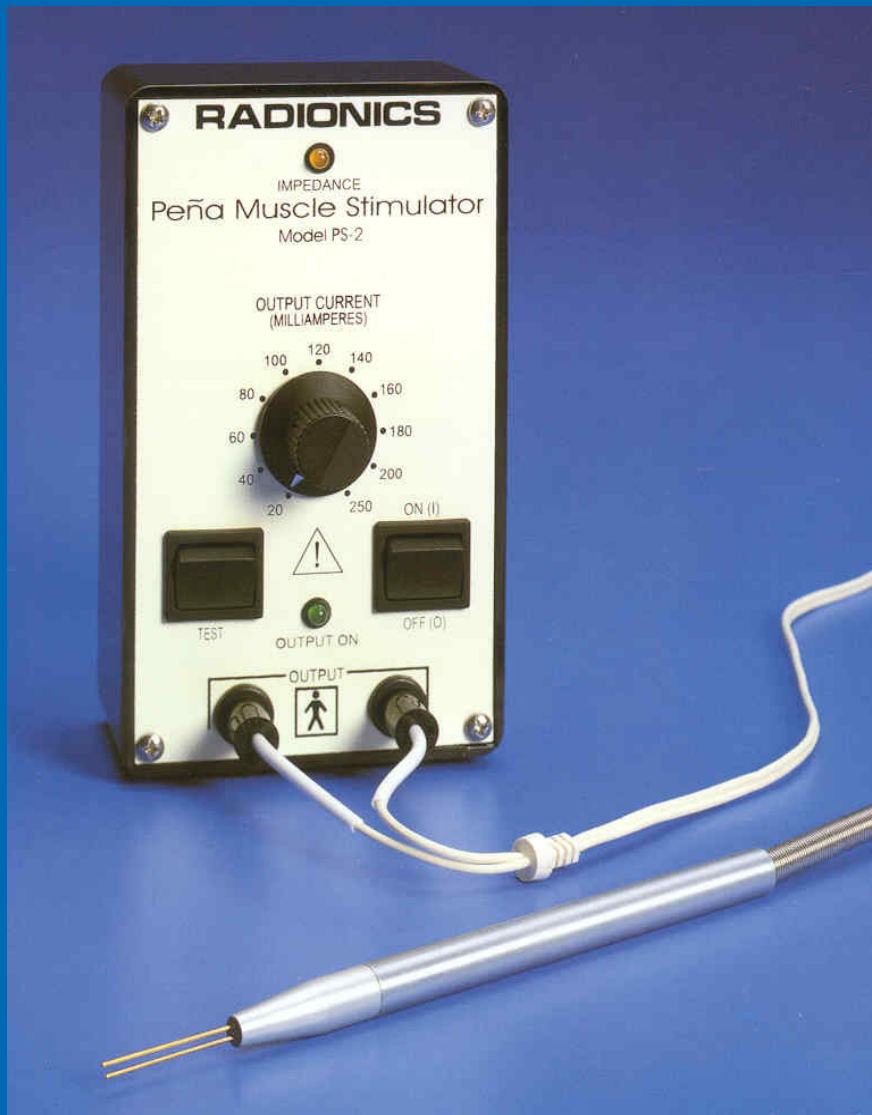




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# Bulbar Urethral Fistula

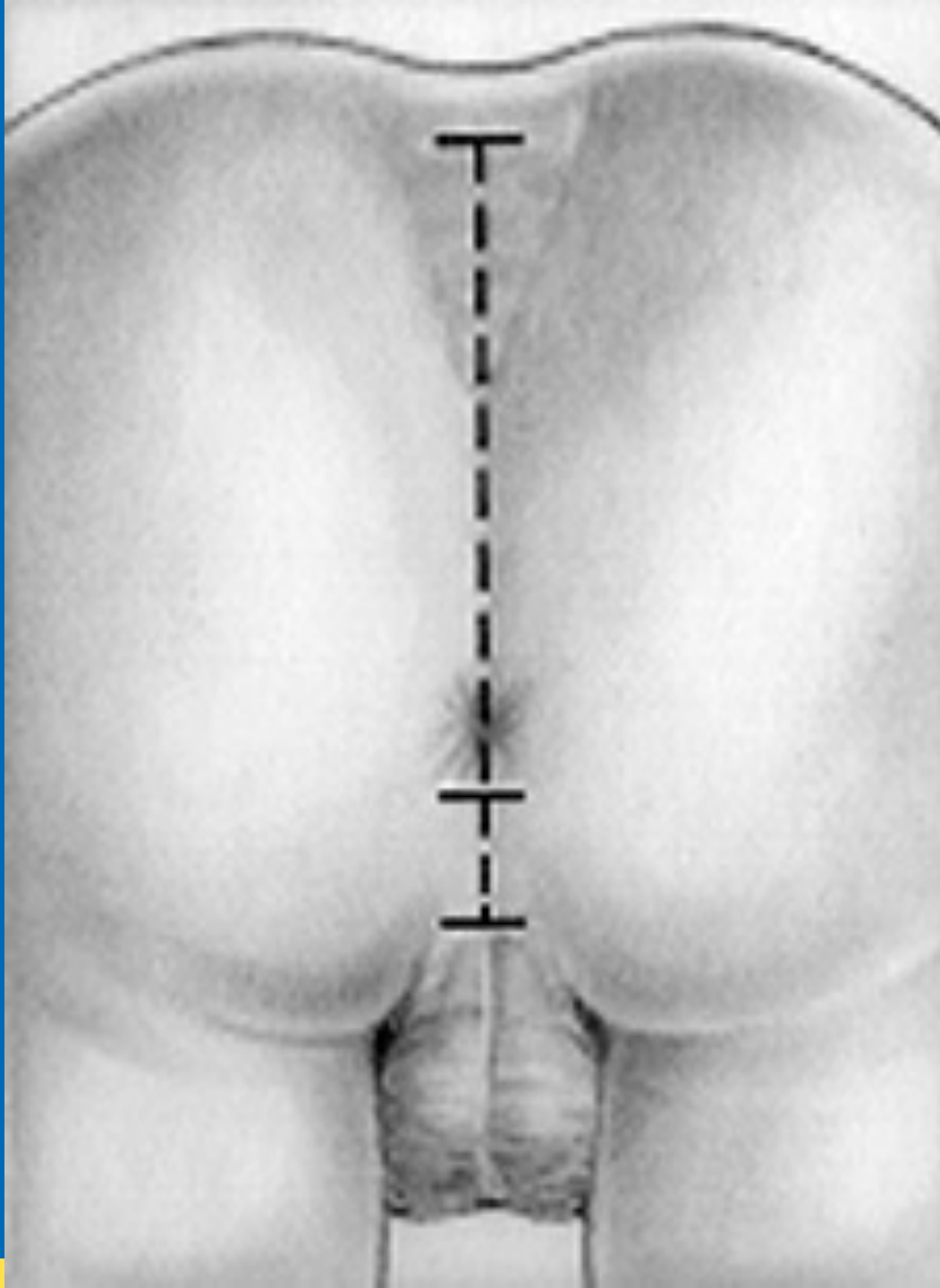


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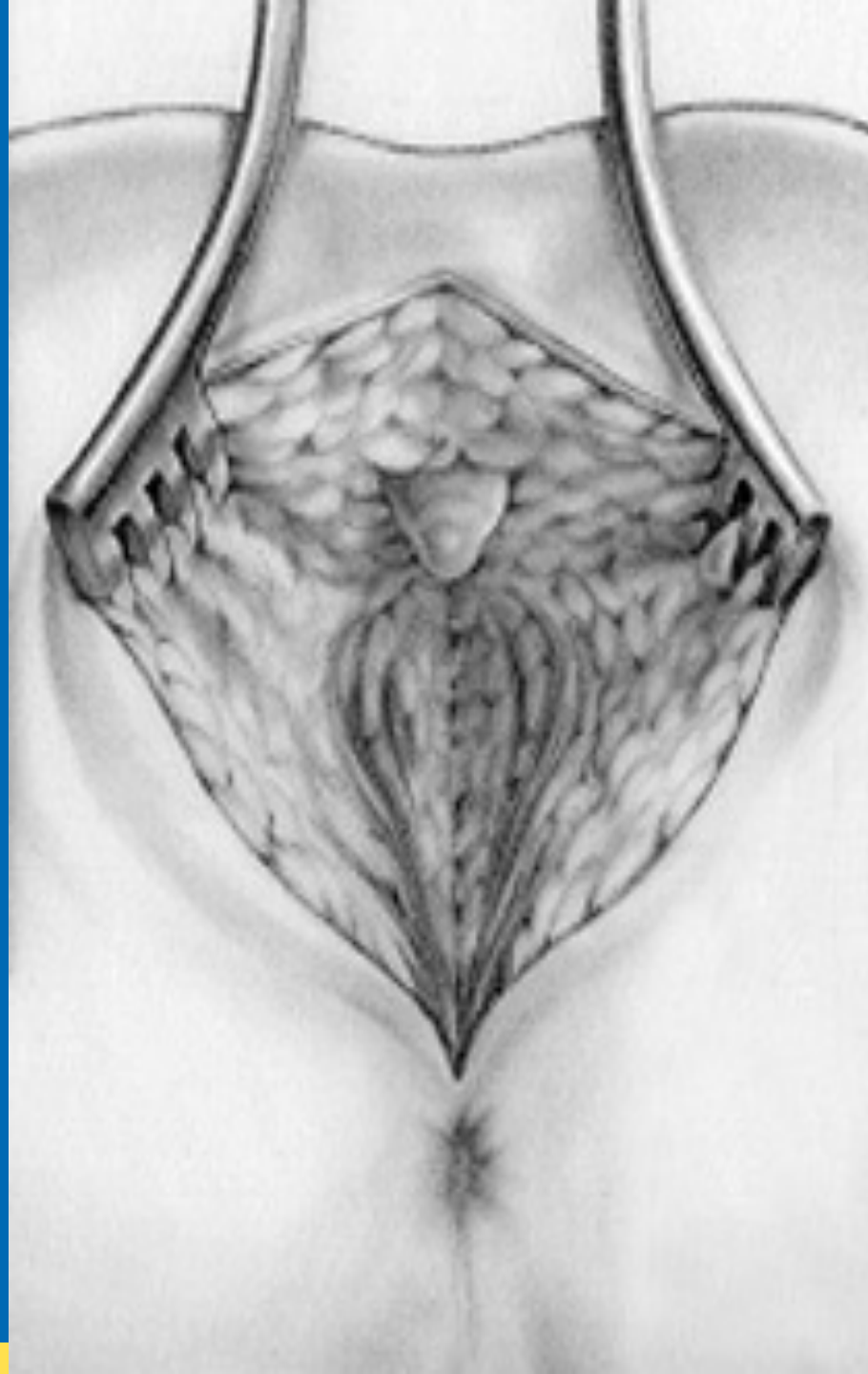


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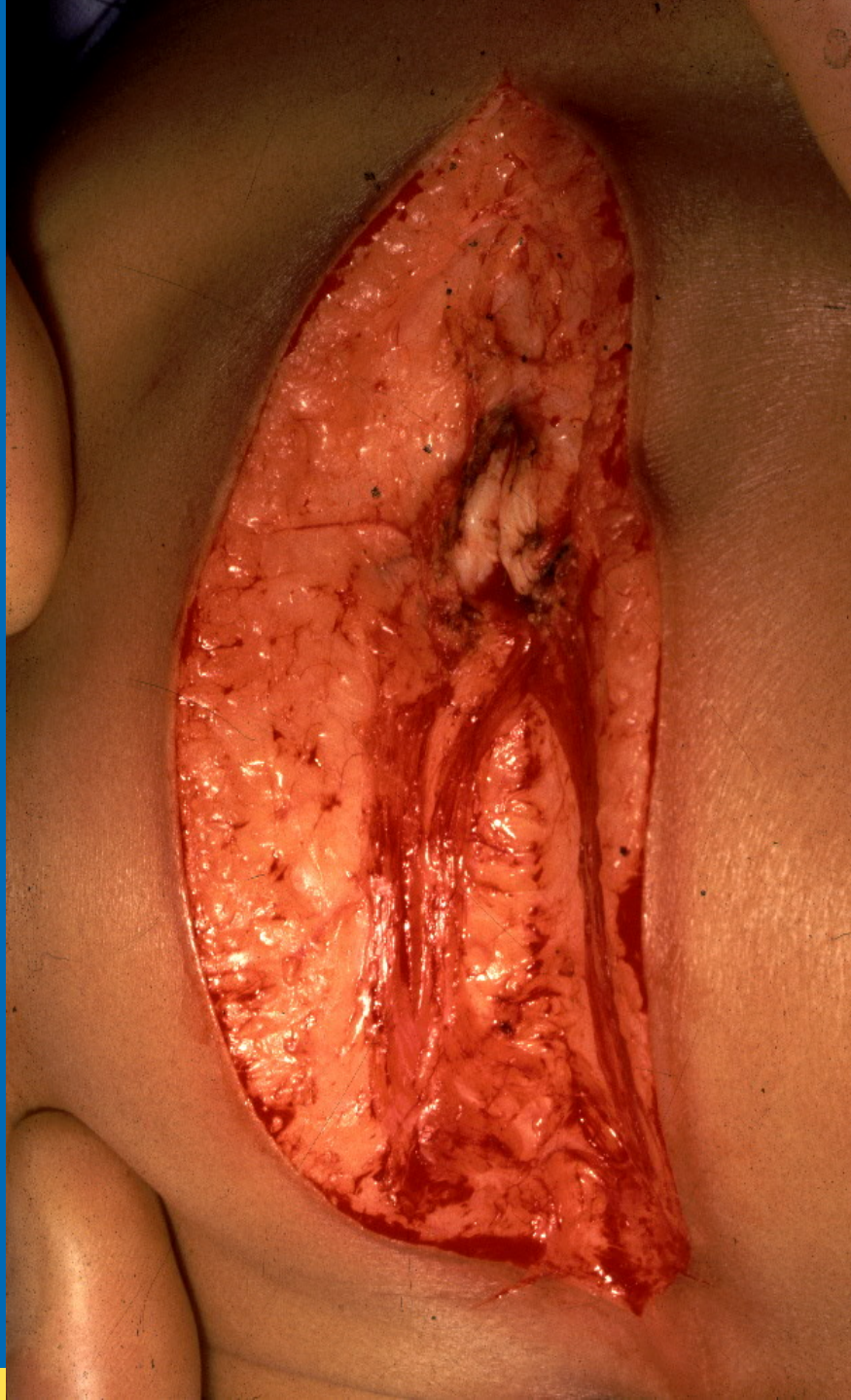
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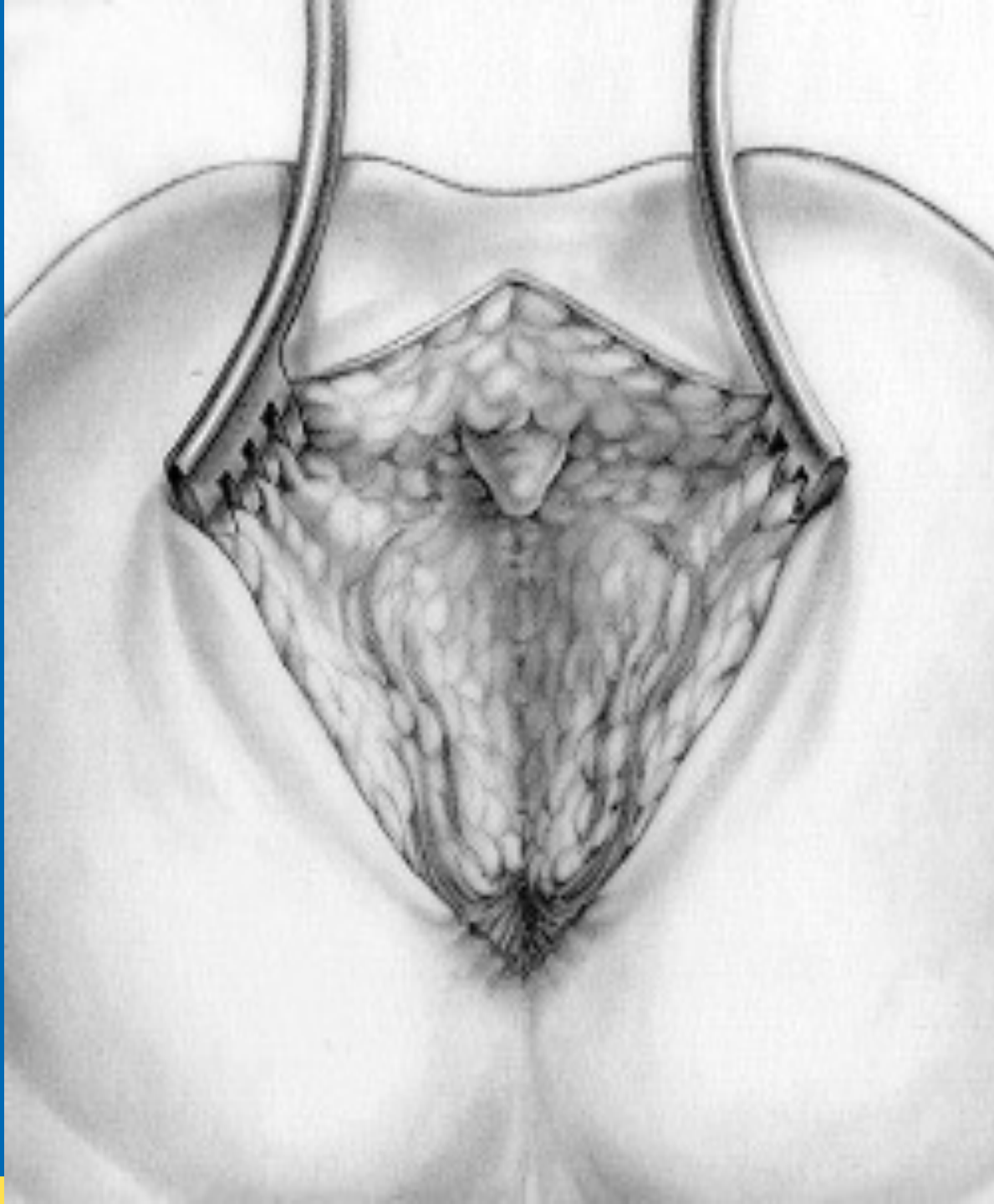
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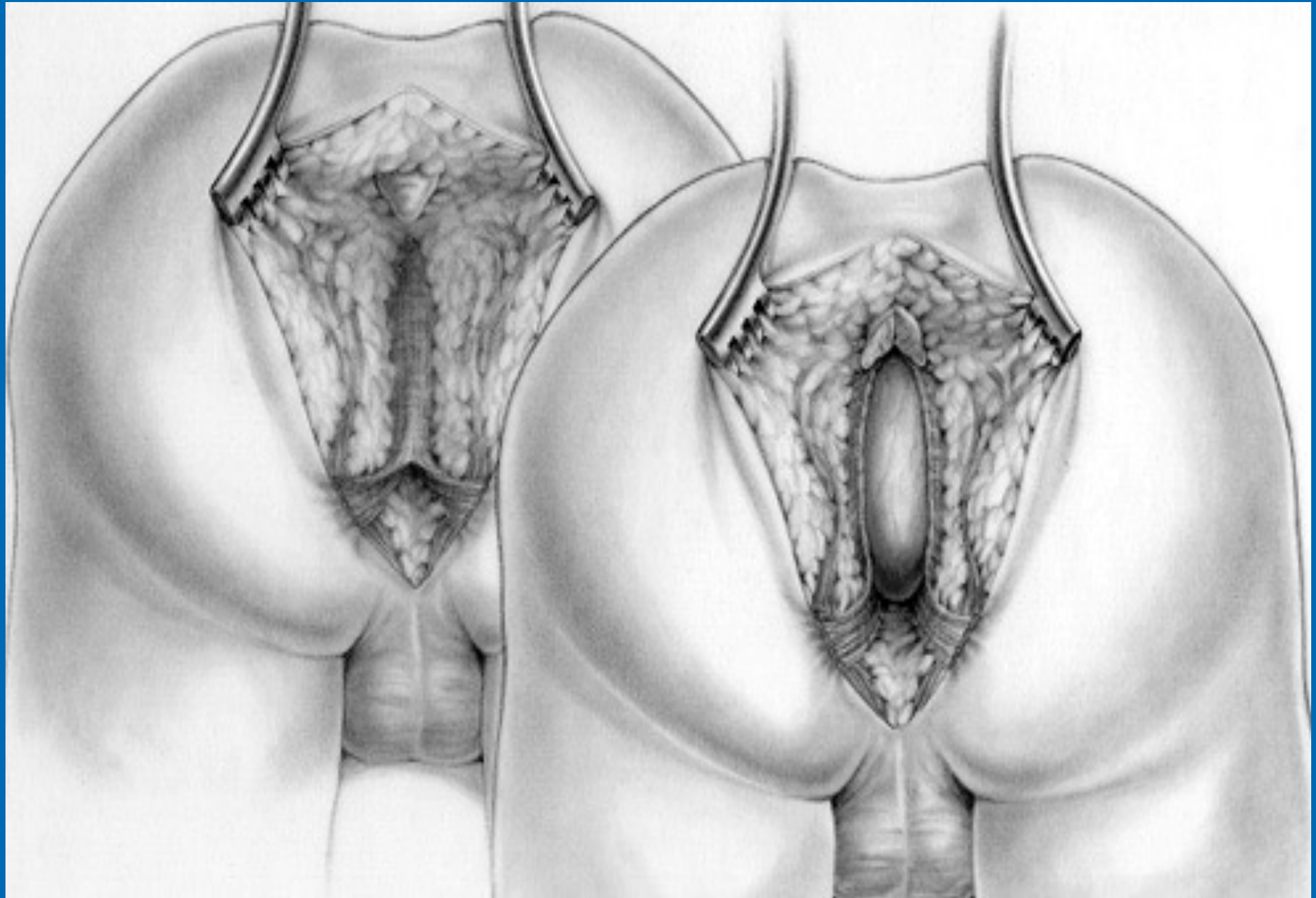
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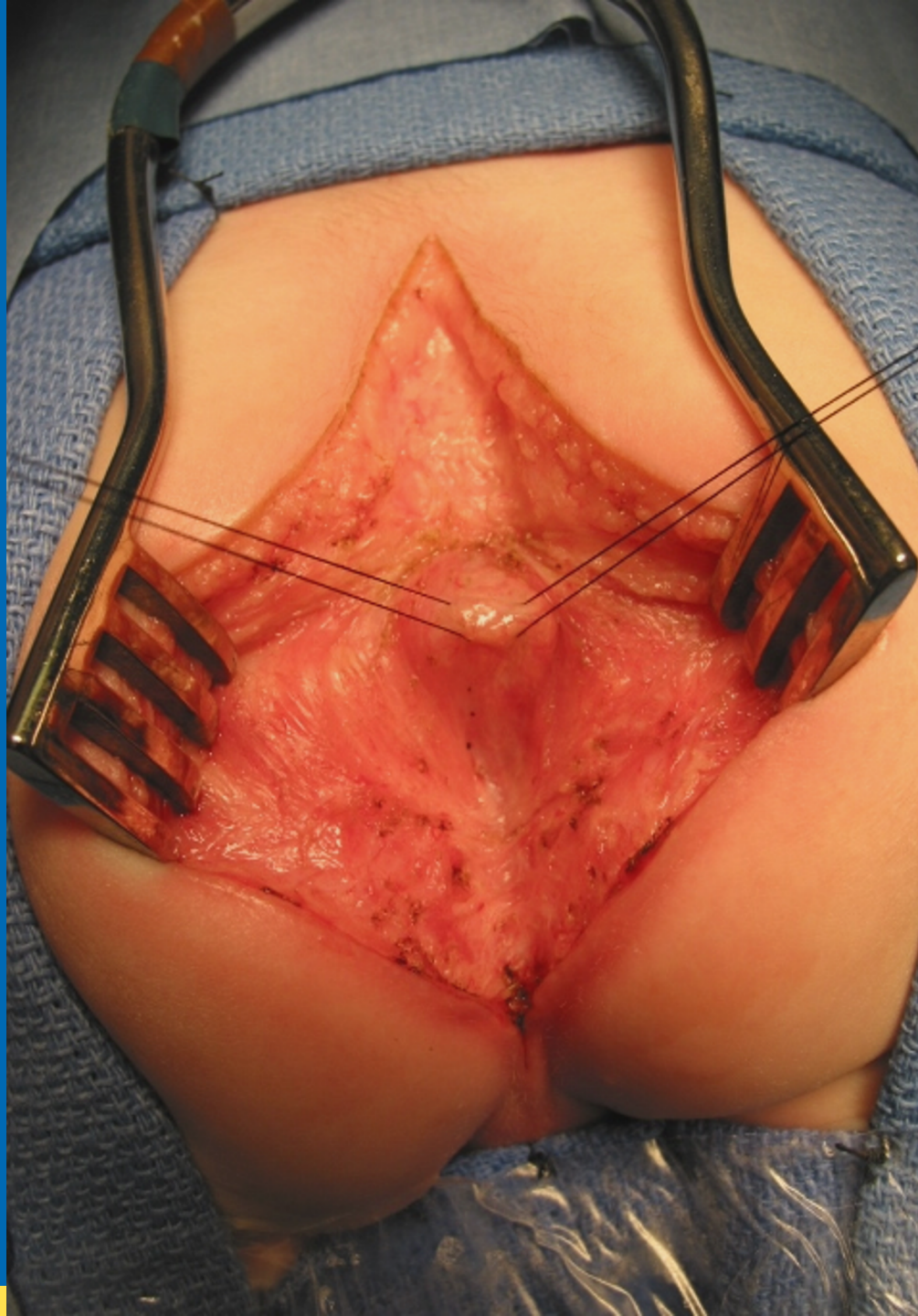
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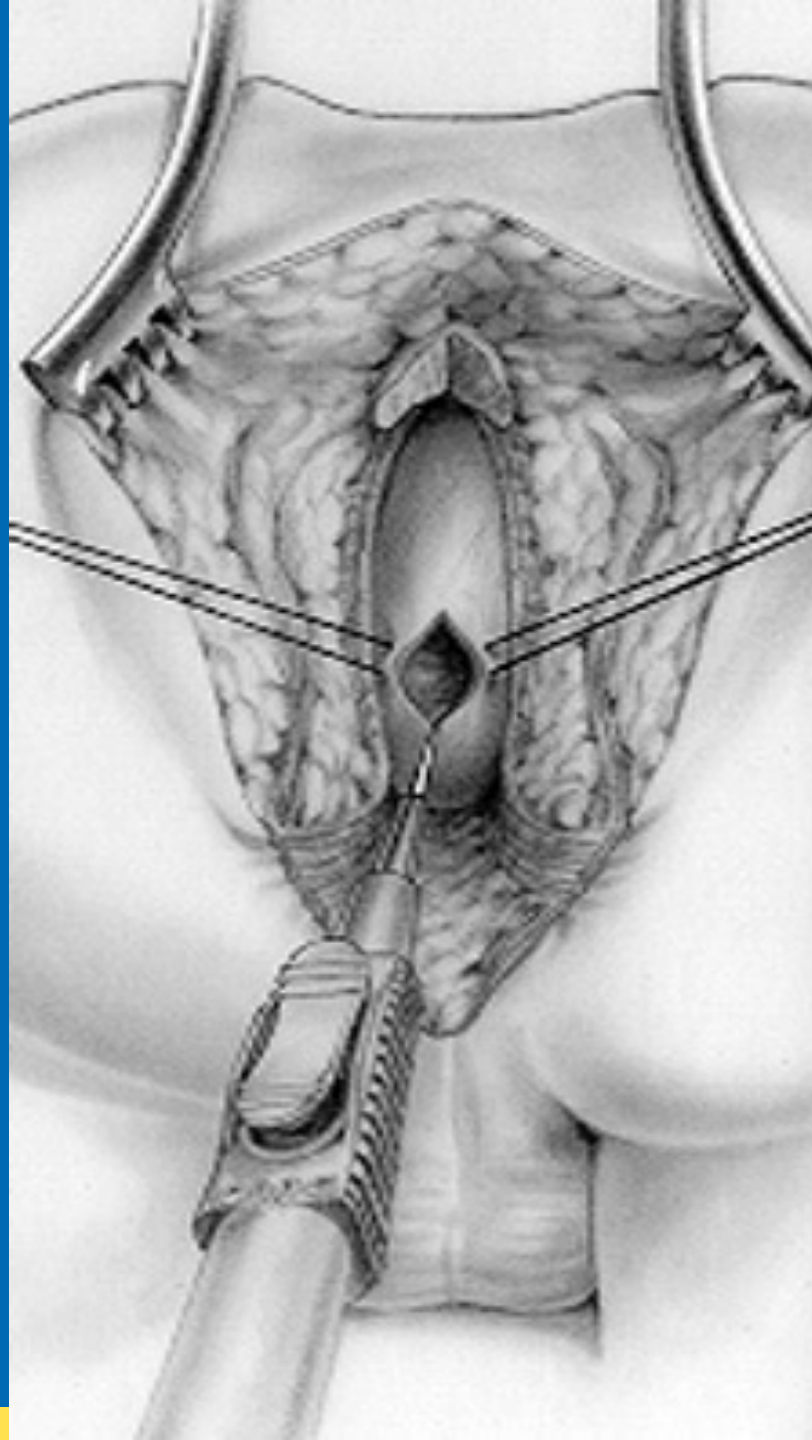


