


# PD 46-11: Techniques that Reduce Pars Fixa and Pars Pendulans Urethral Anastomotic Complications during Radial Forearm Free Flap Phalloplasty

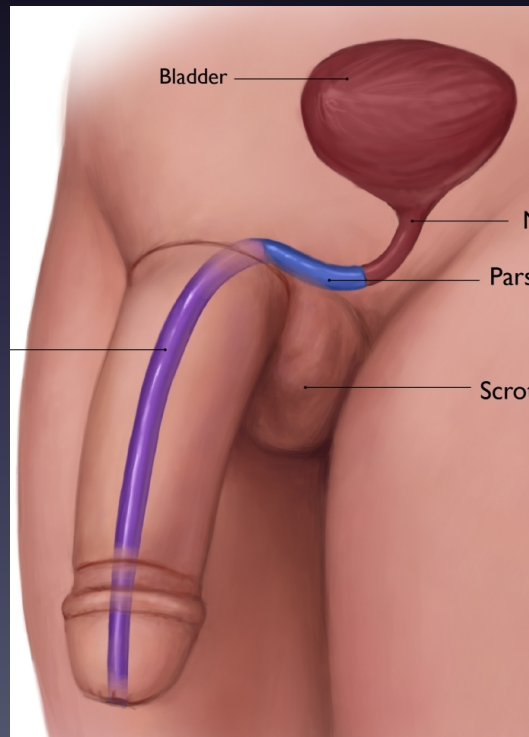


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Genitourinary Reconstructive Surgery

 @mangchenmd

[www.gurecon.com](http://www.gurecon.com)



Walter Lin, MD

Rudy Buntic, MD

Andrew Watt, MD

Bauback Safa, MD

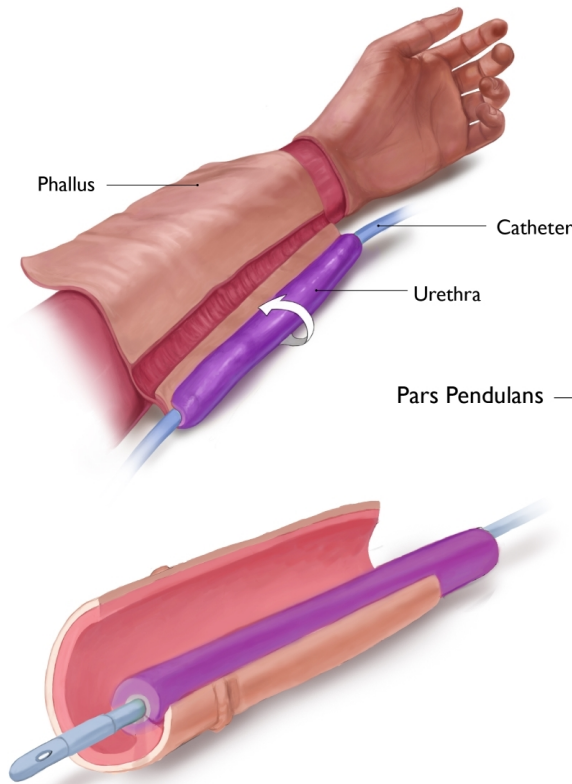
[www.buncke.org](http://www.buncke.org)

# PF-PP Anastomosis

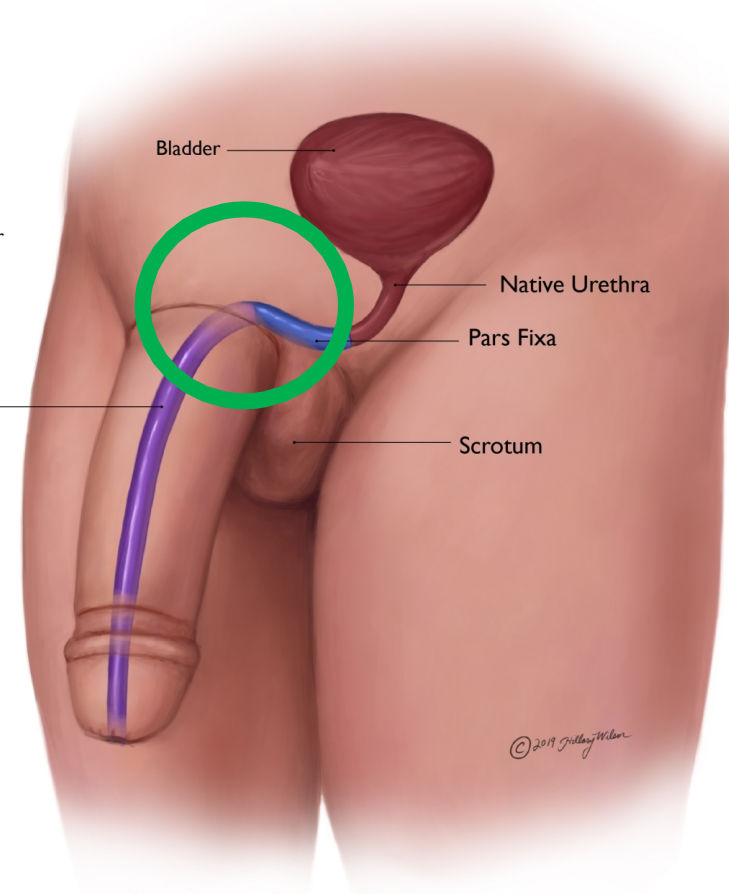
## Radial Forearm Free Flap (RFFF) Phalloplasty

Origins of Tissues used in Urethral Lengthening

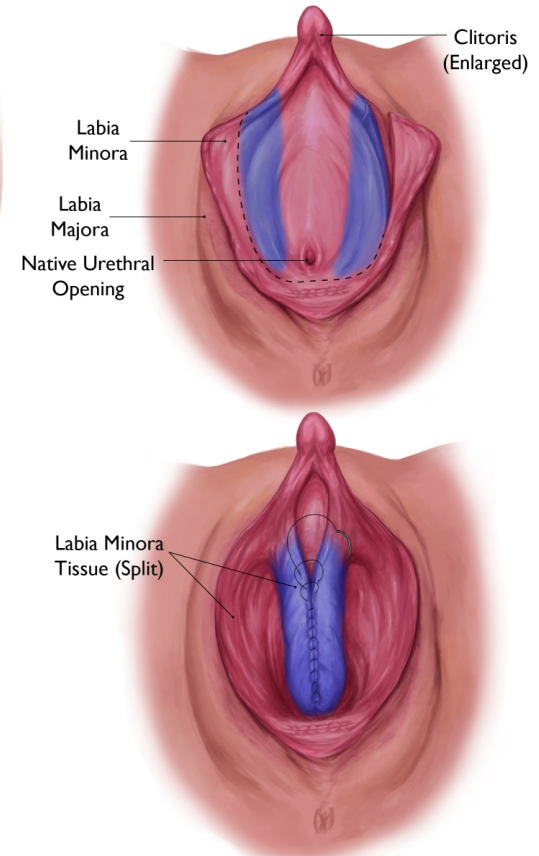
### Pars Pendulans



- A** The urethral portion of the radial forearm free flap is rolled around a urinary catheter to form the pars pendulans urethra. The phallus portion is then rolled around the pars pendulans.



### Pars Fixa



- B** The labia minora is cut and rolled inward to form a tube around the native urethral opening. Excess tissue from the labia minora eventually contributes to the formation of the scrotum. The vagina is removed.



# Surgeons' Goals

- Maximize Blood Flow
- Minimize Tension

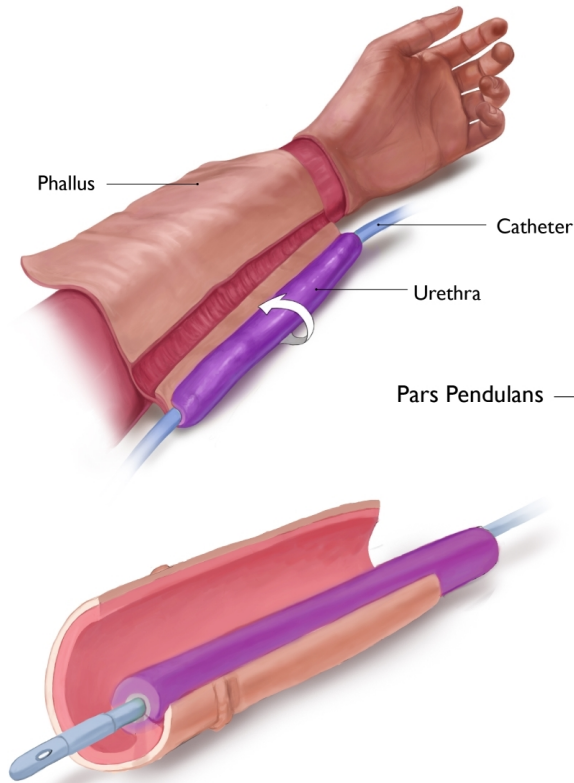


# MAXIMIZE BLOOD FLOW

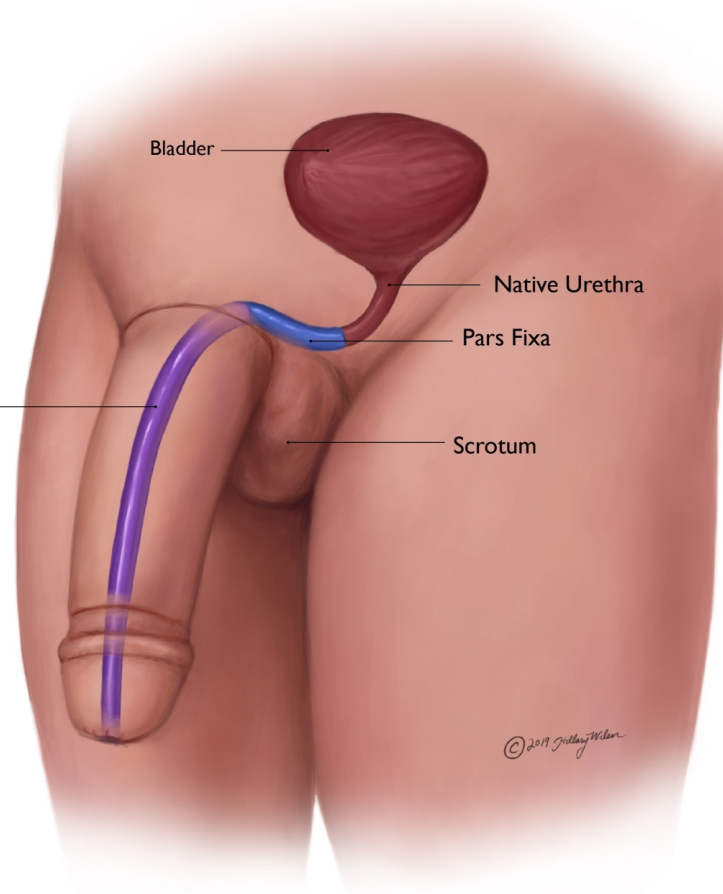
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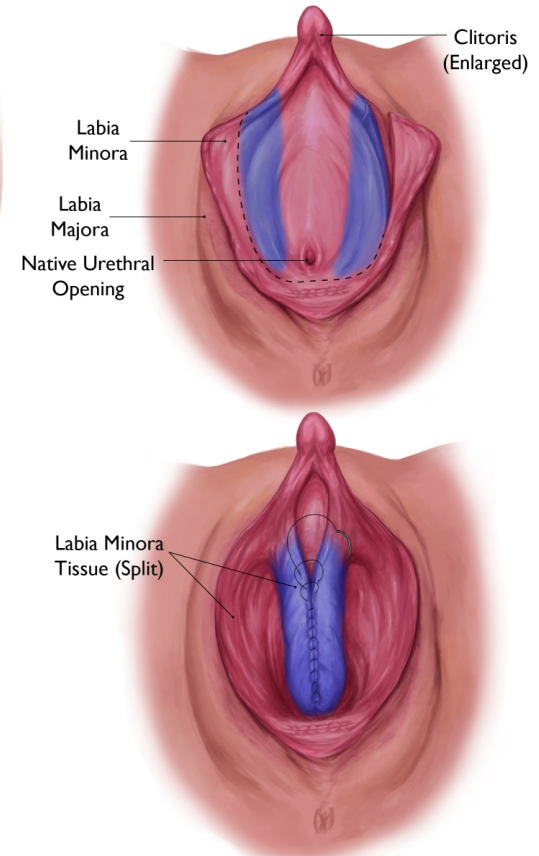
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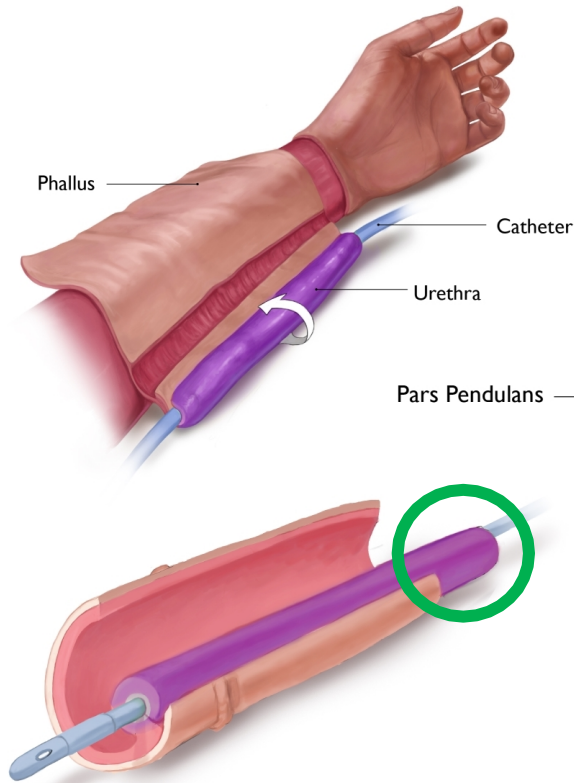
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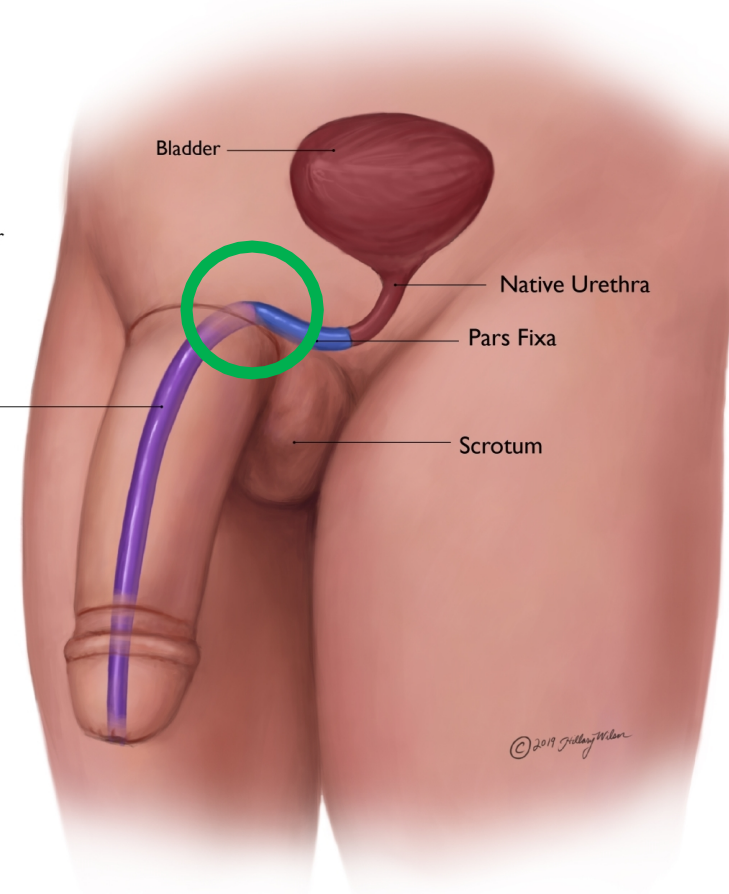
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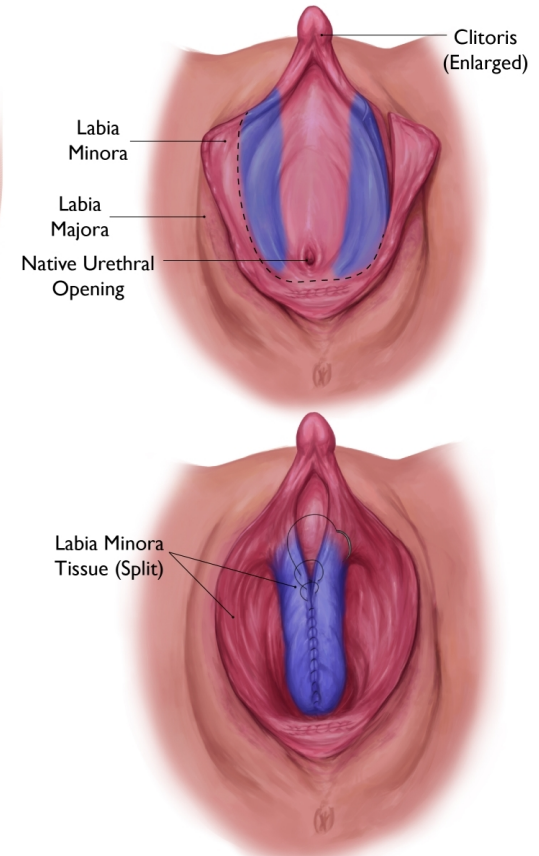
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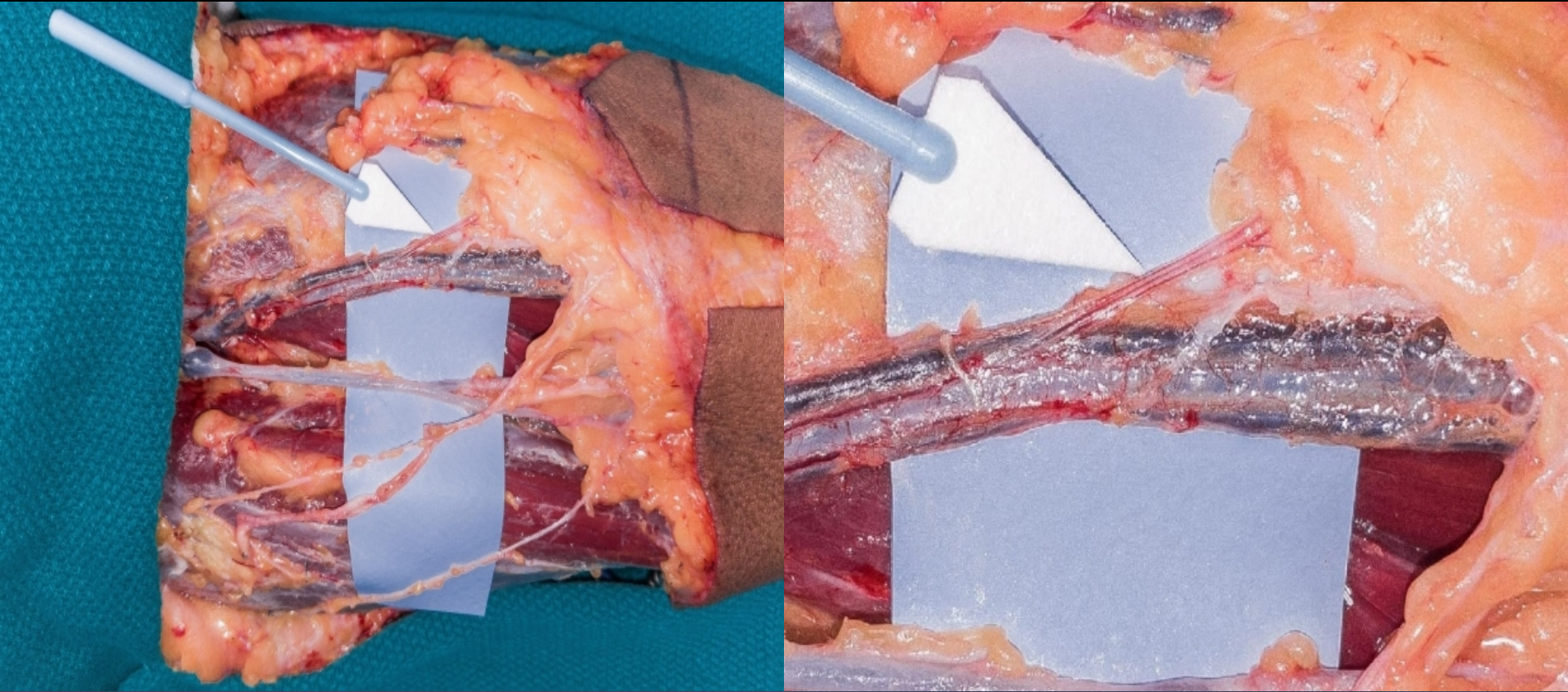
### Pars Fixa



