

Robotic Surgery in CRS Emergency

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Robotics in Colon & Rectal Surgery

- Robotics → Colon & rectal surgery
 - Wristed instruments
 - 3 D movements
 - Vision
 - Suturing
 - Near-infrared Fluorescence
- Robotics → Acute care Surgery
 - Emergency
 - Urgency

MIS & CRS

- MIS → CRS
 - Laparoscopy
 - Robotic
- Laparoscopy → Acute Care CRS
 - Perforated diverticulitis
 - Bowel obstruction
 - Perforated Gut

MIS & CRS

- Safe
- Feasible
- Outcomes 
- 0-19% conversion
- Low re-intervention rate

Robotic acute care CRS

- Will it fit?
- Improve outcomes
- Overcome technical challenges
- Add safety margin
 - Adjuncts => ICG

Logistical Considerations / Strategies

- Contraindications
 - Unstable patient condition
 - Clinical → septic
 - Physiologic Condition
 - → intolerance to pneumoperitoneum
- Relative contraindications
 - Early postoperative reinterventions
 - Leaks
 - Adhesions
 - Bowel dilation

Logistical Considerations / Strategies

- Accessibility
 - Availability after hours
- OR staff
 - Operating the robot
 - Surgical technician
 - Bedside assistant
- Other specialties
 - Availability
 - Execution
 - Outcomes

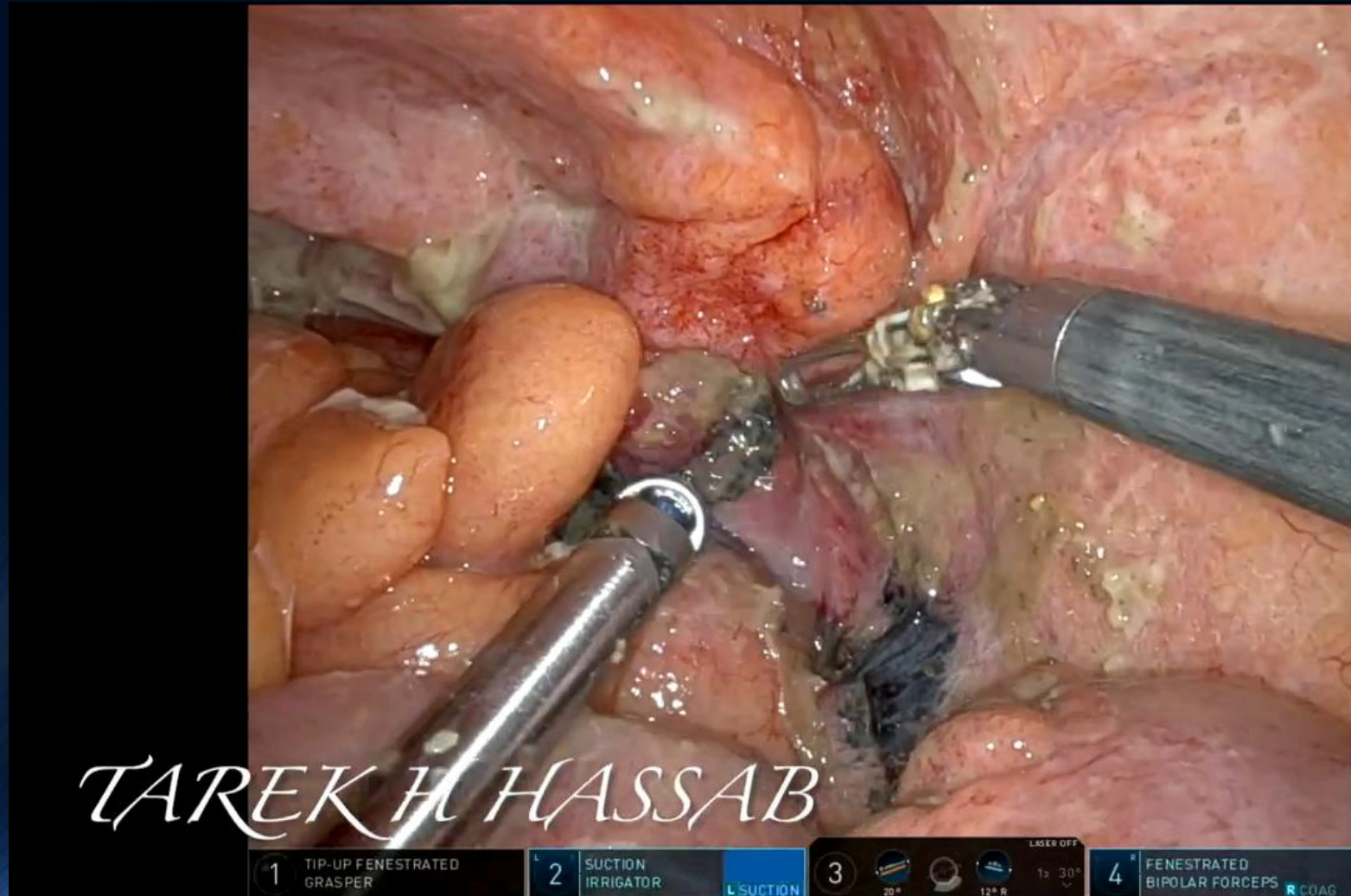
Technical considerations

- Accessing the abdominal cavity (Paramount Importance)
 - Reoperative surgery
 - Adhesions
 - Dilated bowel
- Methods
 - Veress' needle
 - Optiview
 - Hasson's ports