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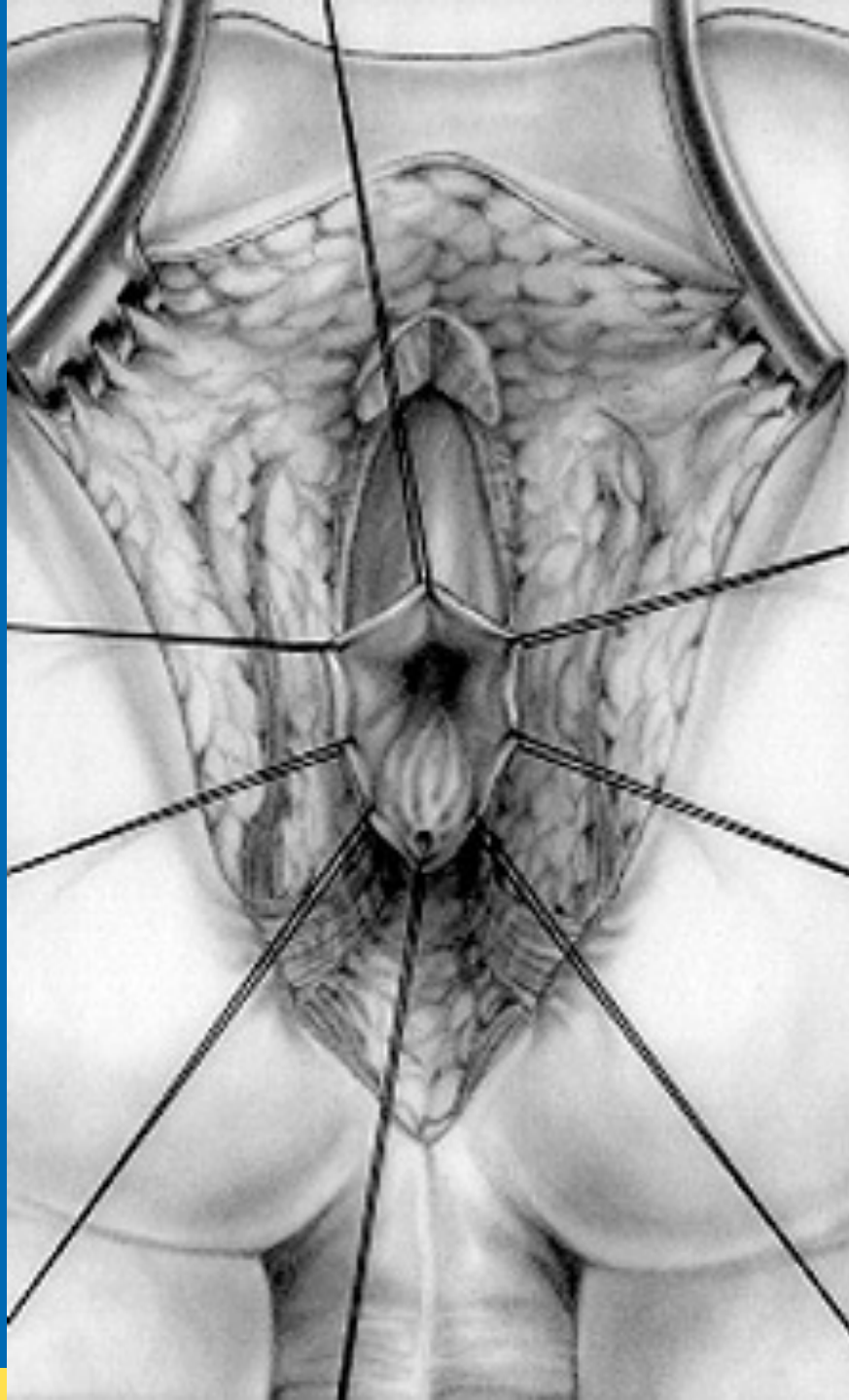
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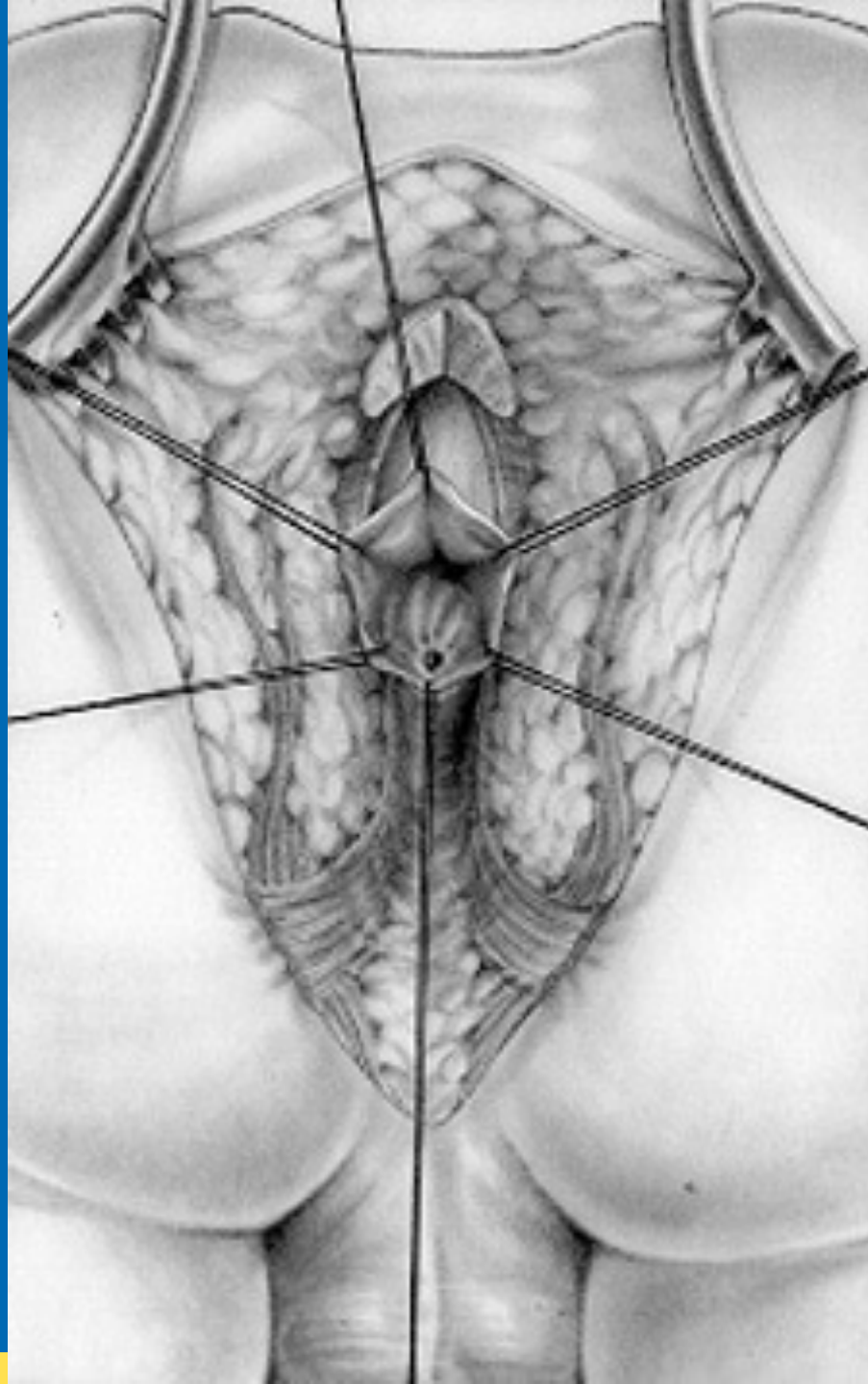


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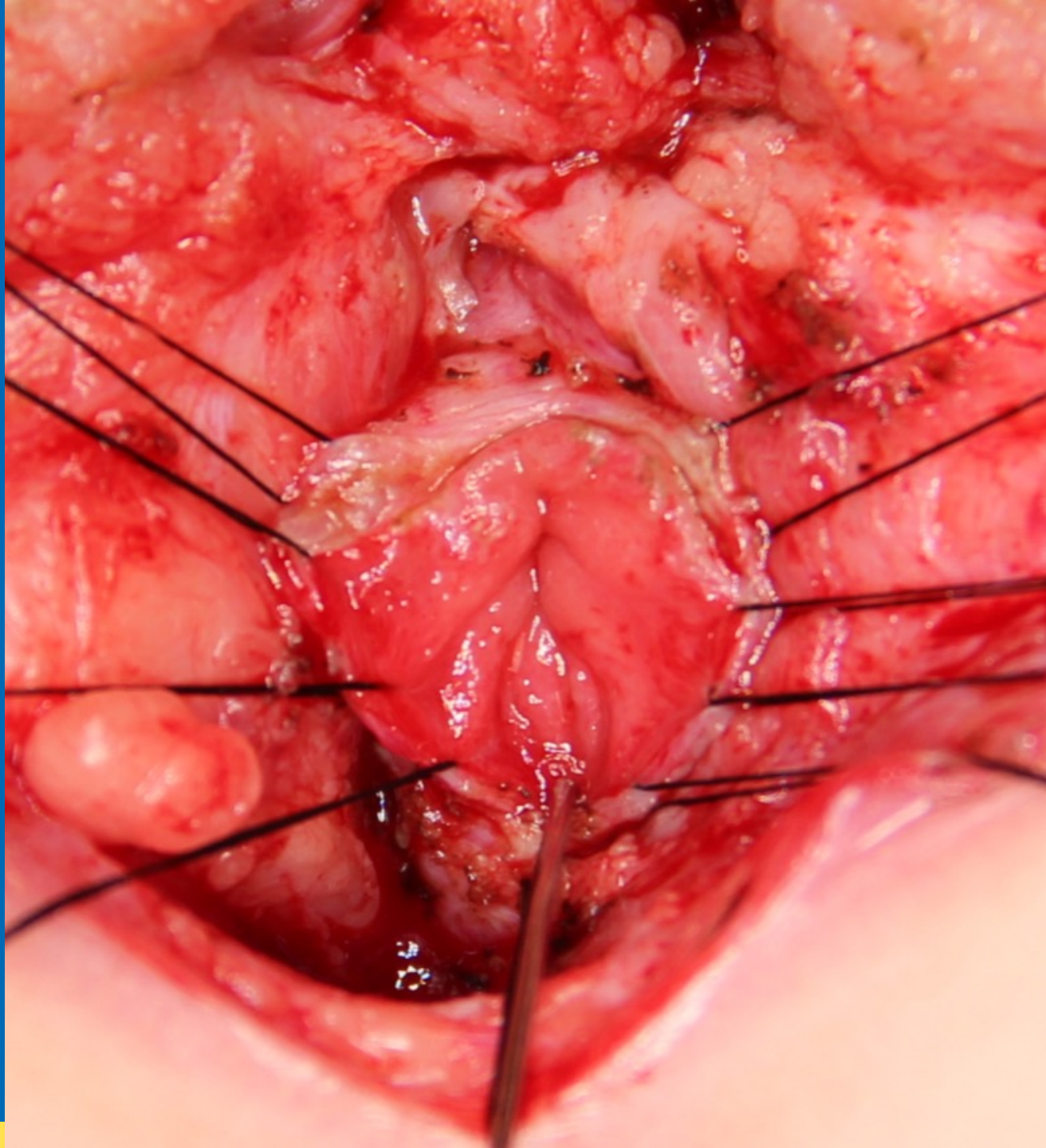
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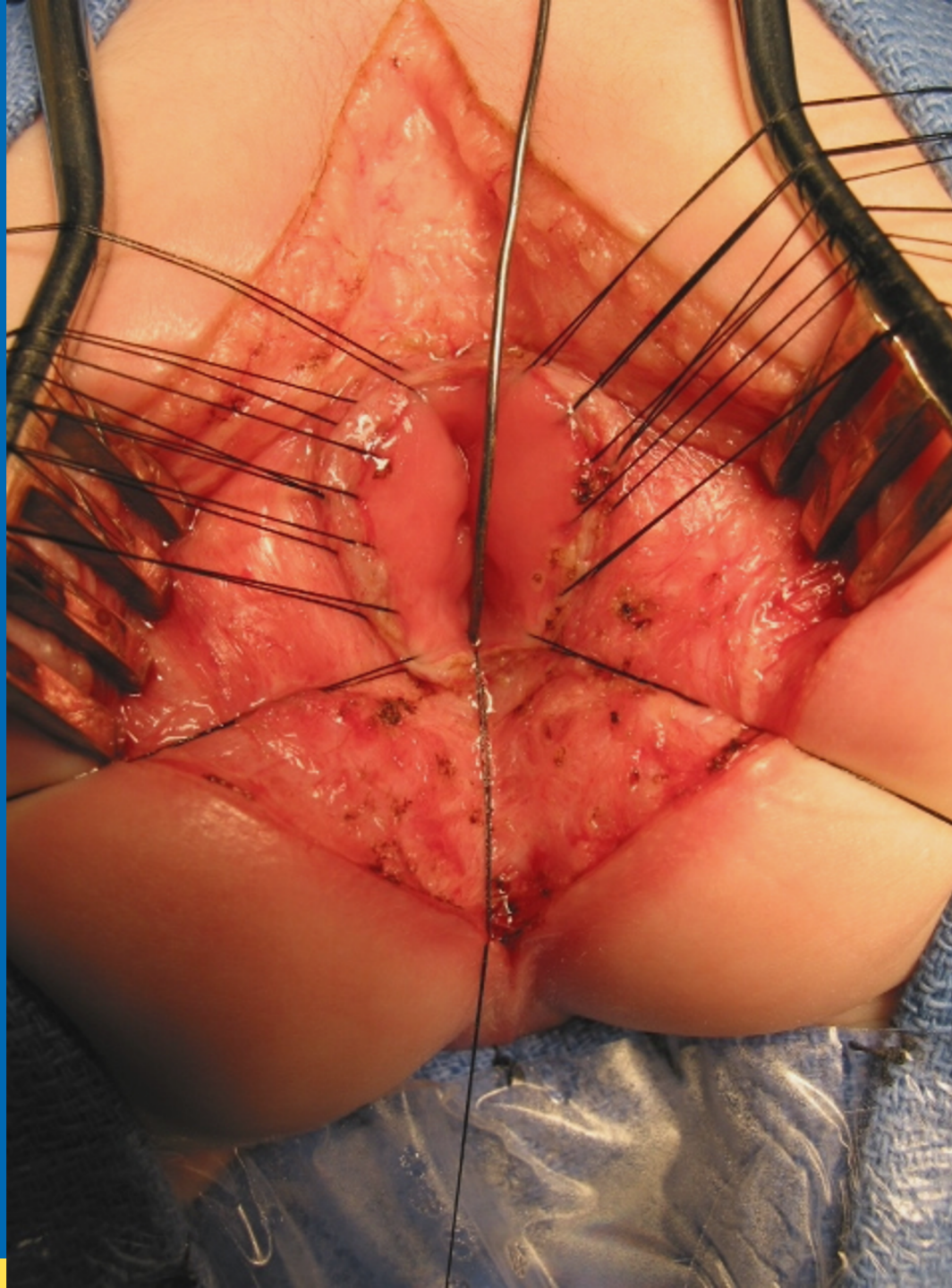
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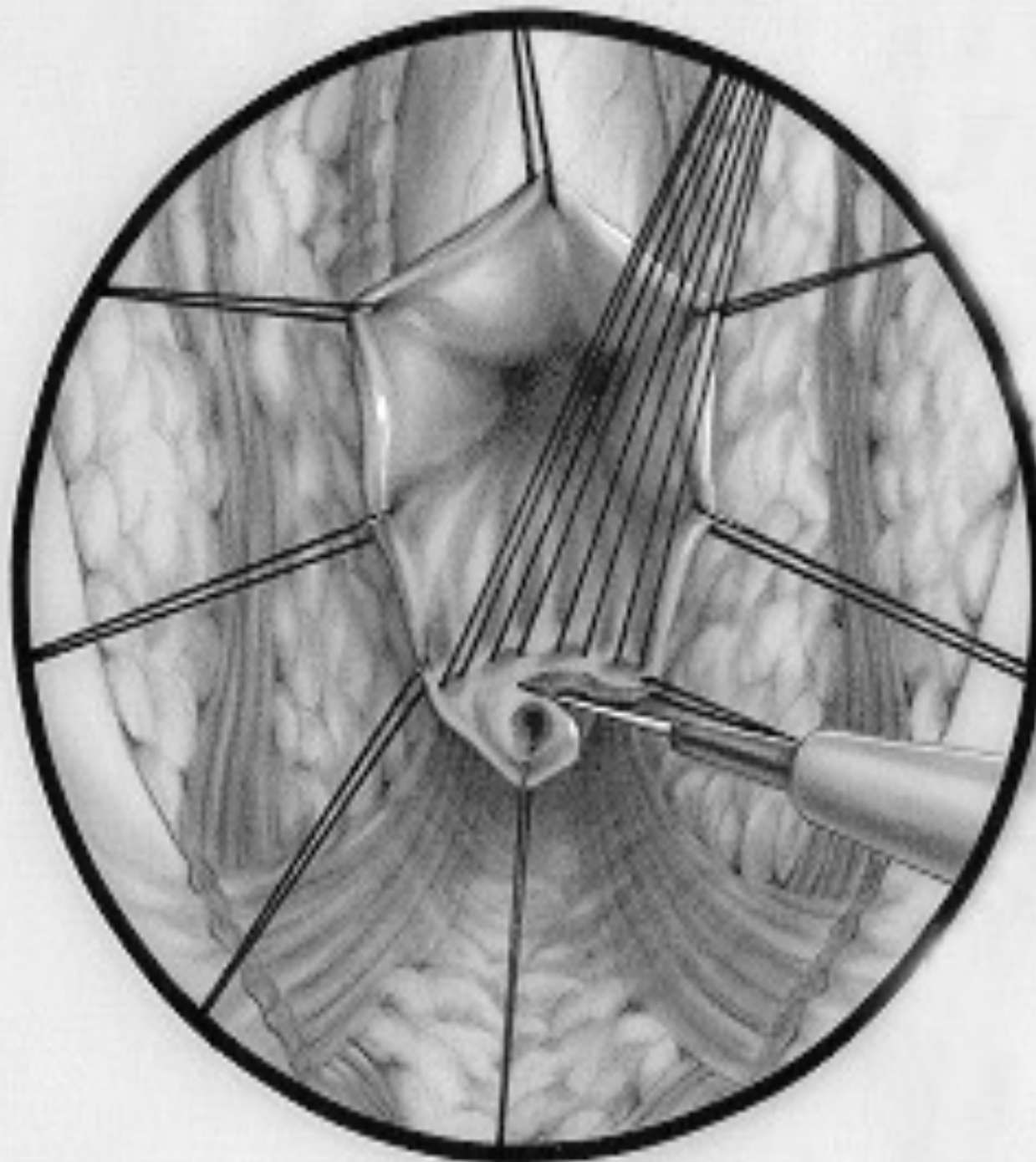
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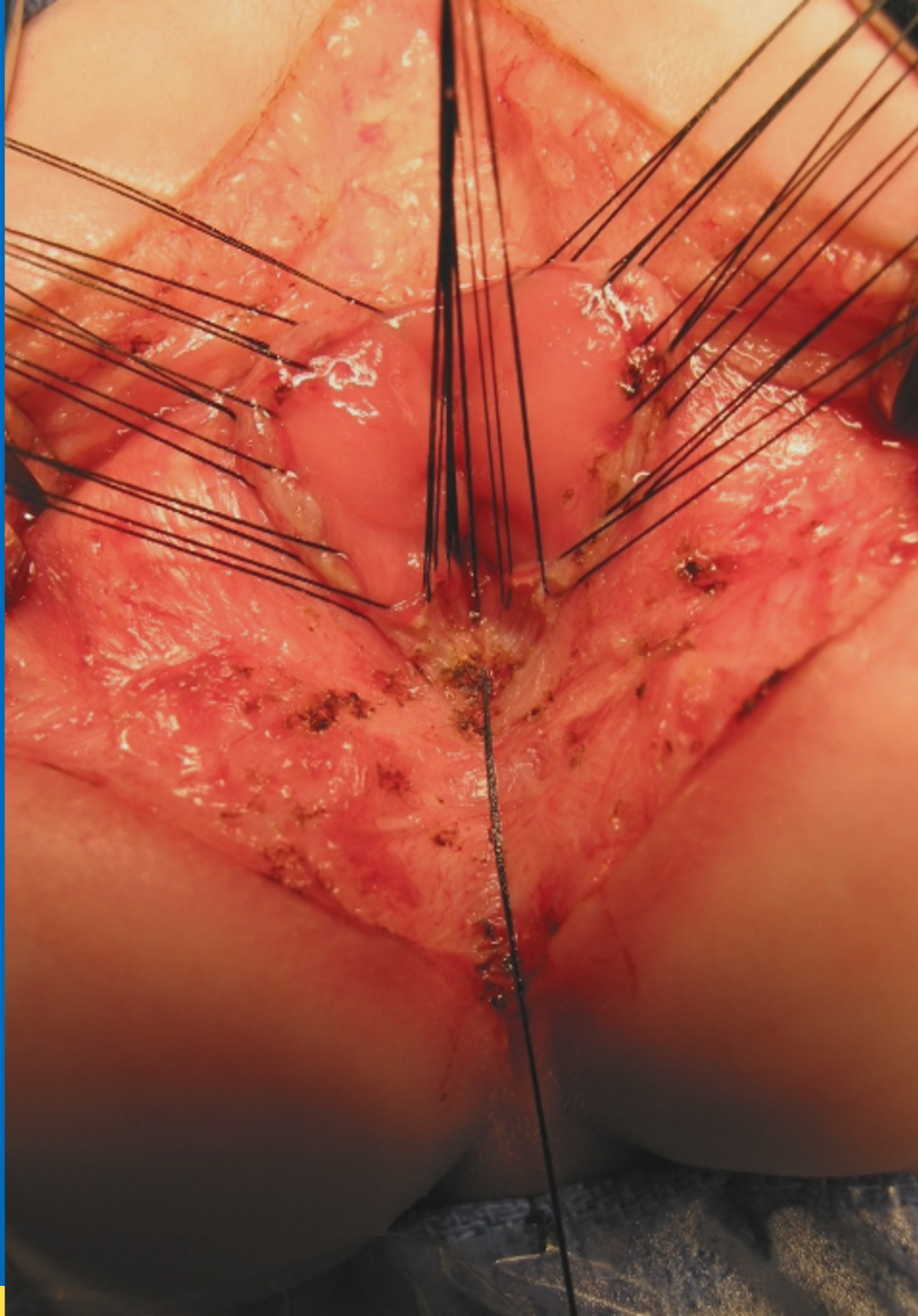
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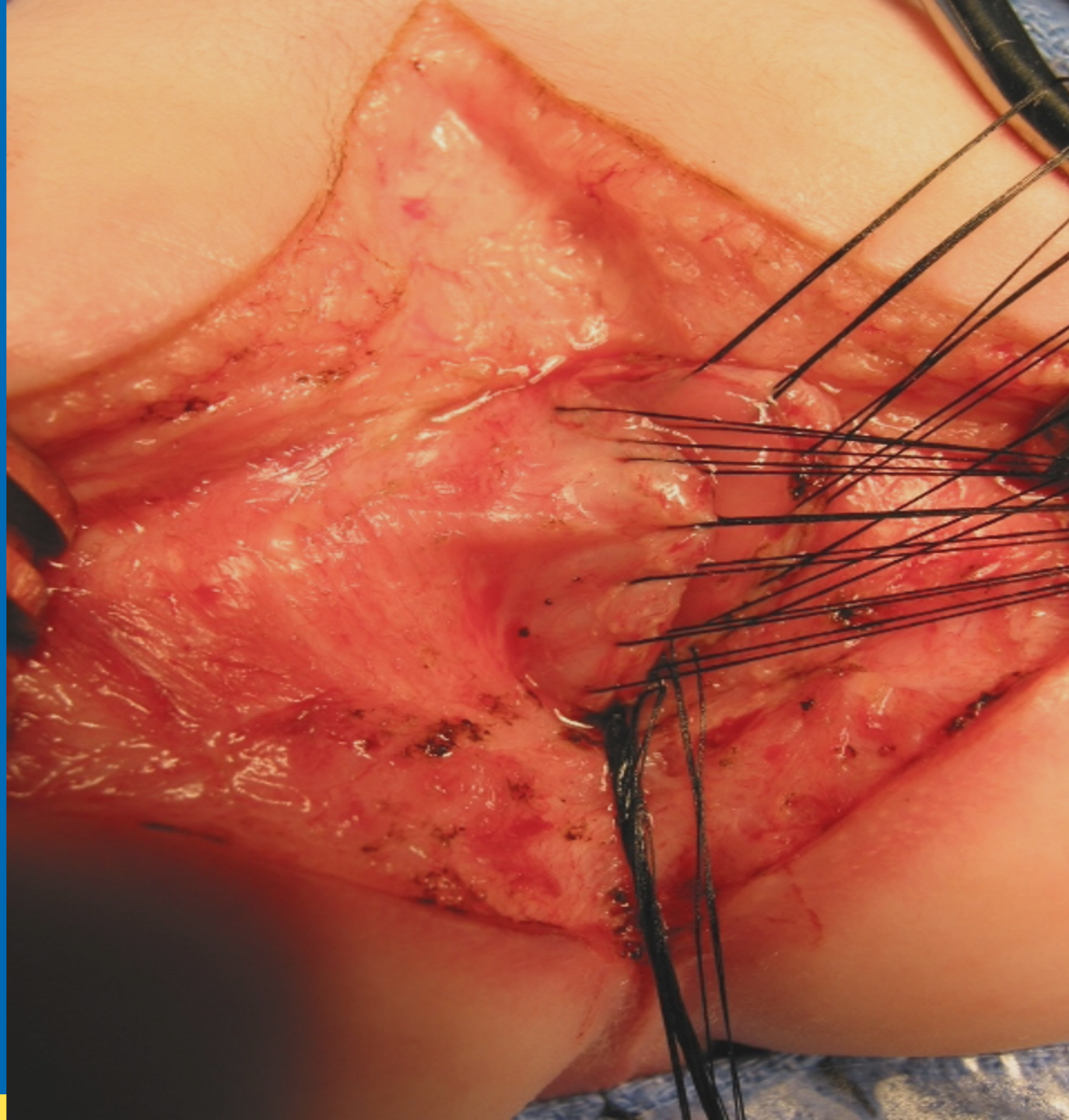
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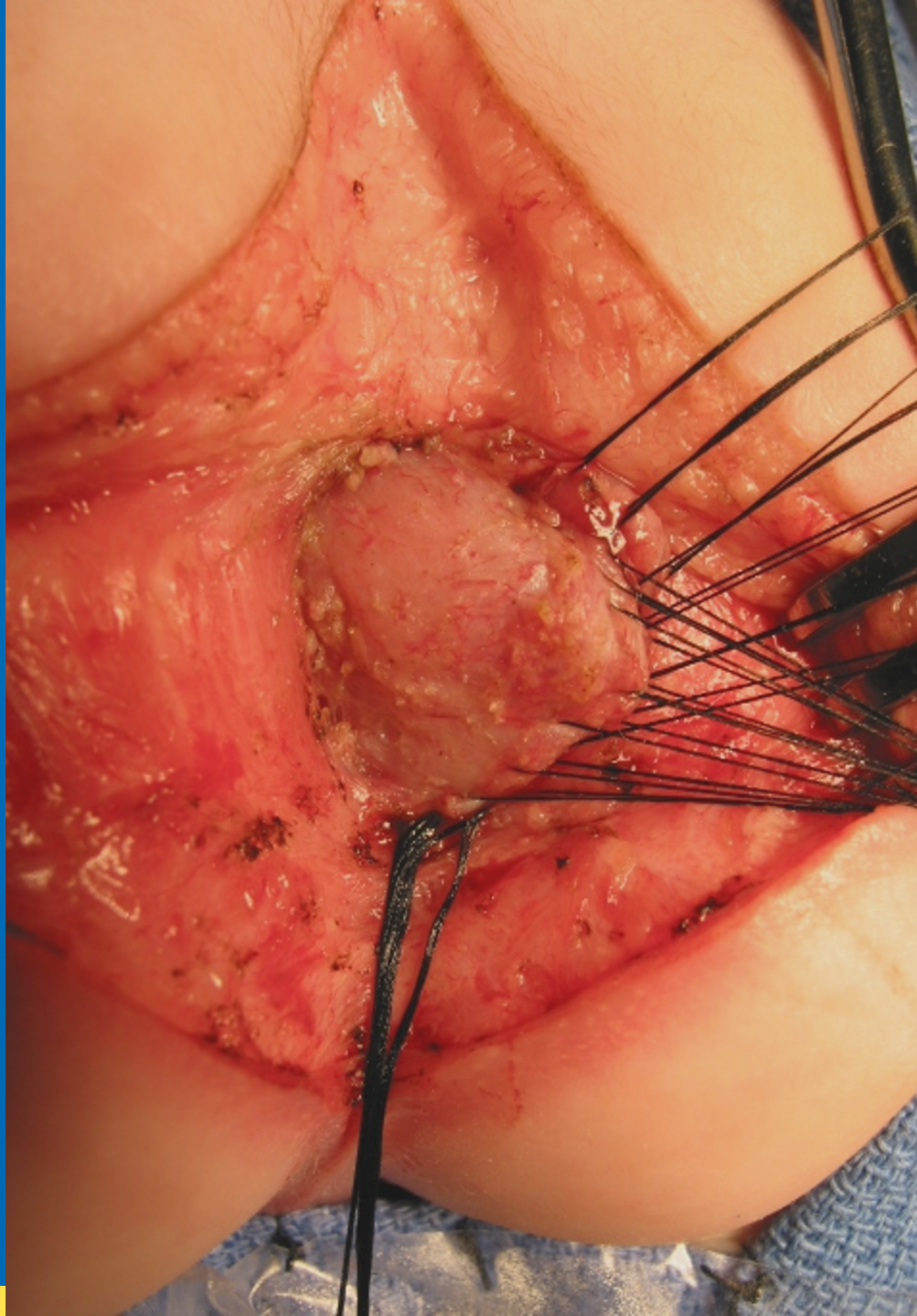
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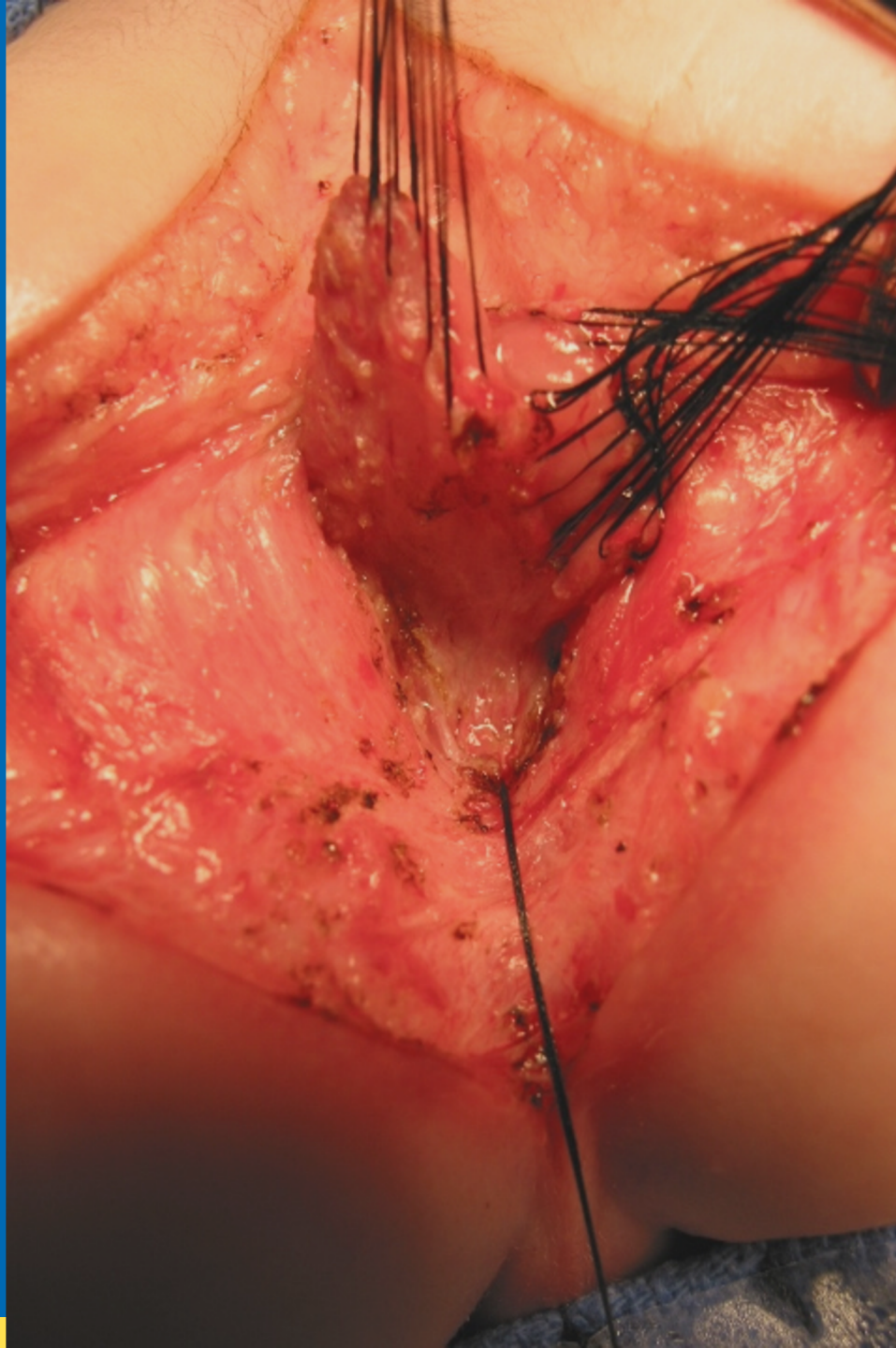
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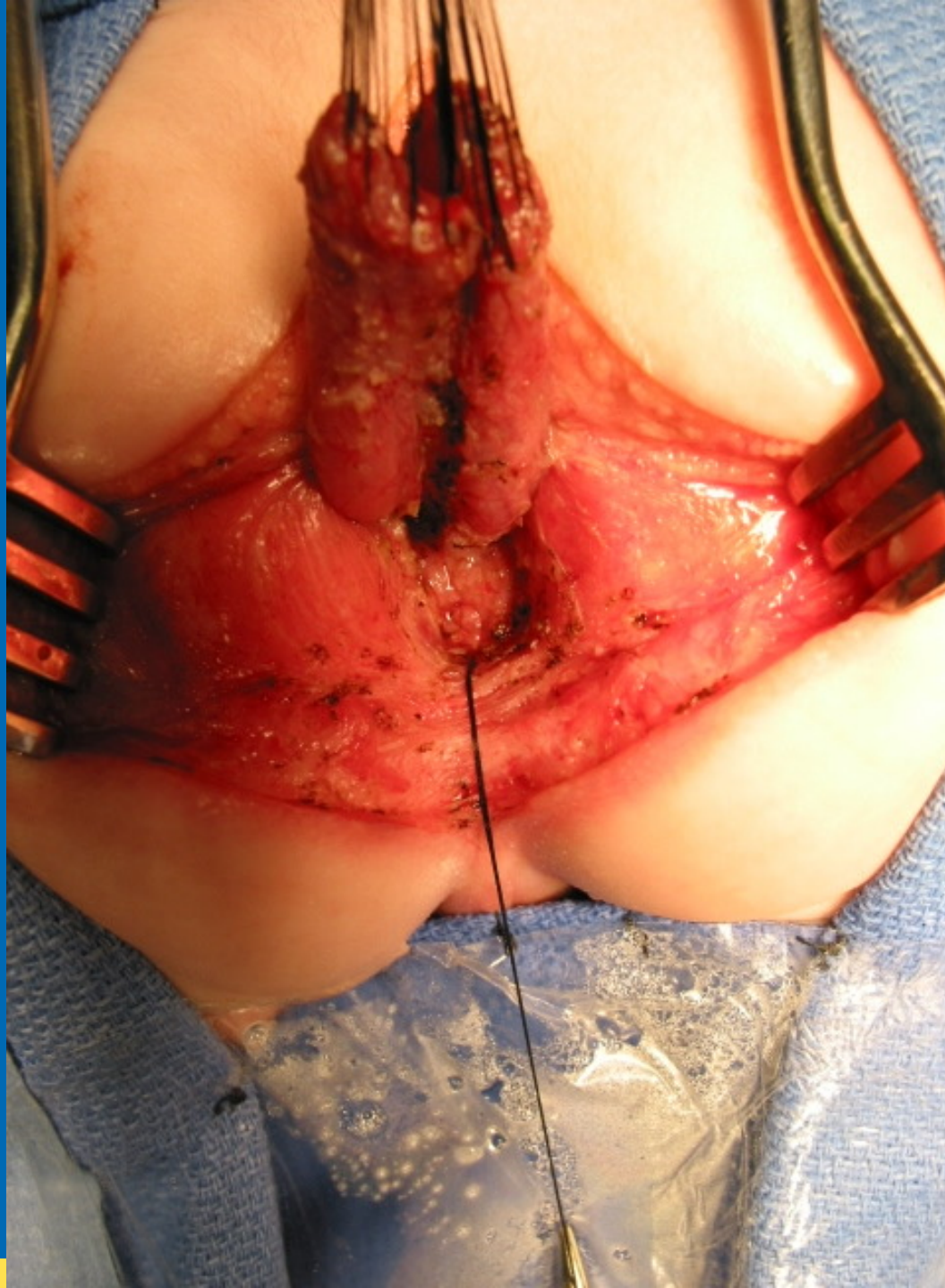


