Fundamentals of Robotic Surgery

Early Career Fundamentals

2024 IFSO Melbourne

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Disclosures

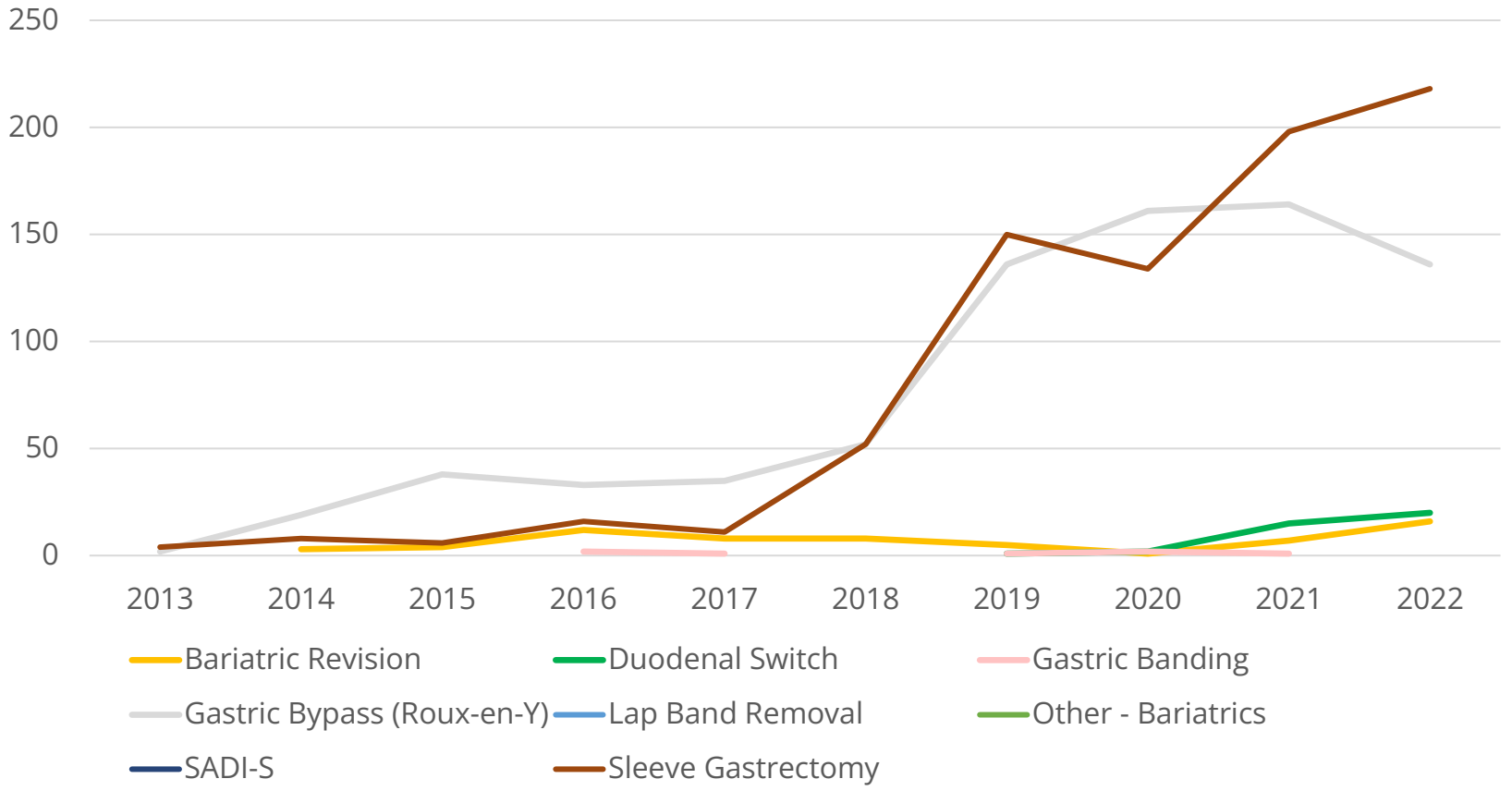
Speaking
Consultancy
Proctoring

Gore

Intuitive (Device Technology)

Medtronic

Australian Bariatric da Vinci Procedures



Why Robotics for me?

