



Use of Fluorescence Guided Gastric Calibration Tube to Improve Visualization during Sleeve Gastrectomy & Gastric Bypass

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Disclosures

- Salim Abunnaja, MD
 - No disclosures to report
- Lawrence Tabone, MD
 - No disclosures to report

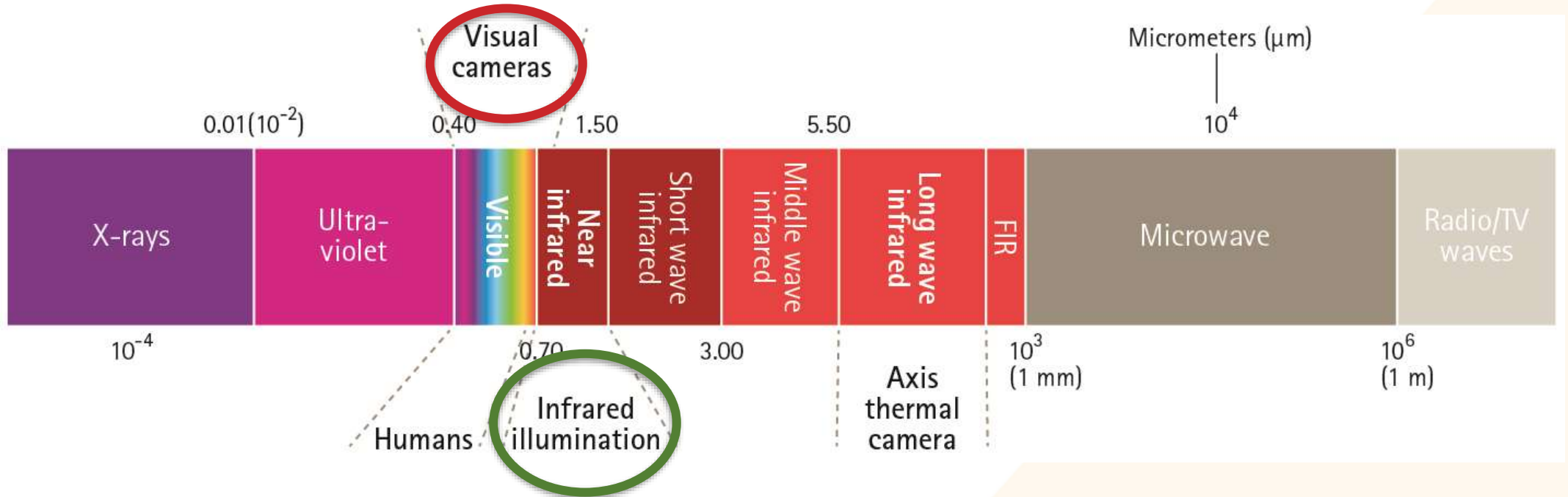
Background

- Fluorescence guided (FG) surgery uses a near infrared (NIR) emitting dye or light source to improve intraoperative visualization
- This video describes the first in human clinical trial of a novel FG gastric calibration tube (CT) during sleeve gastrectomy and gastric bypass