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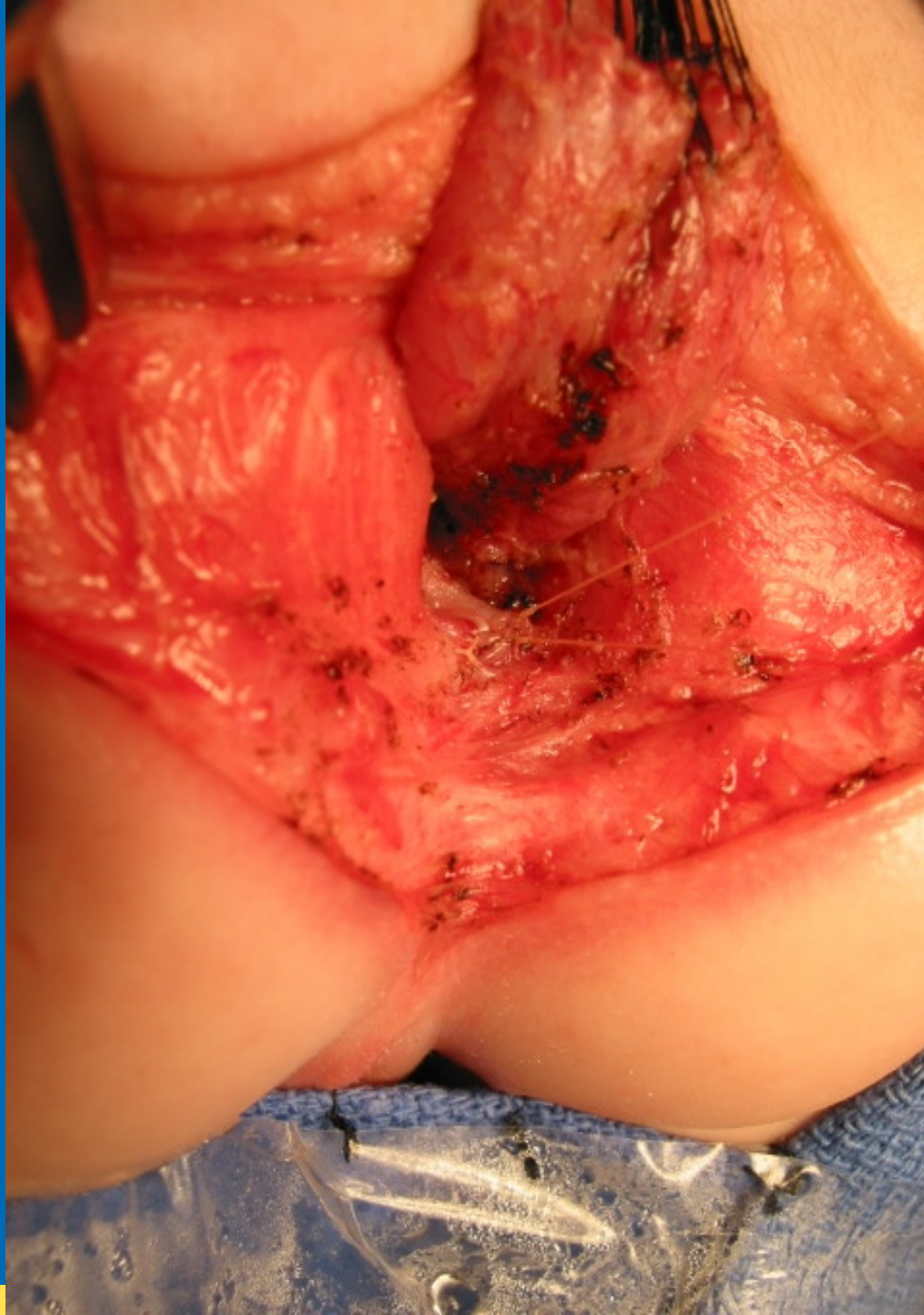
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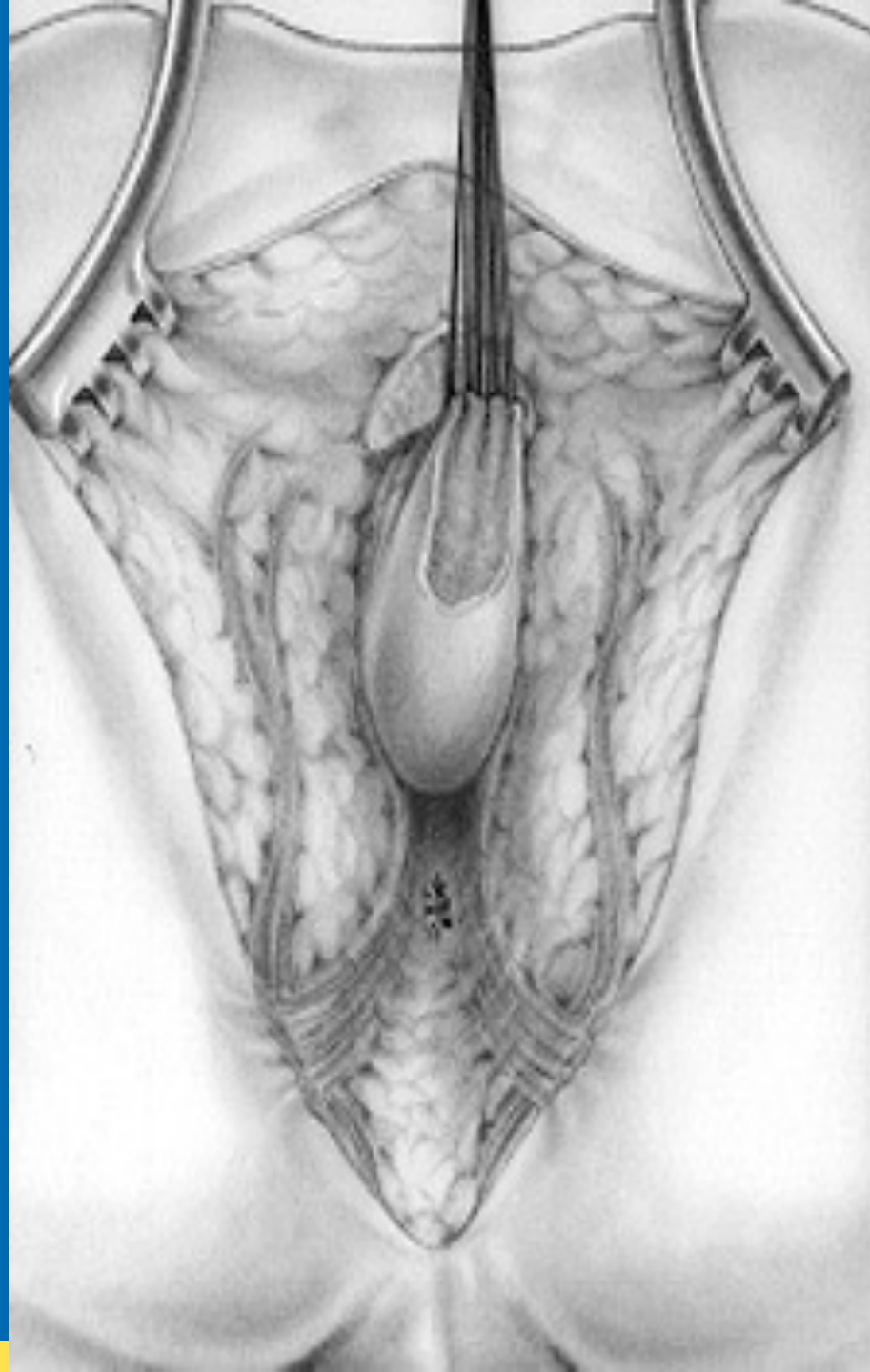
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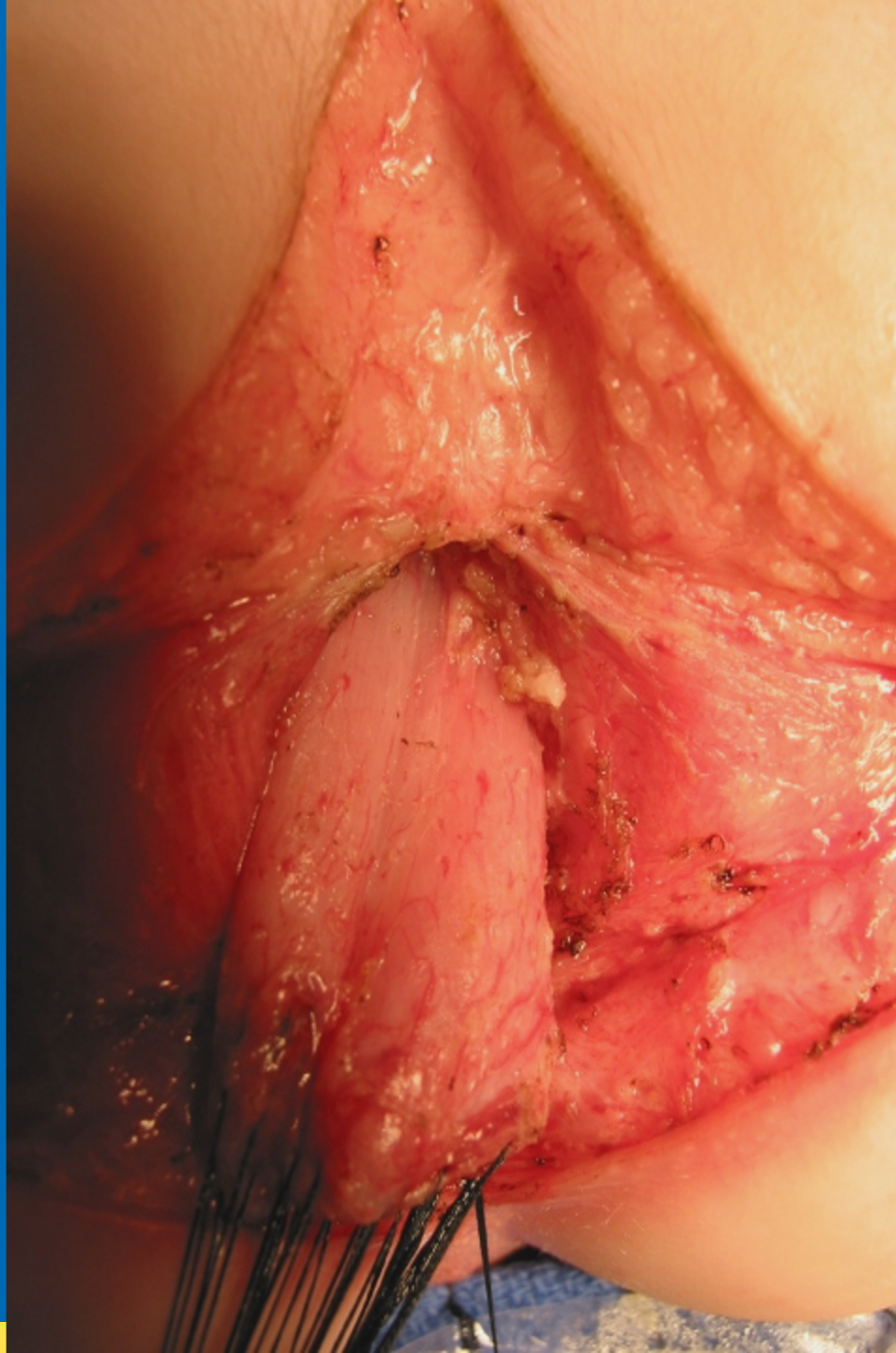
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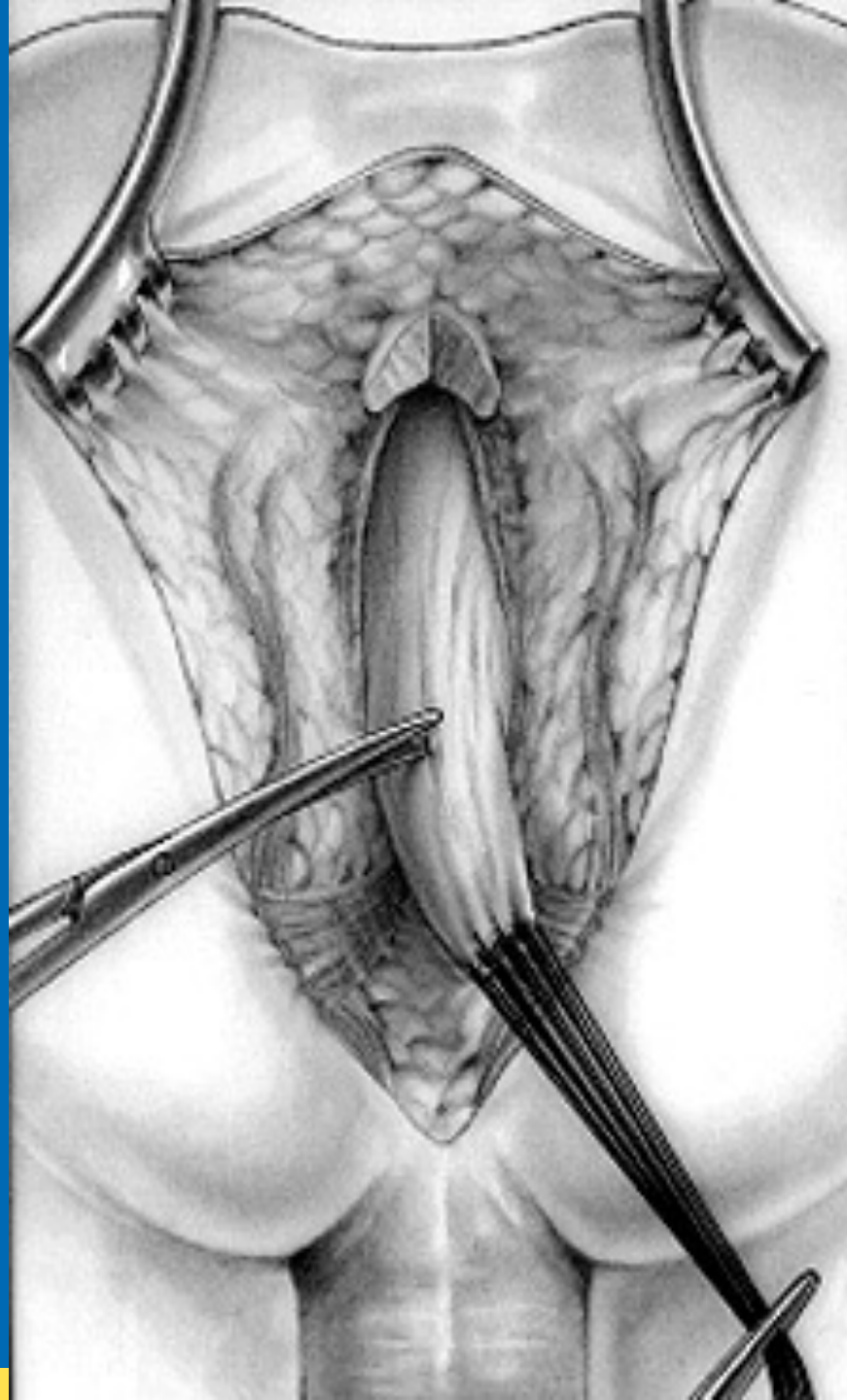
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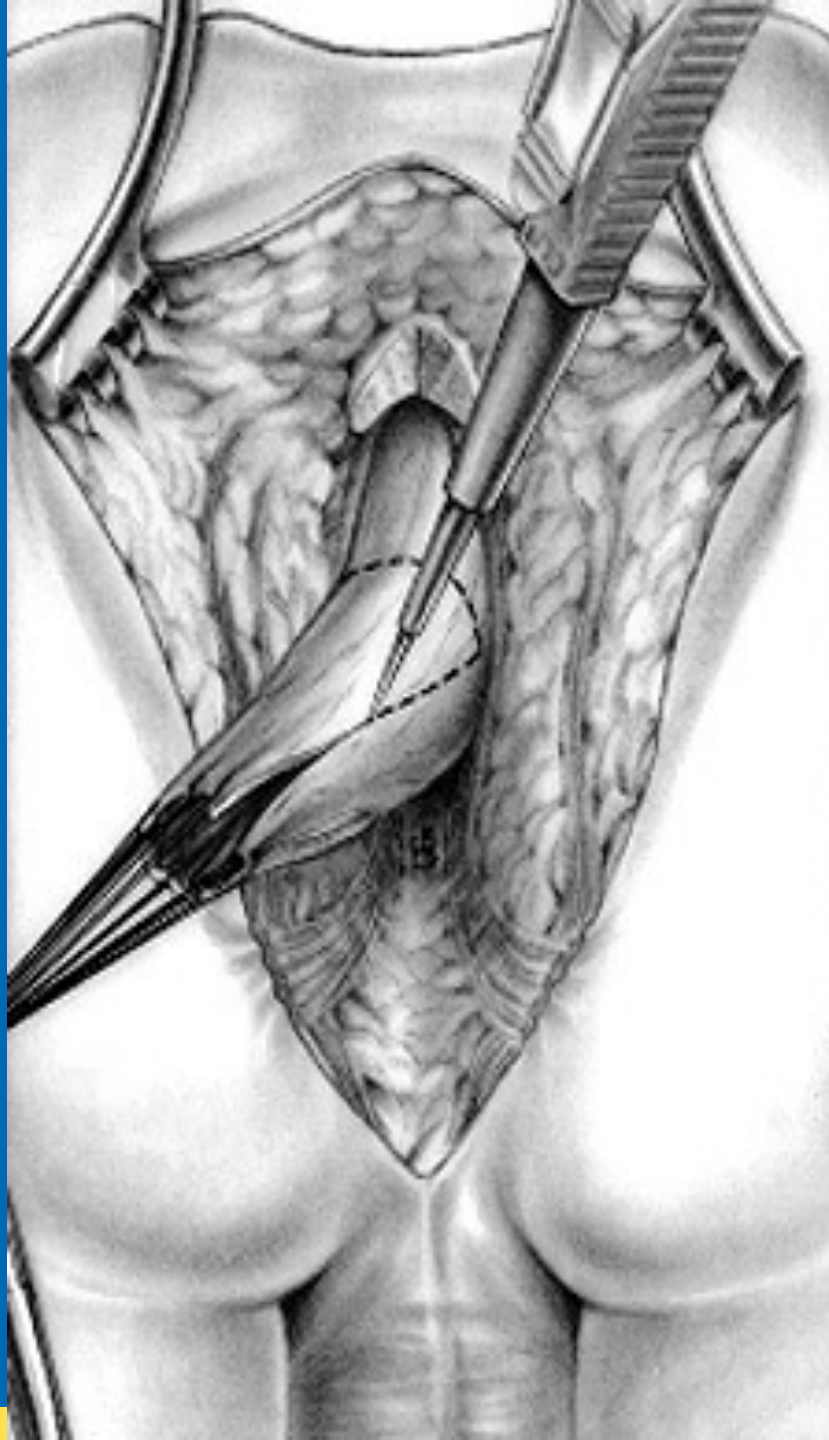
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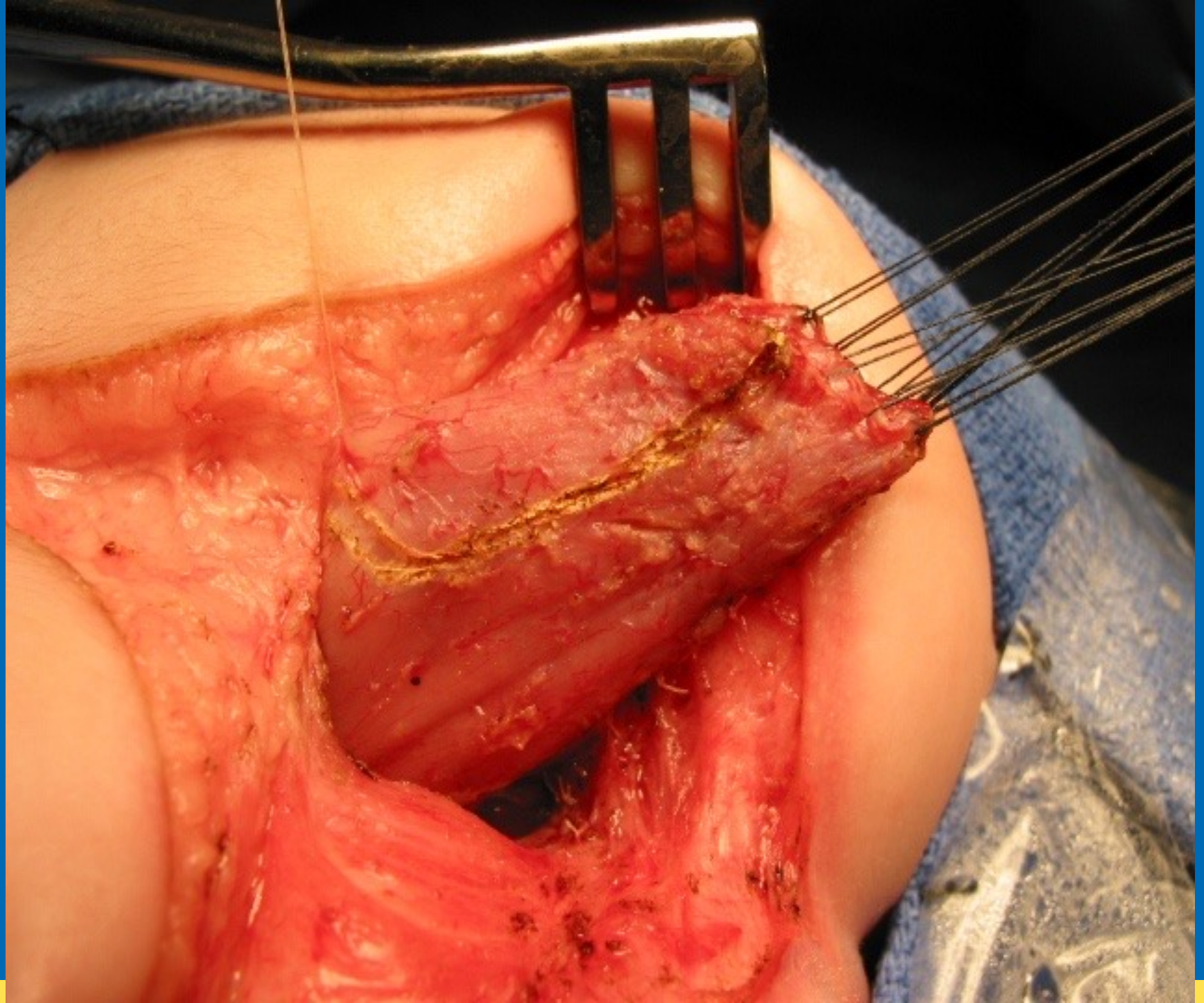
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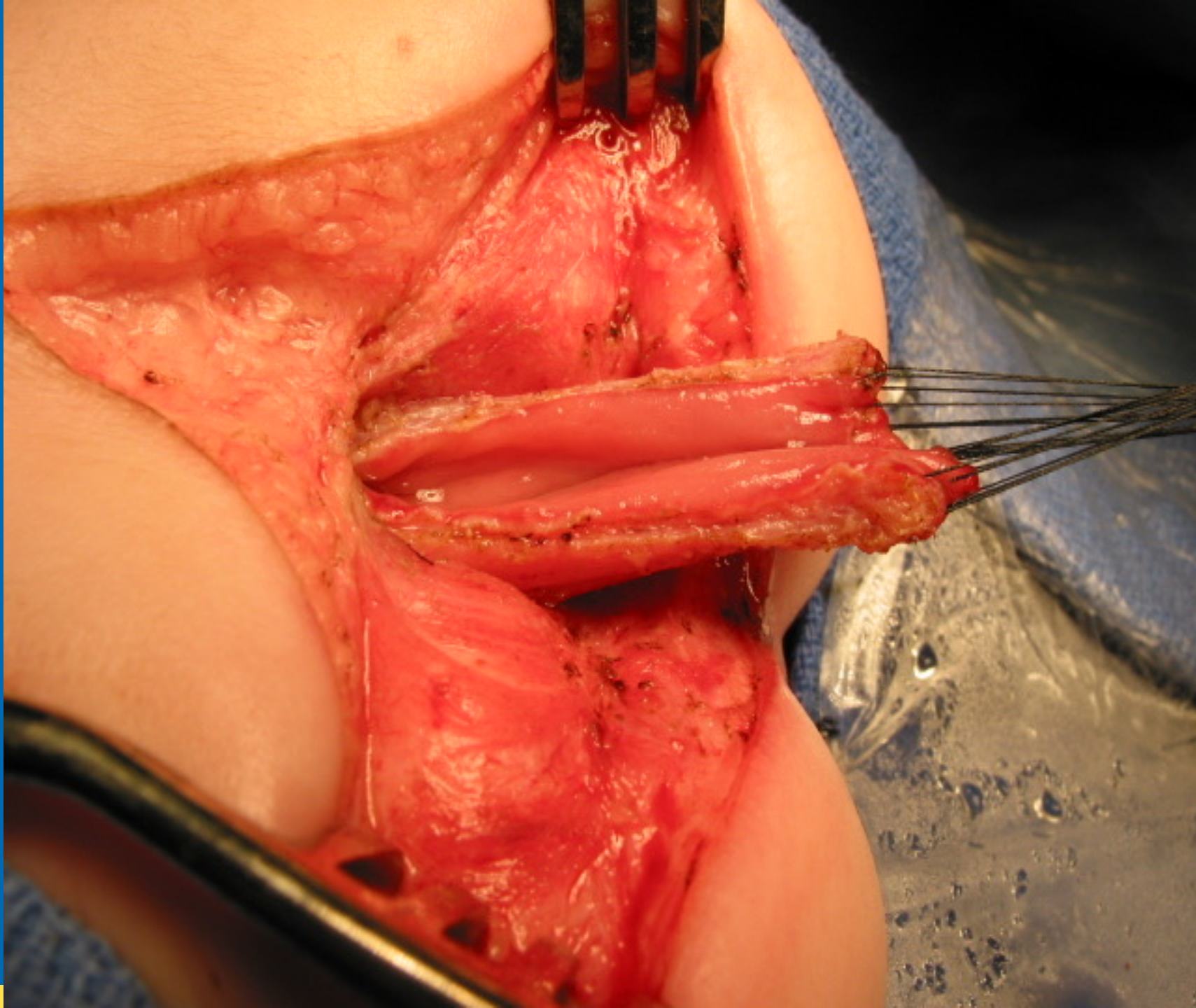