- Ergonomics

- Desire to improve outcomes
  - Tieu K. SOARD 2018: RYGB 0.1%

ERIK WILSON, MD


OPEN FIRST

Welcome to the Future

Total Practice Robotic Surgeons

Laparoscopy is just a historical transitory phase between open and robotic surgery

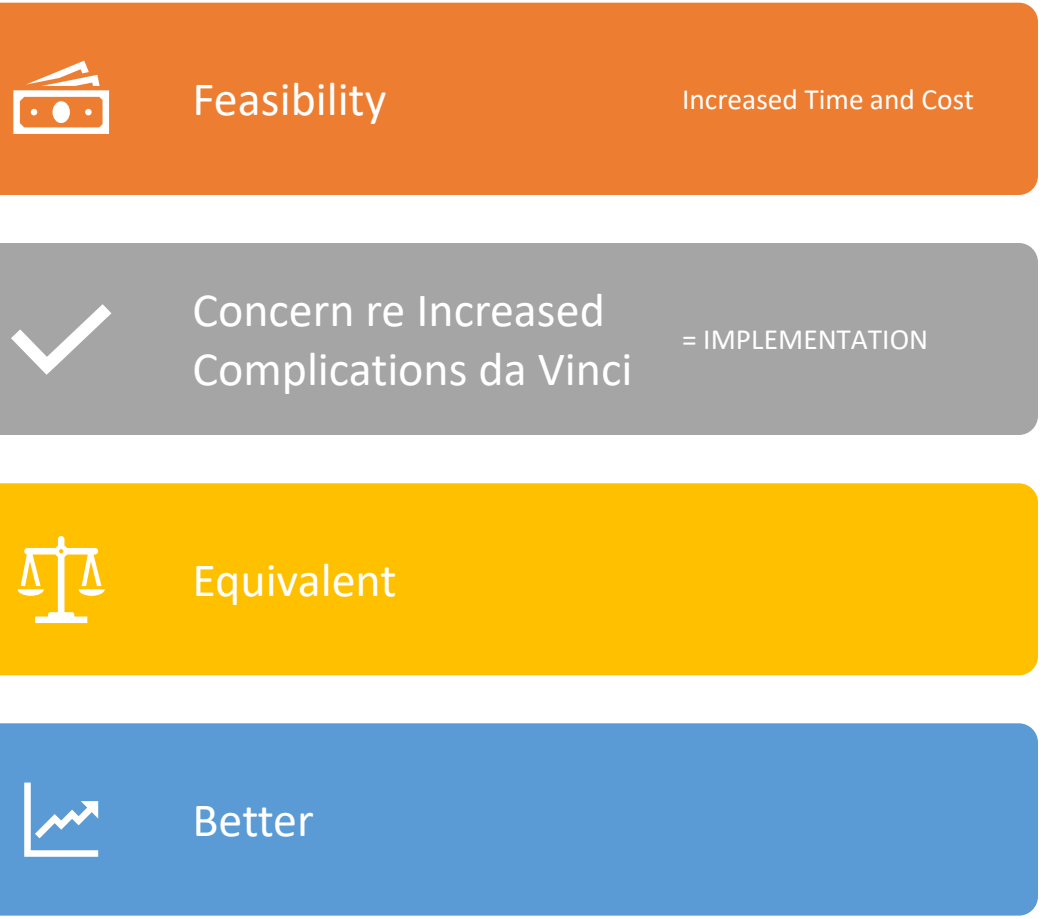
- Needed for access, division of adhesions to allow for robot docking

Robotic Surgery = Computer Assisted Surgery. II. Data Analytics

Every Surgical Movement is a data POINT

Evidence for Robotics

- Open Vs Robotic
- Lap Vs Robotic
  - Need big data
  - Historical Controls
  - Learning Curve Effect
  - Watch our for anti-robot people



Performing Robotic Procedures is Different

Initial cases will be less good than your expert laparoscopic cases

Distinct learning curve for you and the team

Need Immersion for Fluency

Sleeve Gastrectomy

- Sets you up for success
- Similar set up for all foregut procedures
- Work Horse (85%)
- Hybrid/Fellow Training/ HH GB

ORIGINAL ARTICLE

ANZJSurg.com

Early Australian experience in robotic sleeve gastrectomy: a single site series

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Key words
bariatric surgery, learning curve, robotic sleeve gastrectomy, robotic surgery, sleeve gastrectomy.

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This study was presented at the 20th World Congress of the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO), Vienna, Austria, 2015.

Accepted for publication 22 February 2016.

doi: 10.1111/ans.13545

Abstract

Background: The use of robotic platforms in bariatric surgery has recently gained relevance. With an increased use of this technology come concerns regarding learning curve effects during the initial implementation phase. The sleeve gastrectomy though may represent an ideal training procedure for introducing the robot into bariatric surgical practice. The present review of the first 10 consecutive robotic sleeve gastrectomy procedures performed in an Australian bariatric programme by a single surgeon describes the evolution of the technique, learning curve and initial patient outcomes.

Methods: Between 2014 and 2015, robotic sleeve gastrectomies were performed as primary and revisional procedures by a consistent surgeon–assistant team. Technique evolution and theatre set-up were documented. Patient demographics, operative time (robot docking and total operation time), additional operative procedures performed, operative and postoperative complications at 1, 3 and 6 months post-procedure and weight loss achieved at 6 months were retrospectively reviewed from a prospectively maintained database.