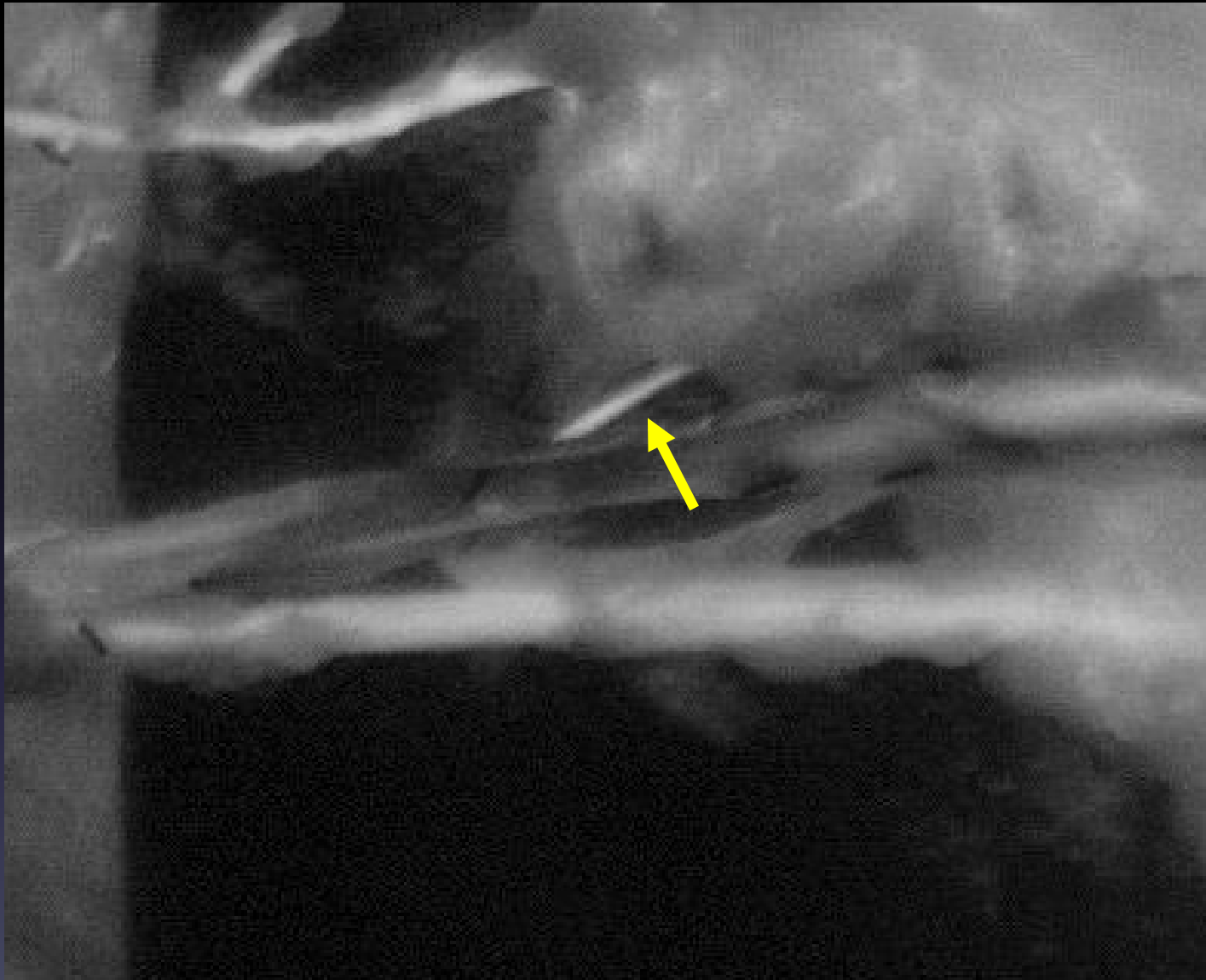
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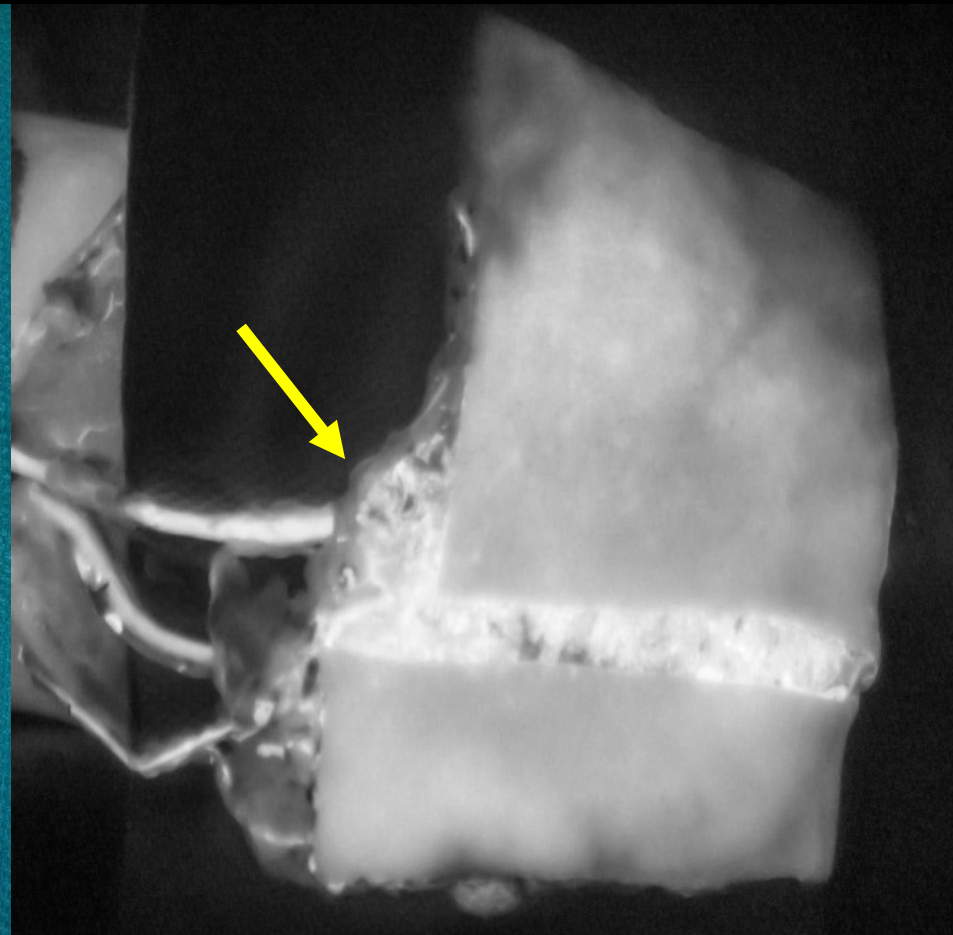
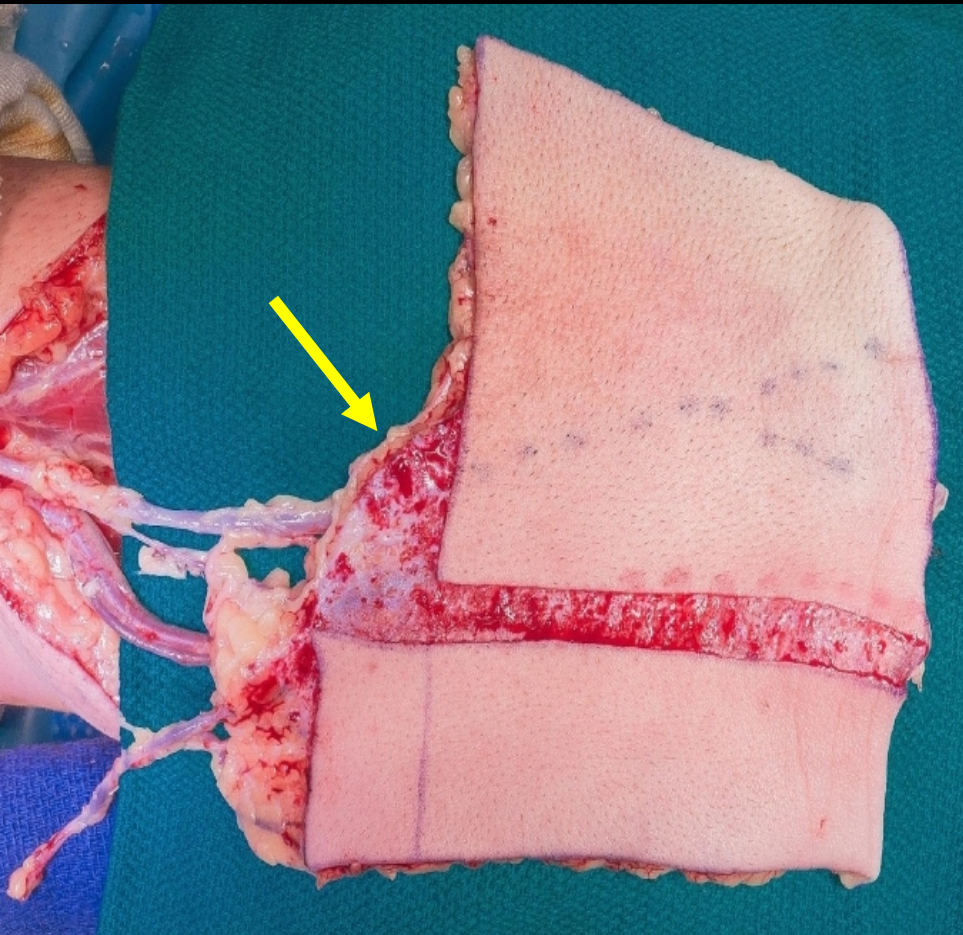
# 1. Preserve Arteries to PP urethra





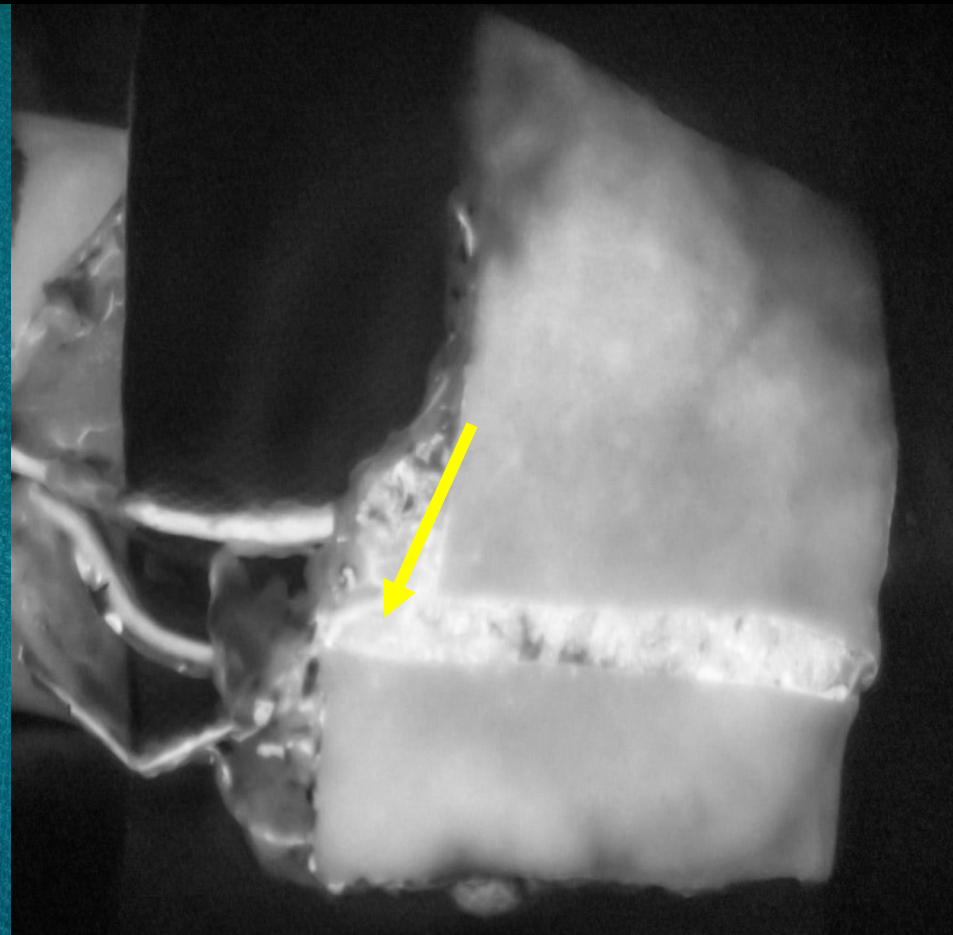
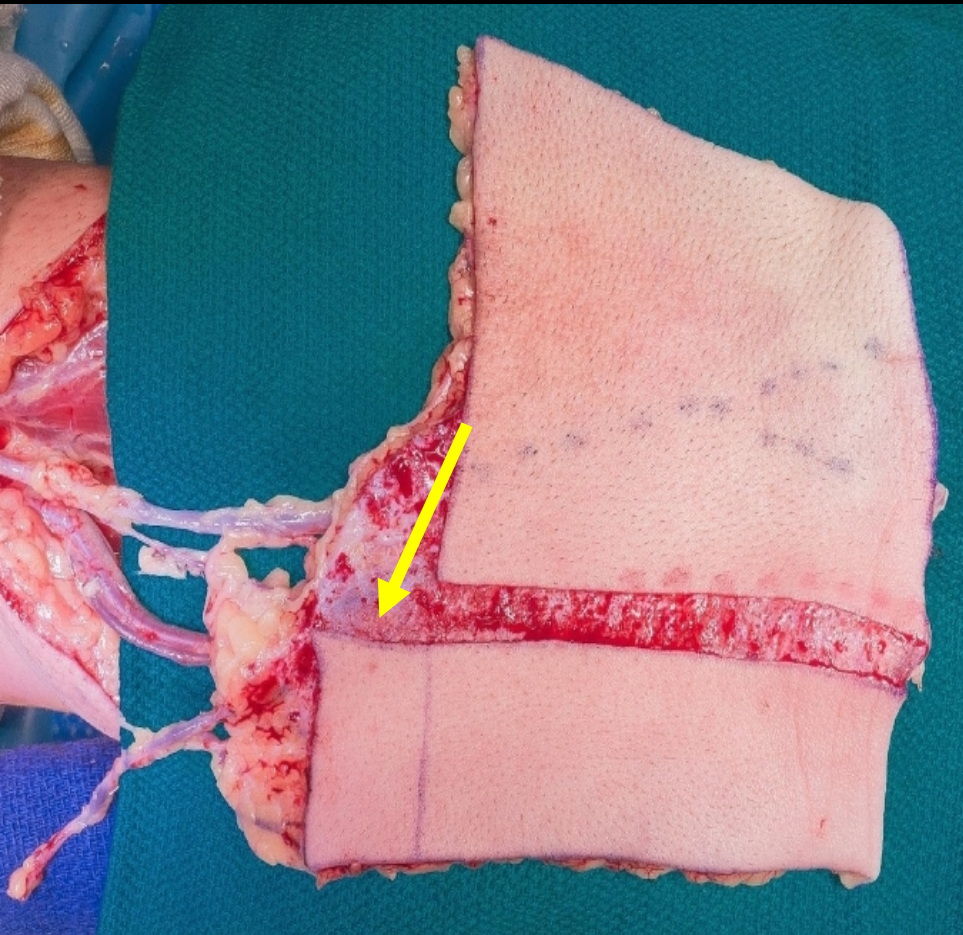


## 2. Create Dermal Bridge

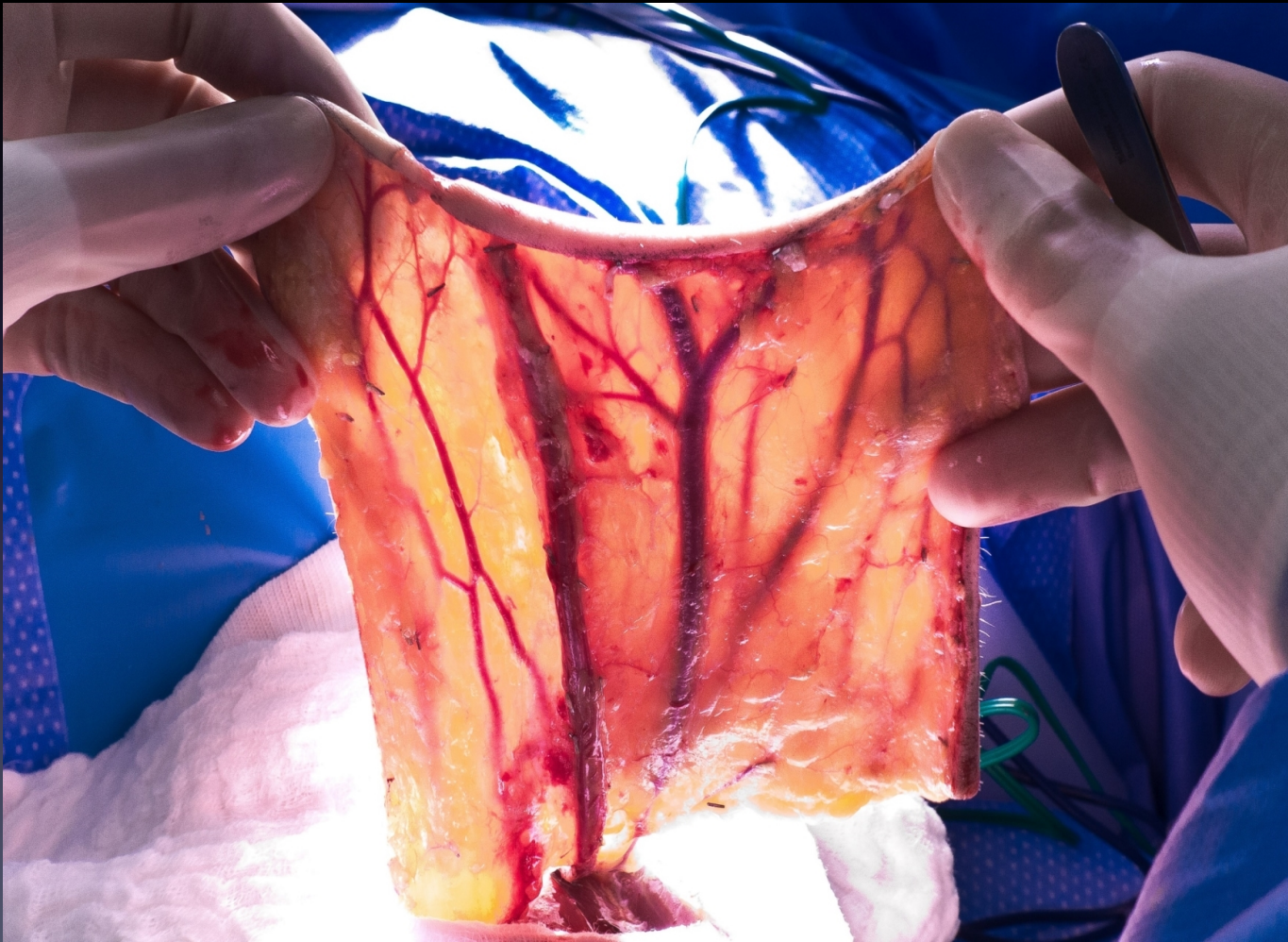




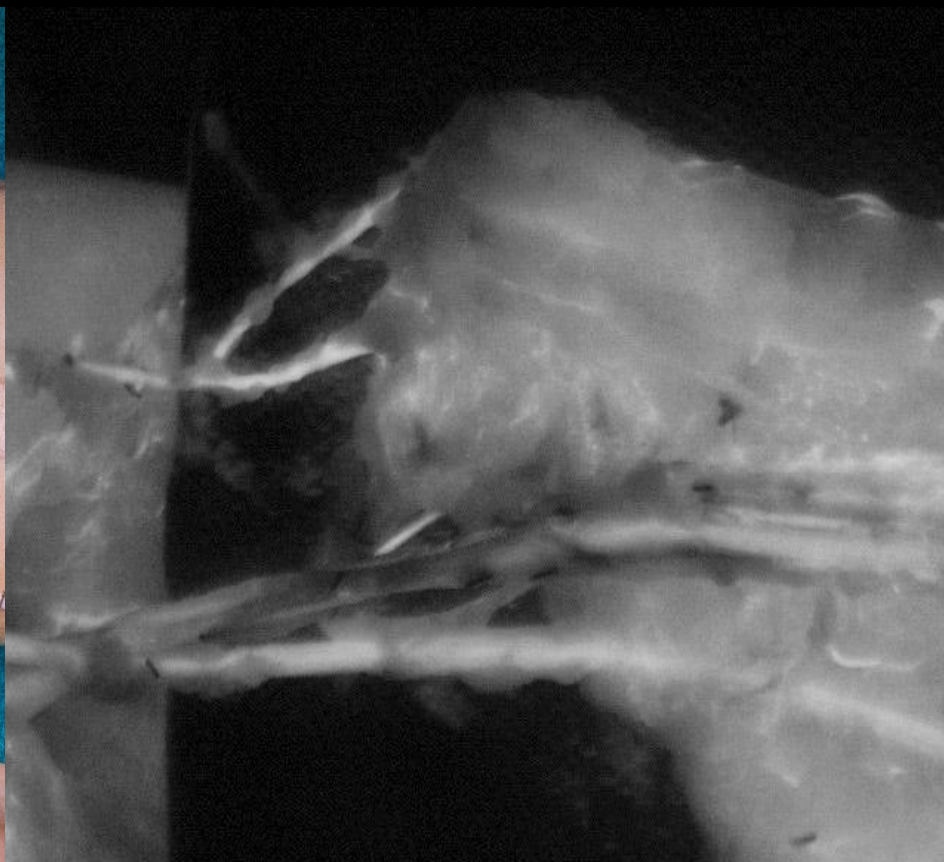
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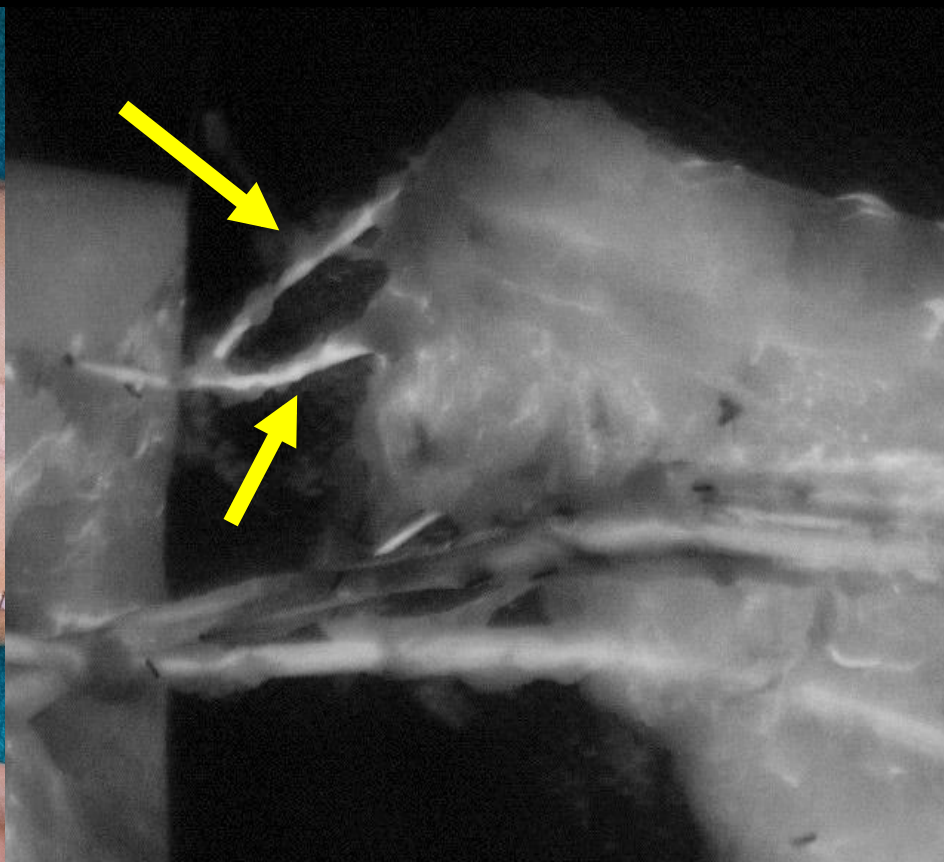