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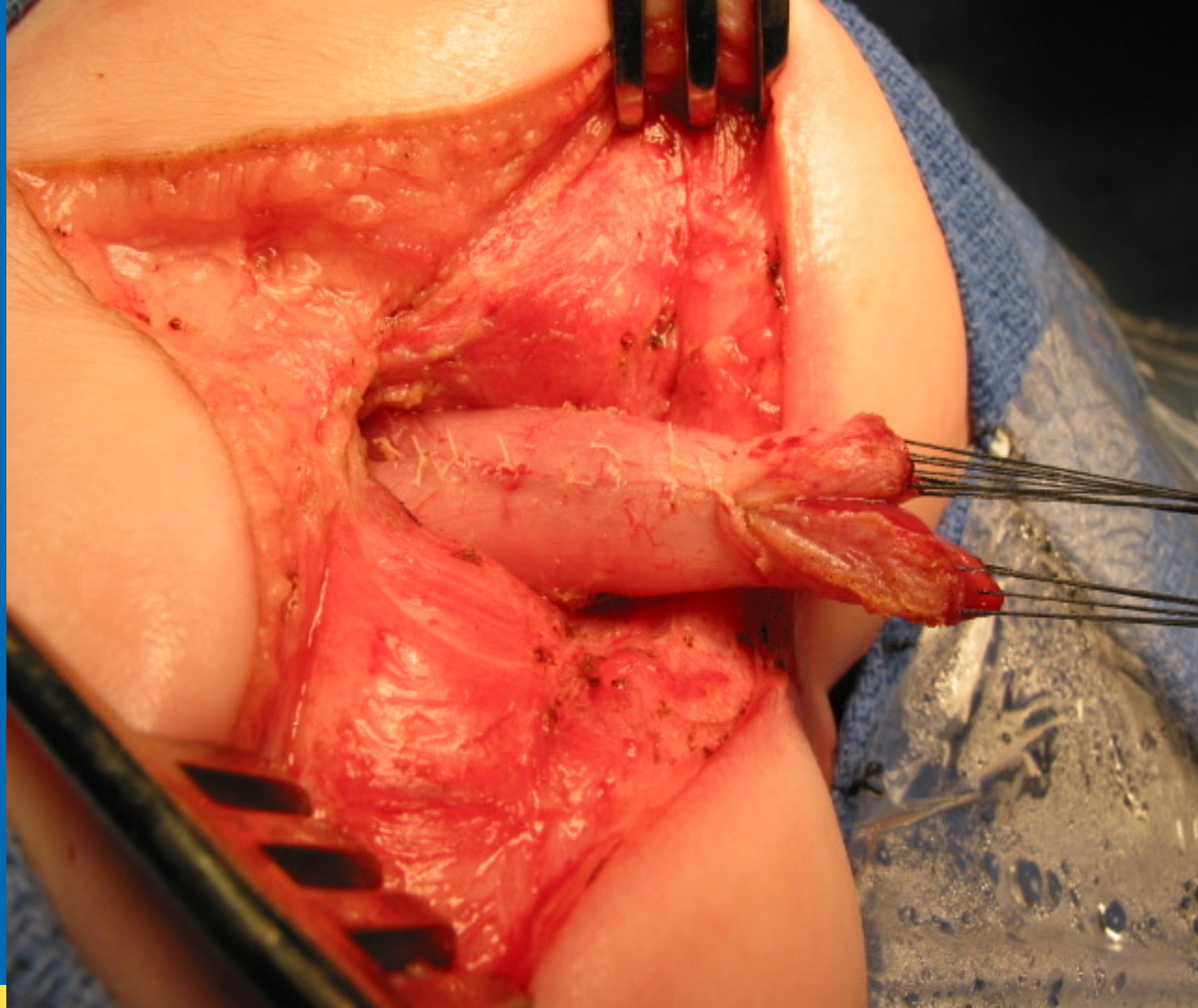
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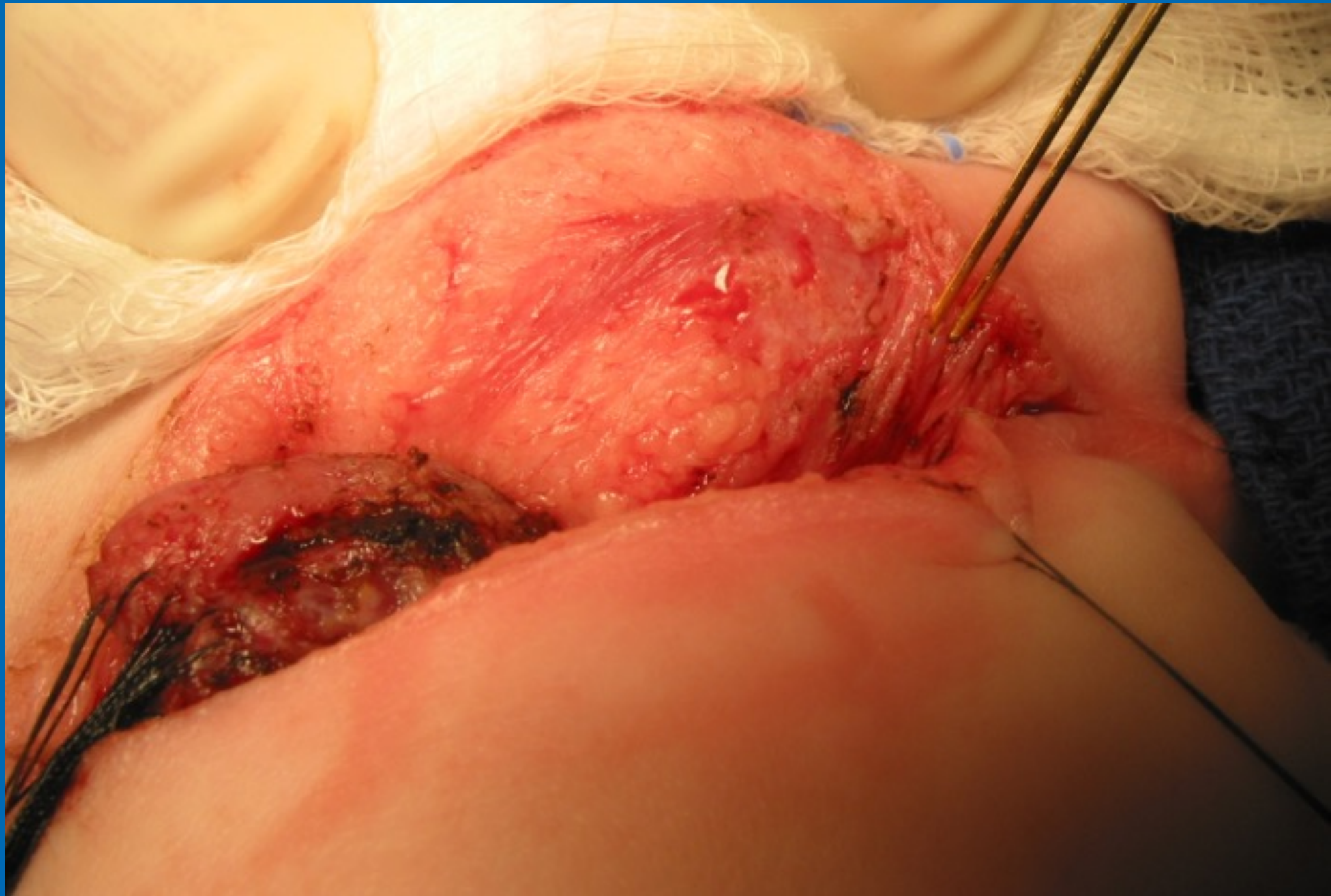
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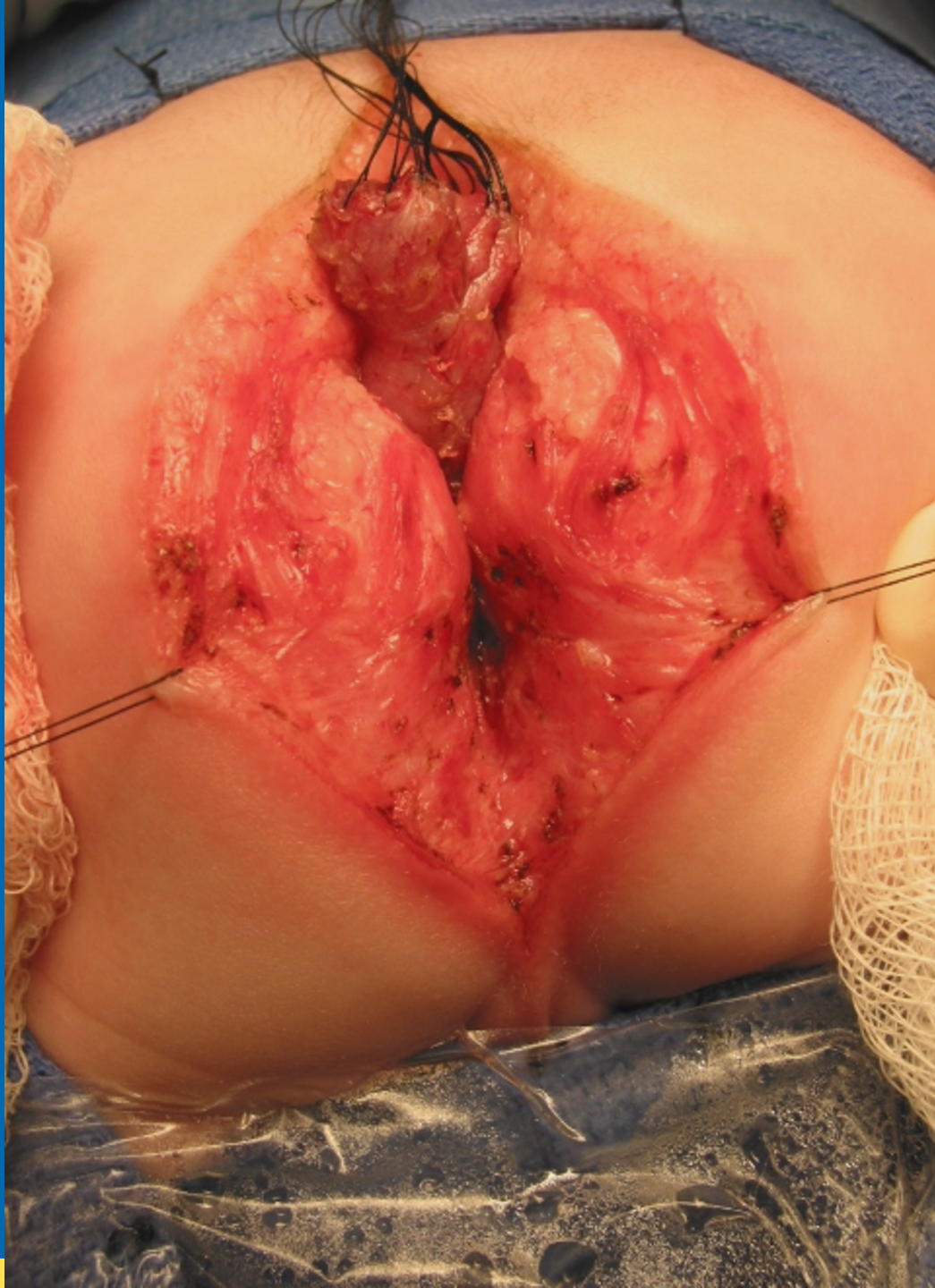
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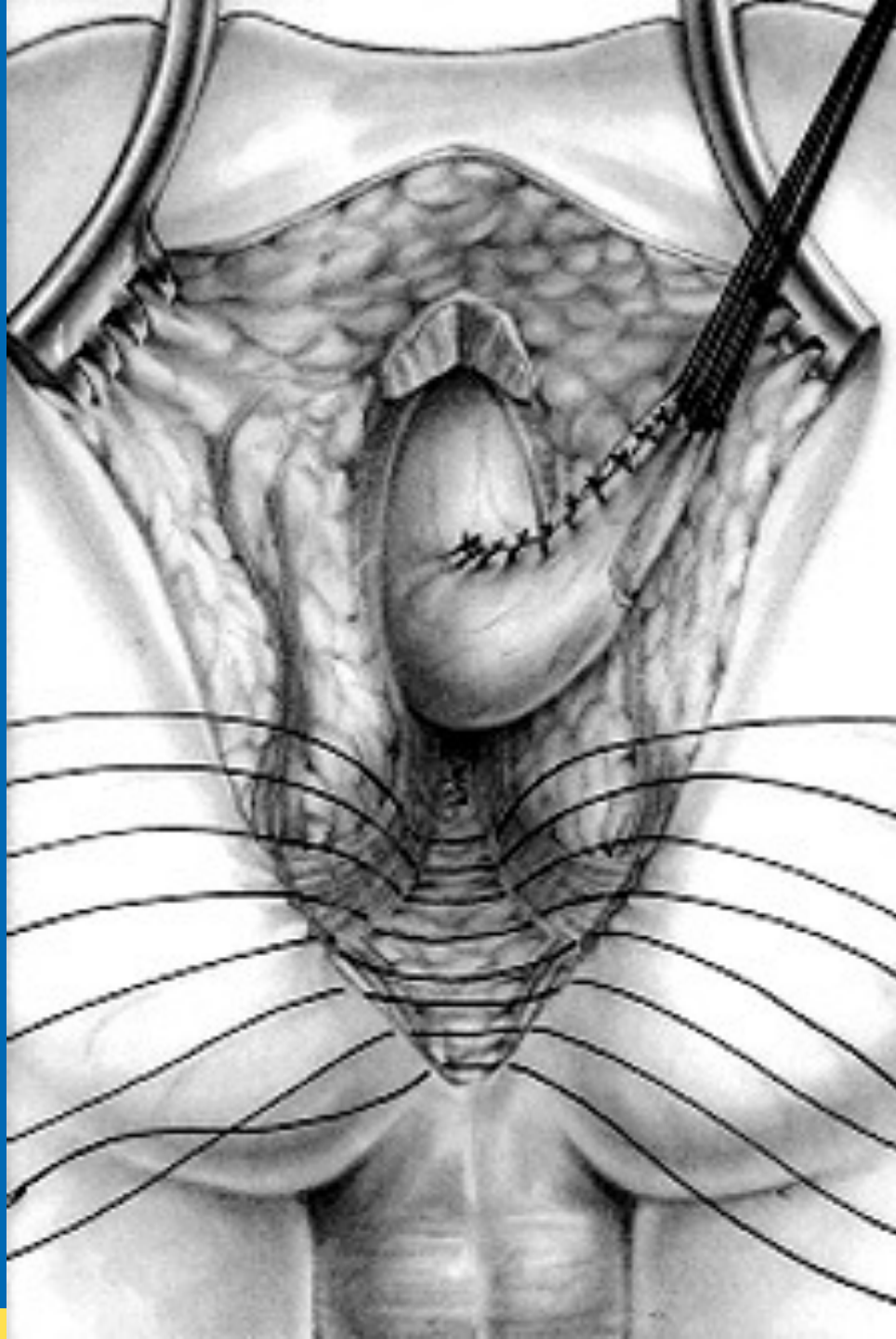