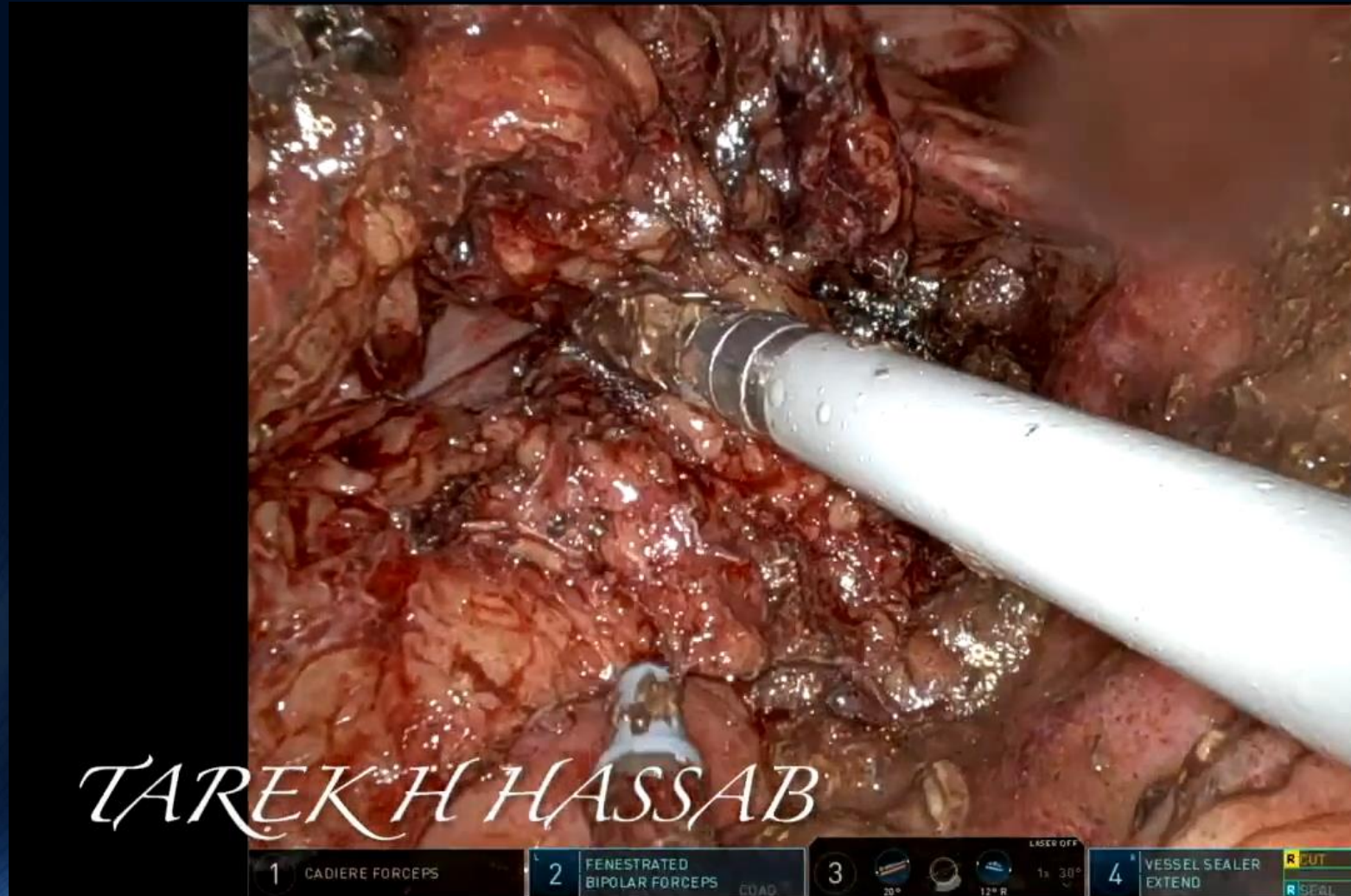
Technical considerations

- Robotic ports locations
 - AFTER insufflation
 - Abdominal domain → collision
- My strategy → V.I.P
 - Veress
 - Insufflation => abdominal landscape
 - Optiview
 - Ports location