### 3. Maximize Venous Drainage



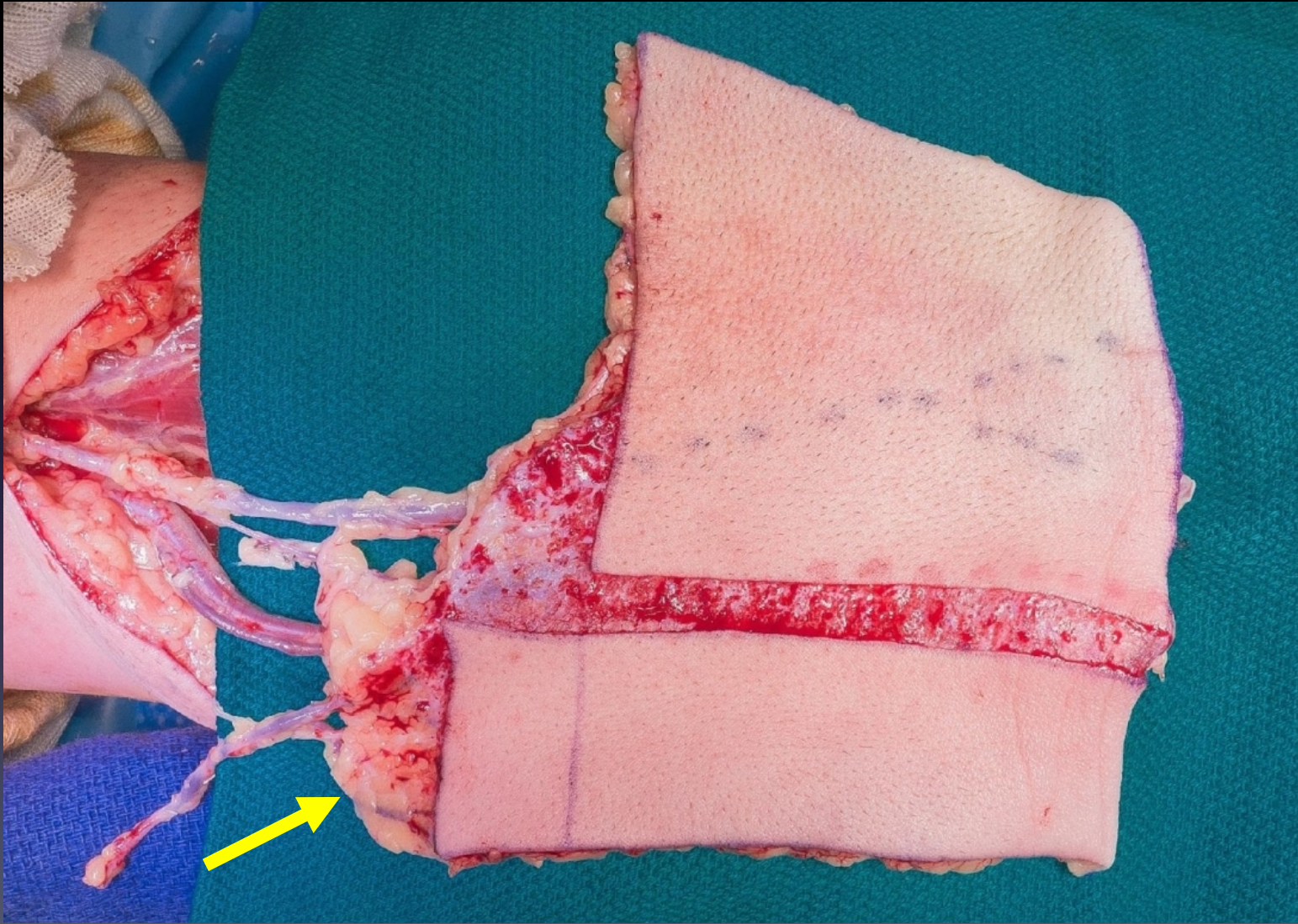




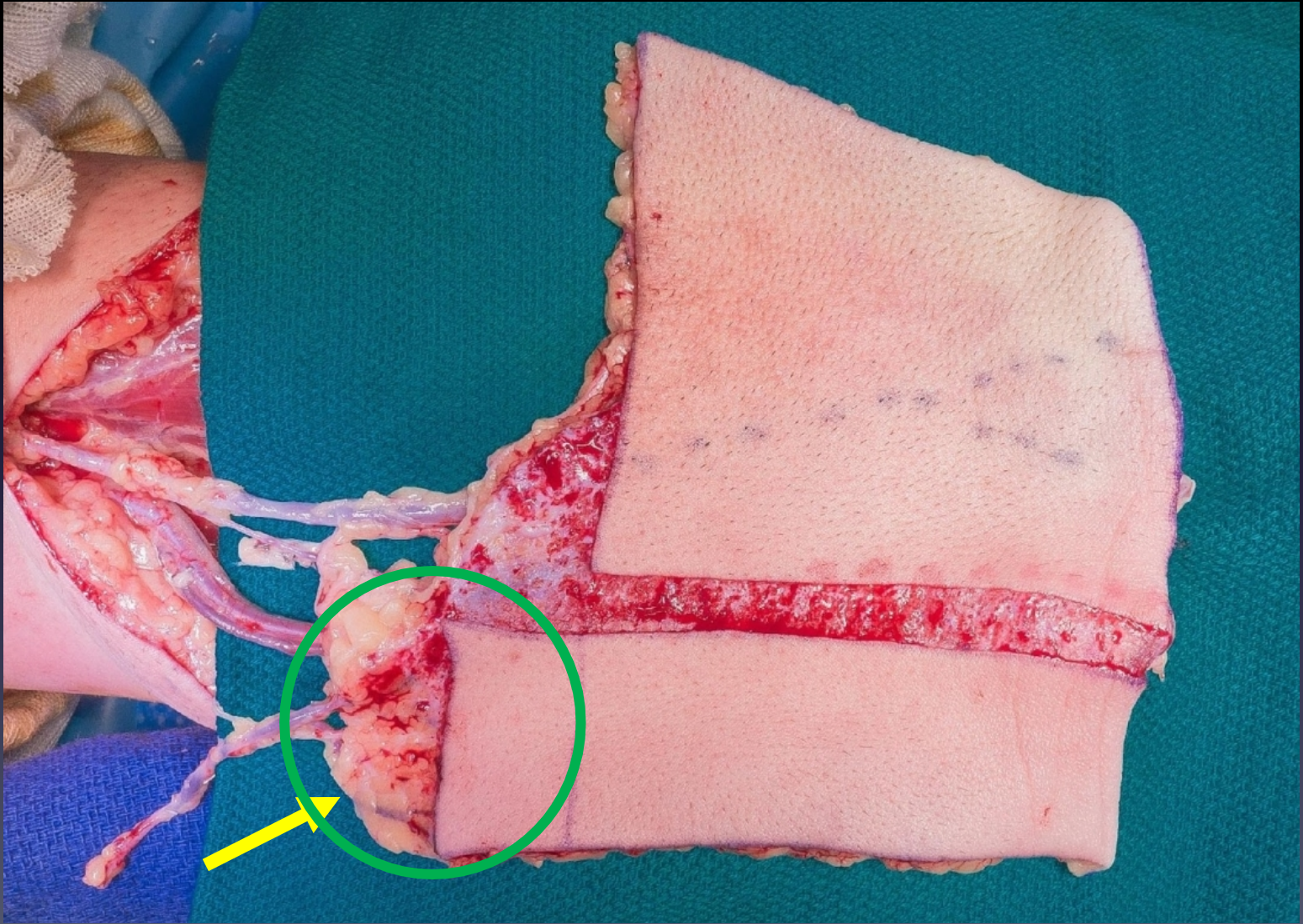




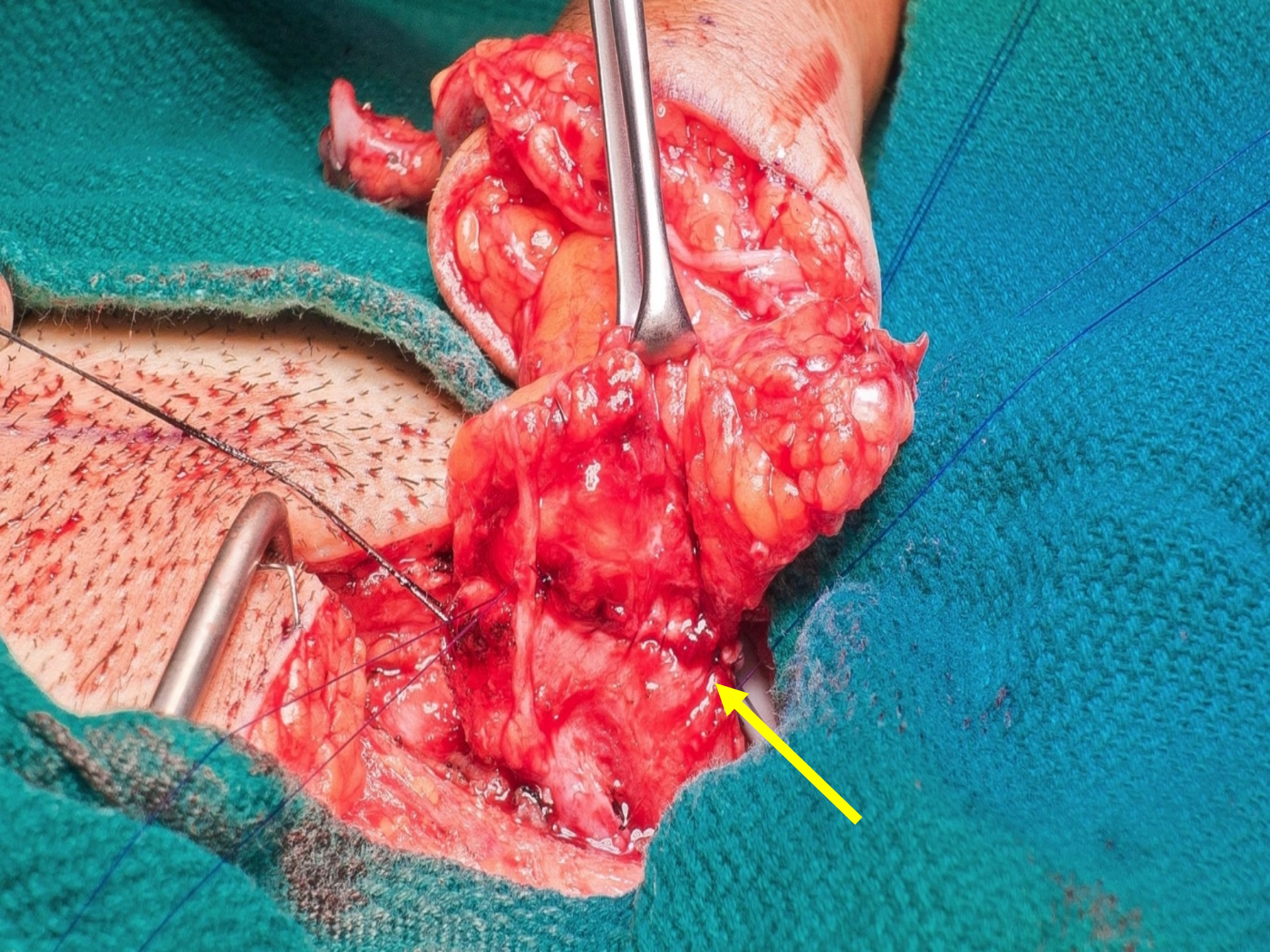
## 4. Create Adipofascial Extension



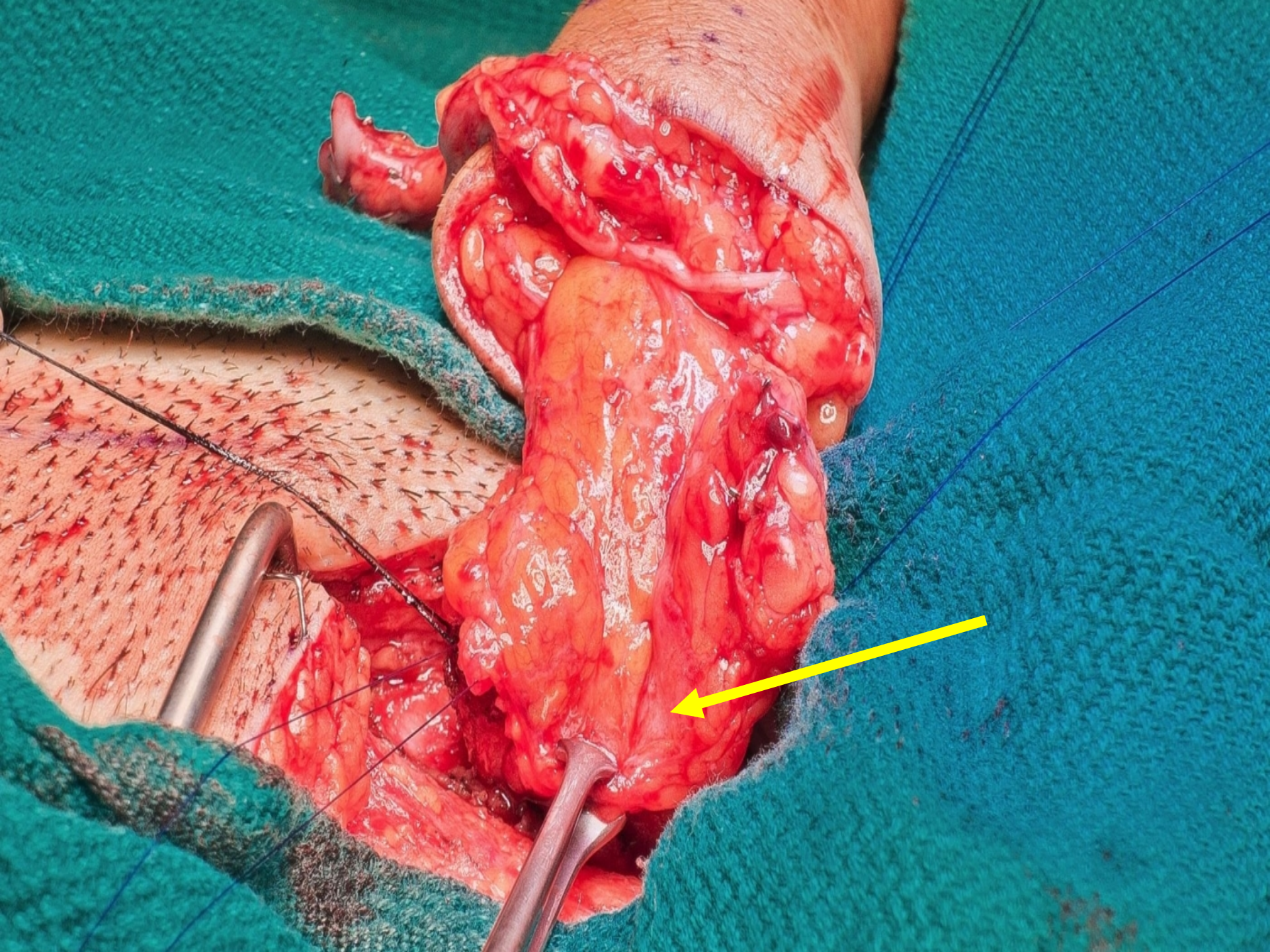








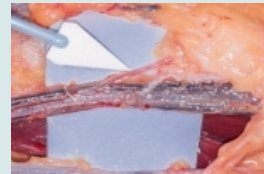






# Maximize Blood Flow

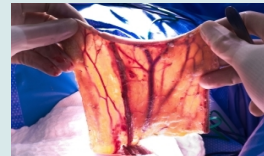
Preserve Arteries



Dermal Bridge



Preserve Veins



Adipofascial Extension

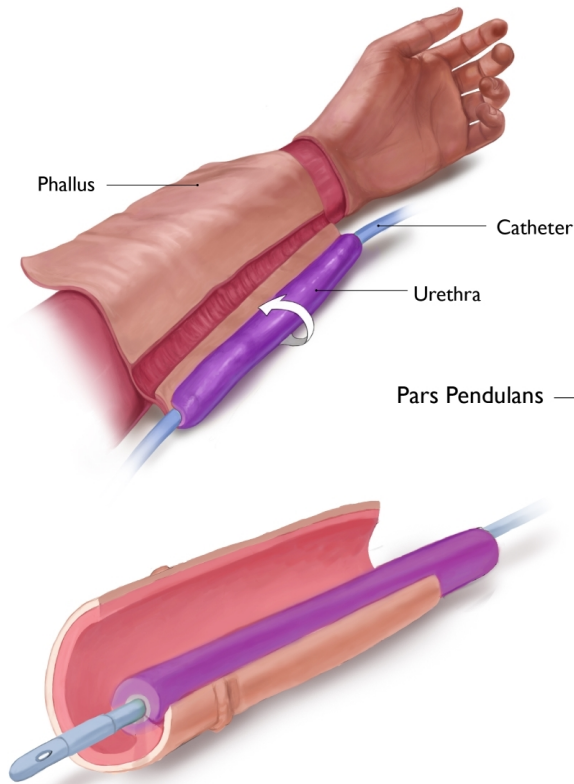


# MINIMIZE TENSION

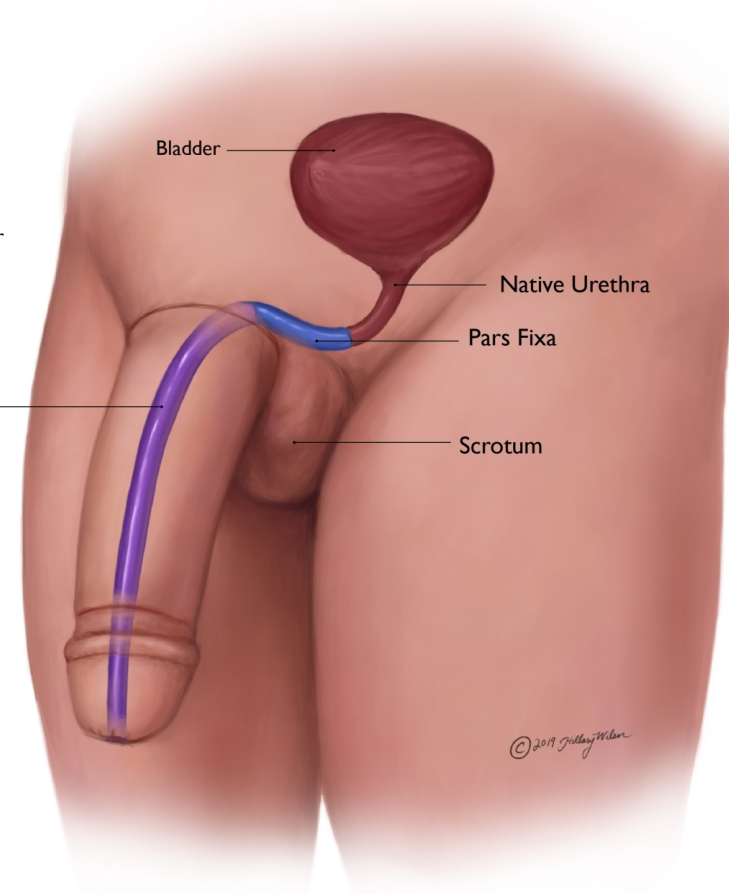
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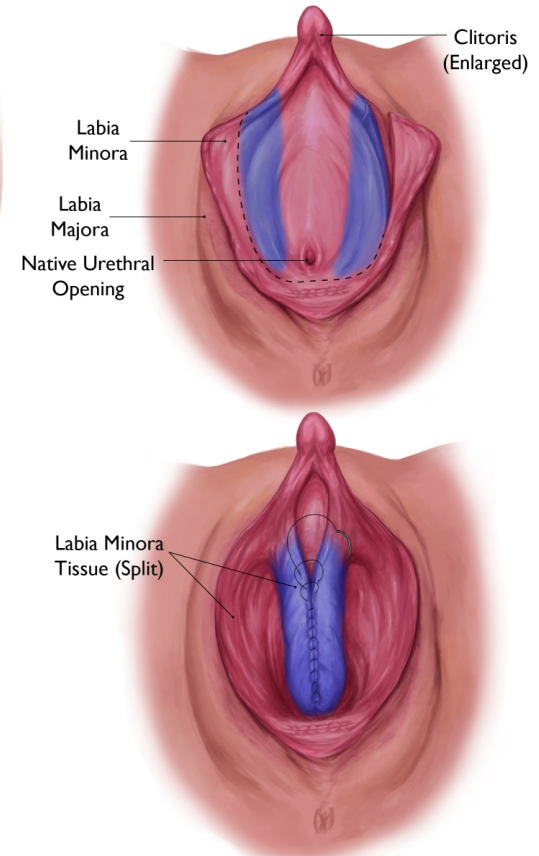
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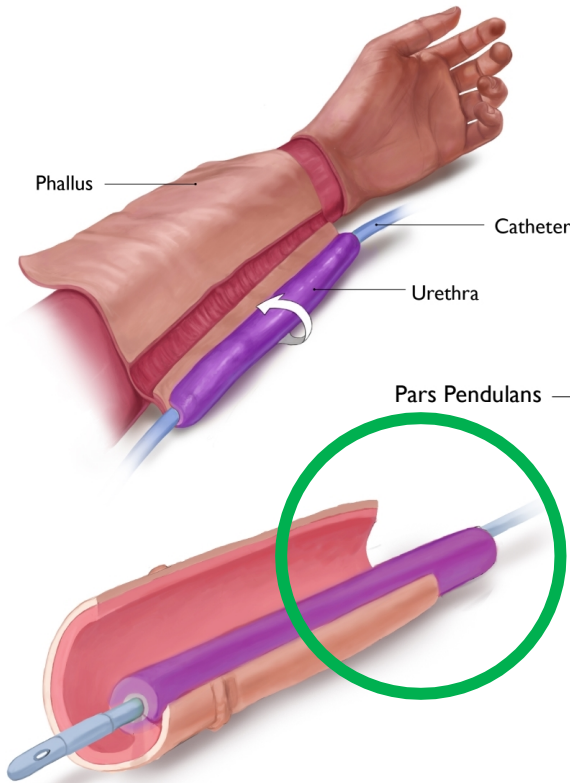