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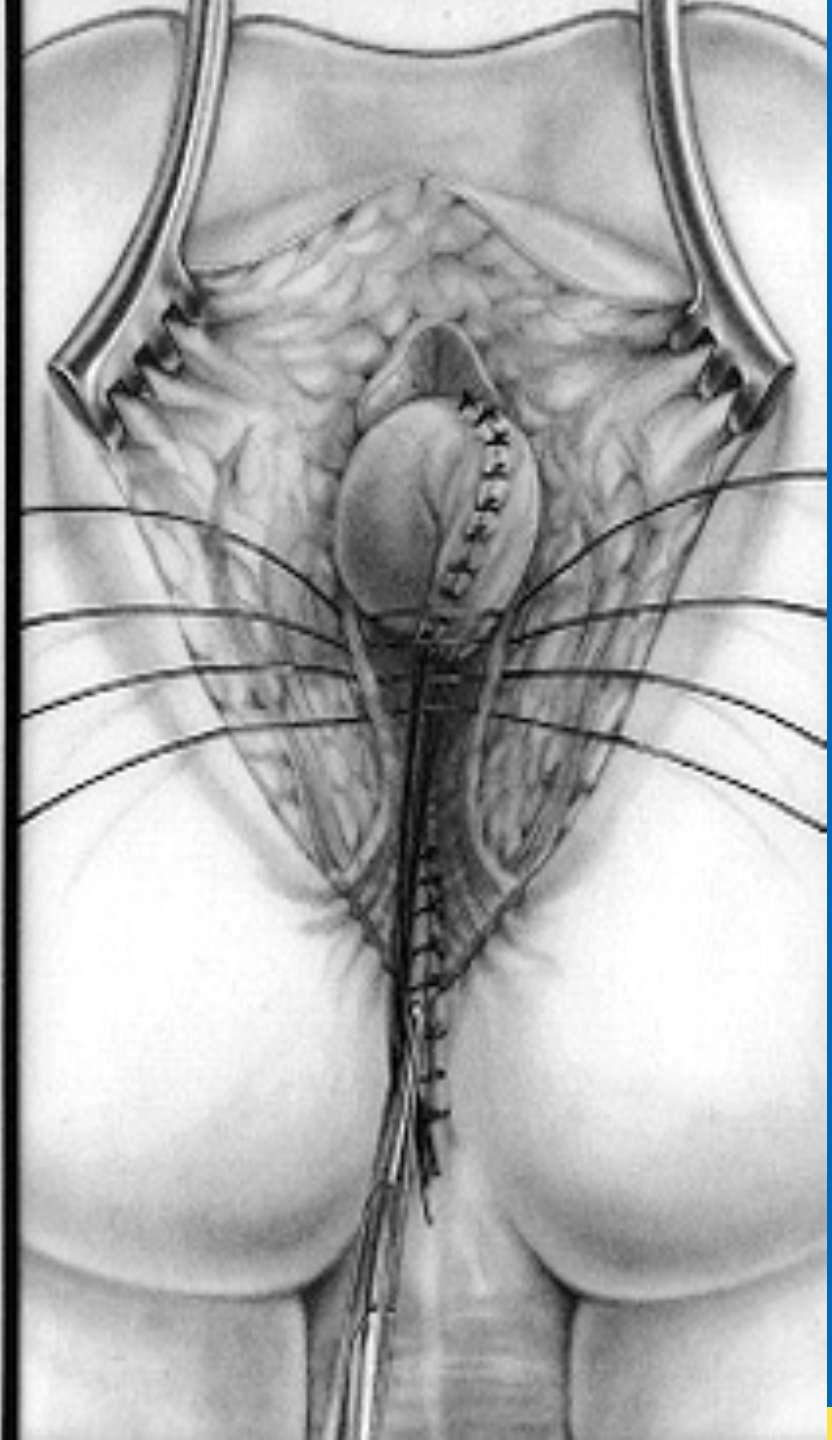
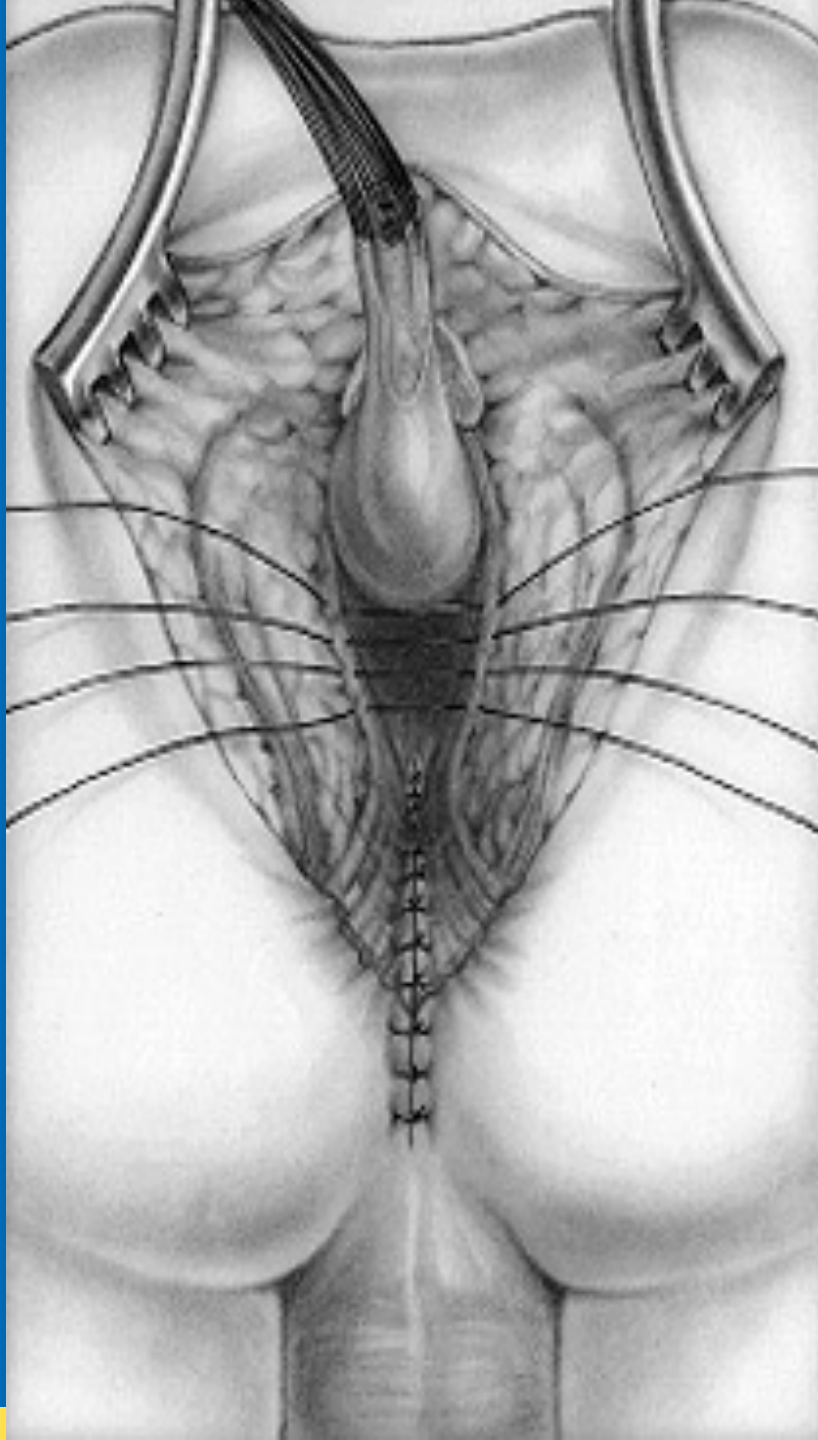
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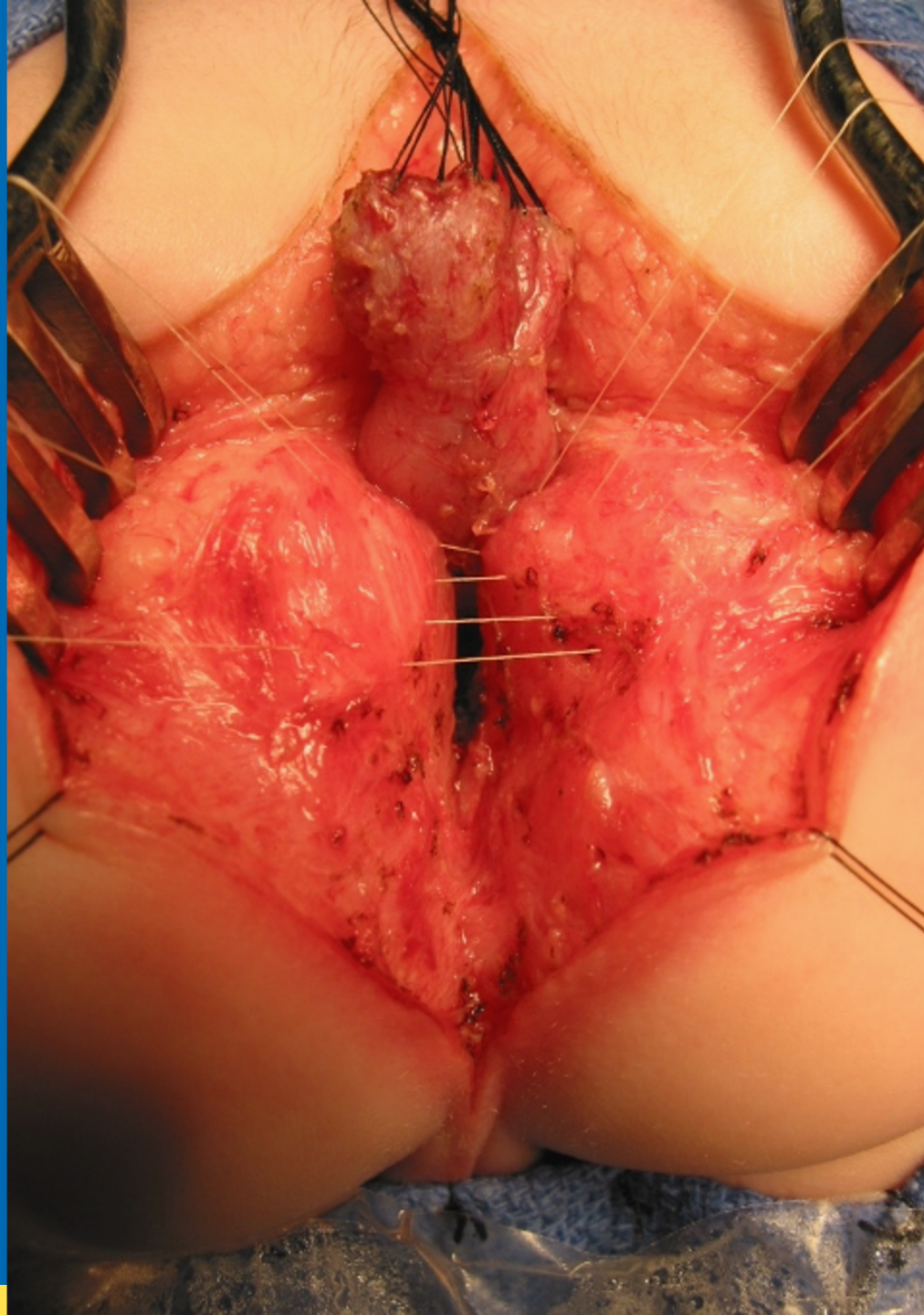
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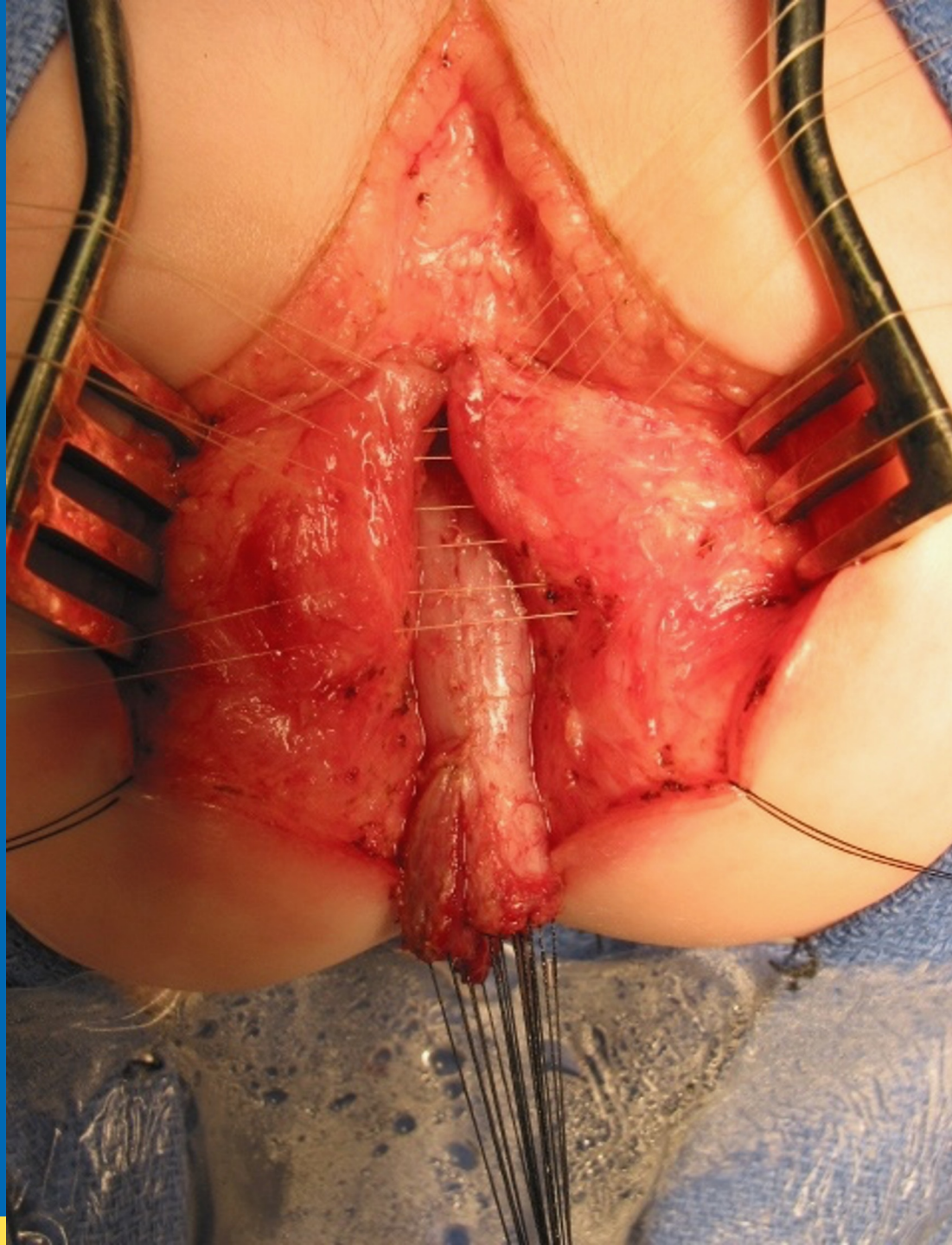
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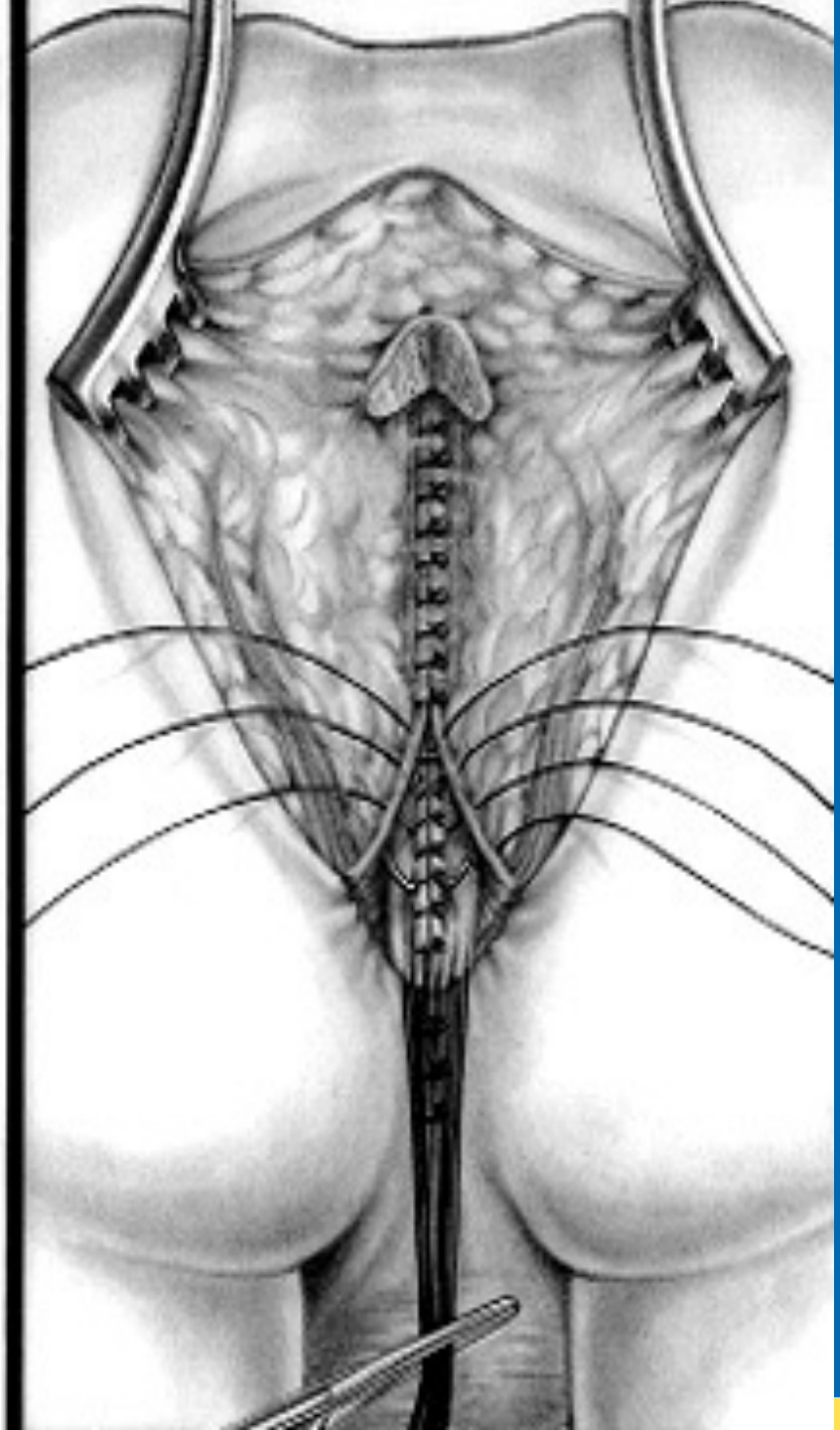
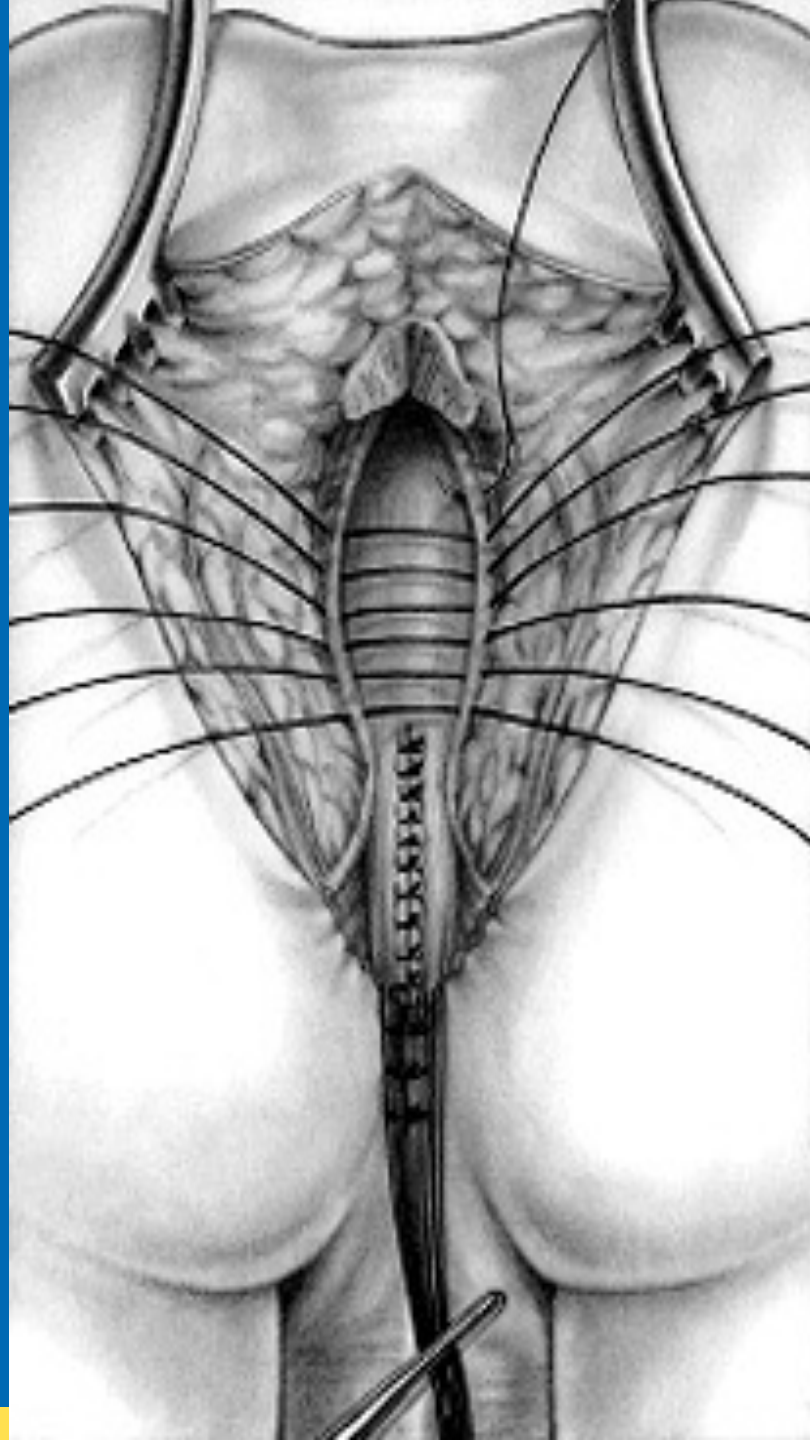
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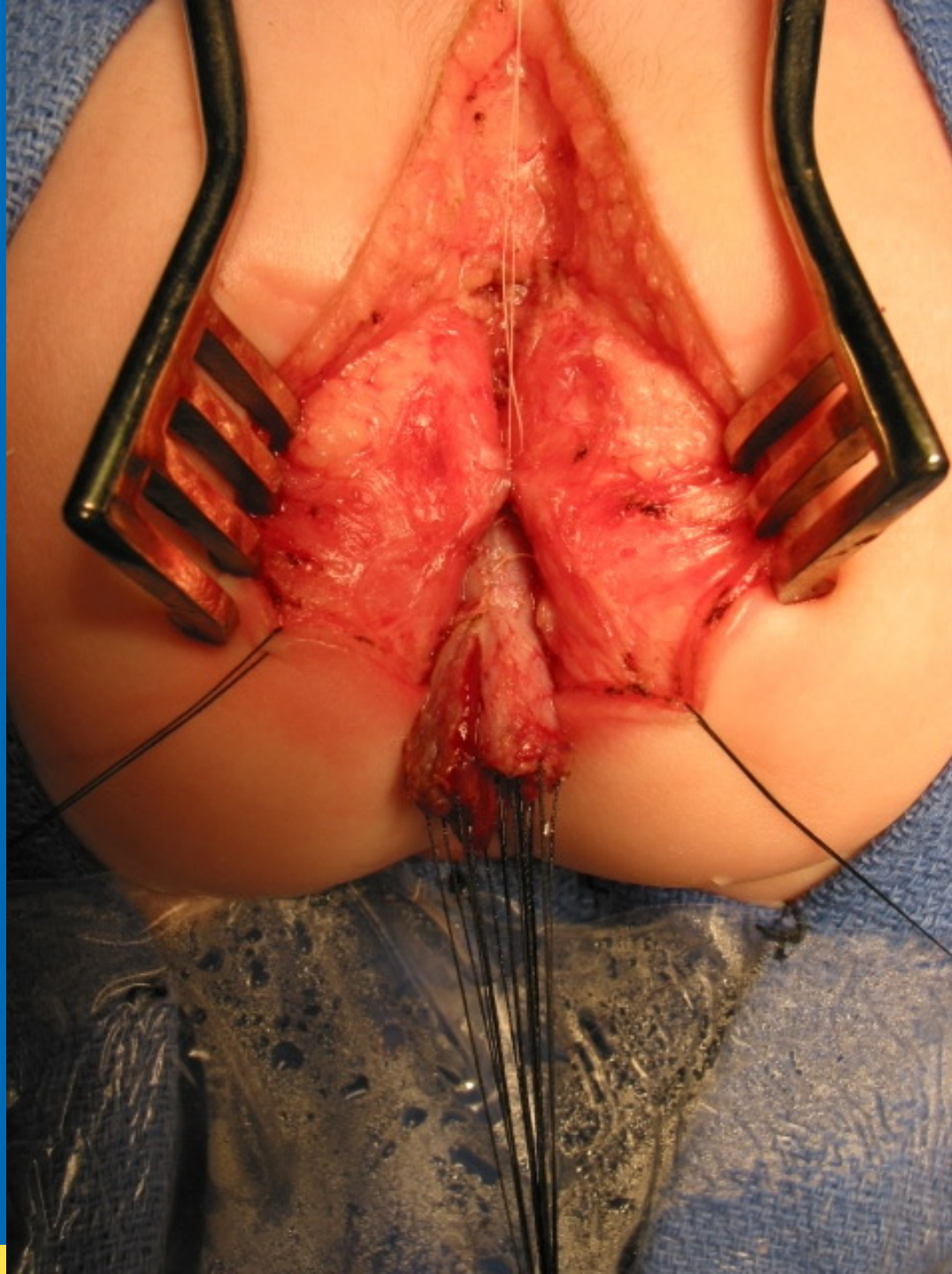
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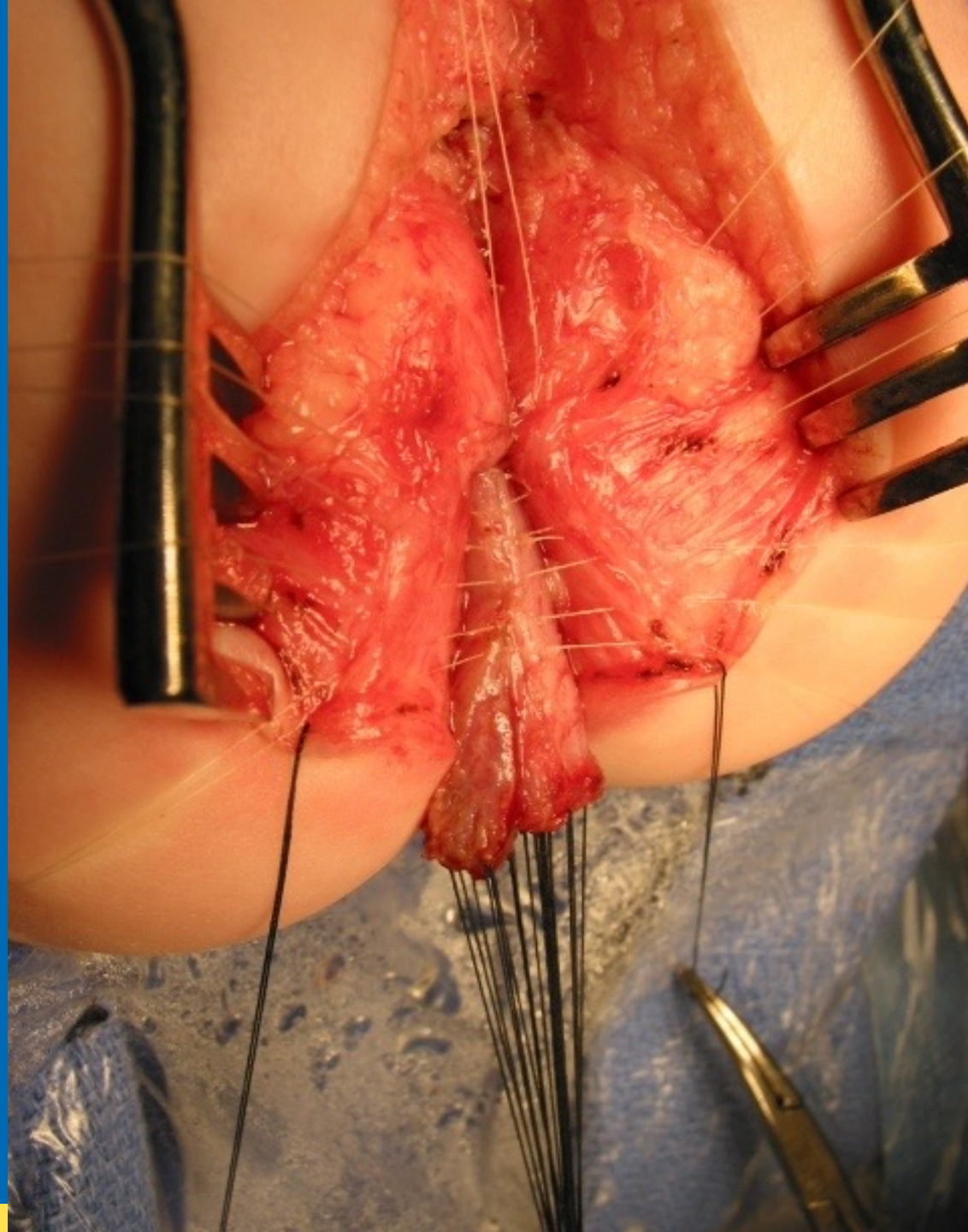
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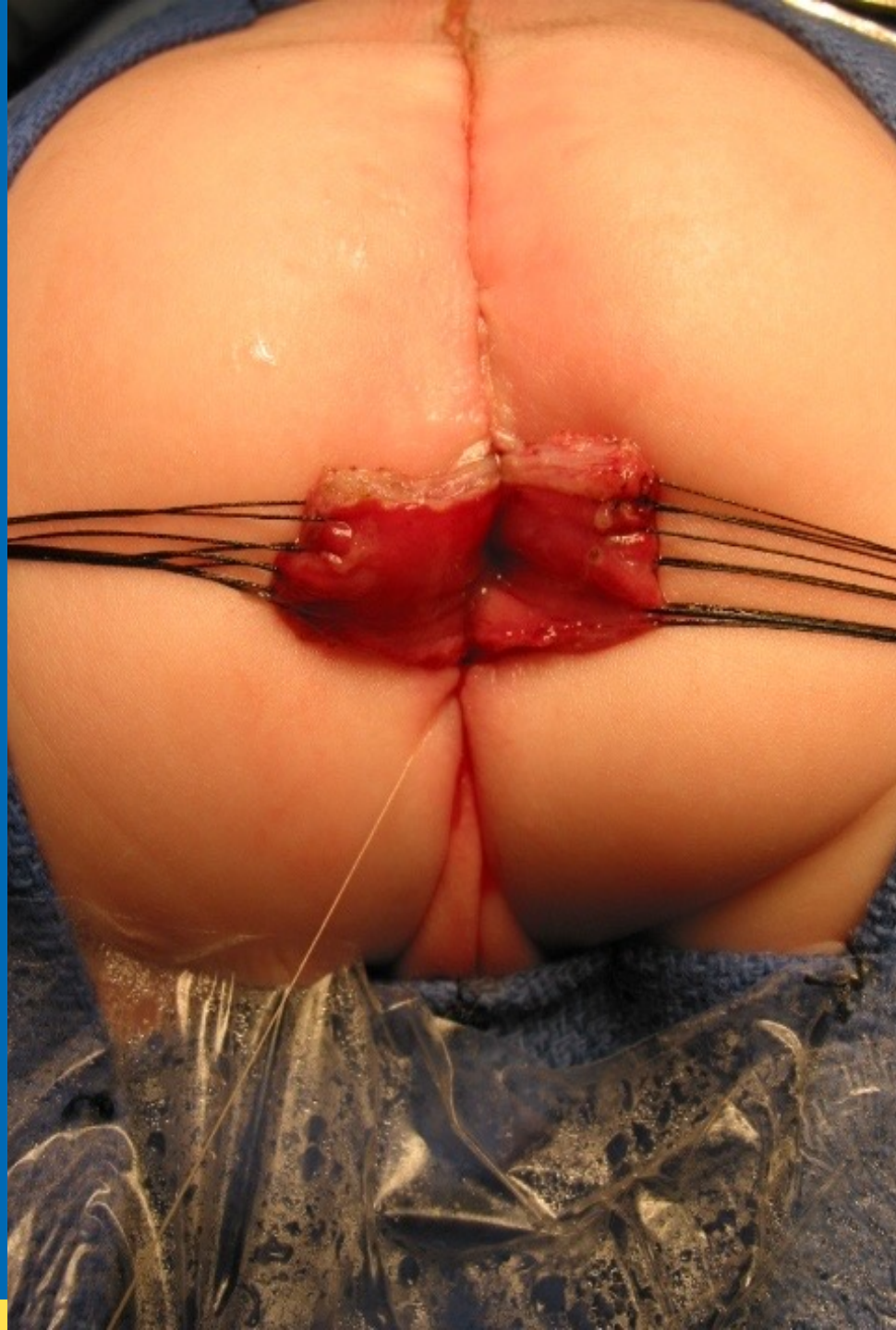