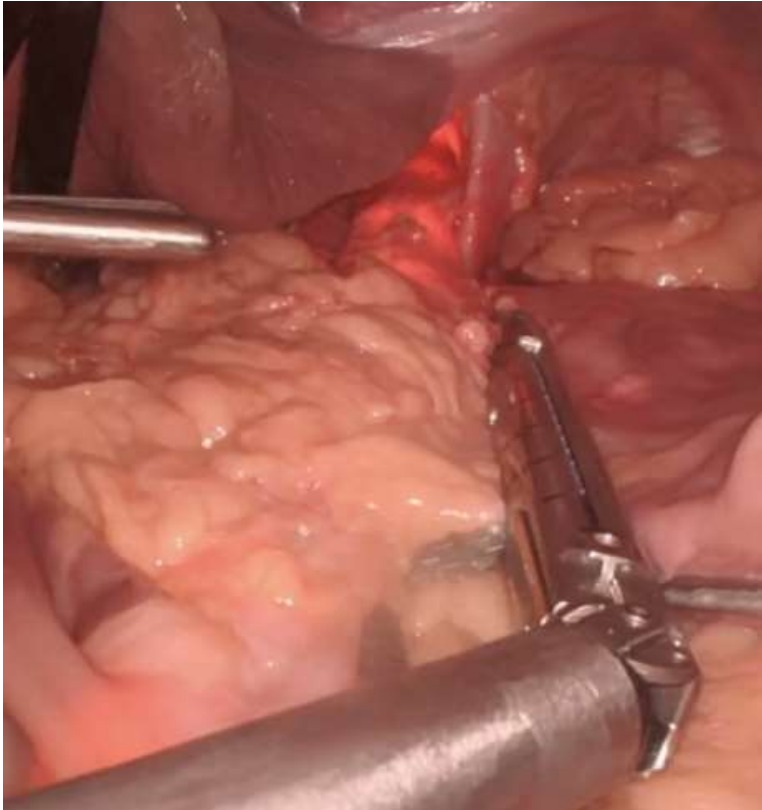


Background

The Electromagnetic Spectrum



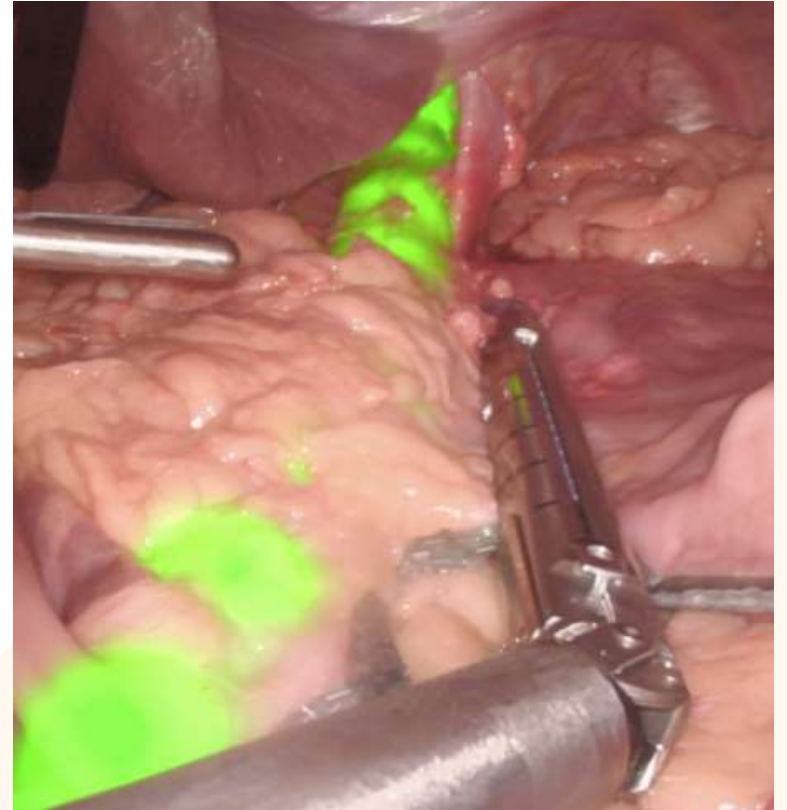
USE OF NIR OVERLAY MODE = AUGMENTED REALITY