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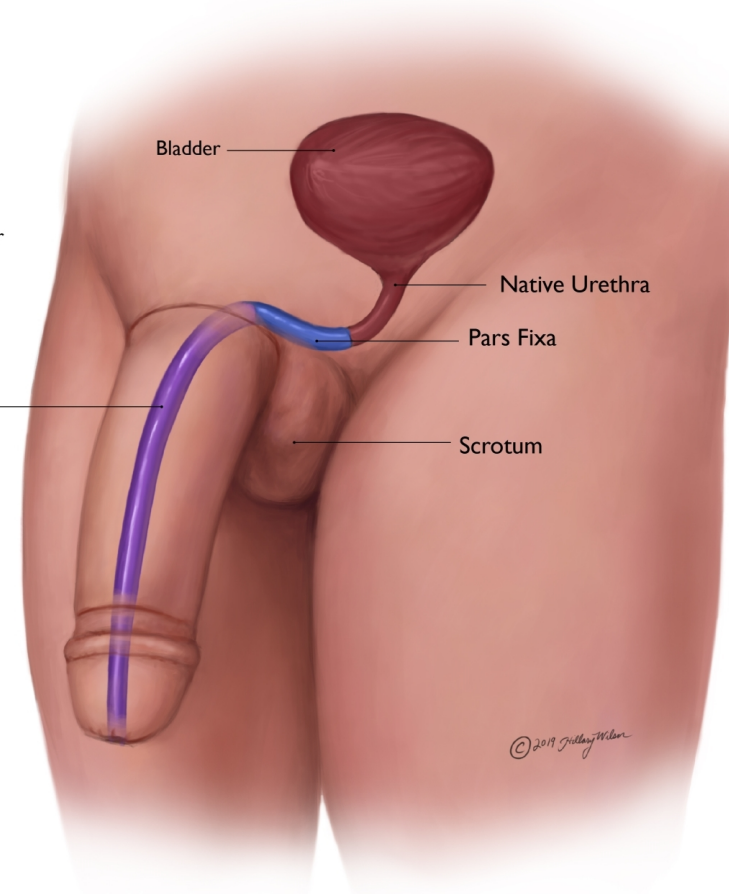
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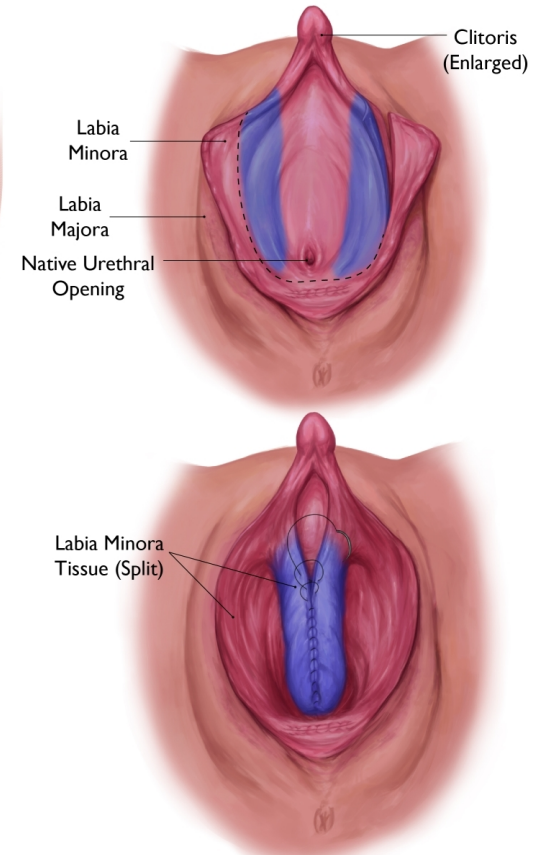
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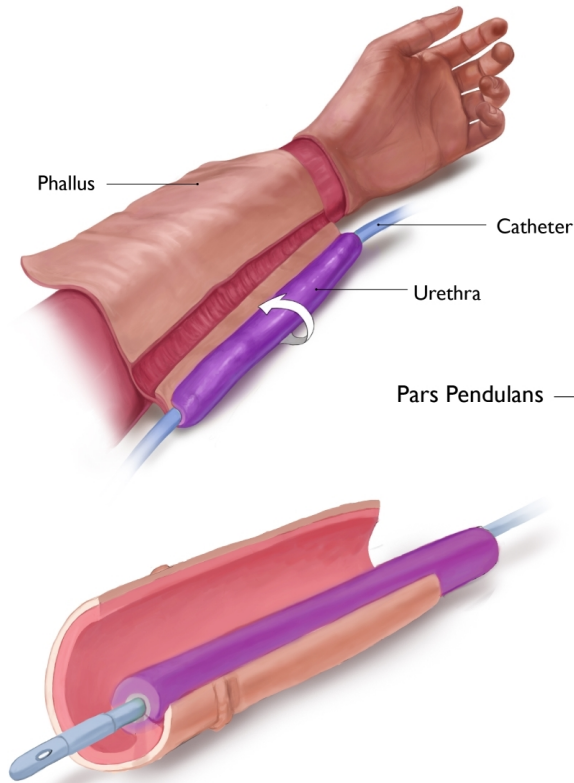
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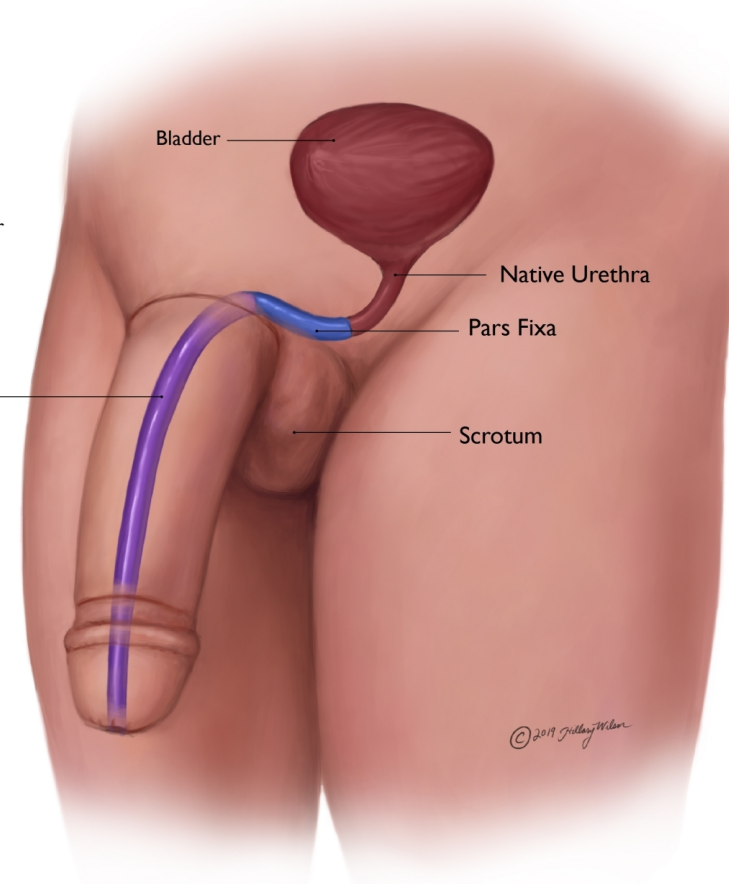
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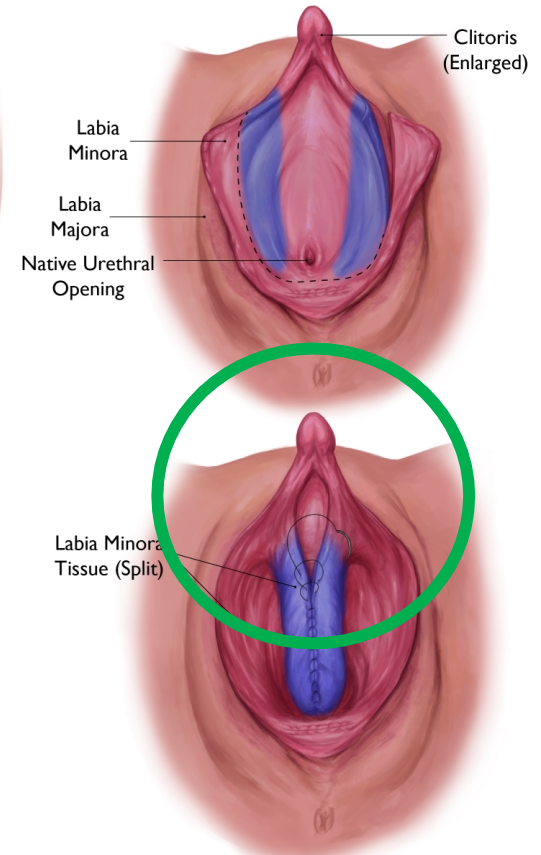
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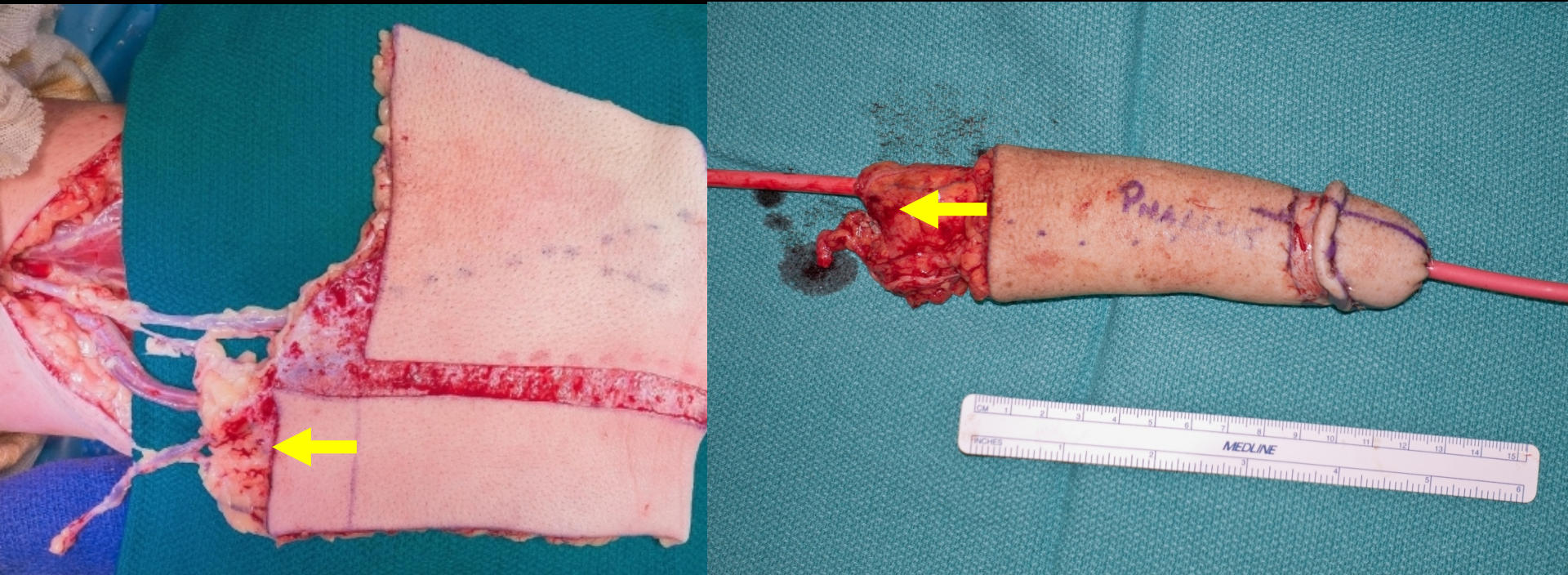
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# 5. Extend Proximal PP Urethra