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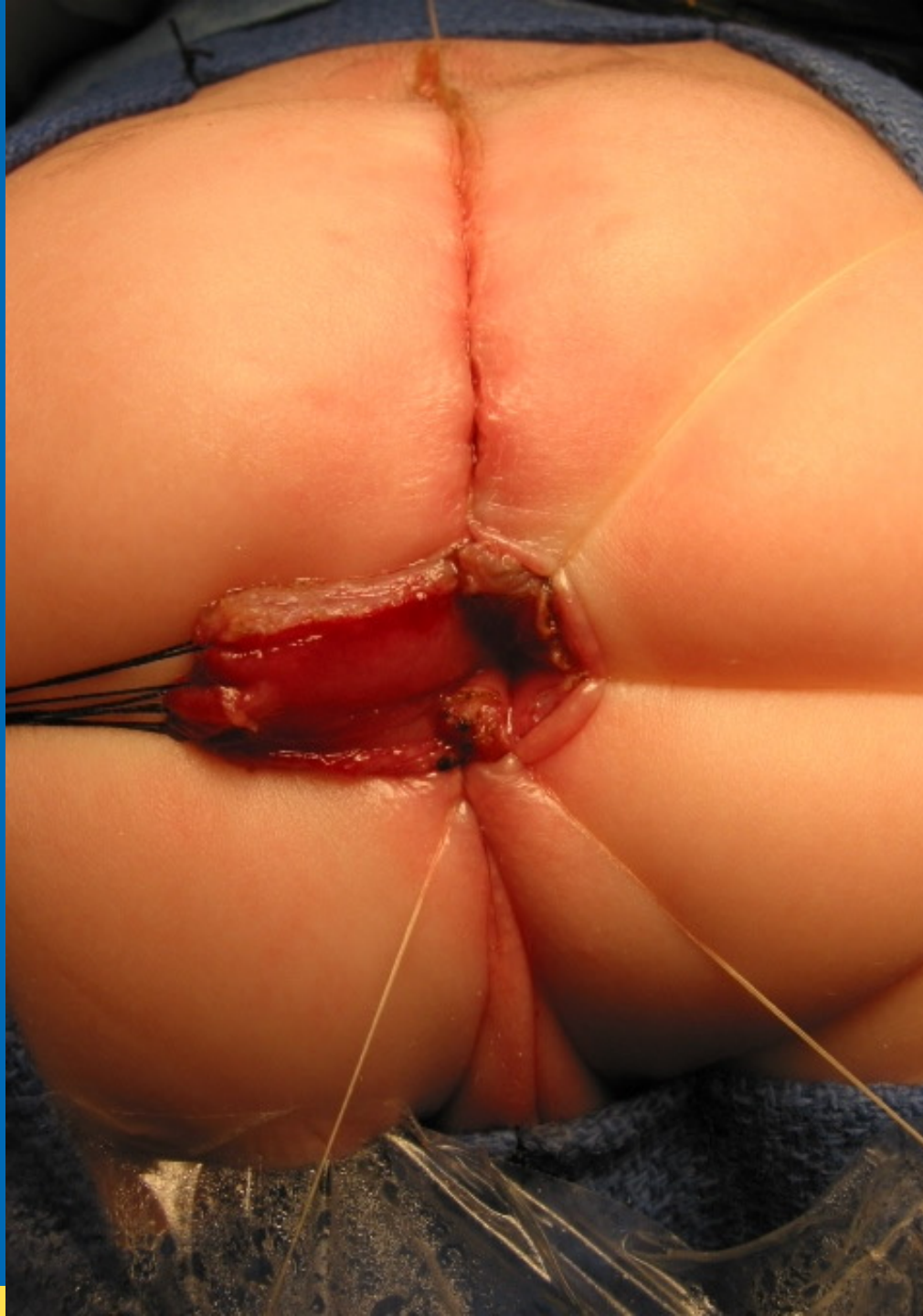
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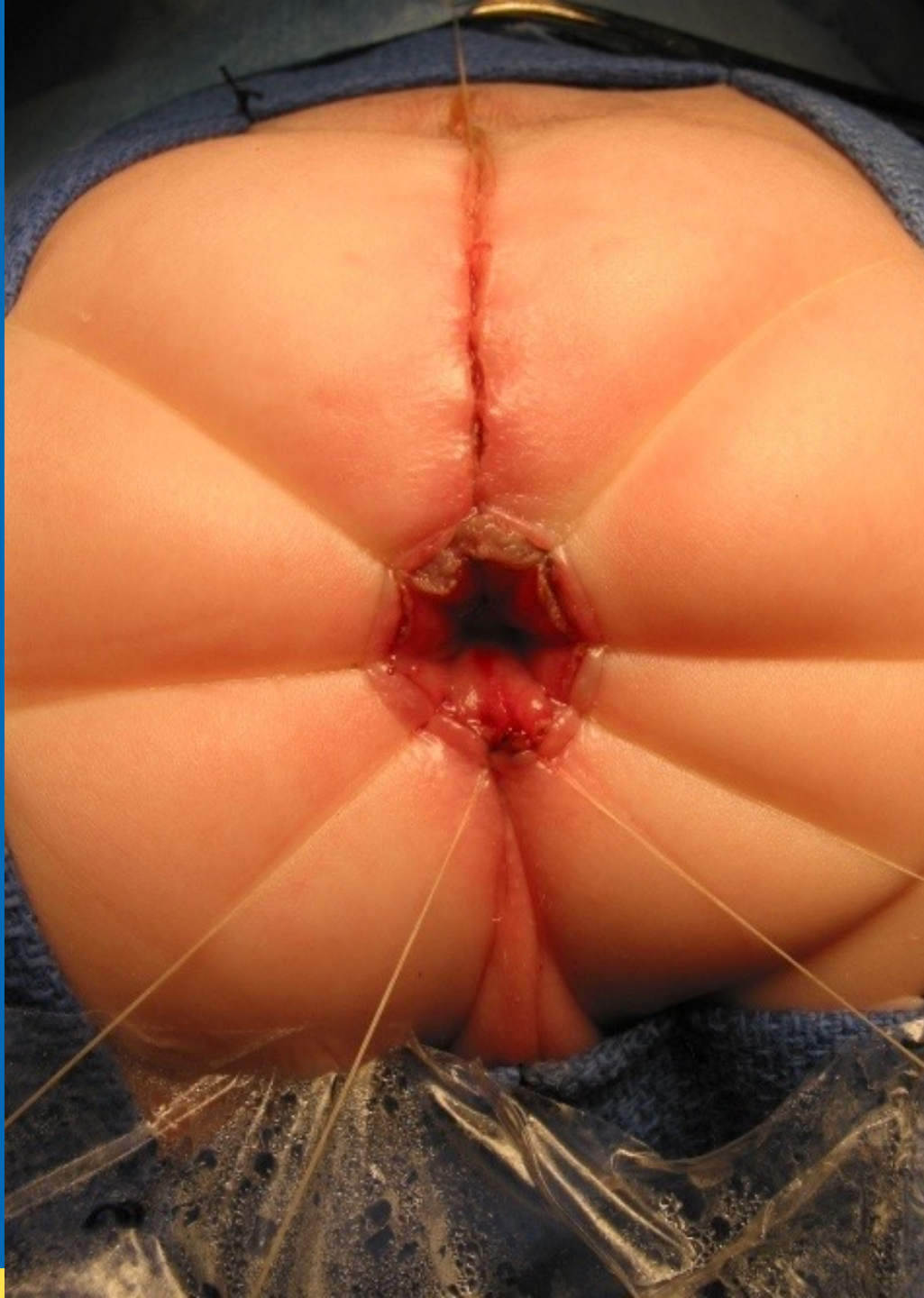
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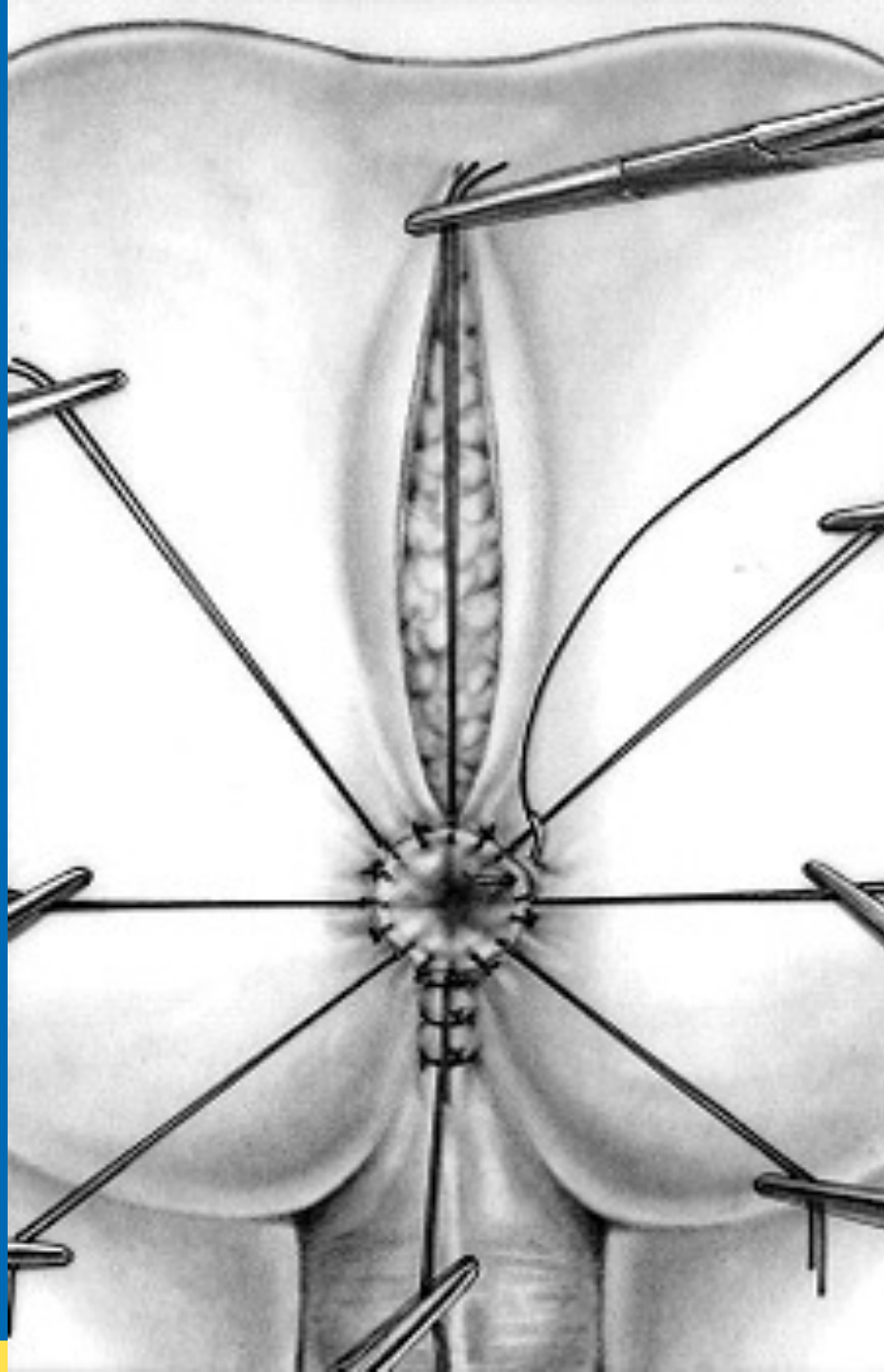
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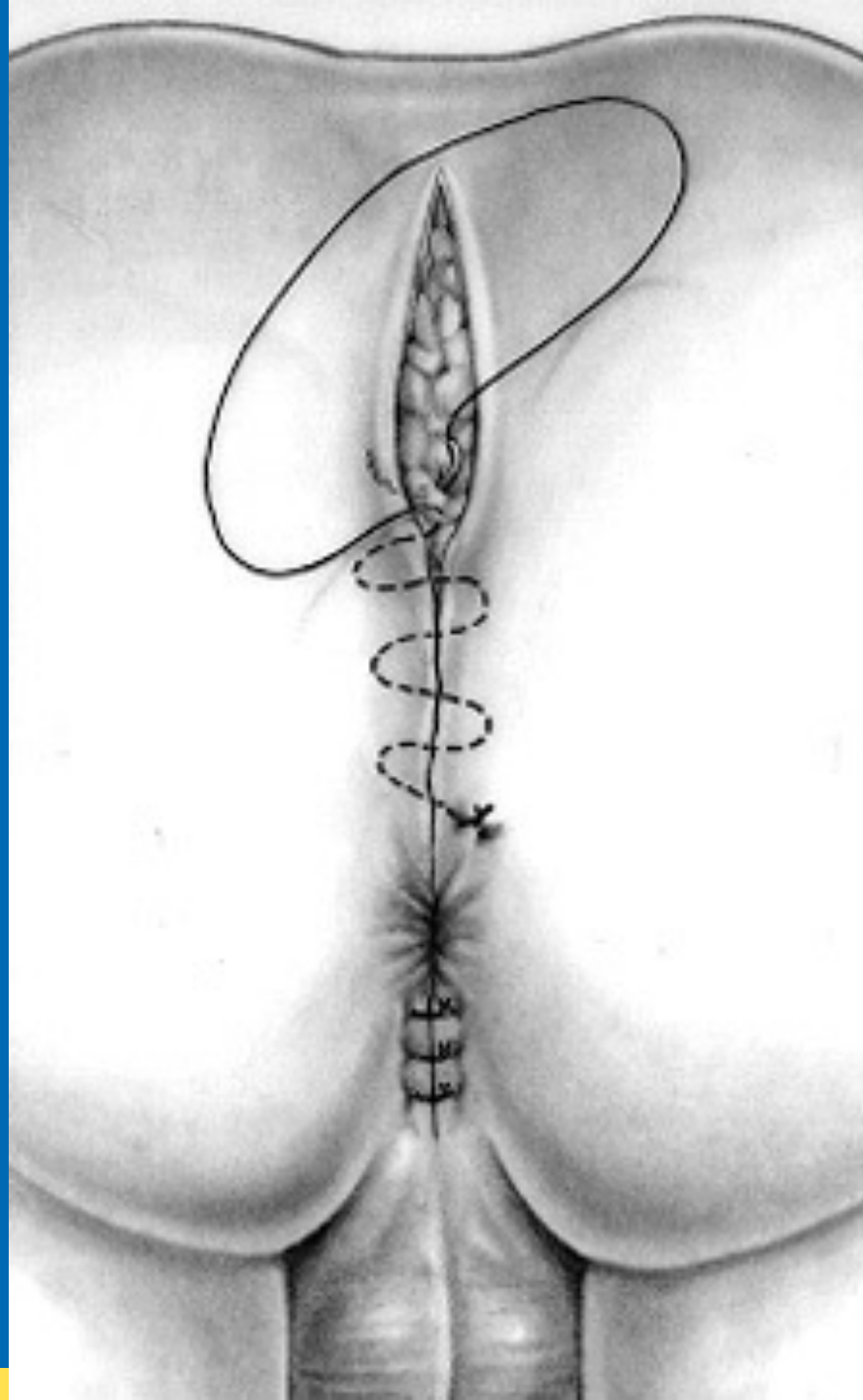
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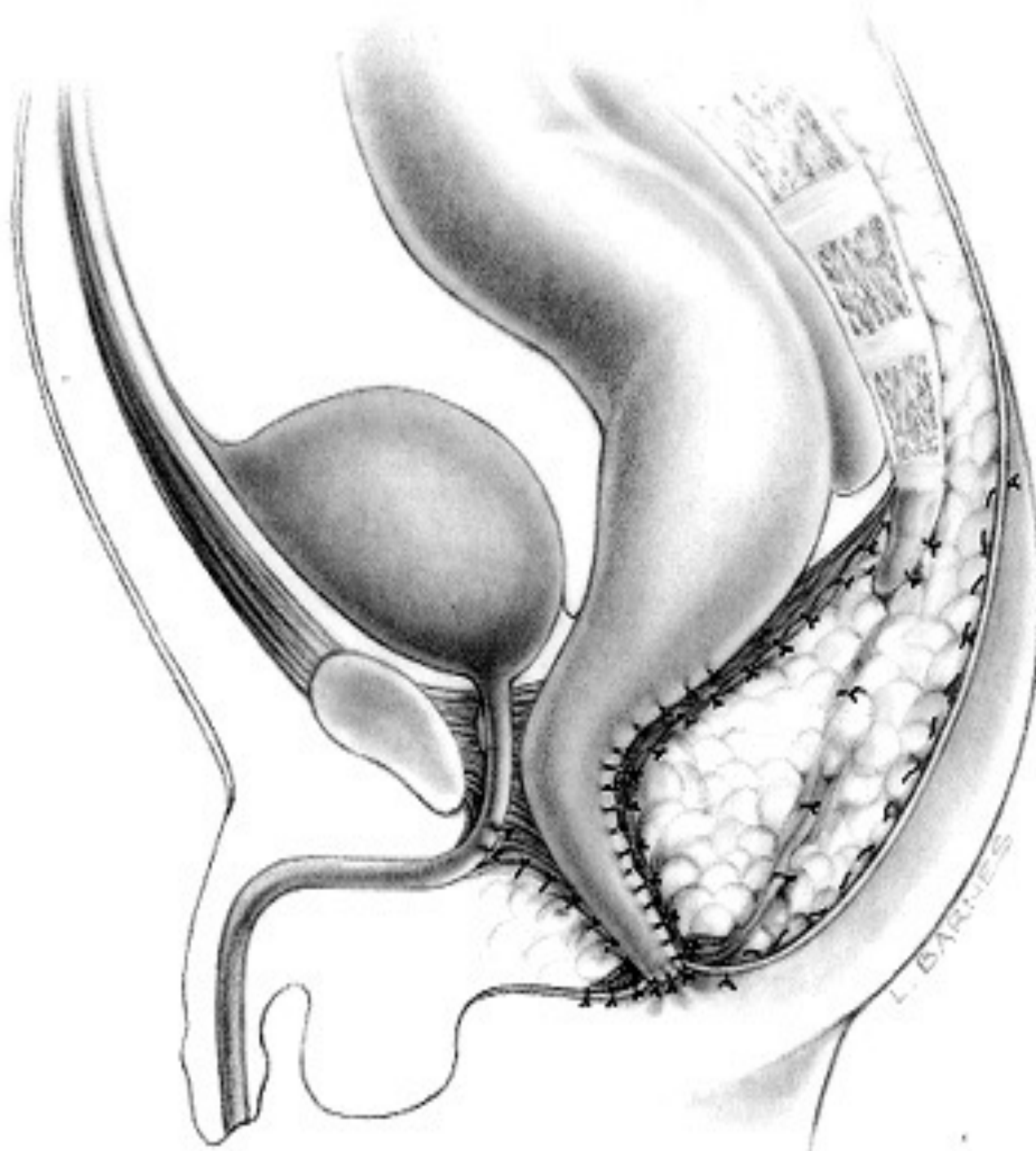
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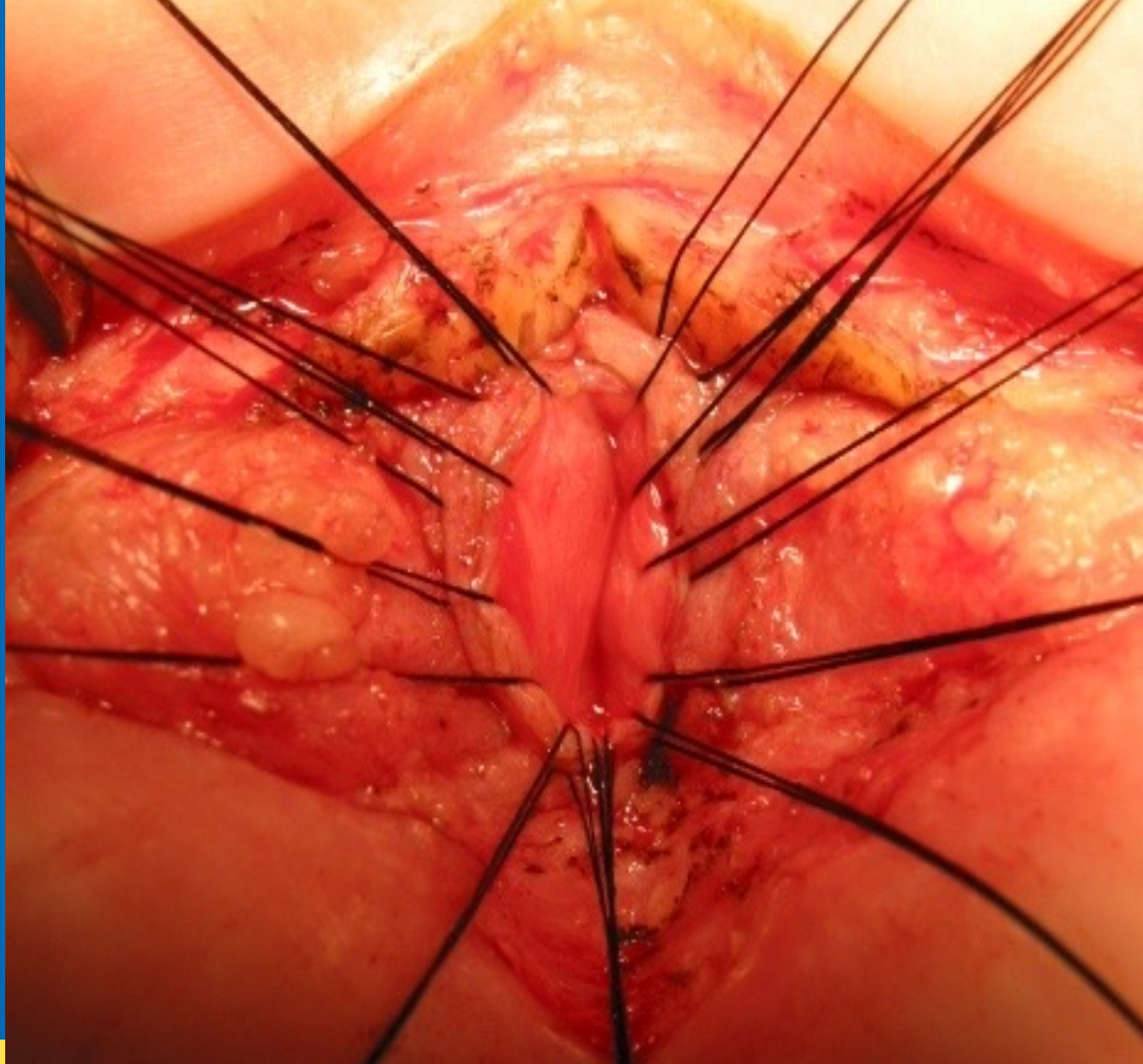
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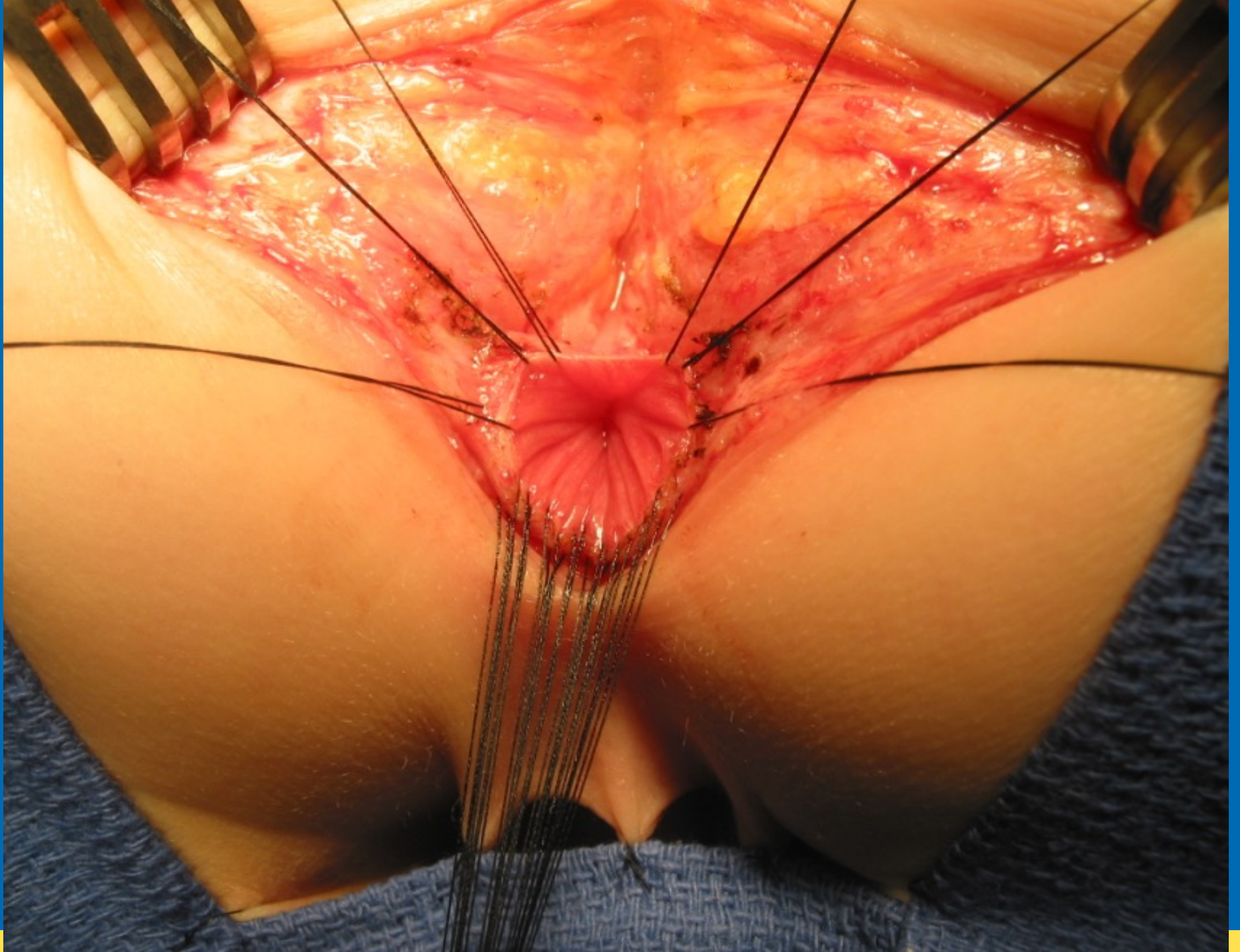
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**No fistula**