White Light View



Near Infrared (NIR) Light View

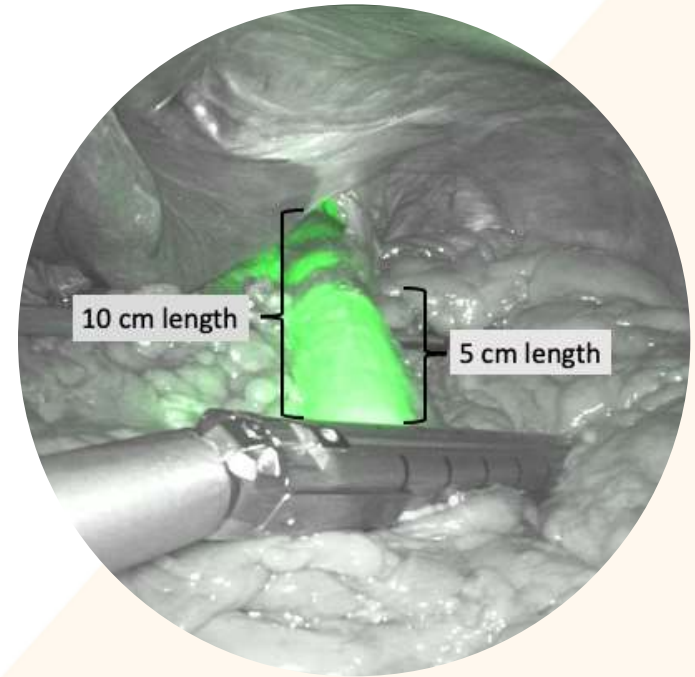
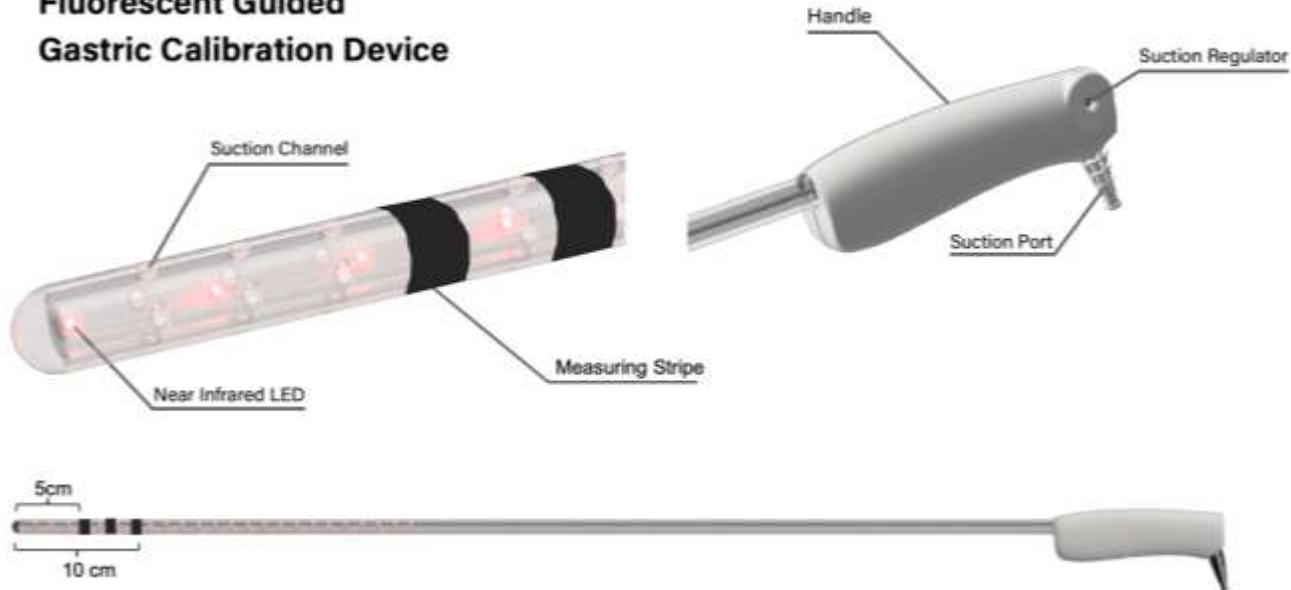


NIR Overlay View

White light + NIR light Overlay

Endoluminal Gastric Calibration Tube

Fluorescent Guided Gastric Calibration Device



Functionality

1. Use of near infrared camera to visualize intragastric tube
2. Measuring capability (gastric pouch length)

Methods

Sleeve Gastrectomy (n=20)

- Gastric decompression
- Gastric sleeve calibration
- Leak test

Gastric Bypass (n=2)

- Gastric decompression
- Gastric pouch construction
- Gastrojejunostomy calibration
- Leak test

Surgical providers completed a survey to rate their experience using the novel device

Results

- No significant adverse events occurred
- Two Surgeons & 5 unique surgical team members
- 17 unique anesthesia team members
- ❑ 100% of surgical team members rated visualization while constructing a gastric sleeve as good, or very good
- ❑ 82% of anesthesia providers rated visualization of the device as good, or very good
- ❑ 71% of all responded that would be more likely to avoid adverse events using the device
- ❑ The average likelihood to recommend this device to a colleague was 9.1 out of 10

Conclusion

- Novel Device & Technique
 - Visualization using NIR Camera & FG device with NIR LEDs
 - No Indocyanine Green (ICG) dye used
- Fluorescence guidance improves visualization of calibration tube
- Improves communication between surgeon and person introducing CT

Further research is needed to explore the benefits of this approach:

Decreases risk of iatrogenic perforation or stapling CT

Enables construction of a consistent sized gastric sleeve &/or pouch

Thank you