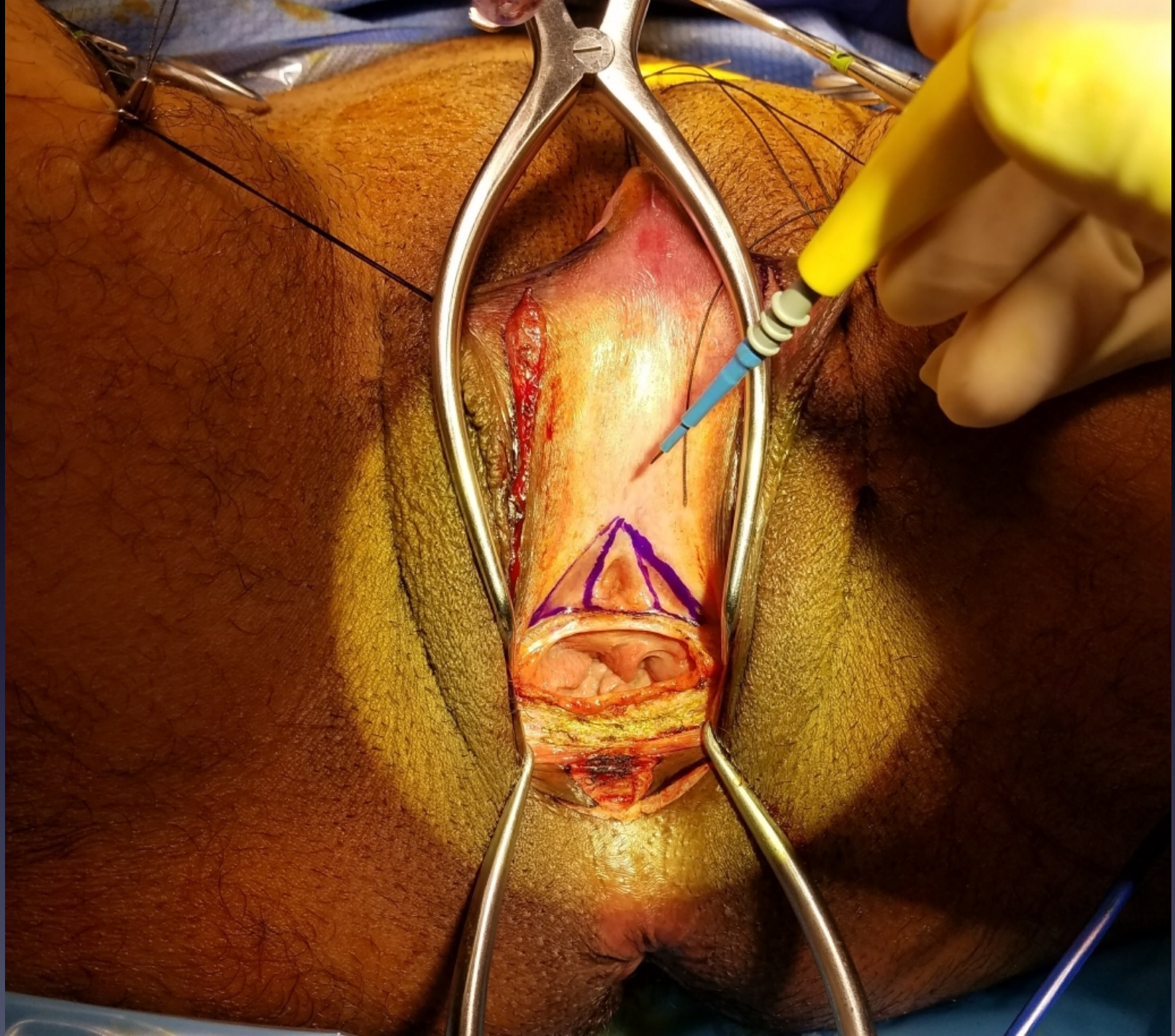




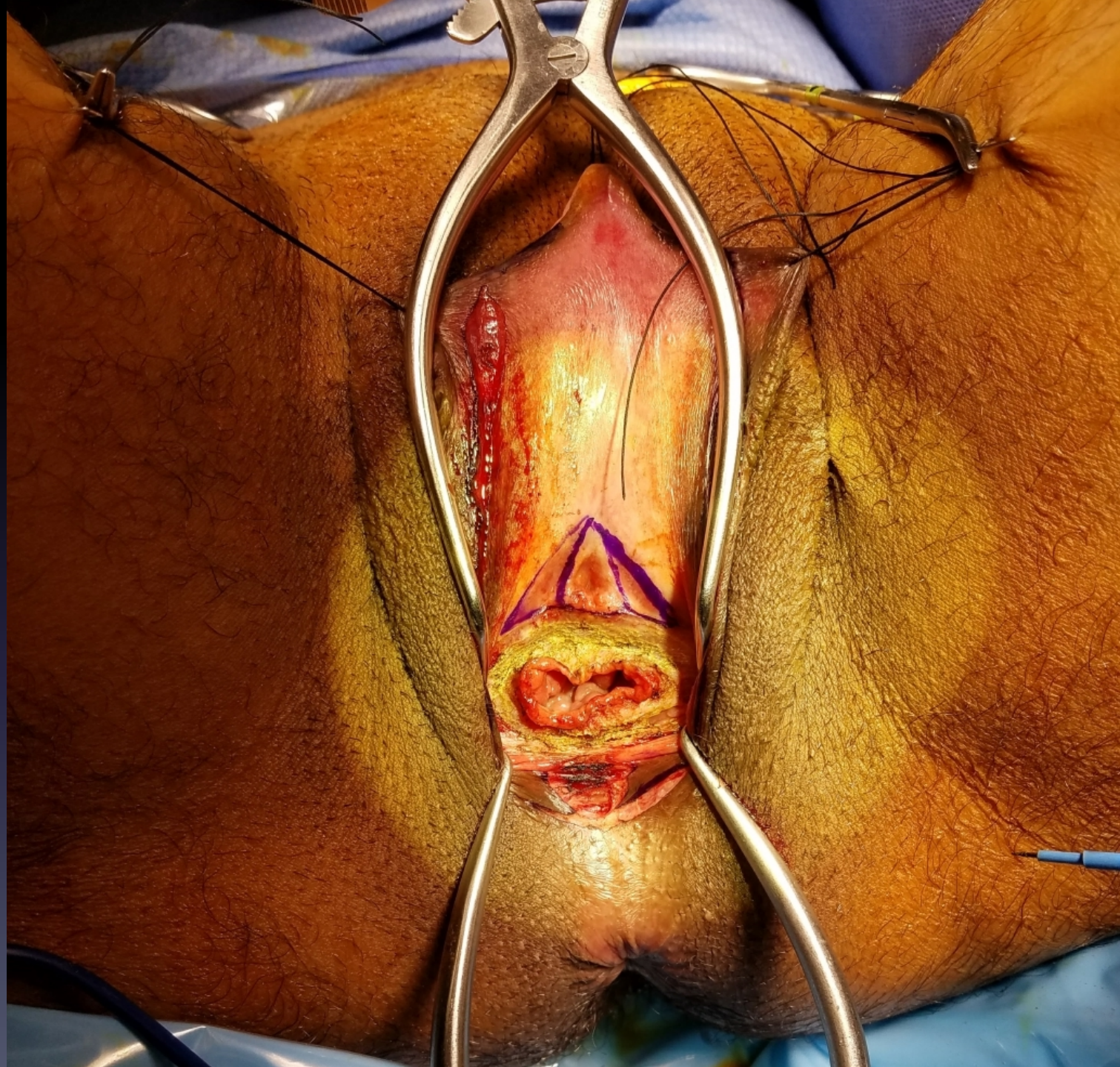
## 6. Extend Distal PF Urethra







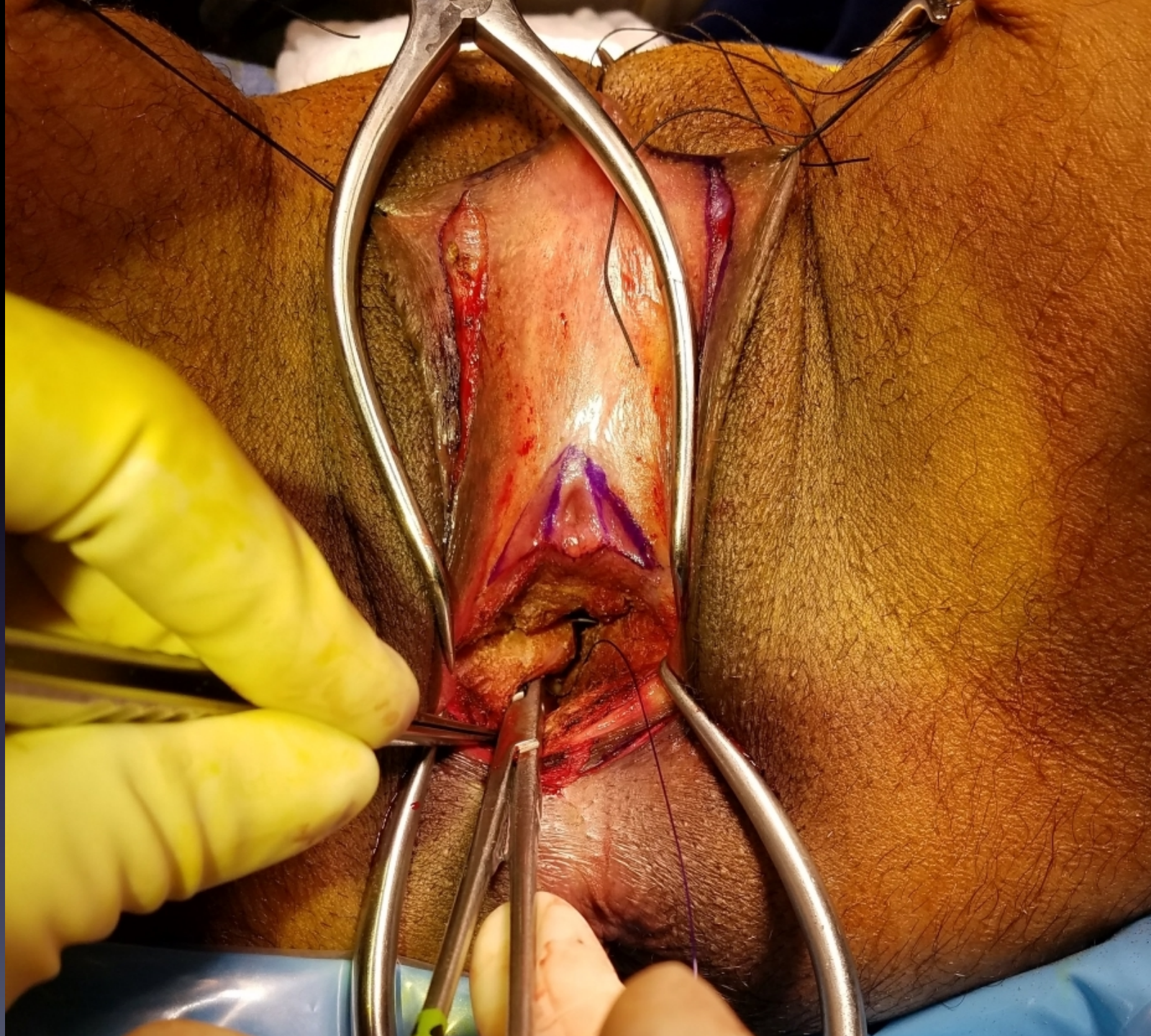








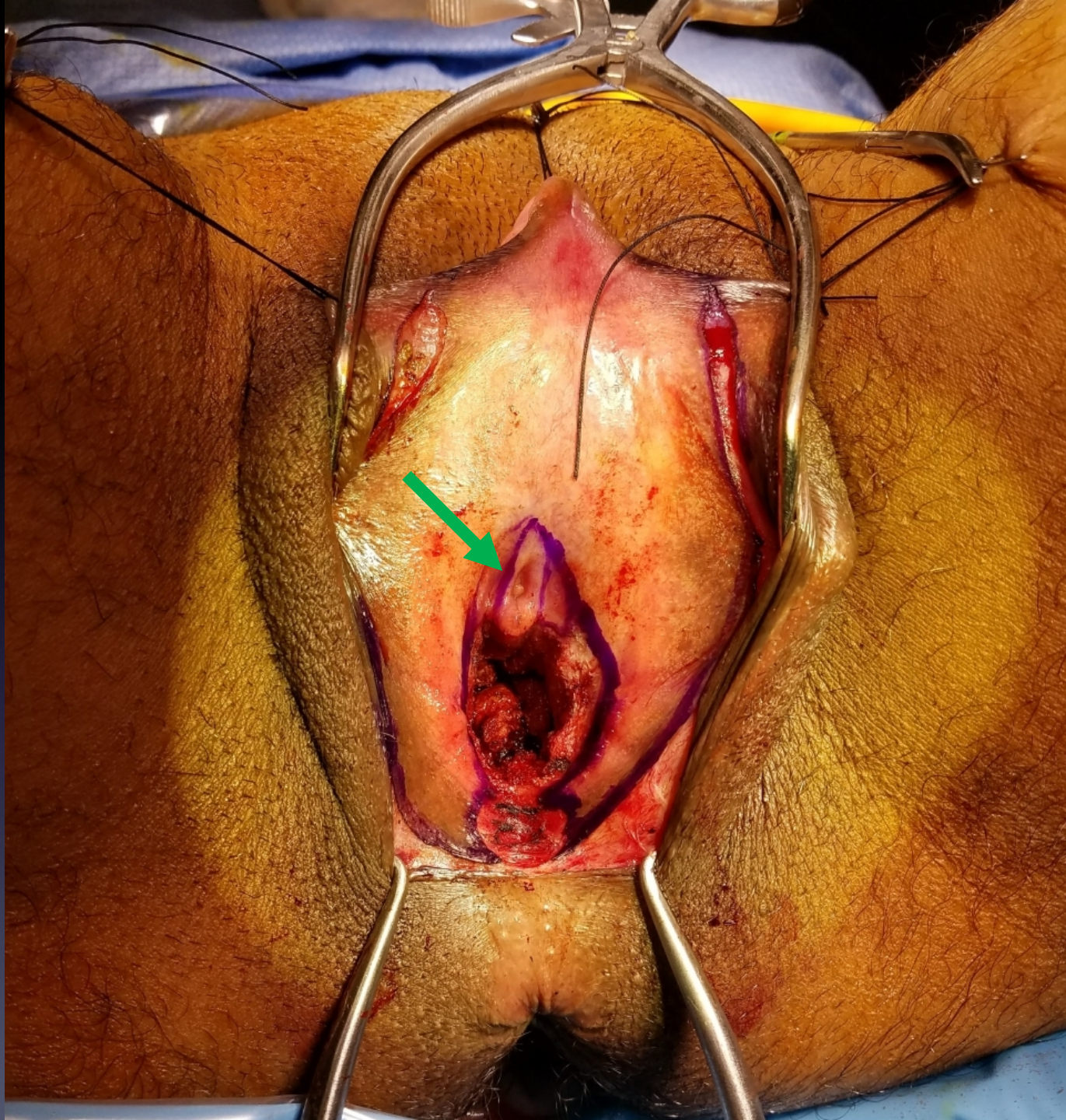




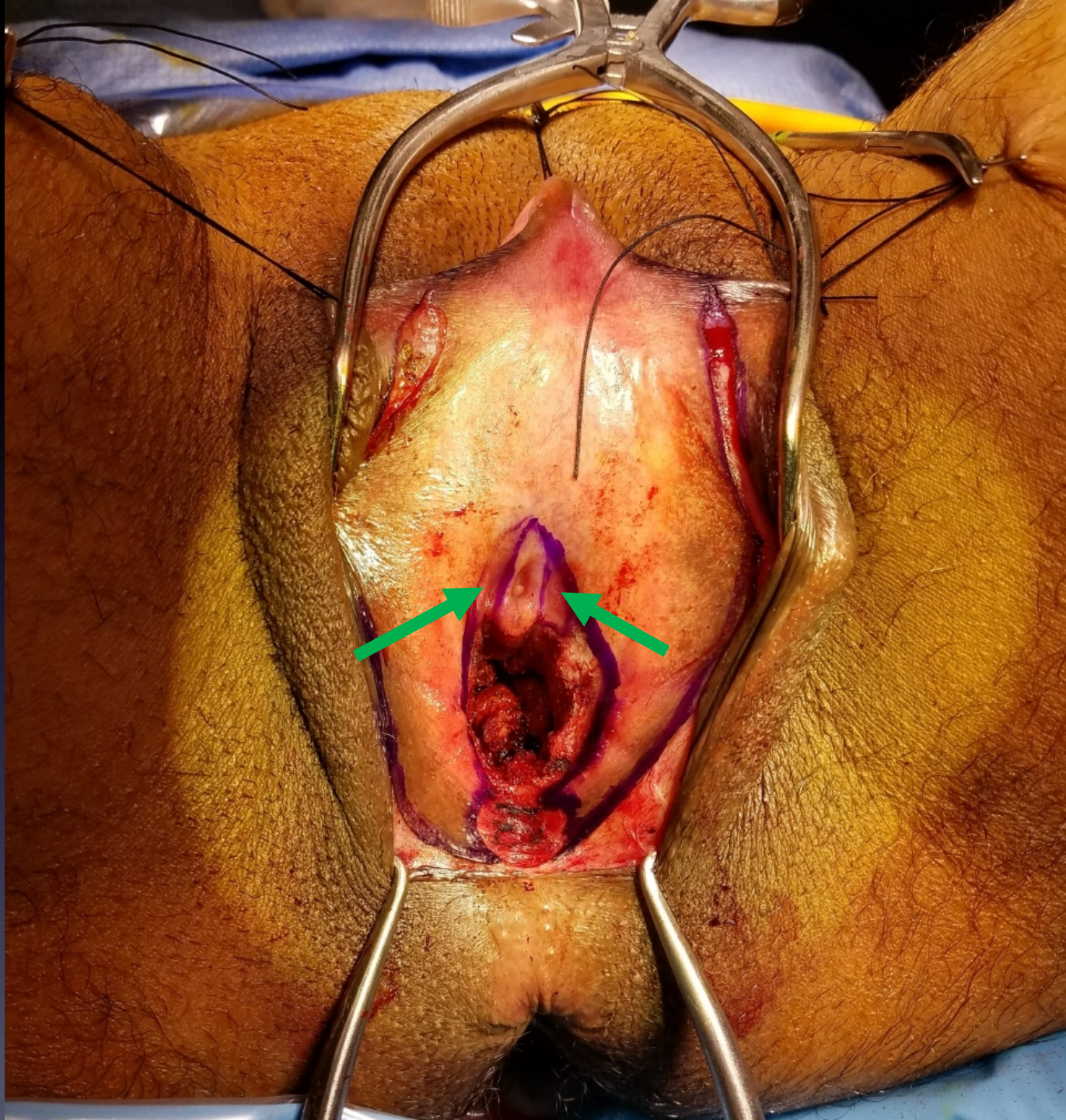




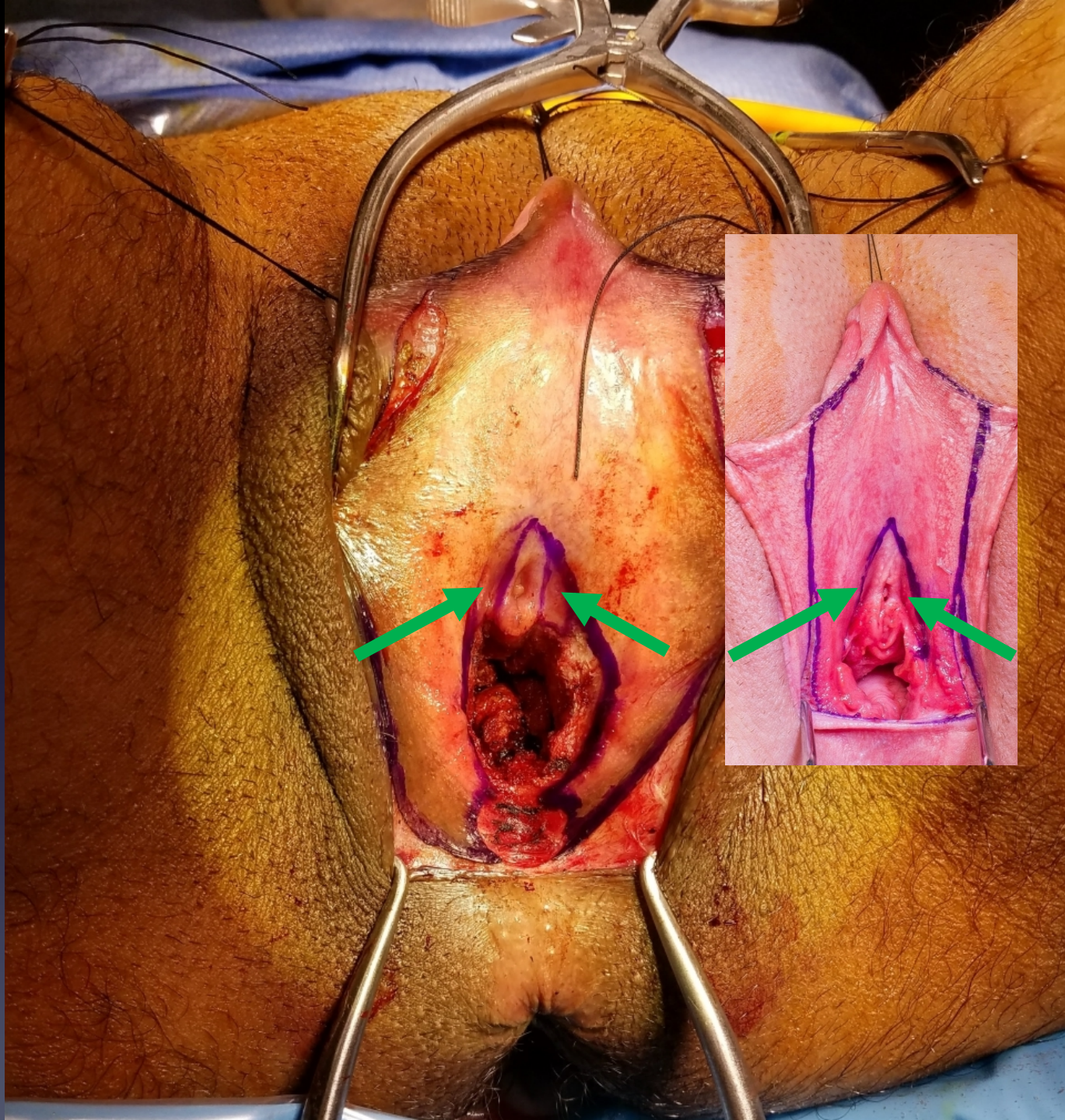




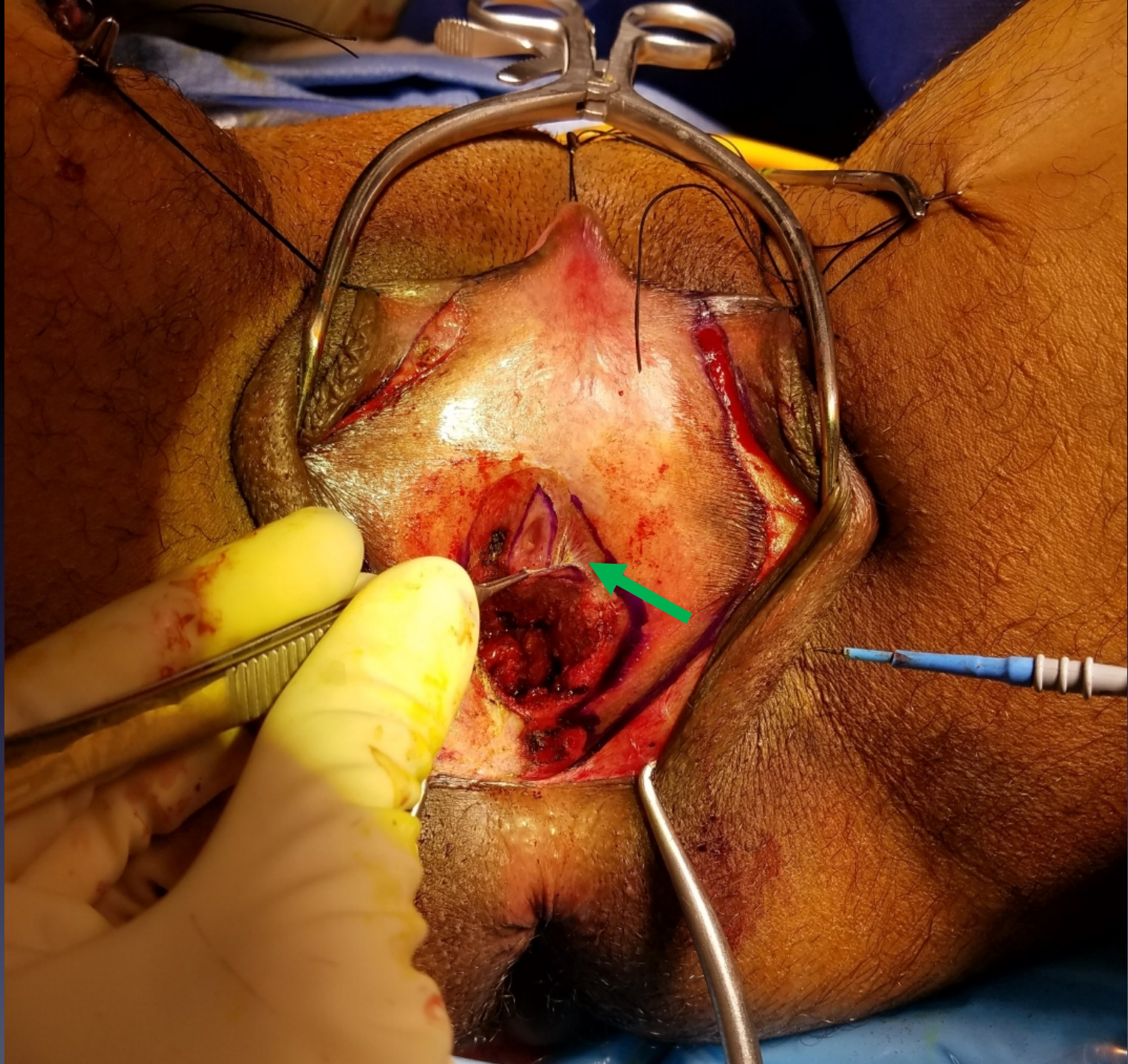




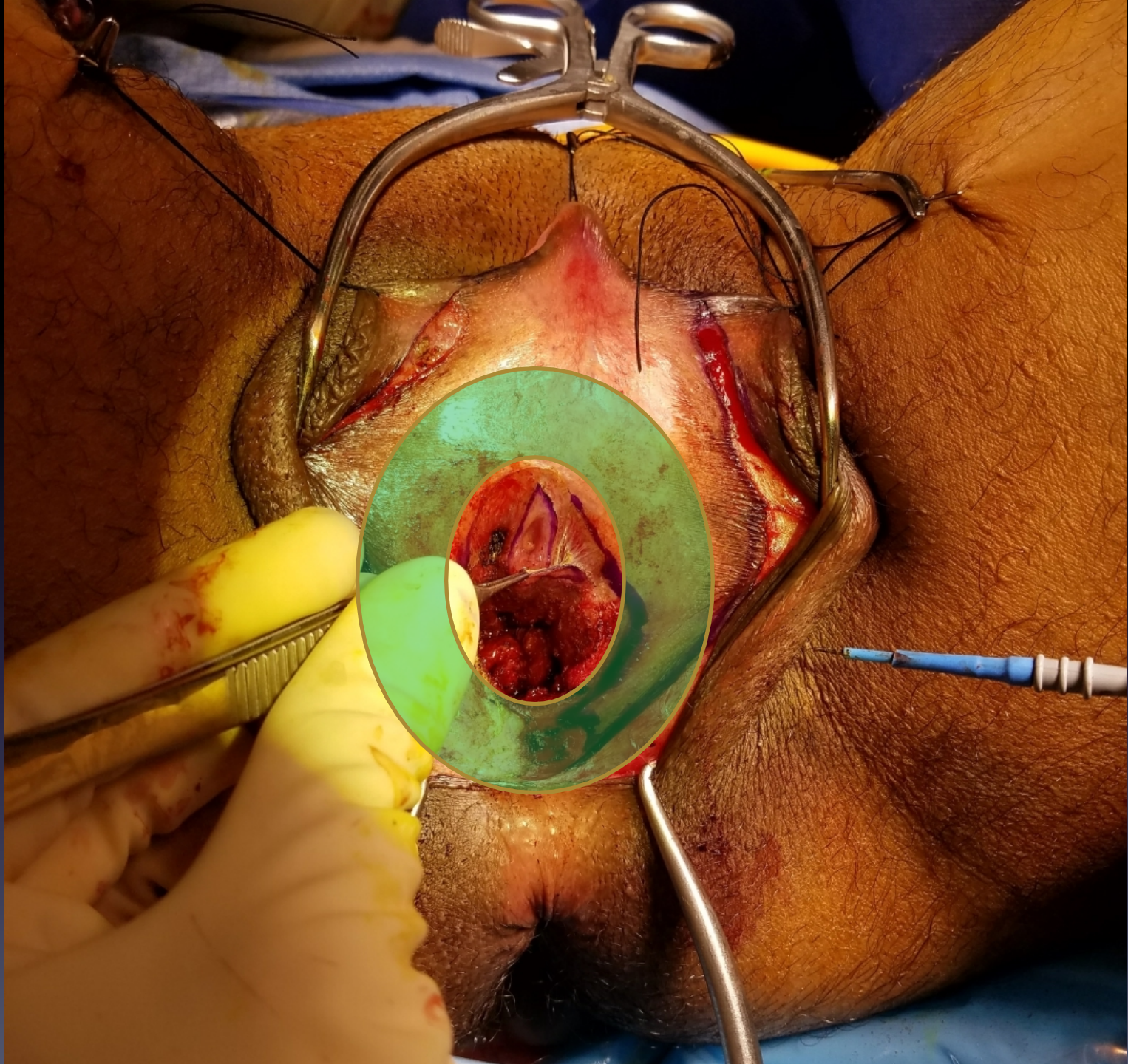




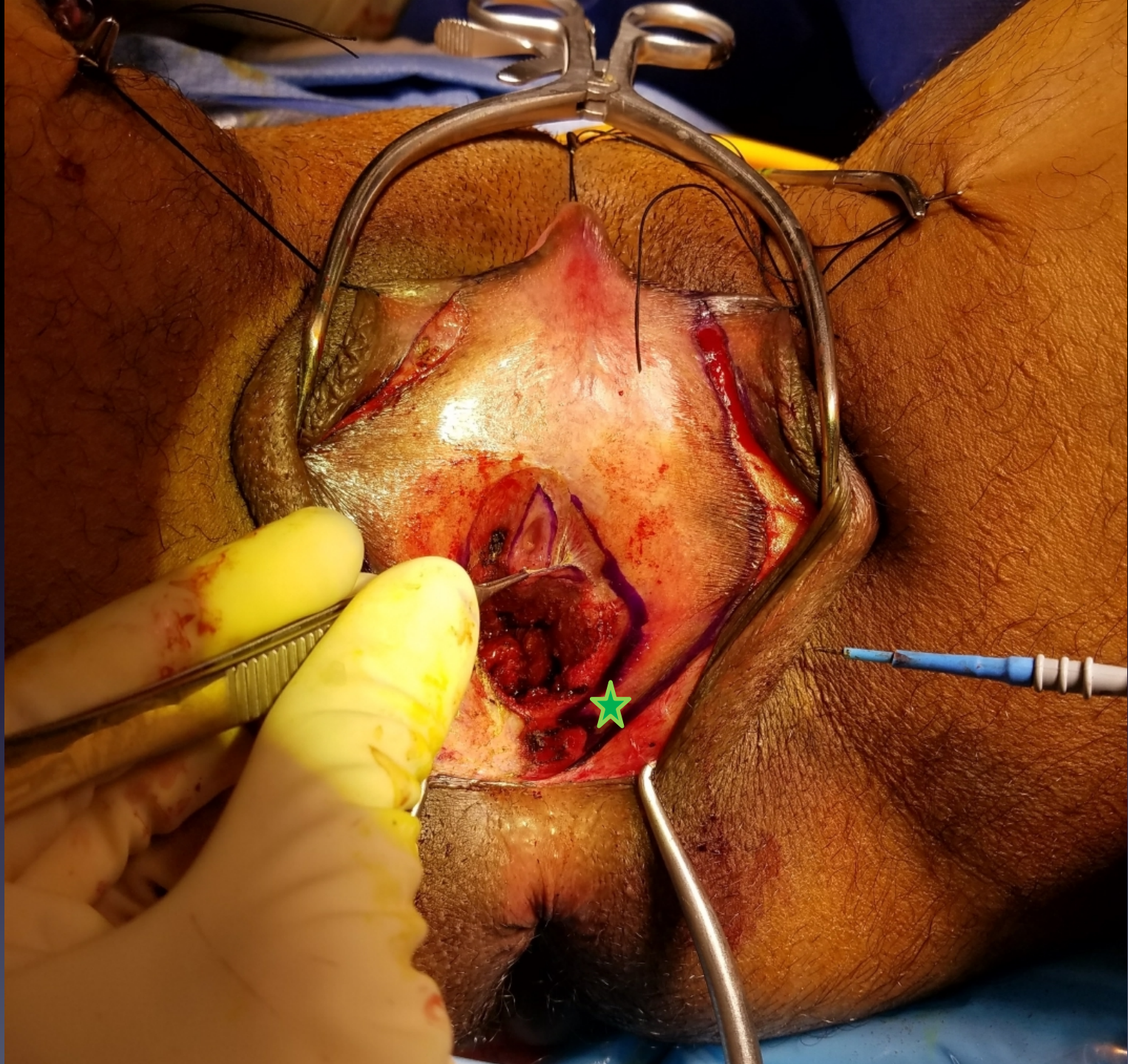




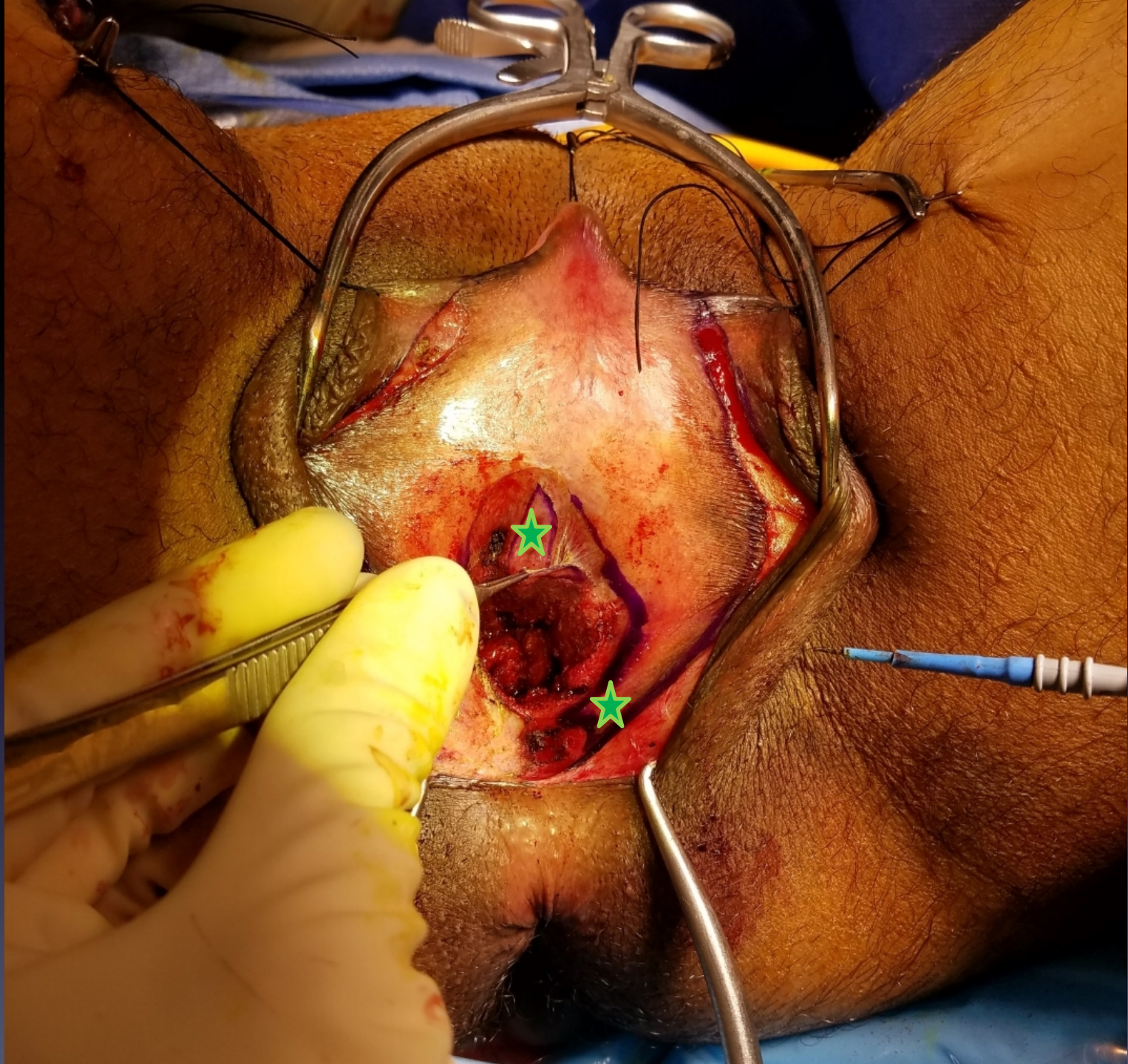




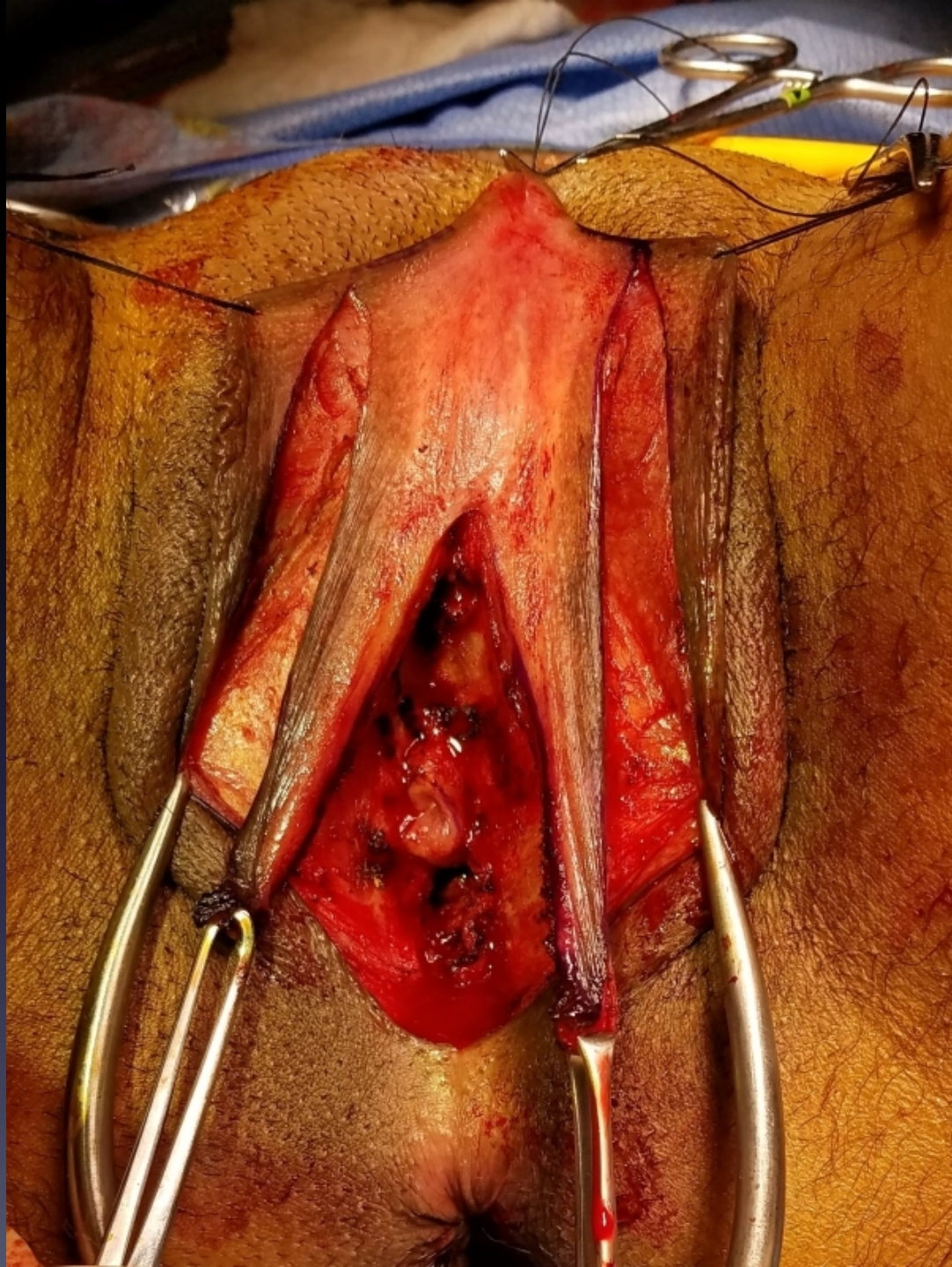




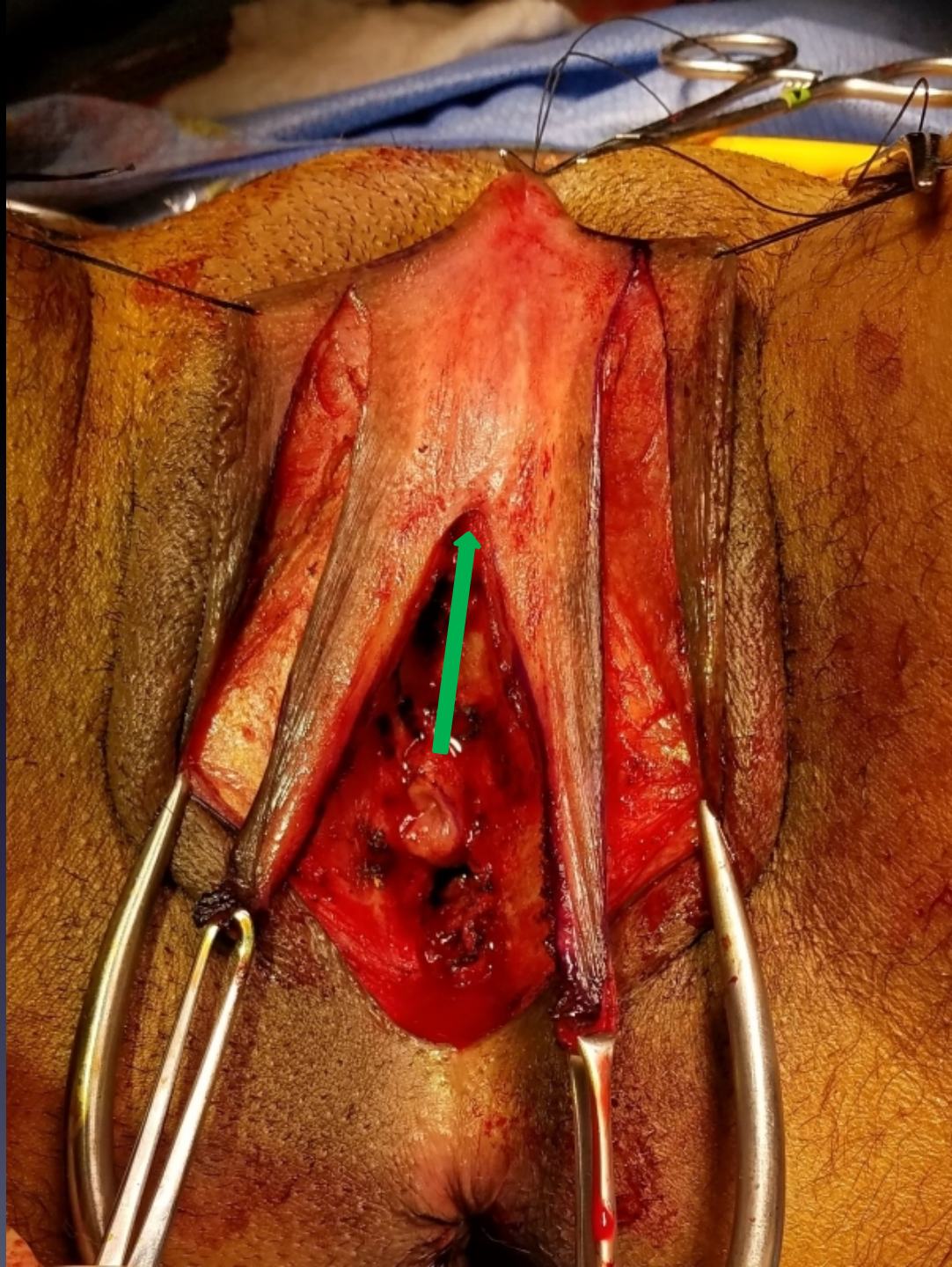




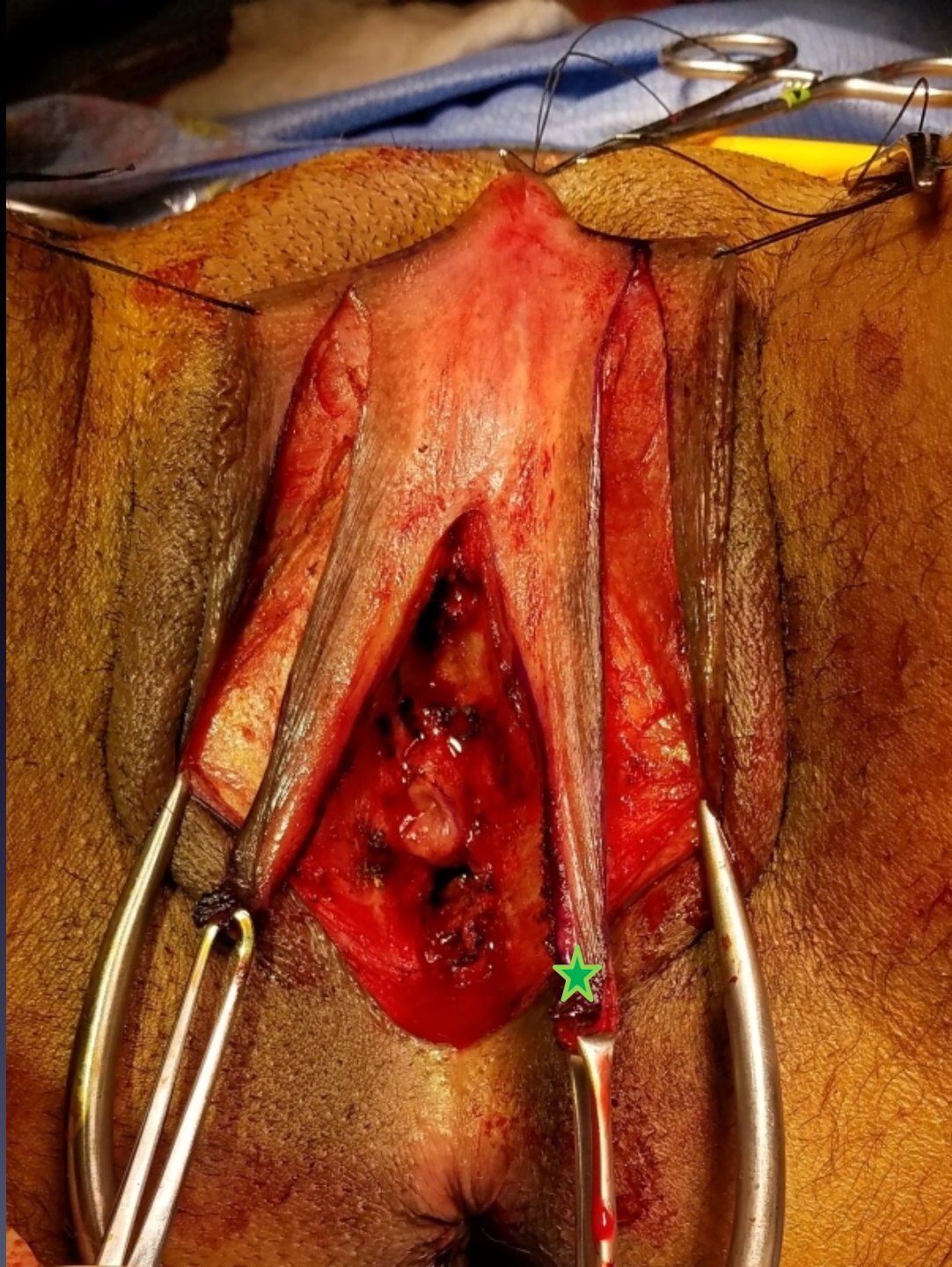




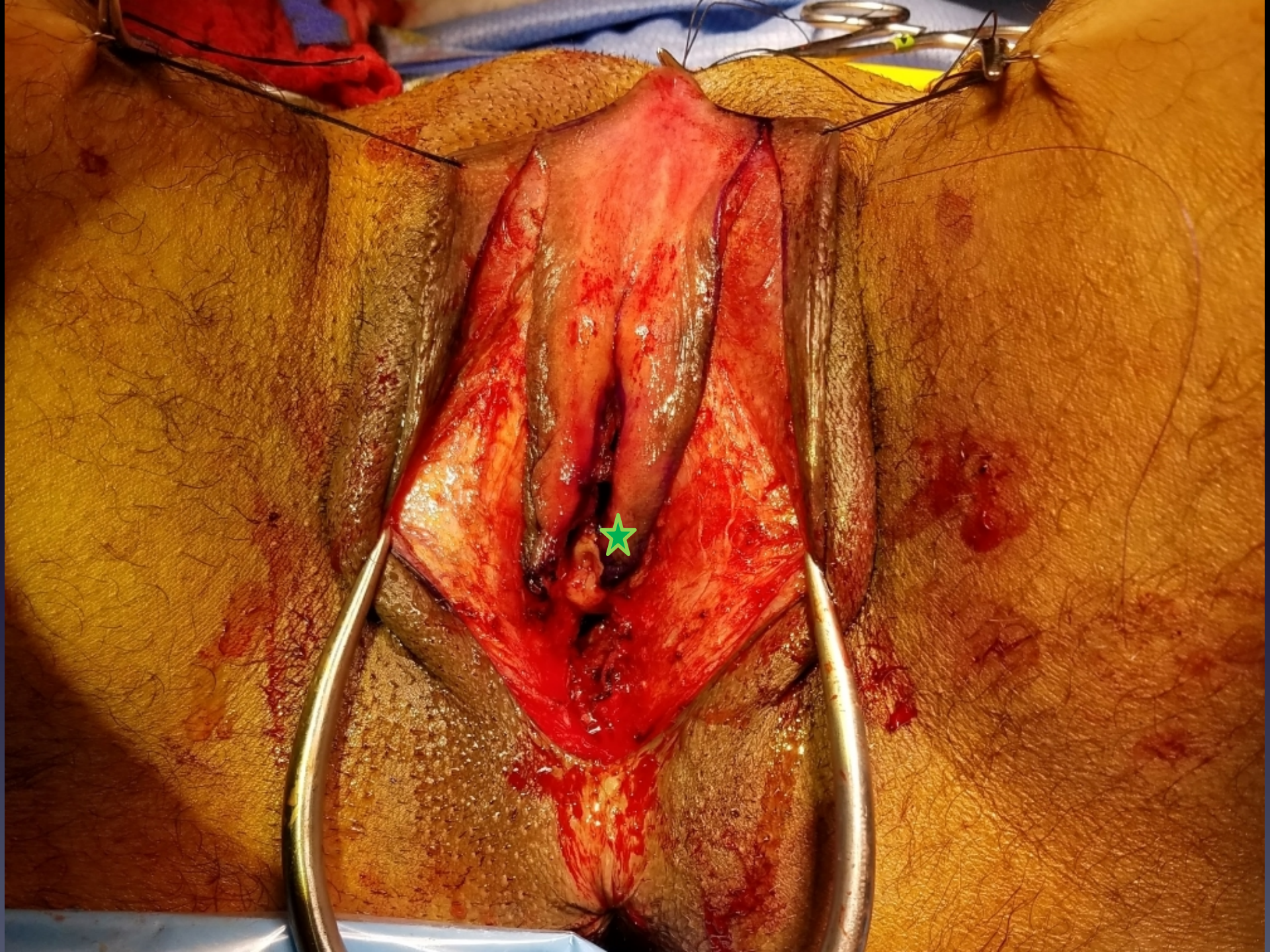




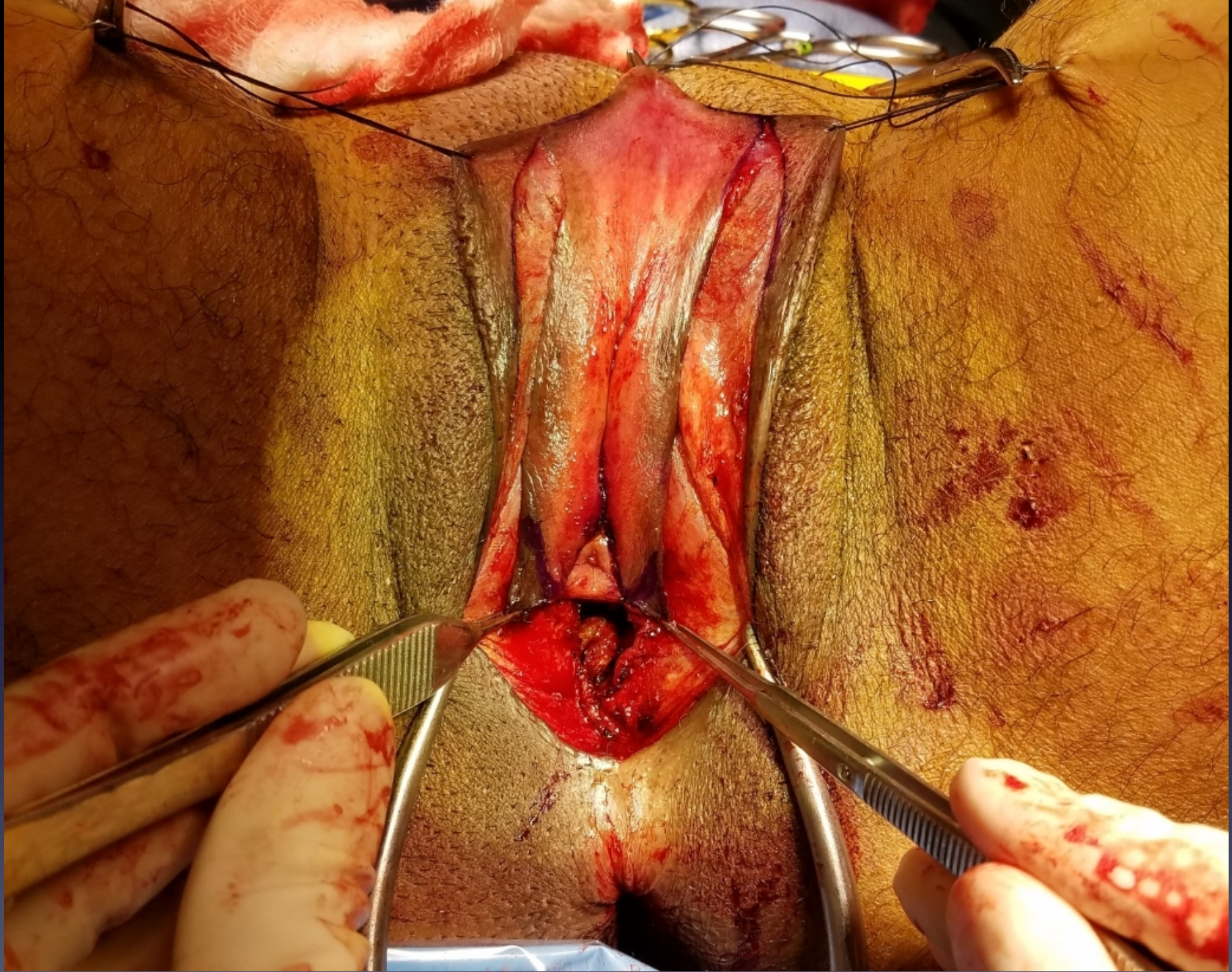