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# Bladderneck Fistula

## PSARP

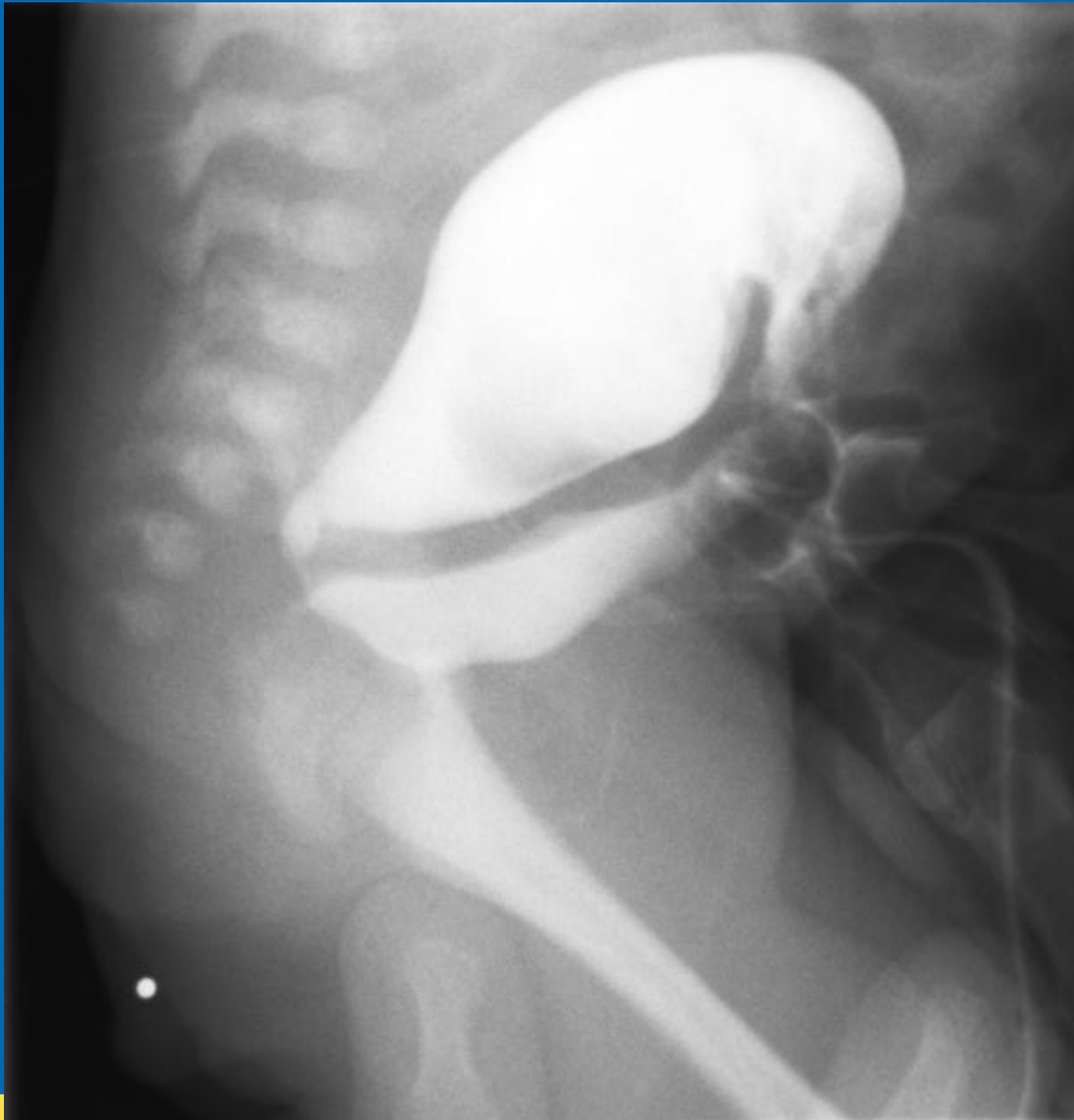
+

## Laparotomy/Laparoscopy



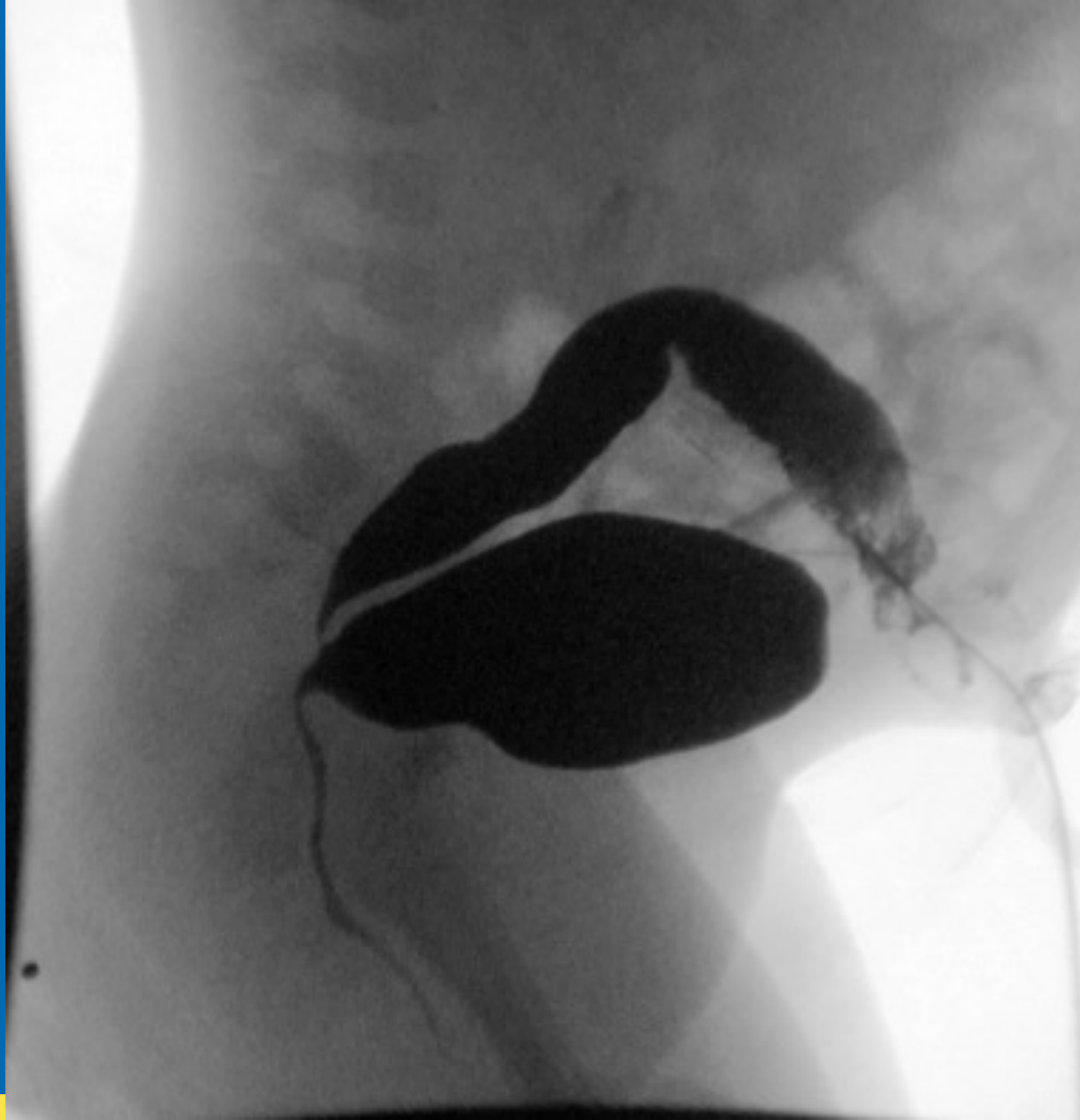
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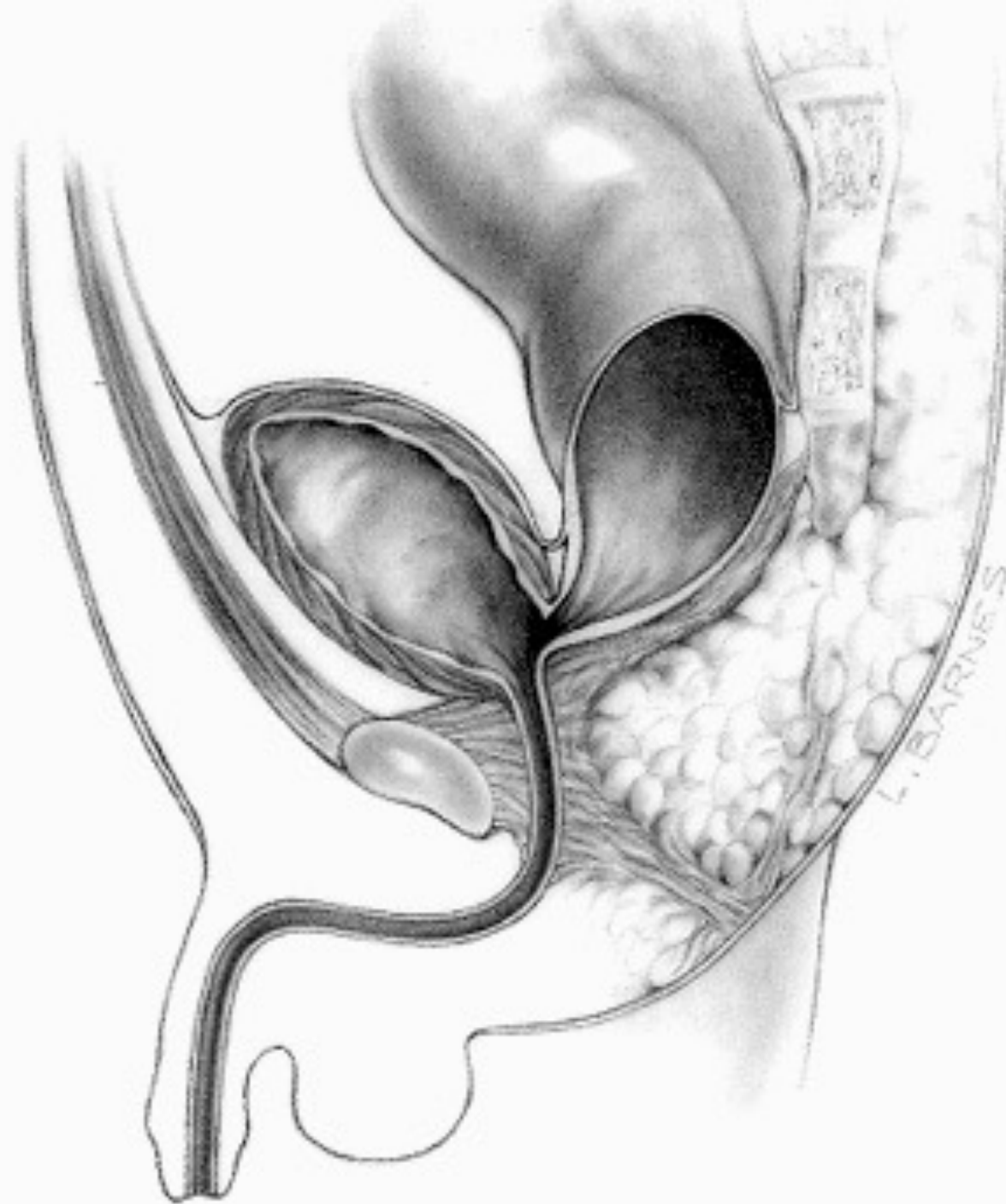
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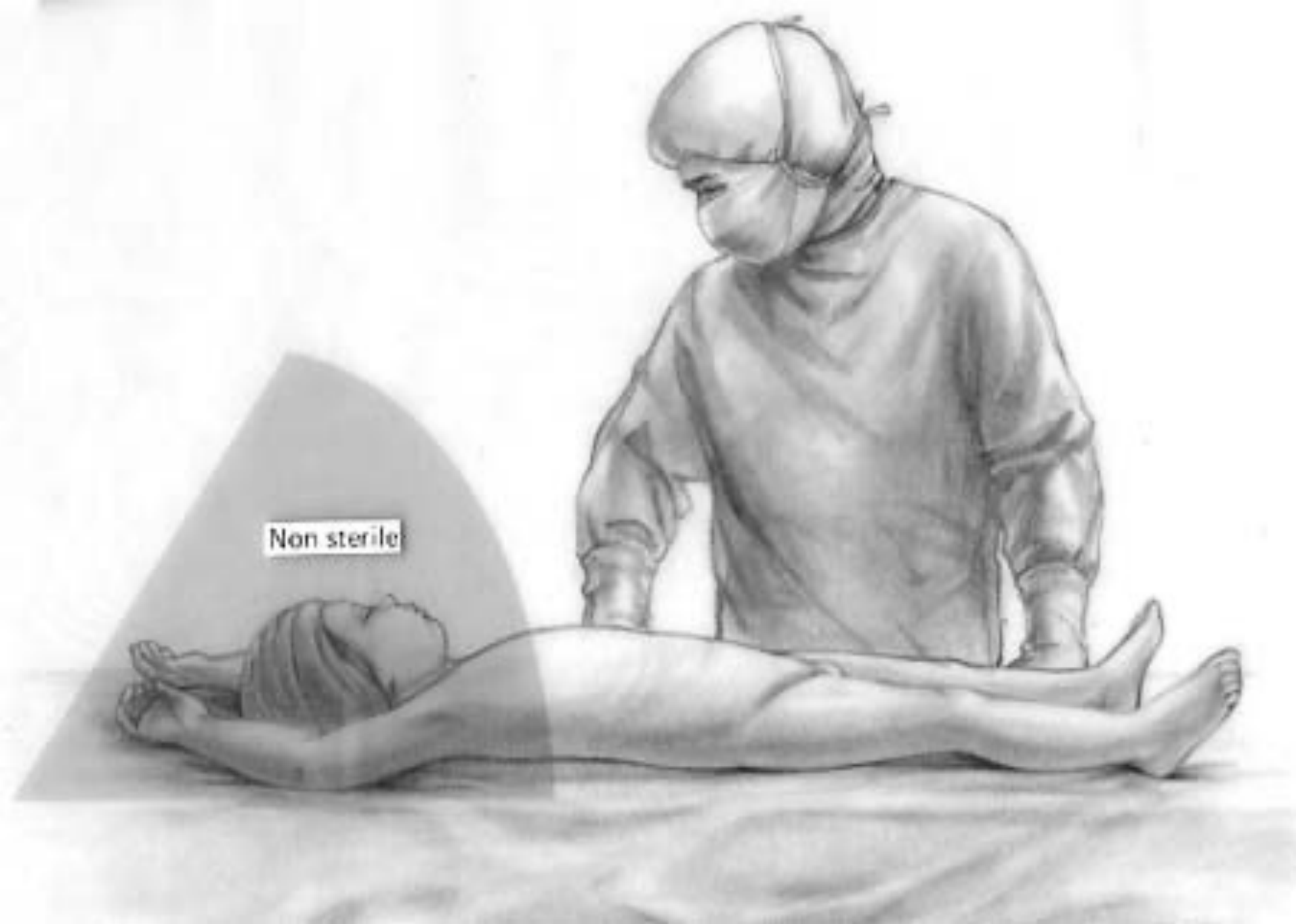
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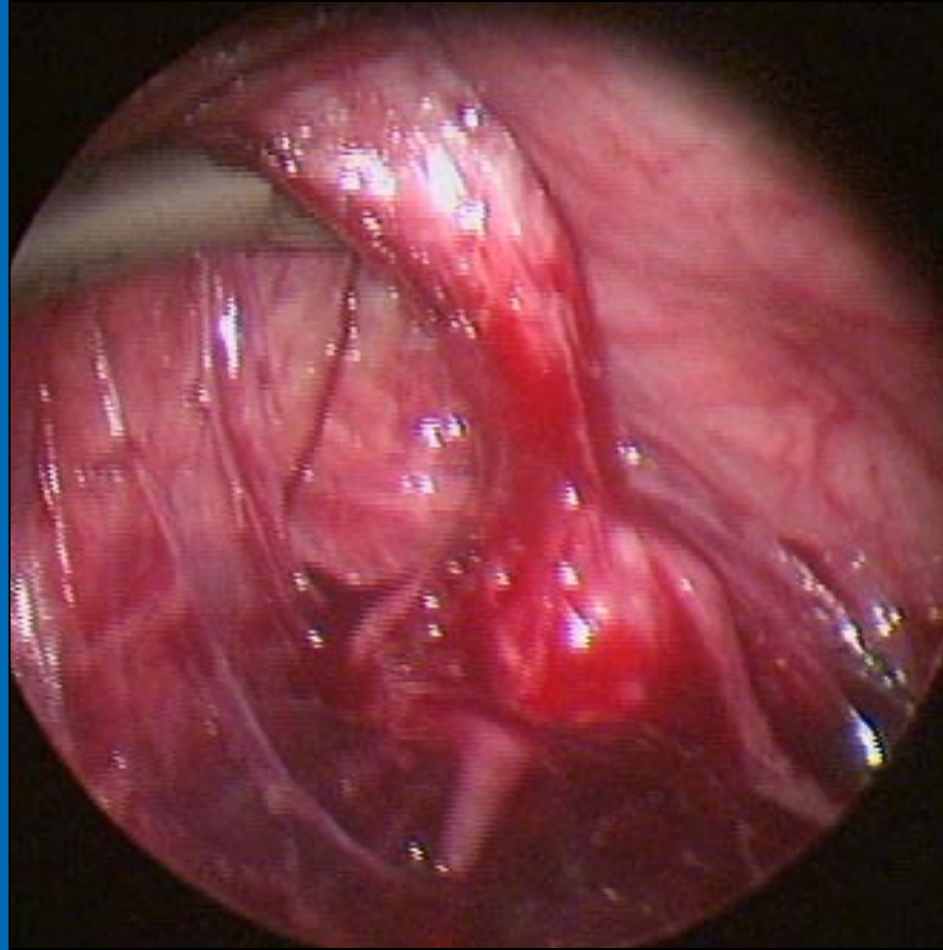