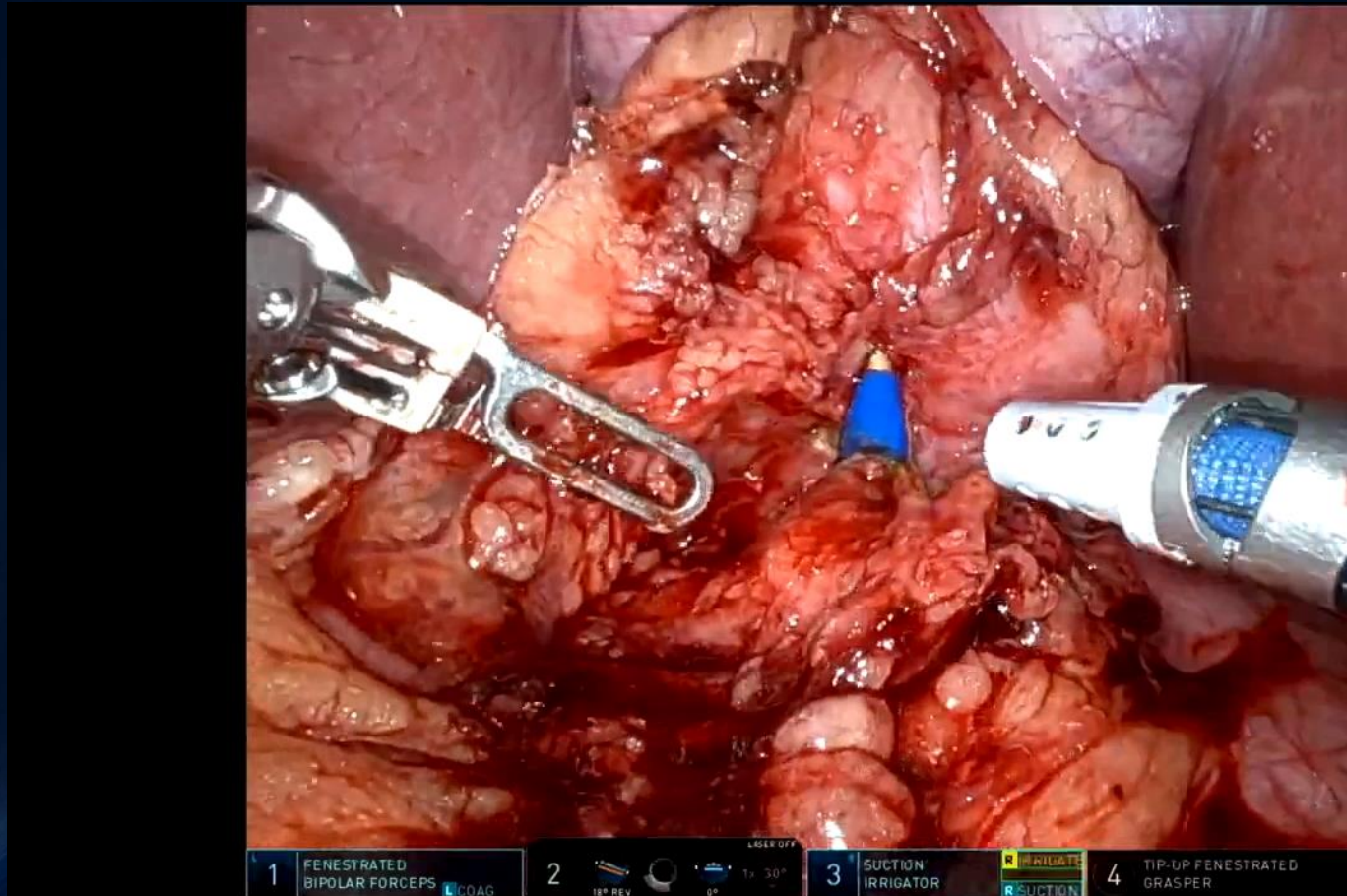
Perforated Diverticulitis



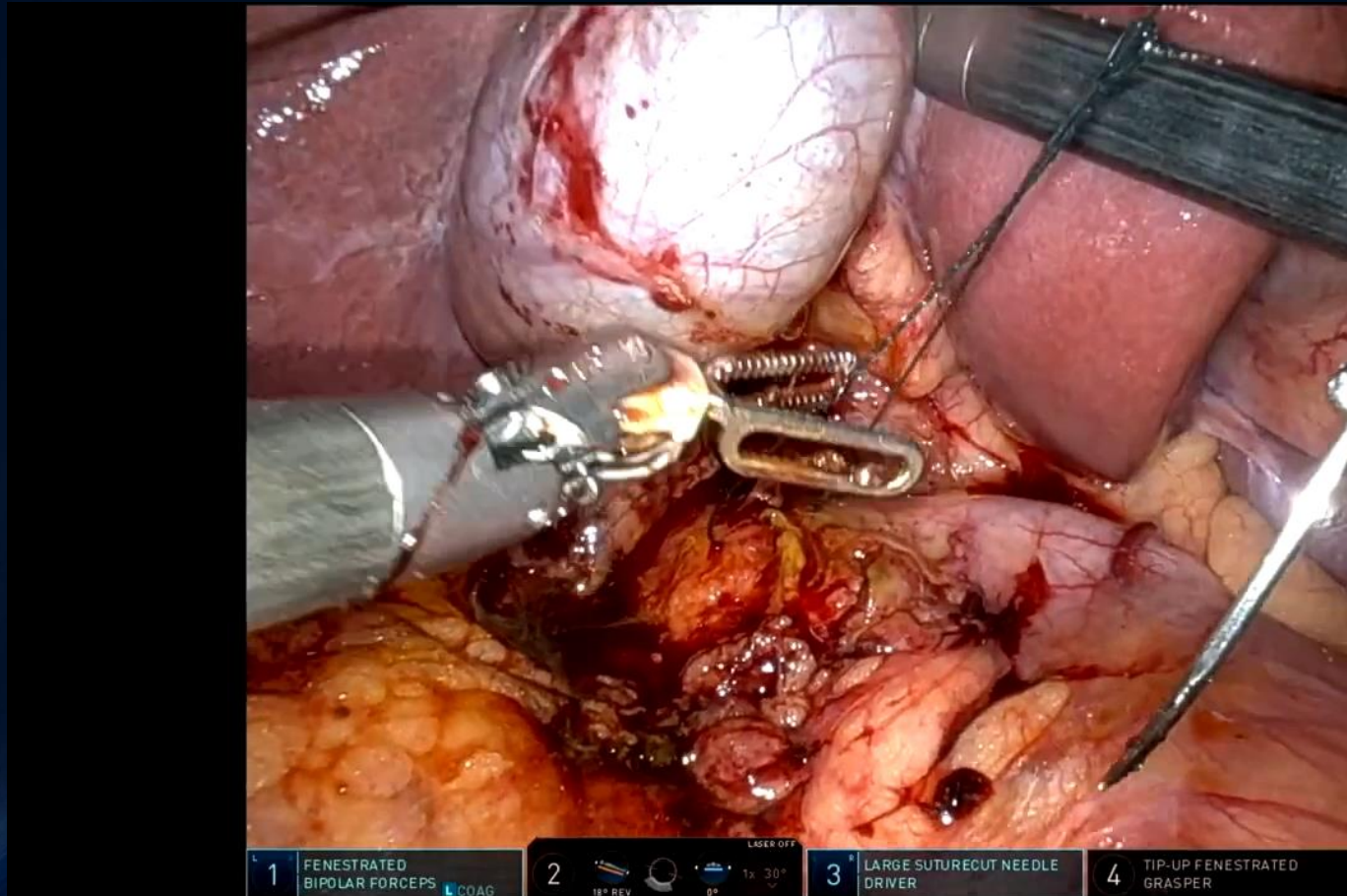