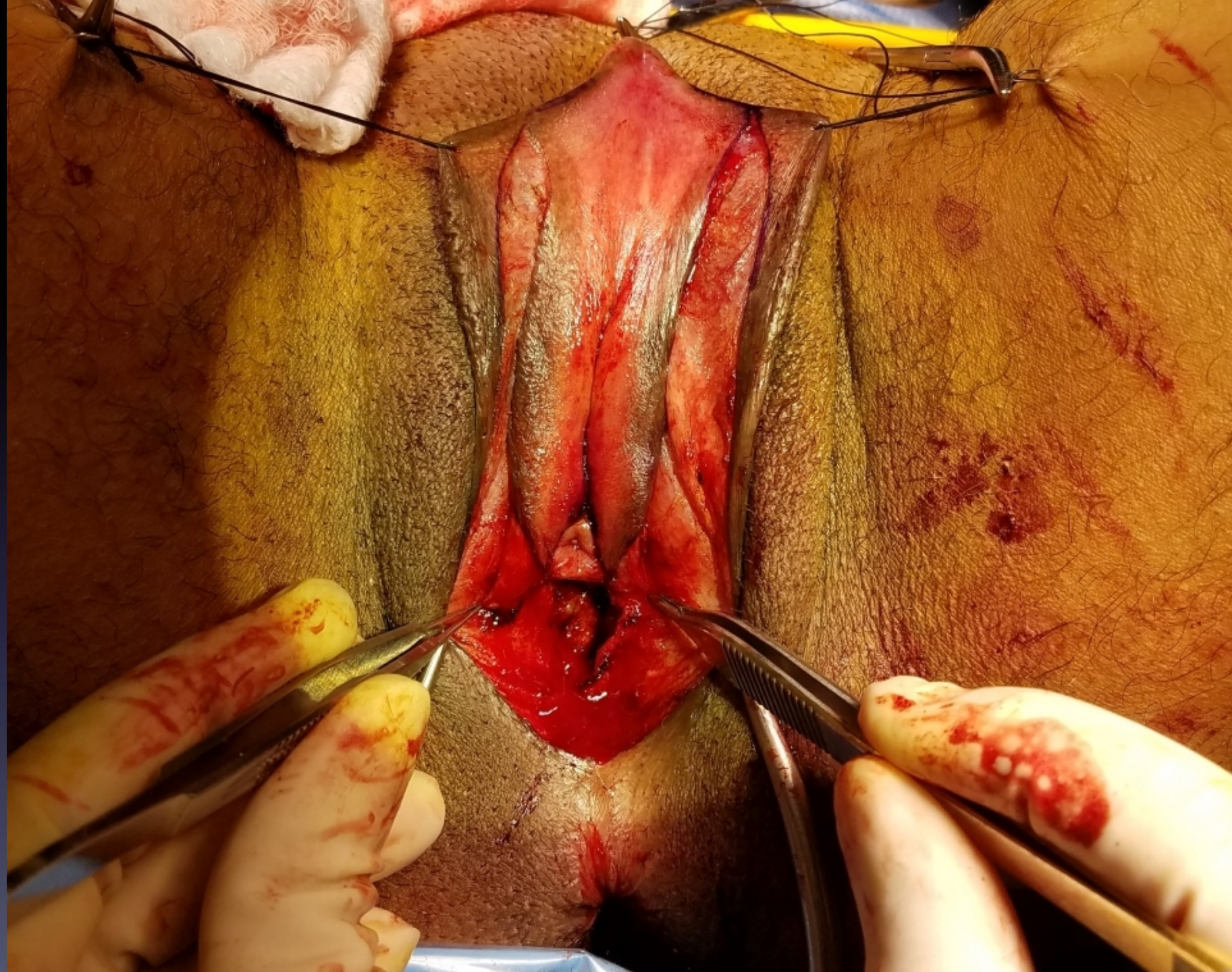




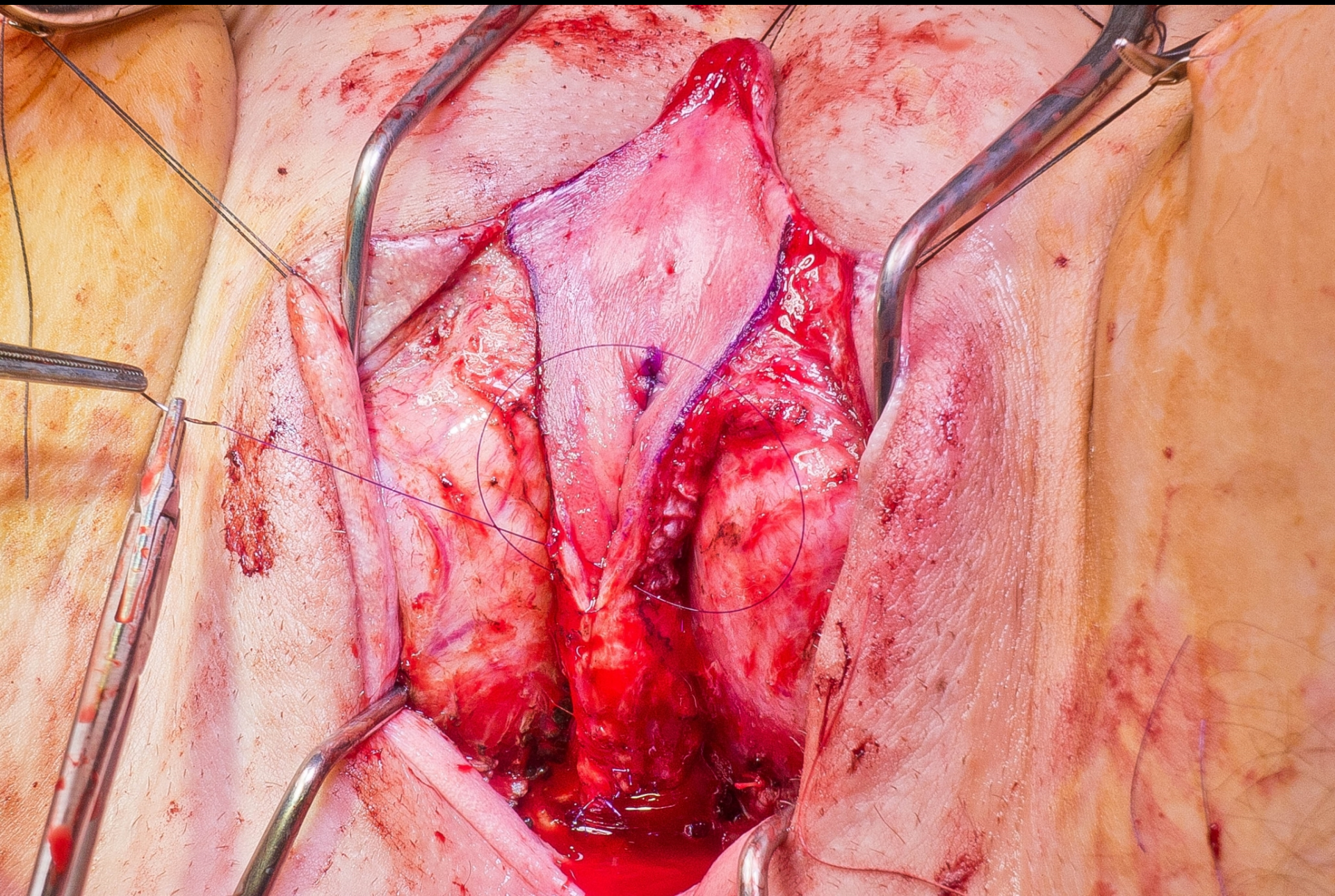








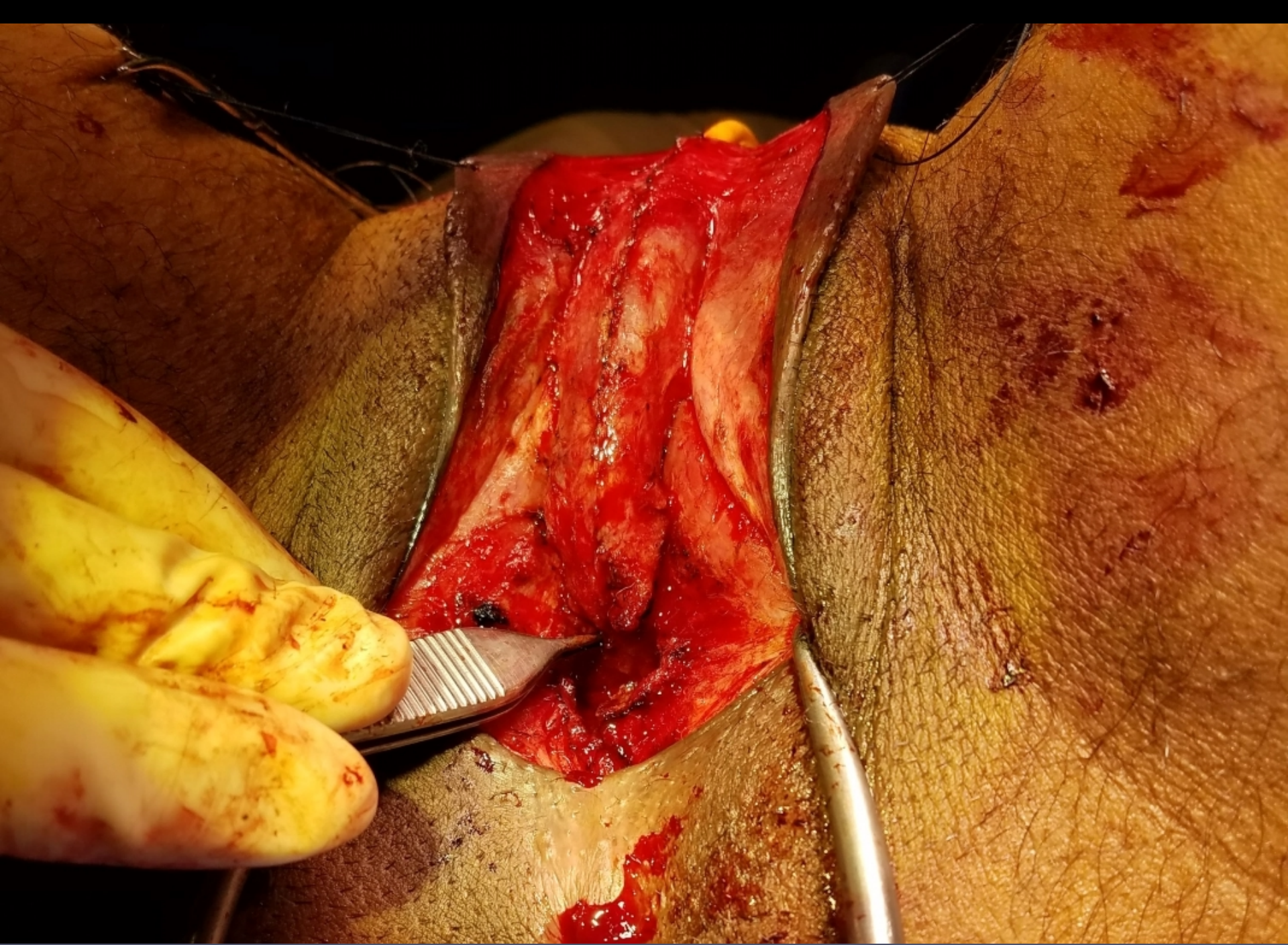




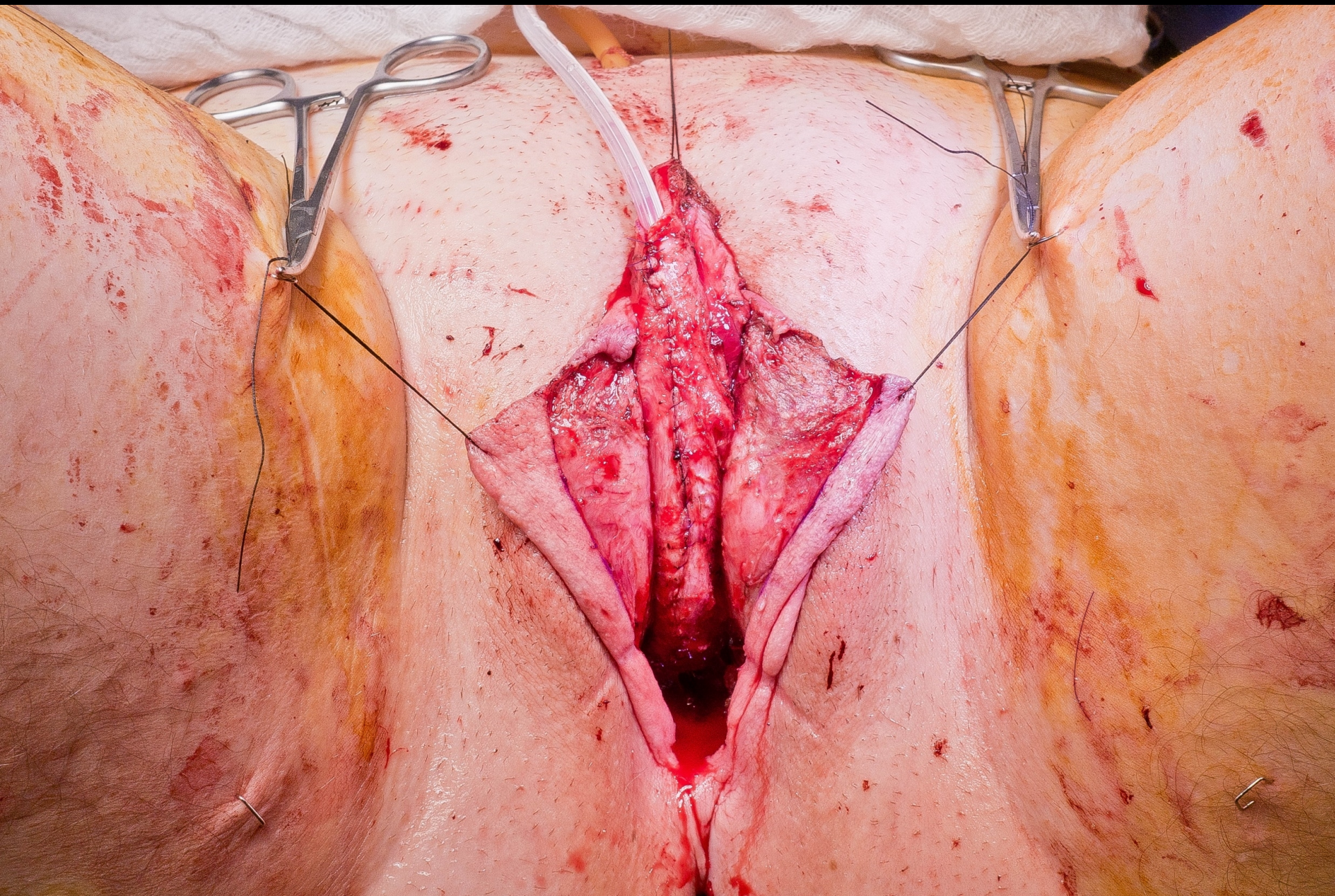




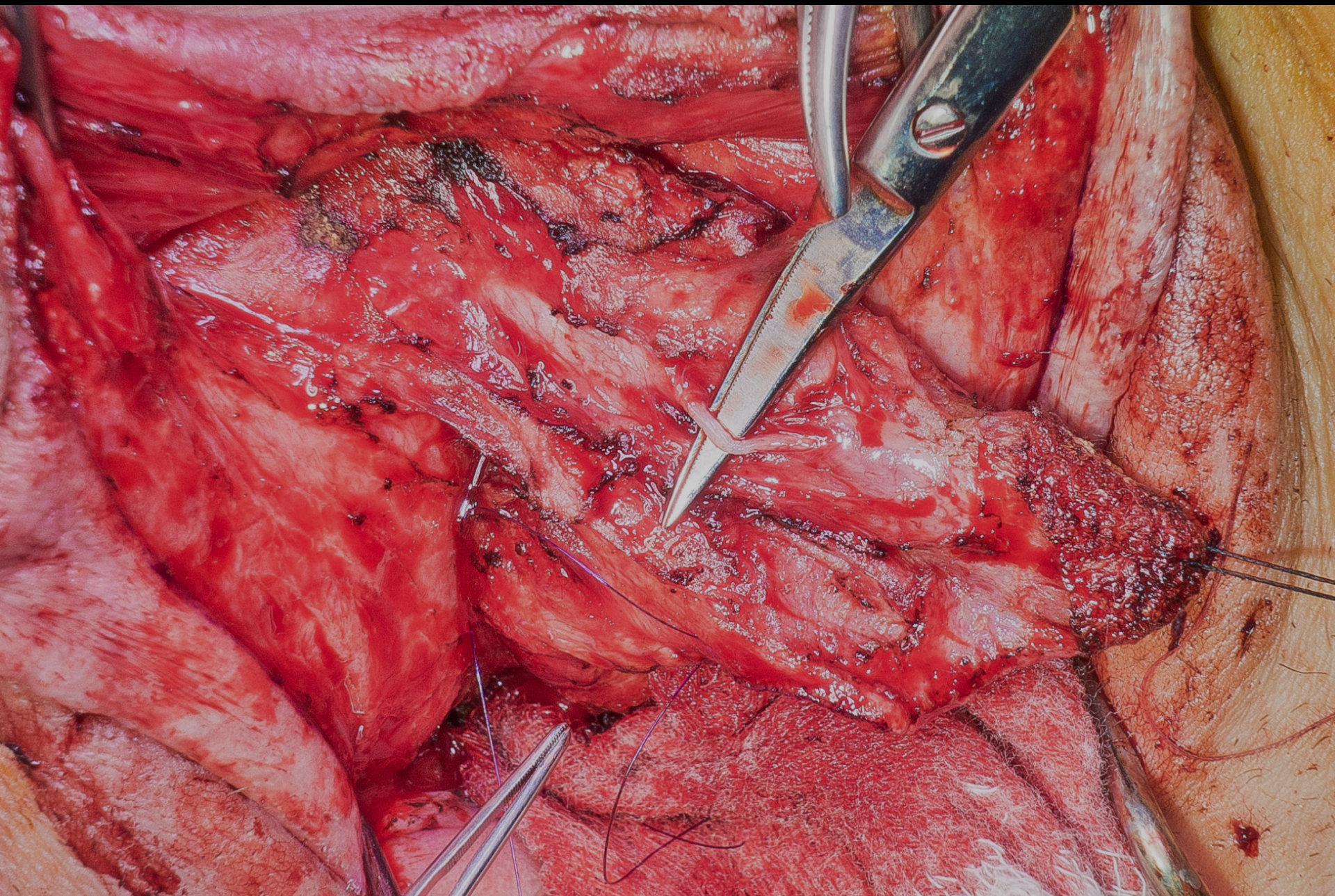








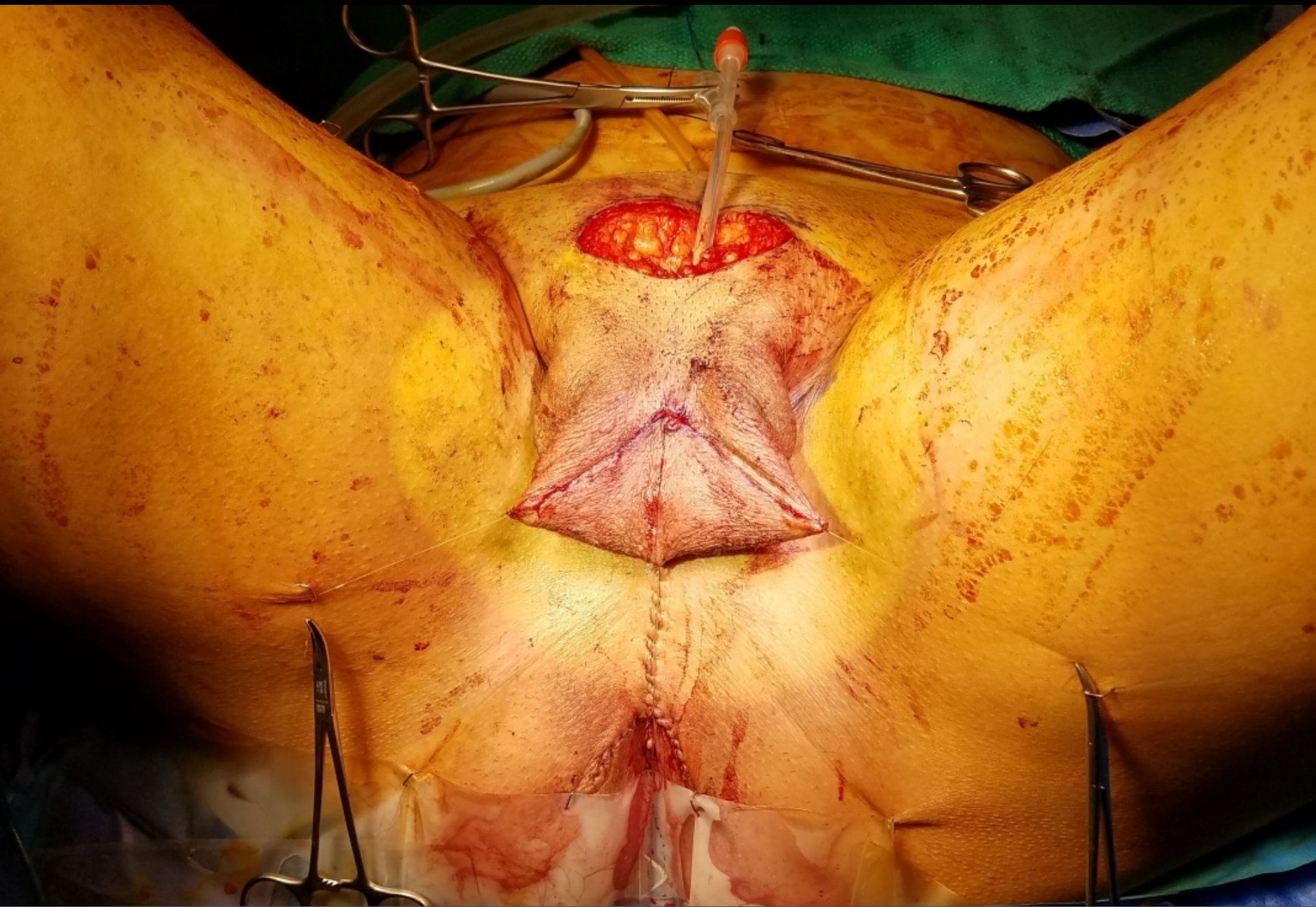








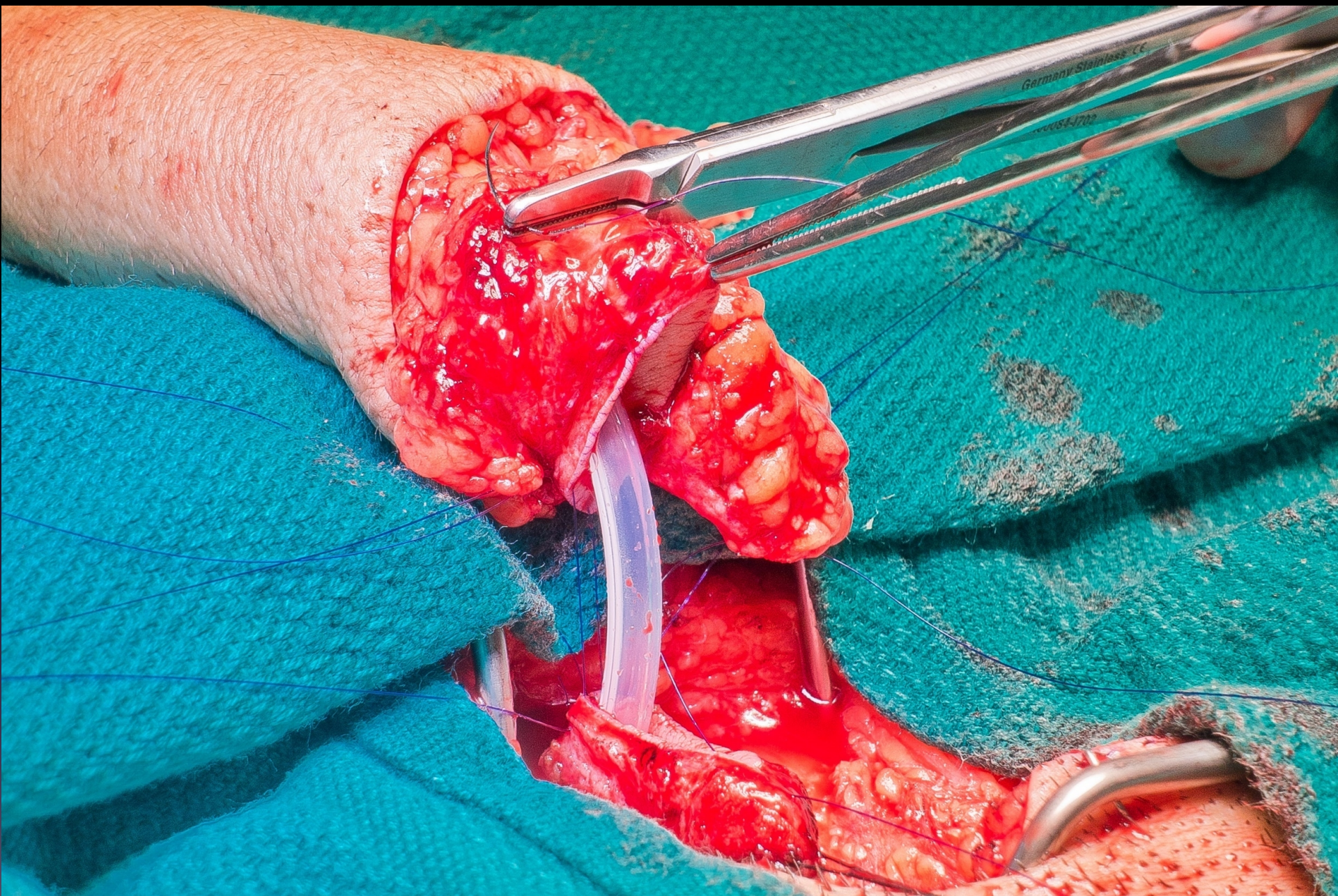




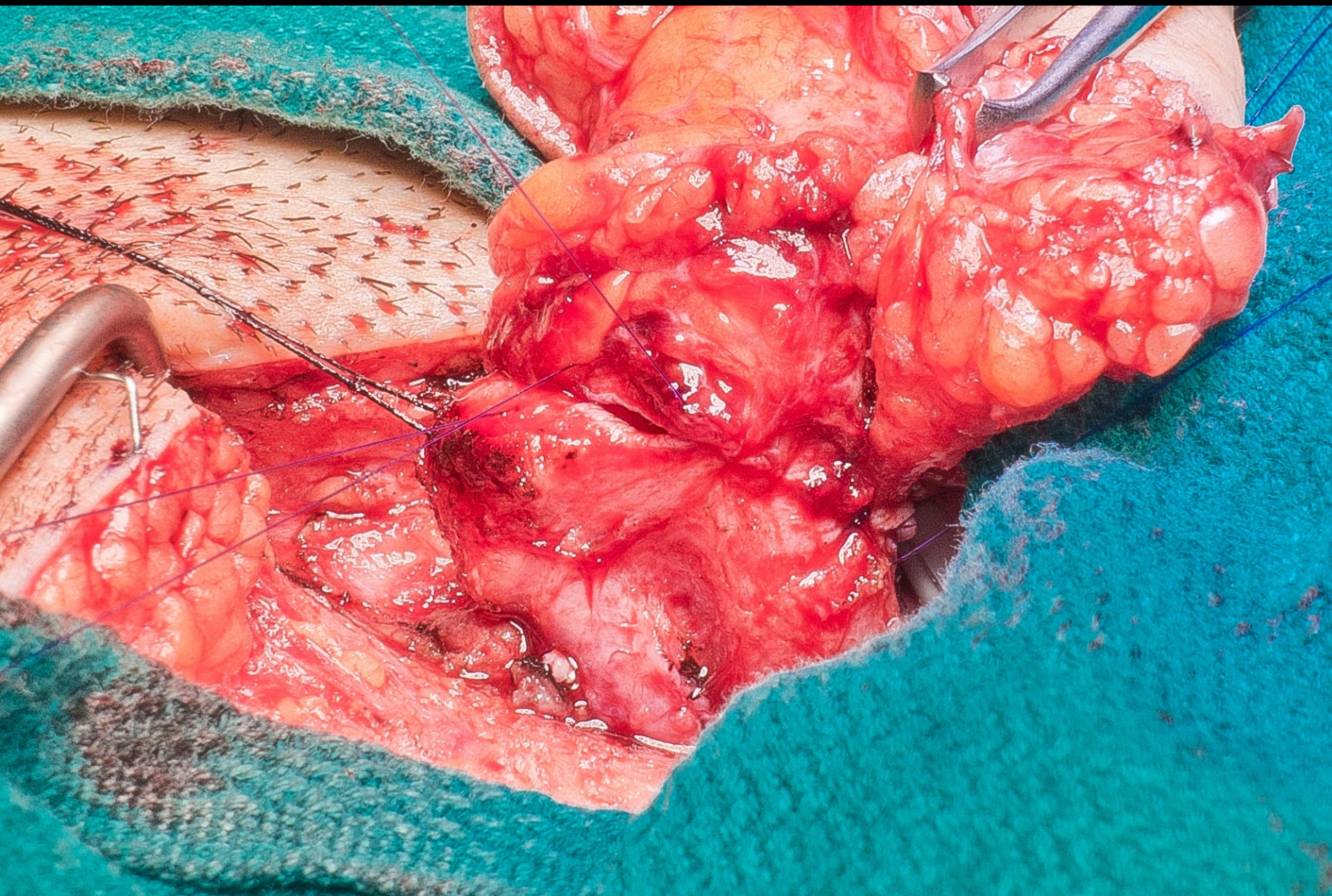




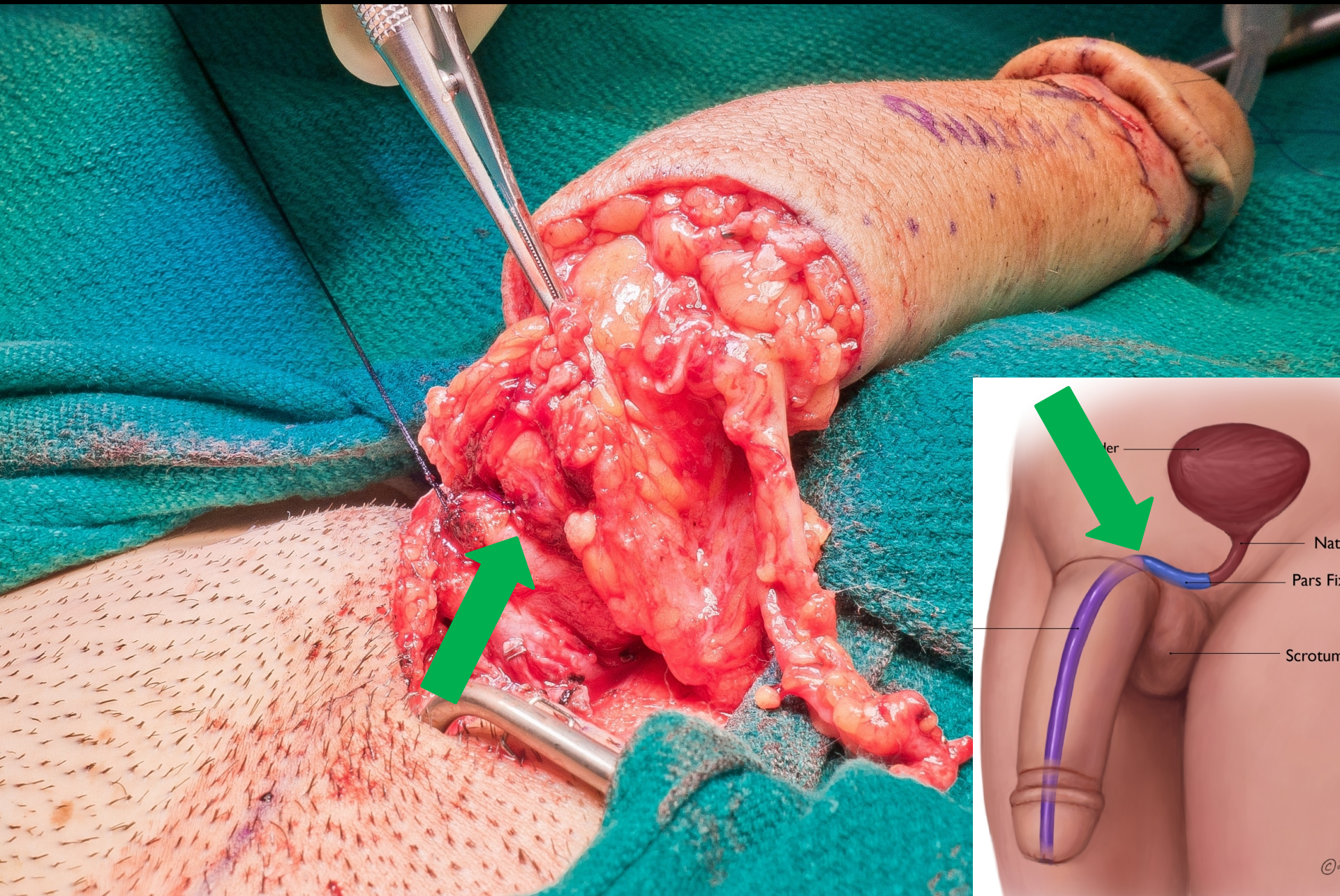


















# PF-PP Urethral Complications

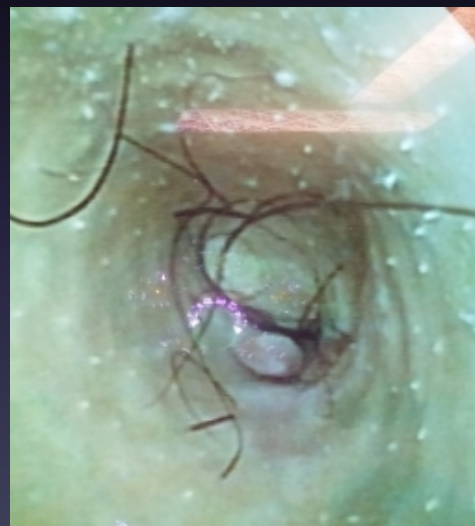
- N = 95 (Oct 2017 – March 2020)
- PF-PP Complications: 30 (32%)
  - Fistula and stricture: 8
  - Stricture Only: 6
  - Fistula Only: 16





# PF-PP Urethral Complications

- Fistula and stricture: 8
  - 6 fistulas resolved spontaneously