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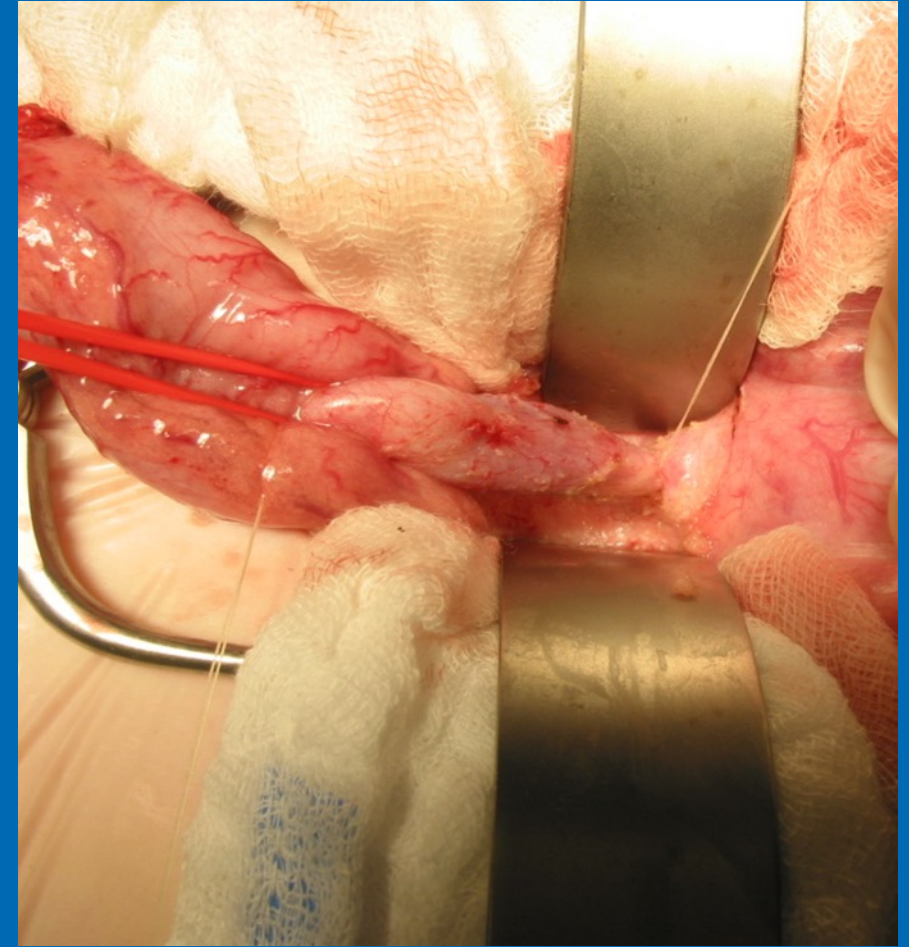
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# Ligation of a bladderneck fistula

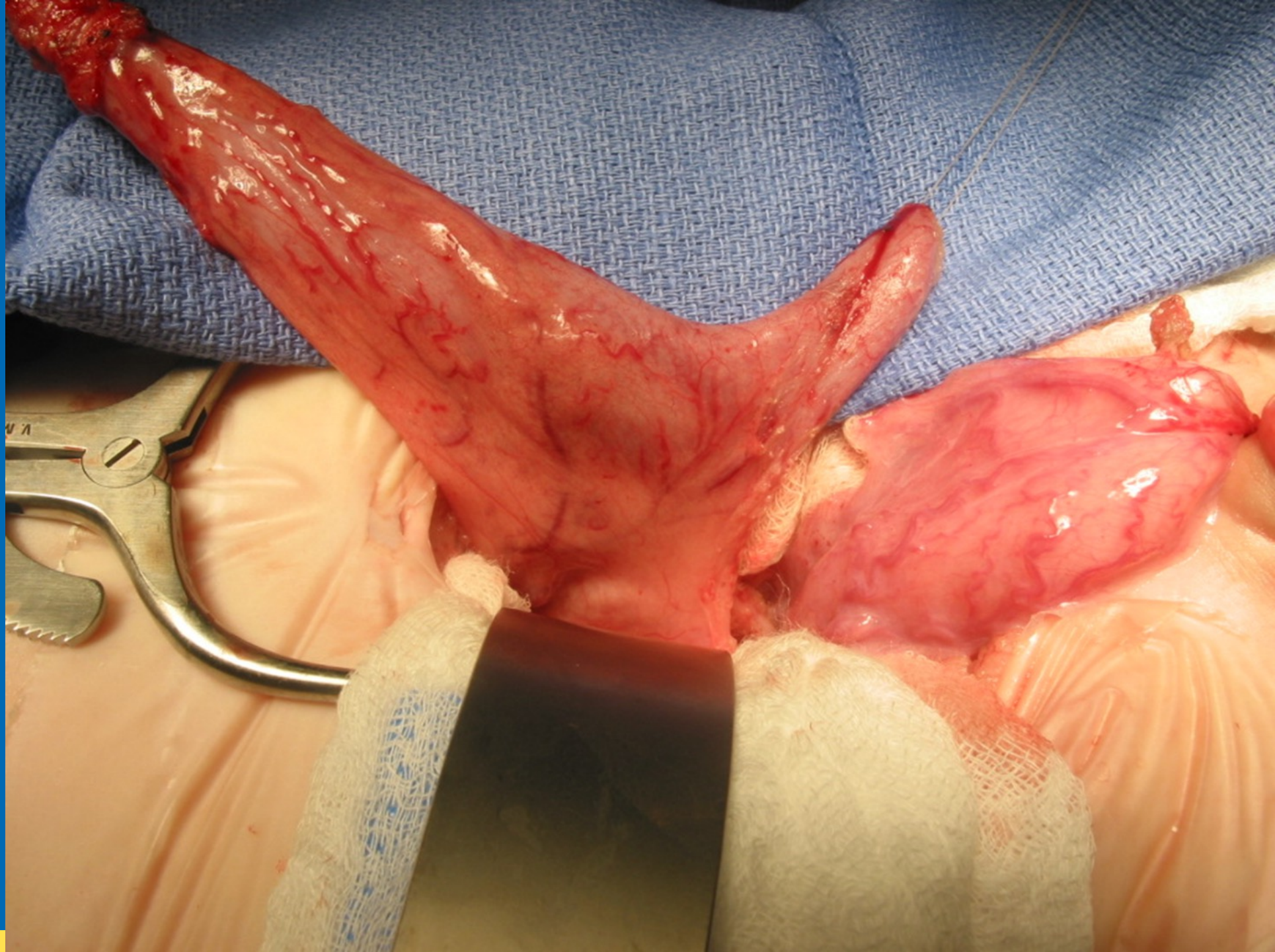


Laparoscopic view

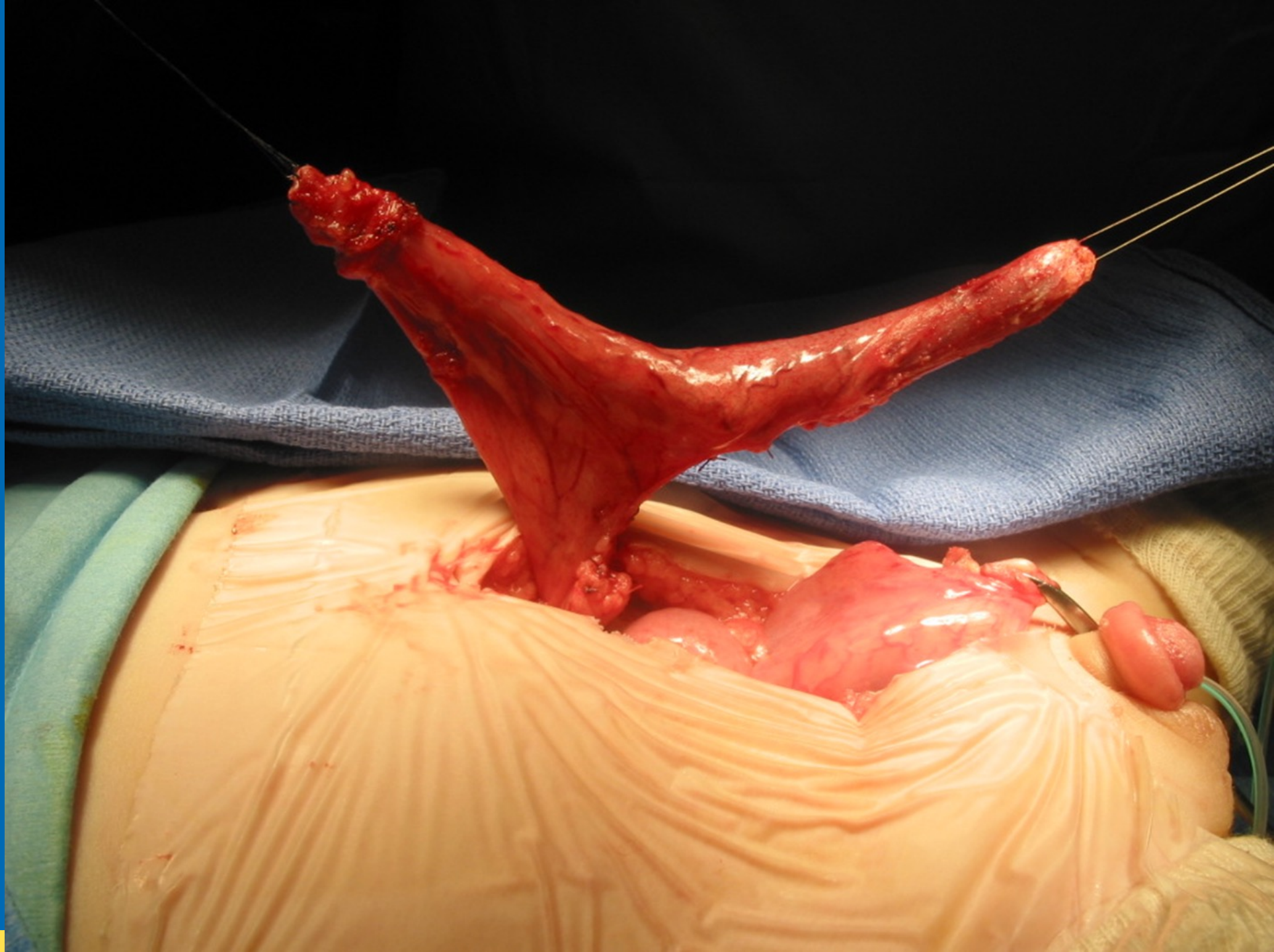


Laparotomy view



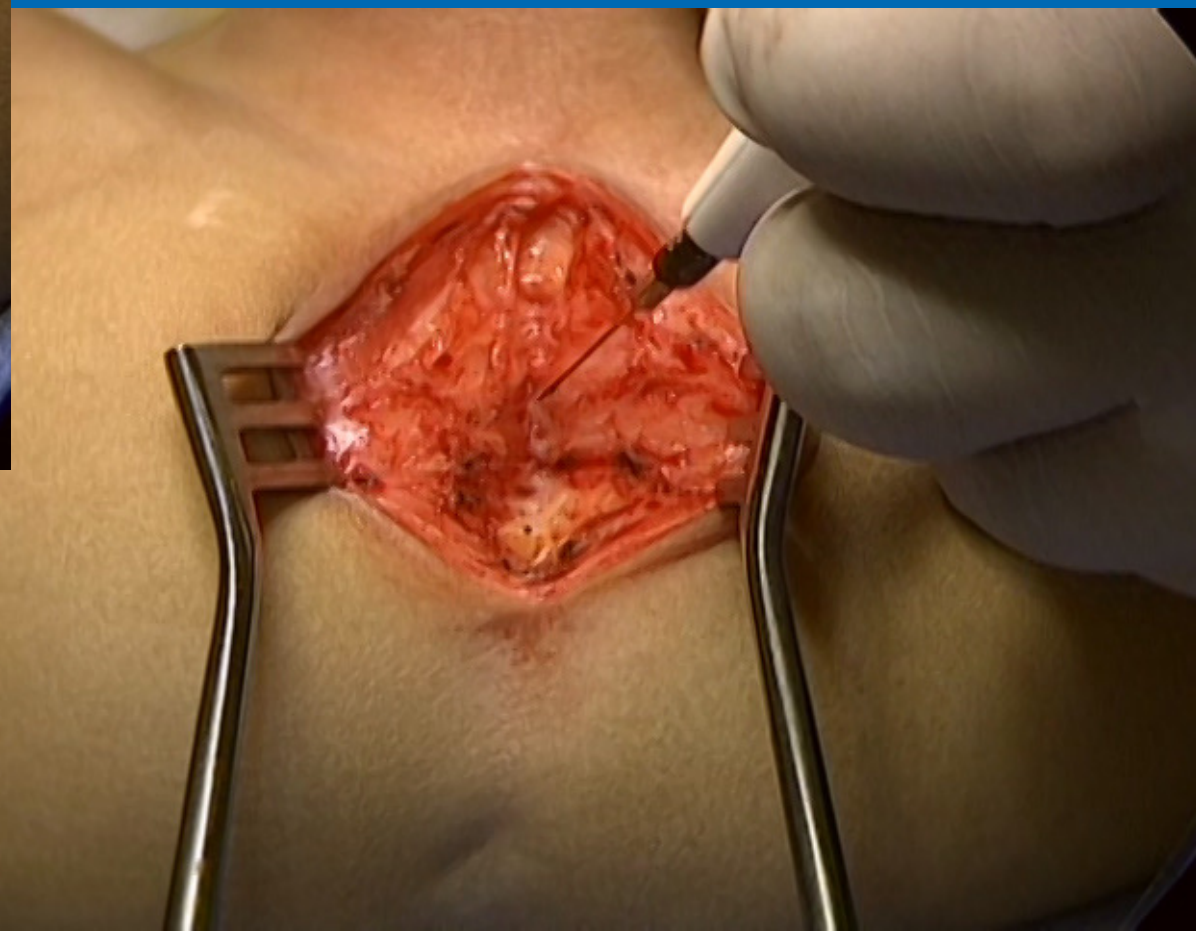


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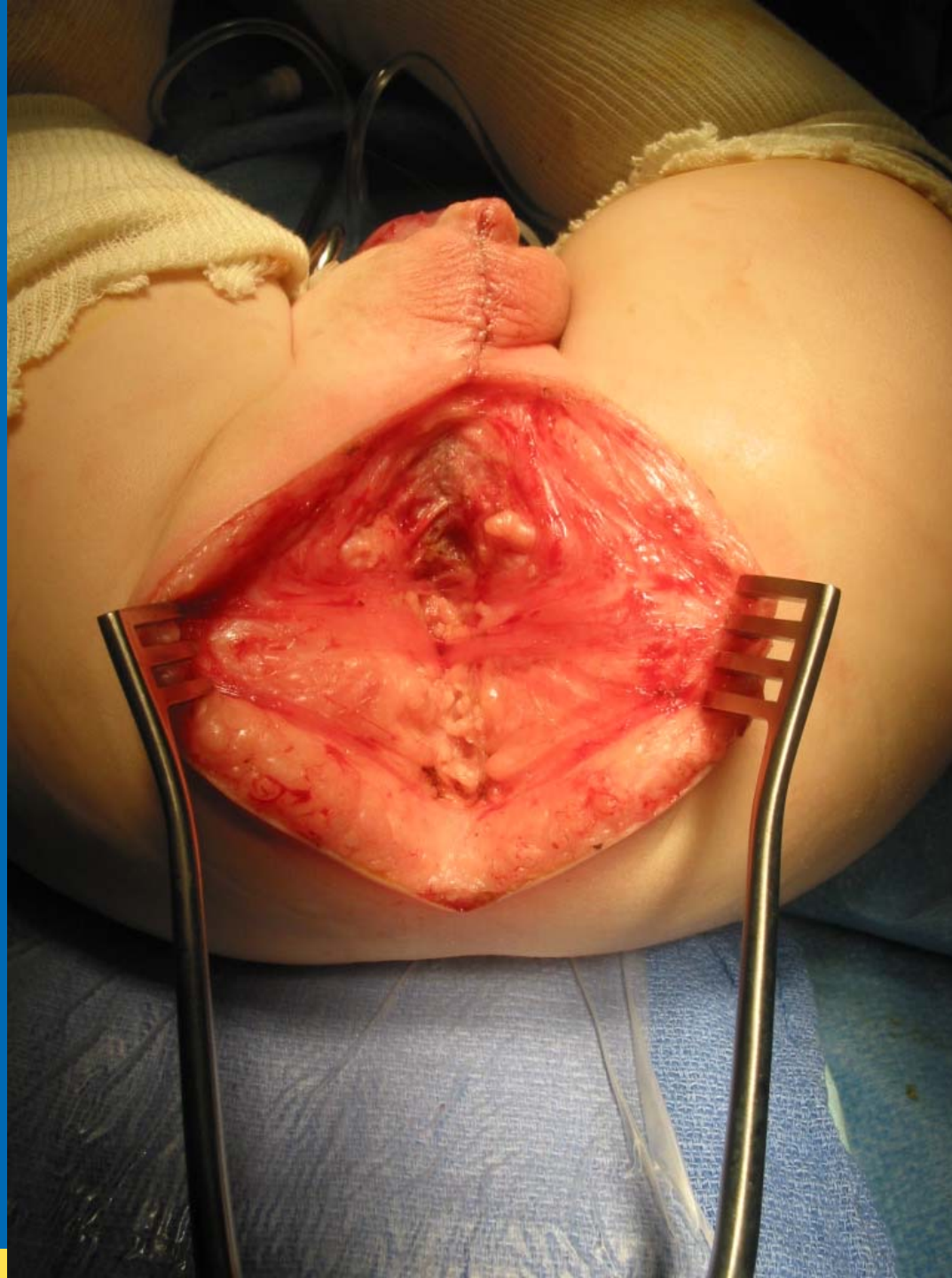


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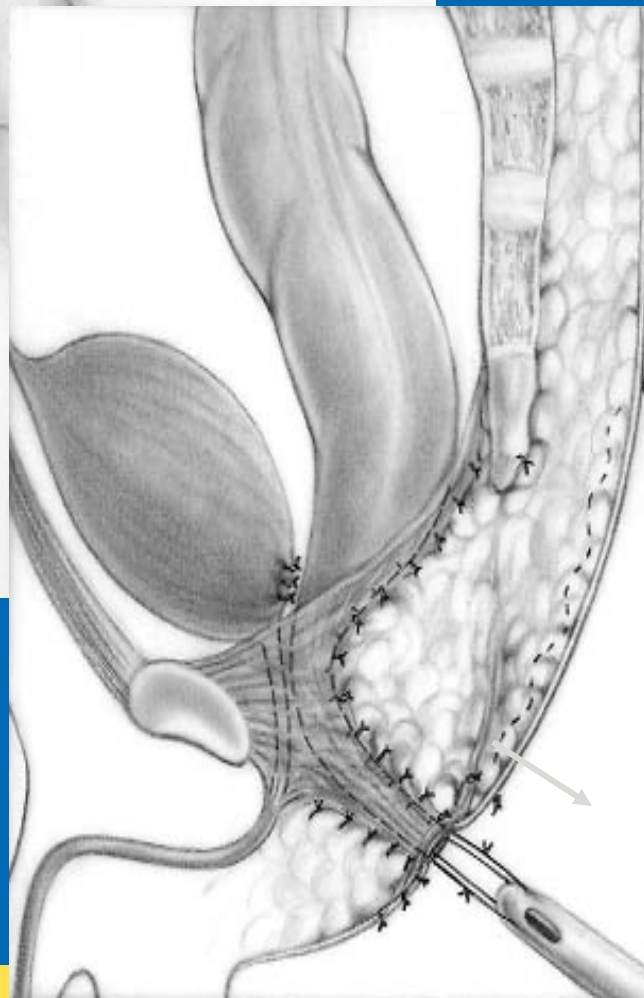
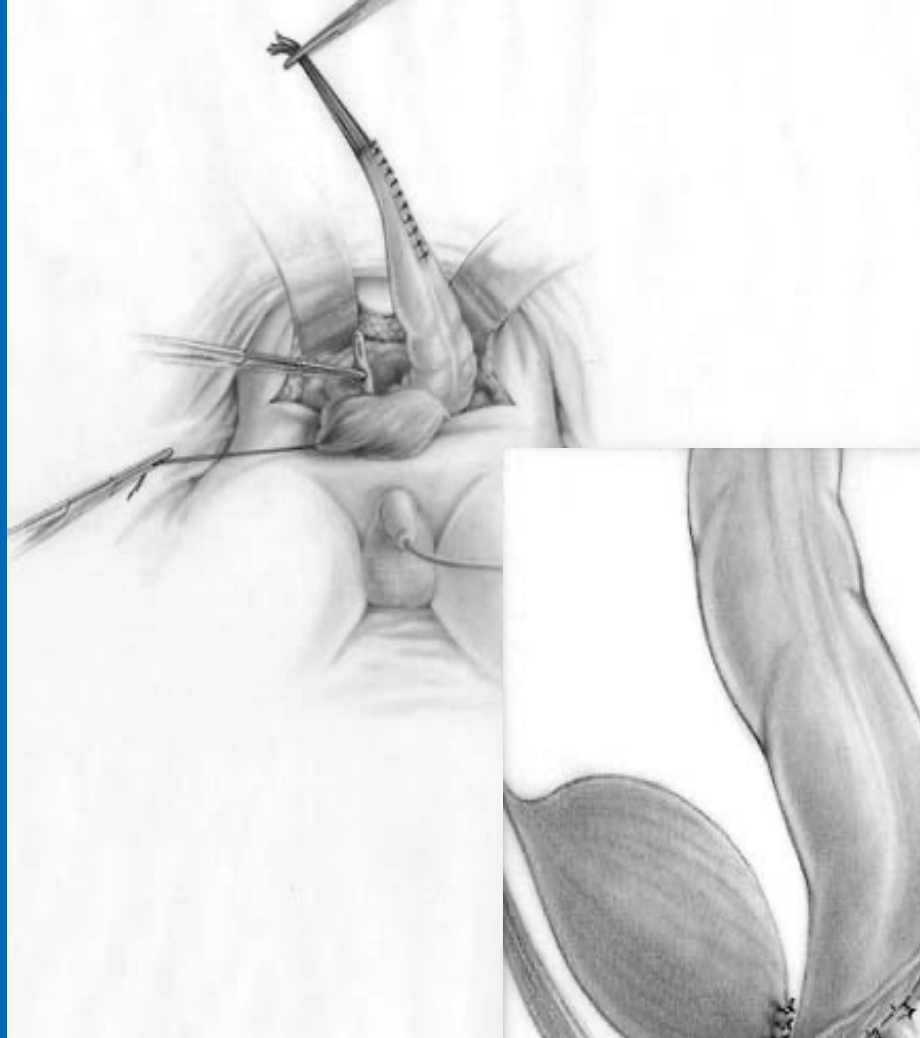


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# Laparoscopy in Anorectal Malformations



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# Posterior Urethral Diverticulum After Laparoscopic Repair of an Anorectal Malformation



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Doctors Pena Bischoff



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