Results: Ten robotic sleeve gastrectomies were performed without significant operative complications. One patient was treated as an outpatient with oral antibiotics for a superficial wound infection. The median total operative time was 123 min (interquartile range (IQR) 108.8–142.5), with a median incision to docking time of 19 min (IQR 15.0–31.8). Length of stay in hospital was 2–3 days. Median excess weight loss achieved at 6 months was 50% (IQR 33.9–66.5).

Conclusion: This study describes a method of safely introducing the *da Vinci* robot into bariatric surgical practice.

- Commit, listen, build a team, be patient, start simple, prepare
- Multiple Touches
- Keep the Team small
- Video Review
- Audit times and outcomes
- Enjoy your problems
- Robotic Bariatric Collaboration/Mentoring/ Watching others.

- No Robot No Access
- Wrong Platform (Si)
- Wrong Patient
- Wrong Mind Set “I don’t need this for most things. I am only doing this for revisional cases”
- Administration
  - No program
  - $

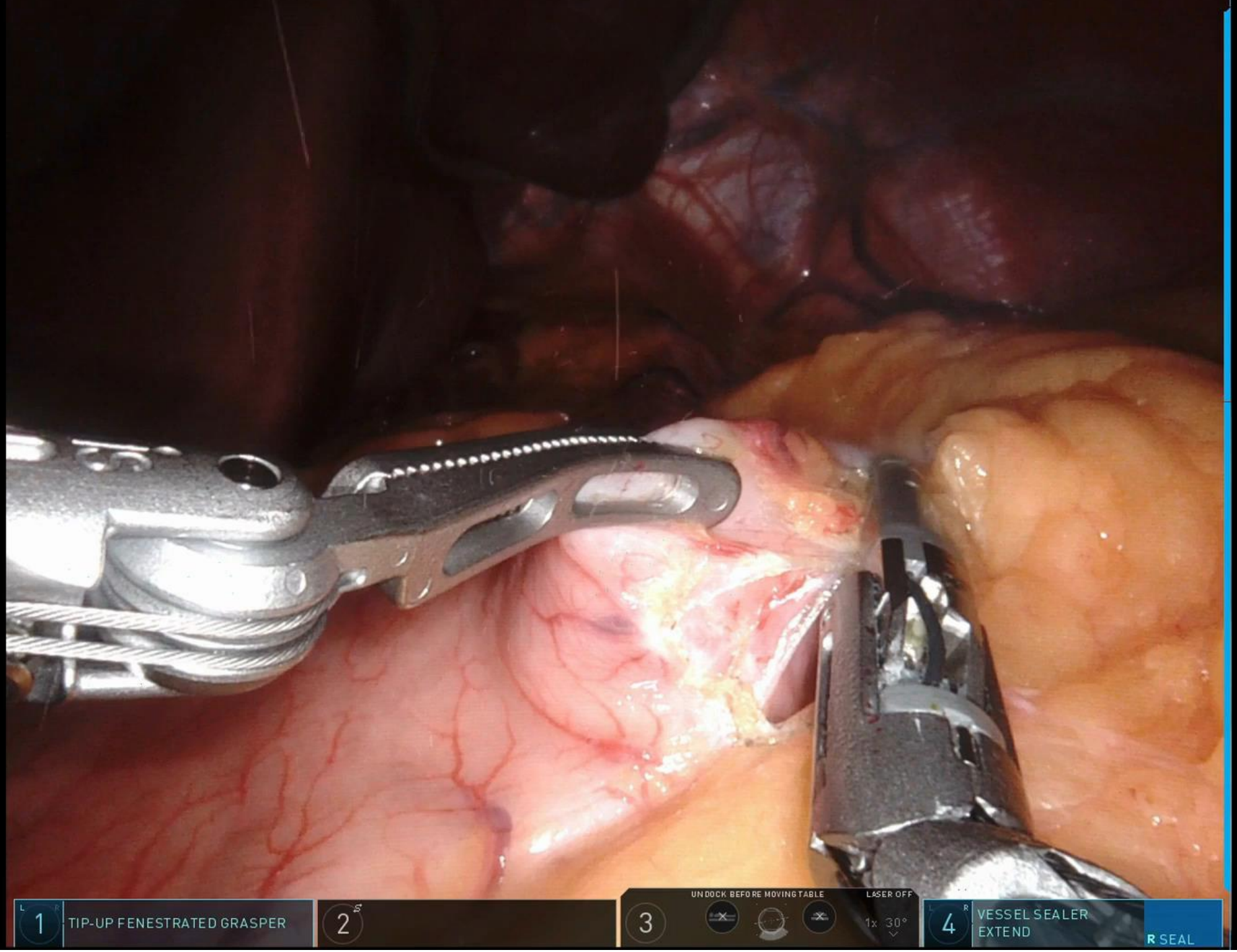
Standardisation and Parallel Tasks

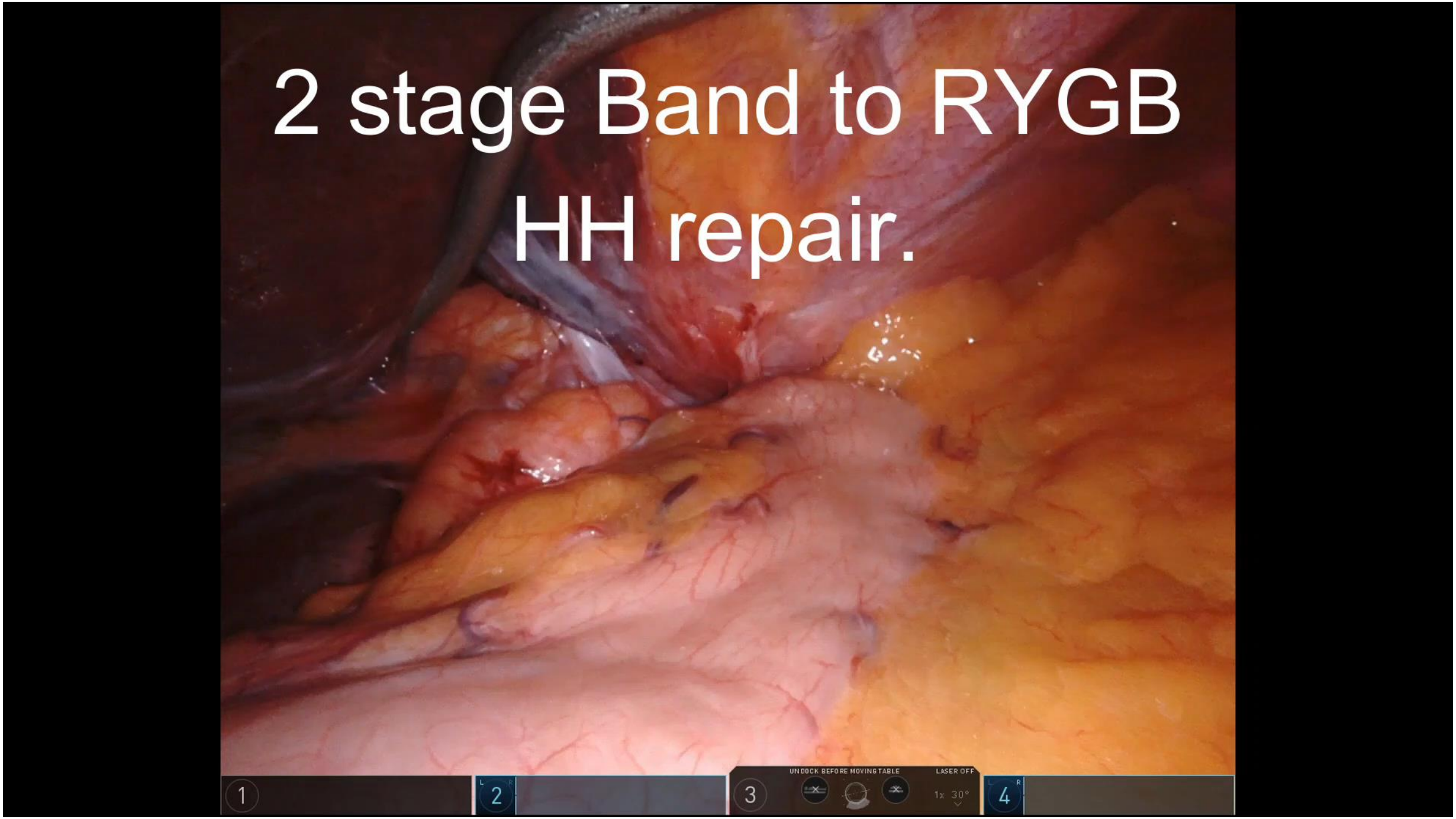

110
132/ 76

6yo F
81kg
65cm
MI 66

D 10
20
T 40mins

dited
2 Speed




2 stage Band to RYGB
HH repair.
UNDOCK BEFORE MOVING TABLE
LASER OFF
1x 30°
1
2
3
4

Proctoring

- Need a relationship
- Visitors (Case Observation)
- “Fellows Folder” Dropbox
- Accreditation
- Case planning
- On the day

THANK YOU FOR YOUR TIME AND TO IFSO forTHE OPPORTUNITY TO PRESENT and I HOPE TO SEE YOU SOON

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