- Fistula: 16
  - 14 resolved spontaneously
- Stricture: 6
  - 2 mild; observation





# PF-PP Urethral Complications

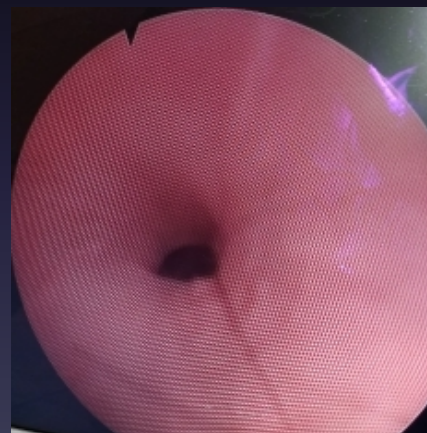
- N = 95 (Oct 2017 – March 2020)
- PF-PP Complications: 30 (32%)
- 14 patients needed urethral reconstruction
- PF-PP Urethral revisions: 14/95 (15%)





# PF-PP Urethral Revisions

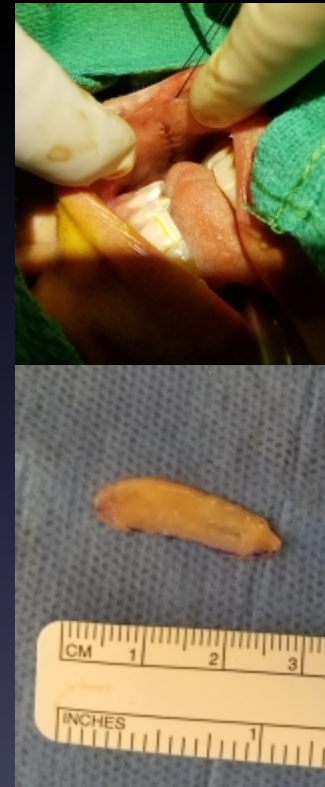
- Stricture and fistula repair: 2
- Fistula repair only: 2
- Stricture repair only: 10





# PF-PP Urethral Revisions

- Urethral Strictures: 12
  - Avg length: 1.3 cm





# PF-PP Urethral Revisions

- Heineke-Mikulics: 10
- EPA only: 1
- EPA + buccal graft: 1
- Diverticulectomy: 1





# PF-PP Urethral Revisions

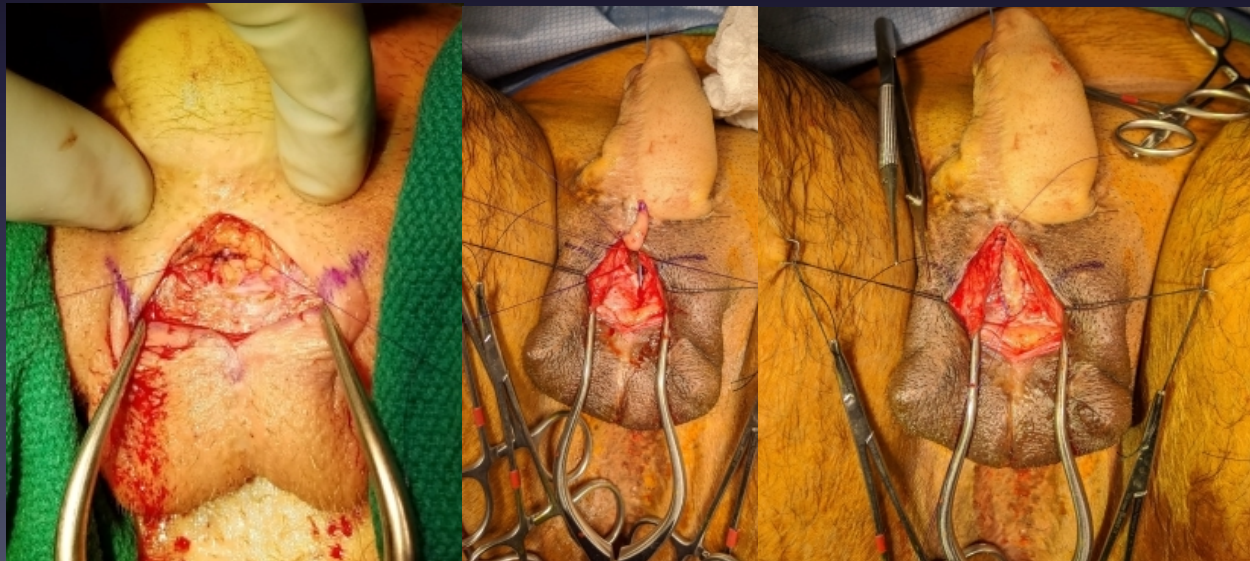
- Recurrent Strictures: 4
  - A: 1 year; Ventral Onlay BMG
  - B: 3 months; Ventral Onlay BMG
  - C: 9 months; H-M
  - D: 3 months; H-M









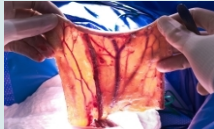

# PF-PP Urethral Revisions

- Urethroplasties for stricture: 12
  - Recurrence 4/12 (33%)
  - No staged urethroplasties





# Summary

Maximize Blood Flow		Minimize Tension	
Preserve Arteries		Extend Proximal PP Urethra	
Dermal Bridge		Extend Distal PF Urethra	
Preserve Veins			
Adipofascial Extension			



# Summary

## Heineke-Mikulicz Urethroplasty





# Thank You

## PD 46-11

Mang Chen MD, Walter Lin MD,  
Rudy Buntic MD, Andrew Watt MD,  
Bauback Safa MD



Genitourinary Reconstructive Surgery

 @mangchenmd