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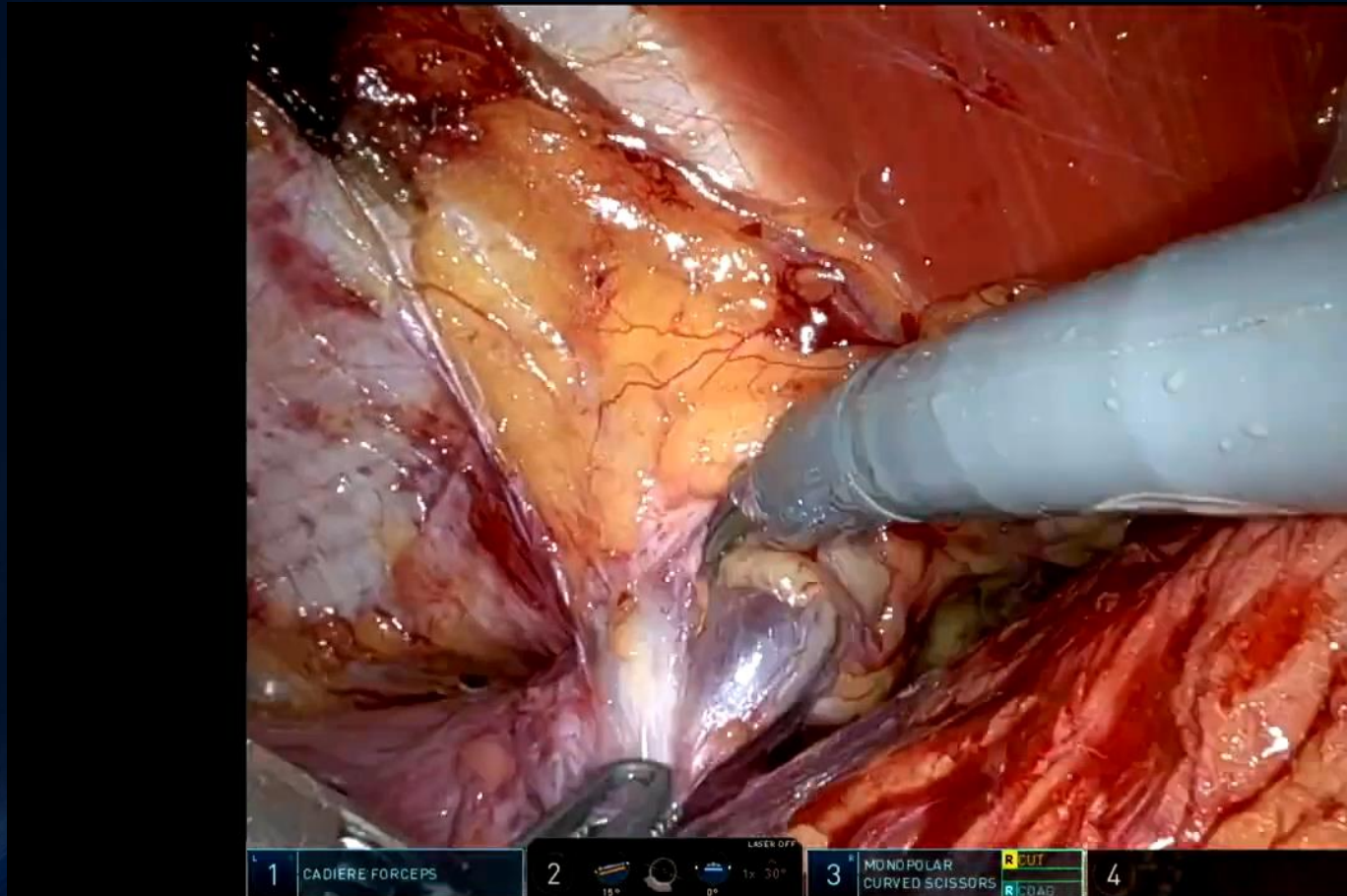
Foreign Body in Duodenum



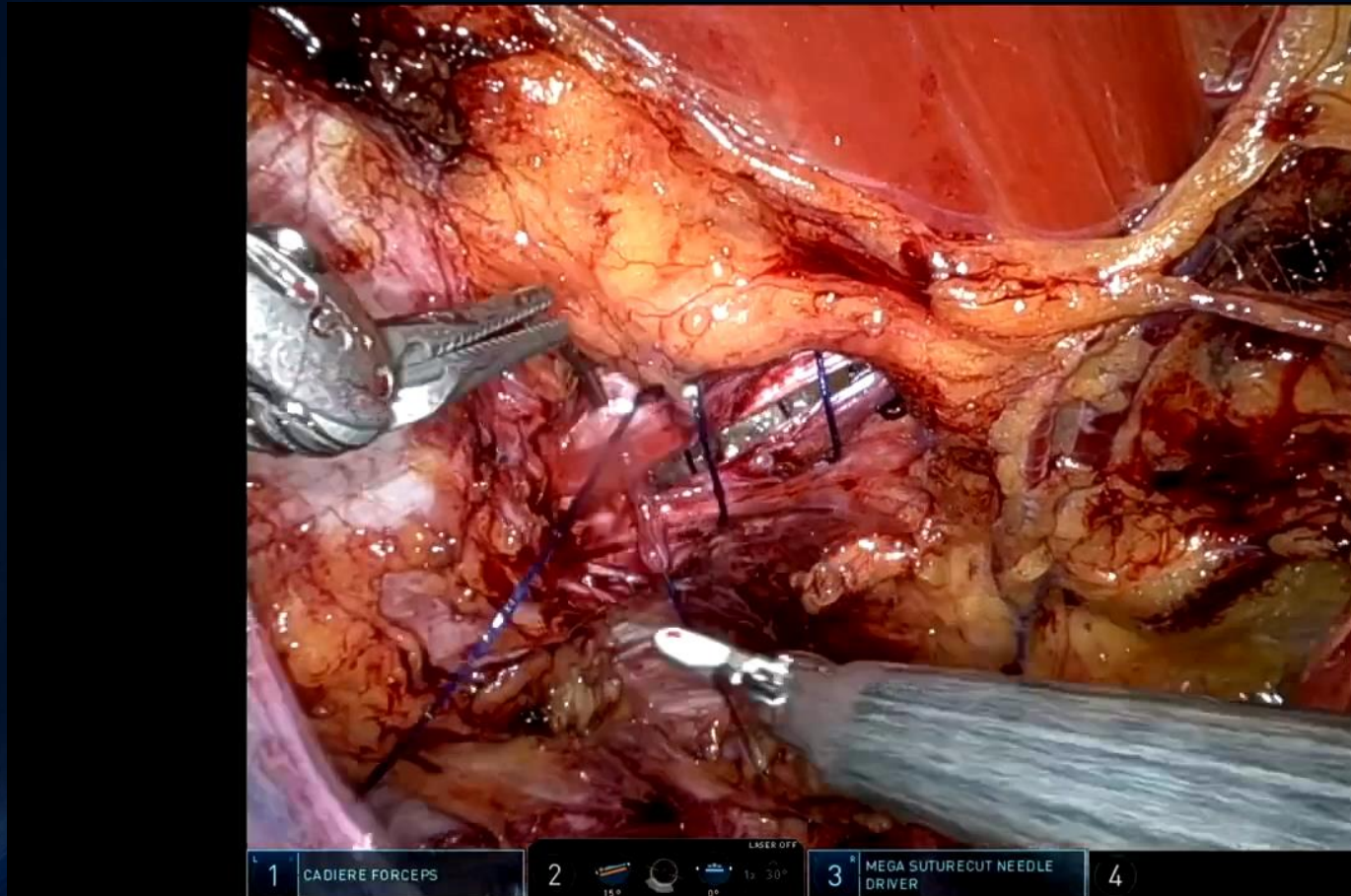
Foreign Body in Duodenum



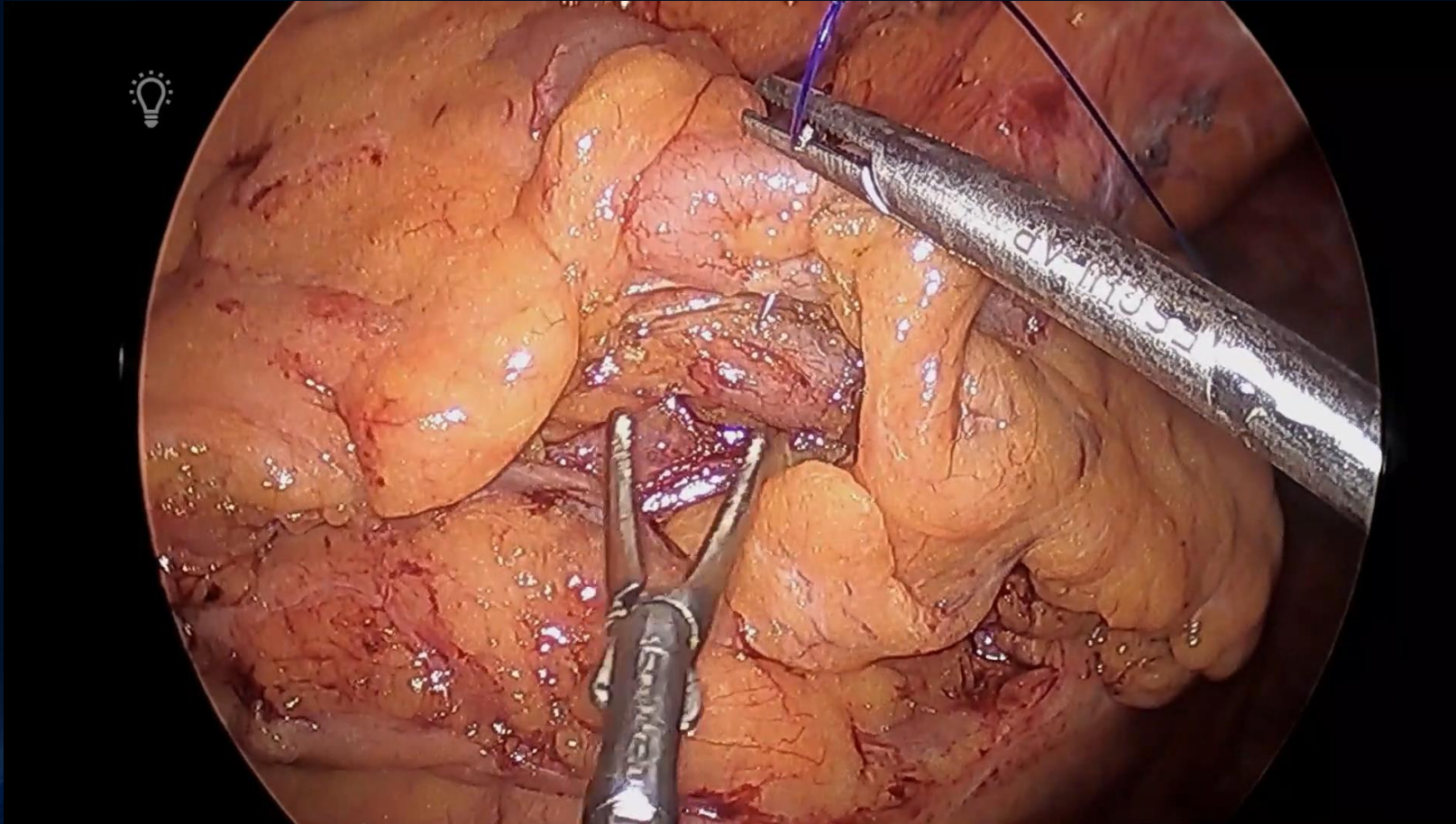
Incarcerated Spigelian Hernia



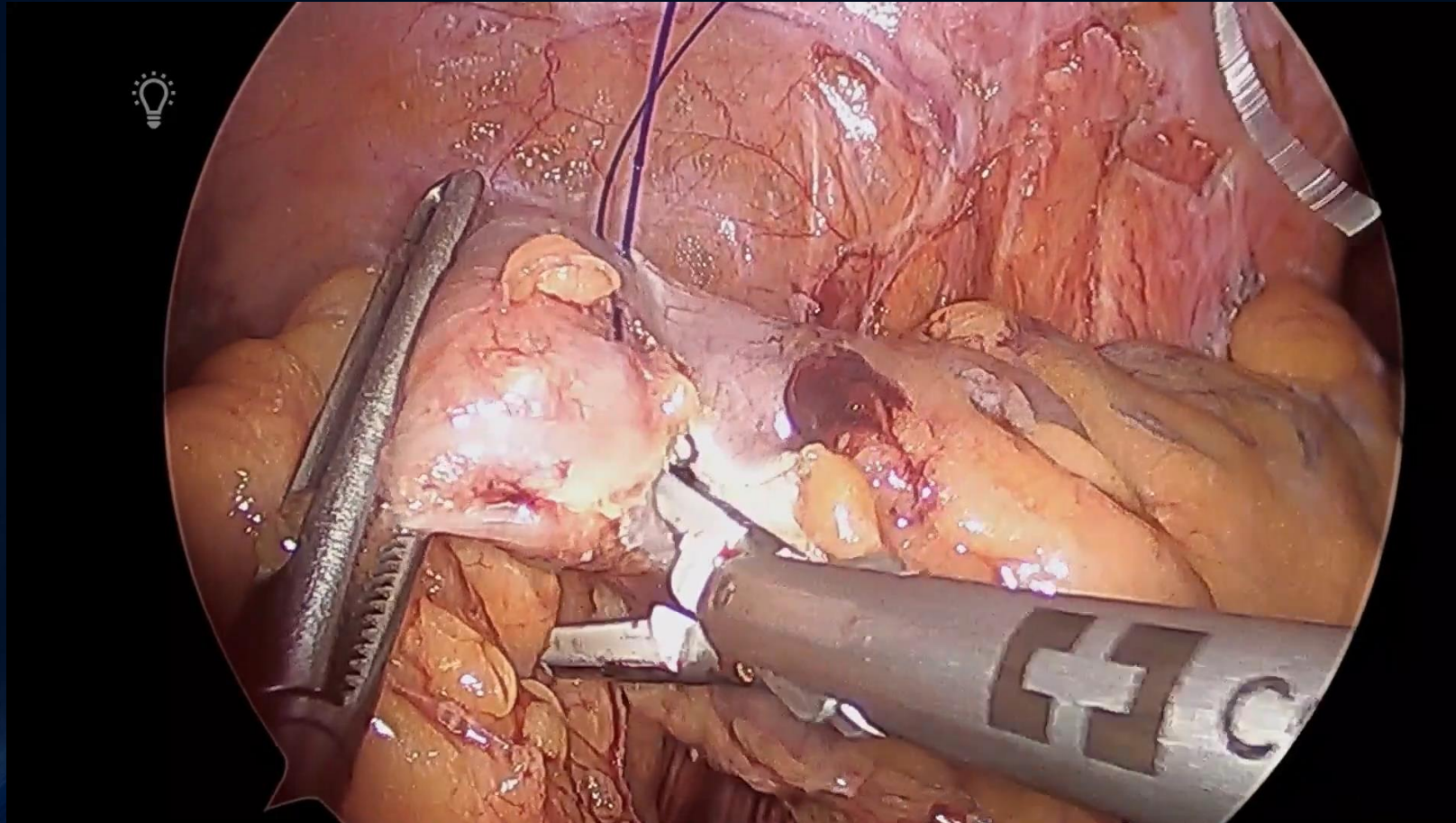
Incarcerated Spigelian Hernia



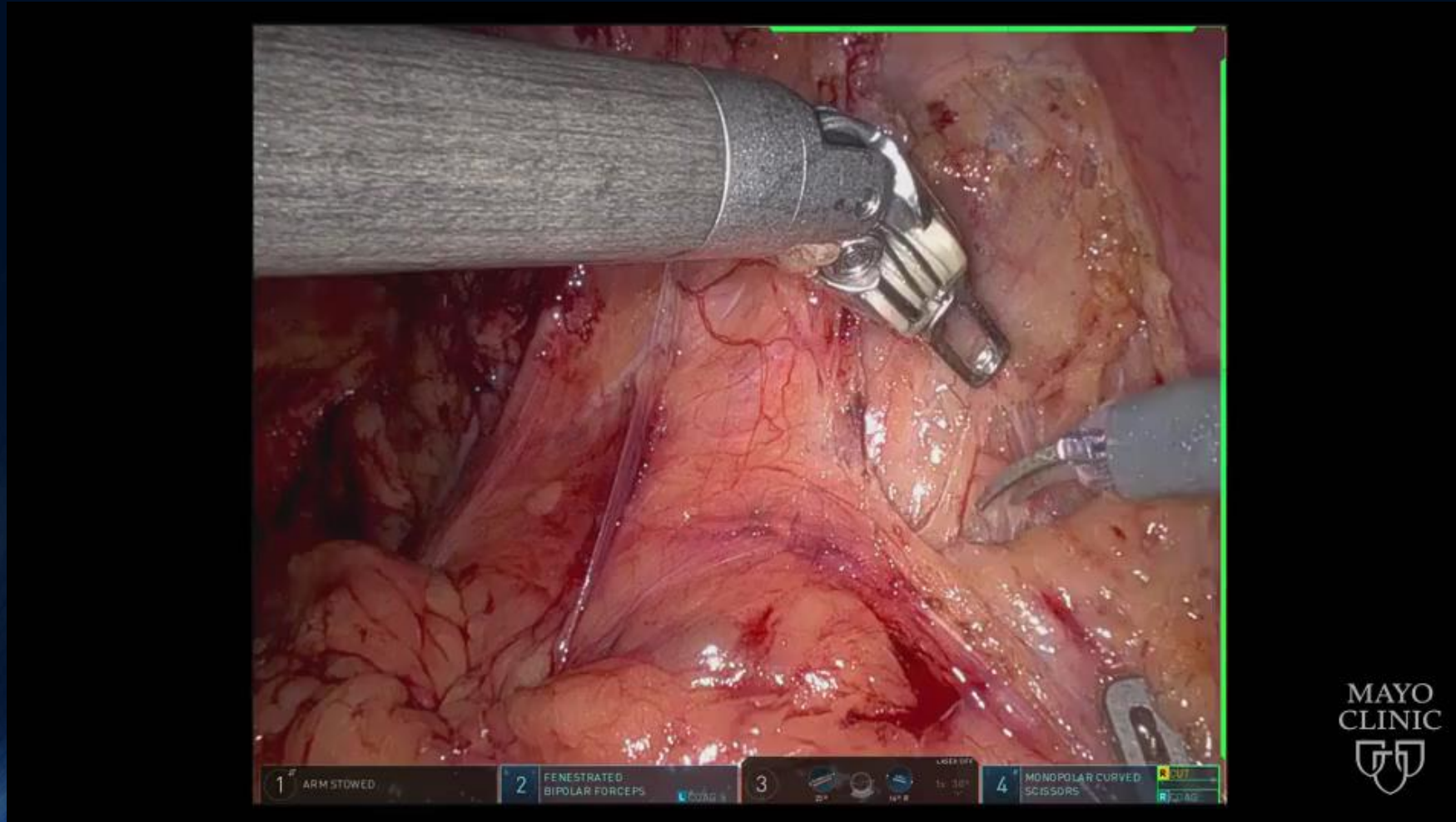
Left sided Intracorporeal Anastomosis



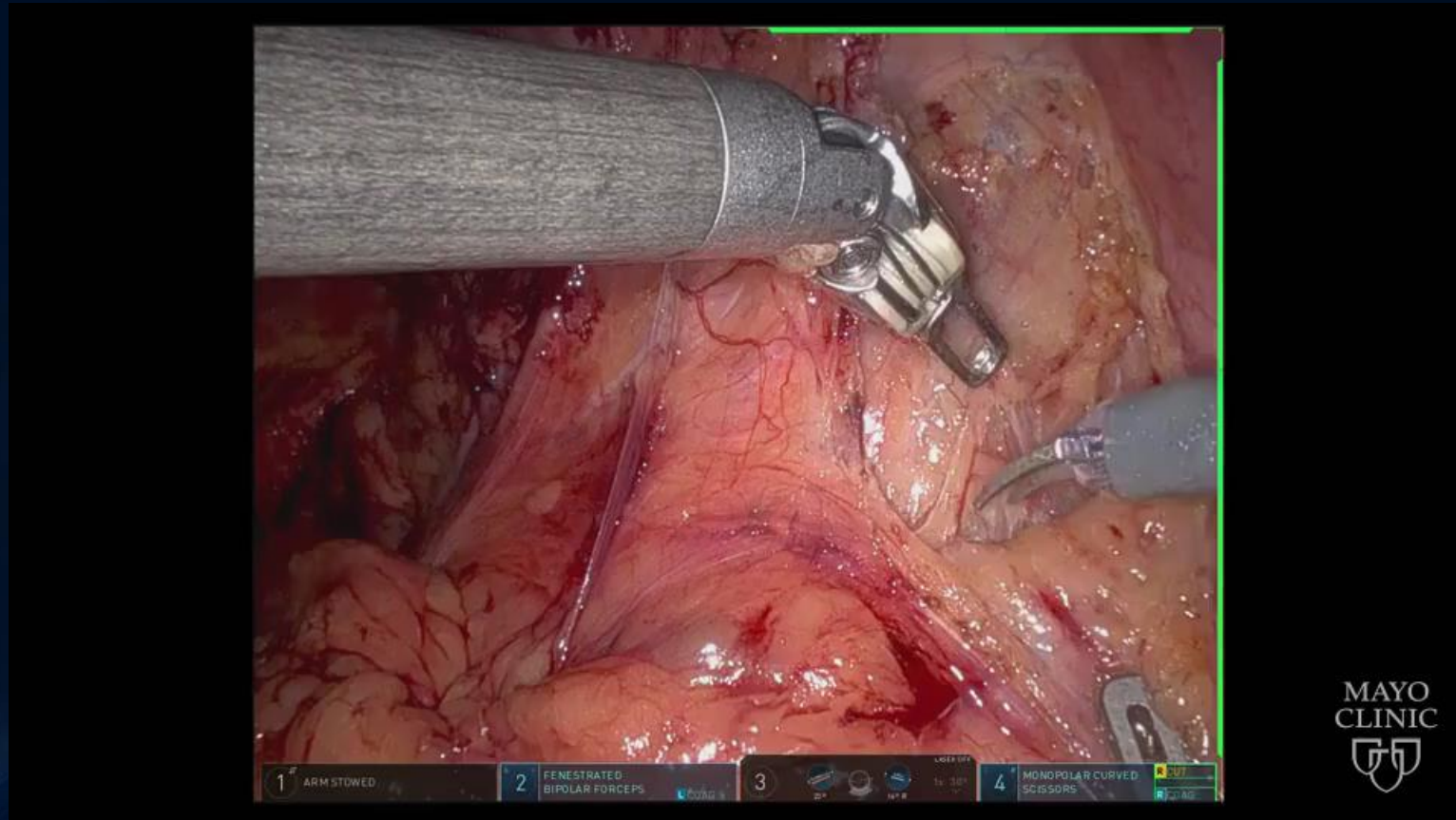
Left sided Intracorporeal Anastomosis



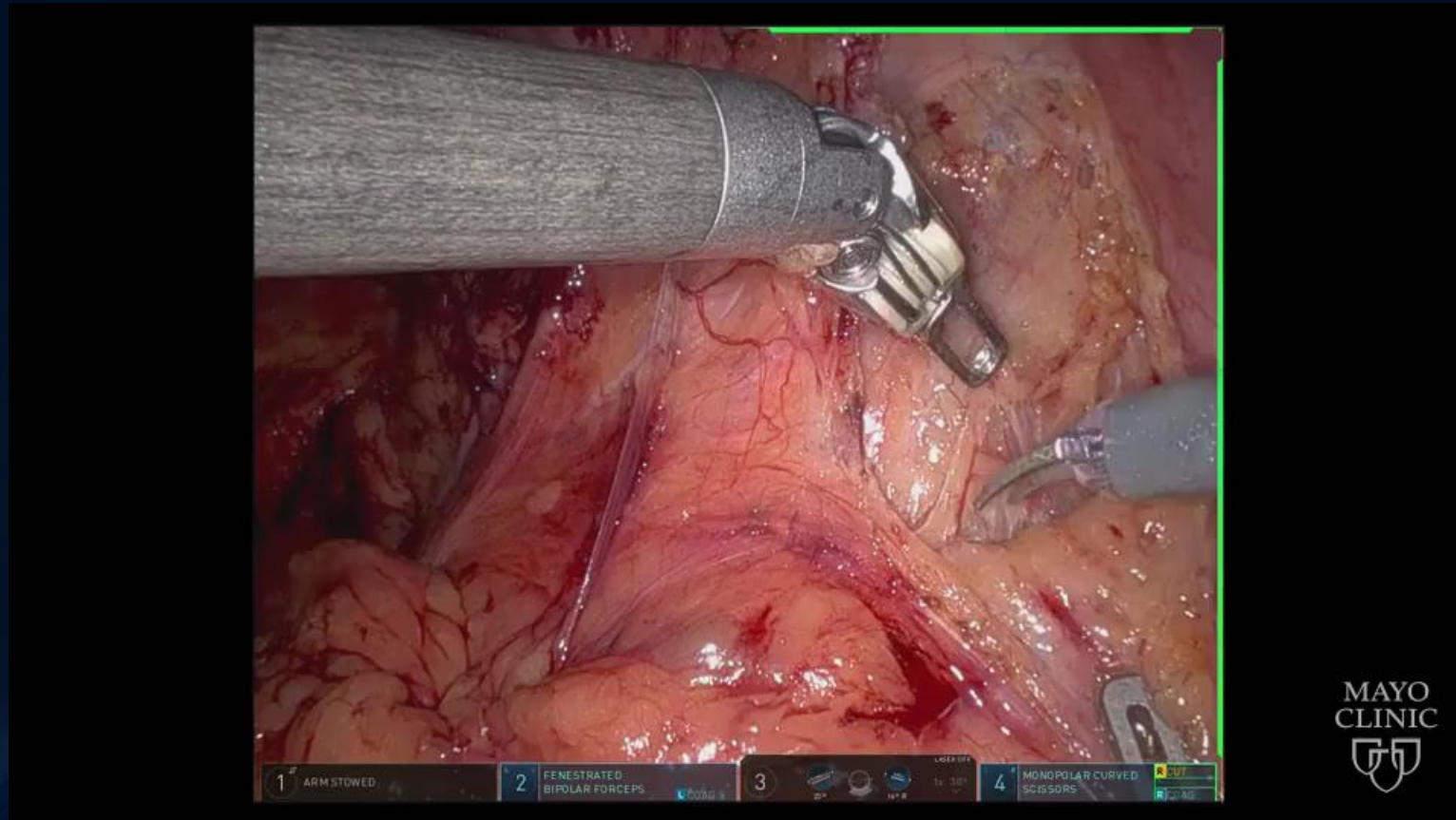
Intra-Corporeal Robotic Double Pursestring EEA



Intra-Corporeal Robotic Double Pursestring EEA



Intra-Corporeal Robotic Double Pursestring EEA



Acknowledgement



Tarek Hossam El-Din Hassab

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Johns Hopkins School of Medicine
Maryland
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Conclusion

- Robotic platform → Acute care CRS
 - Safe & Feasible
 - Experience
 - Planing
 - Team approach
 - Culture change
 - MIS benefits

THANK YOU

- Questions