

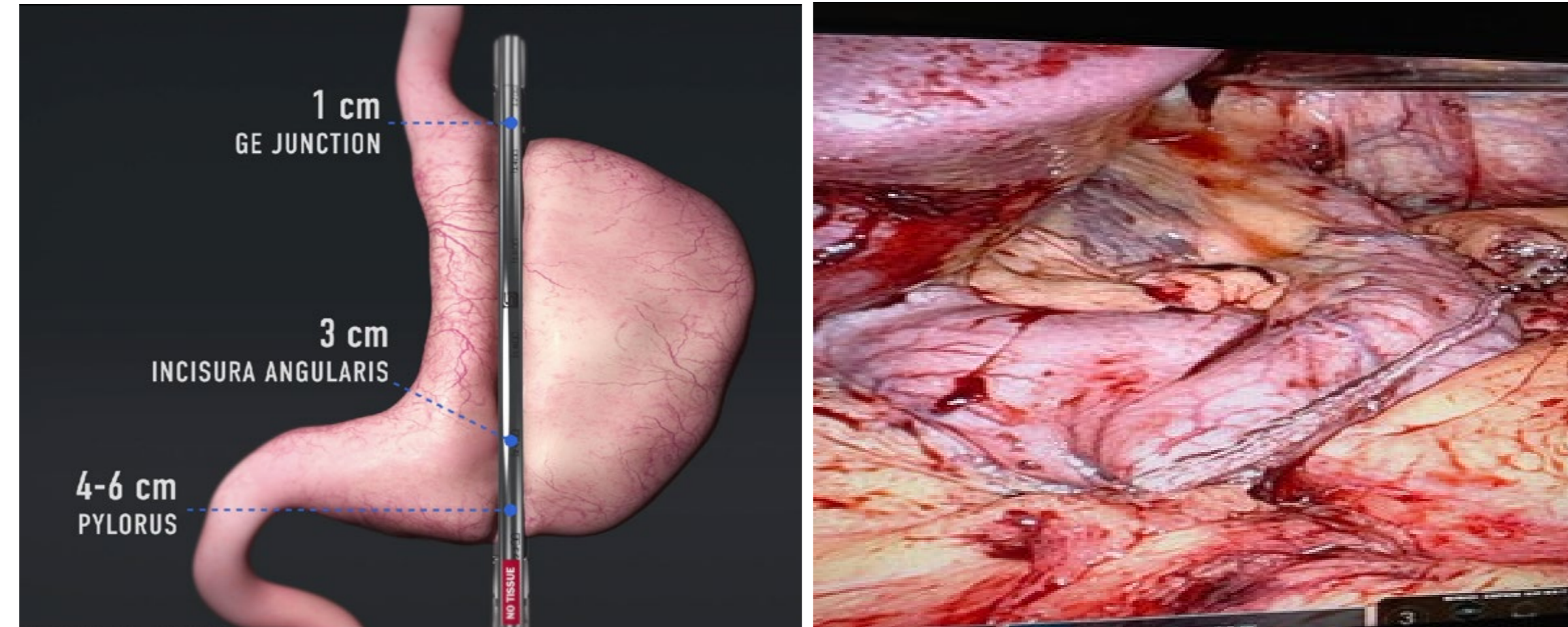
Outcomes After Sleeve Gastrectomy Utilizing a Single-fire 230 mm Stapler: A Single Institution Study

Maria Durdach, MD, Liam Knott, MD, Aaron Hoffman, MD, Christina Sanders, DO, MBA
 Department of Surgery, University at Buffalo, Buffalo, New York



Introduction

- Sleeve gastrectomy remains the most utilized procedure for surgical weight loss in the United States.
- Despite its simple concept, there remains a high variability in the technique.
- Recently, a novel single-fire 230 mm stapler was developed to aid standardizing and streamlining the sleeve gastrectomy.
- The aim of this study was to delineate our 1-year outcomes of the first 50 patients undergoing sleeve gastrectomy using the single-fire 230 mm stapler.



Methods

- A retrospective review of the first 50 patients undergoing sleeve gastrectomy with the single-fire stapler between September 2021 and June 2022.
- All cases performed at single institution by one surgeon.
- Case performed laparoscopically using two 5 mm ports, one 12 mm camera port and a 19 mm port or robotically using four 8 mm robotic ports and one 19 mm port
- Technique used in all cases
 - The single fire 230 mm stapler was positioned 1 cm from the gastroesophageal junction, 3 cm from the incisura, and 6 cm from the pylorus.
 - A 38 Fr bougie was passed into the antrum prior to firing the stapler.
 - 19 mm port site closed with two interrupted 0-Vicryl sutures using a suture passer device

Baseline Patient Characteristics

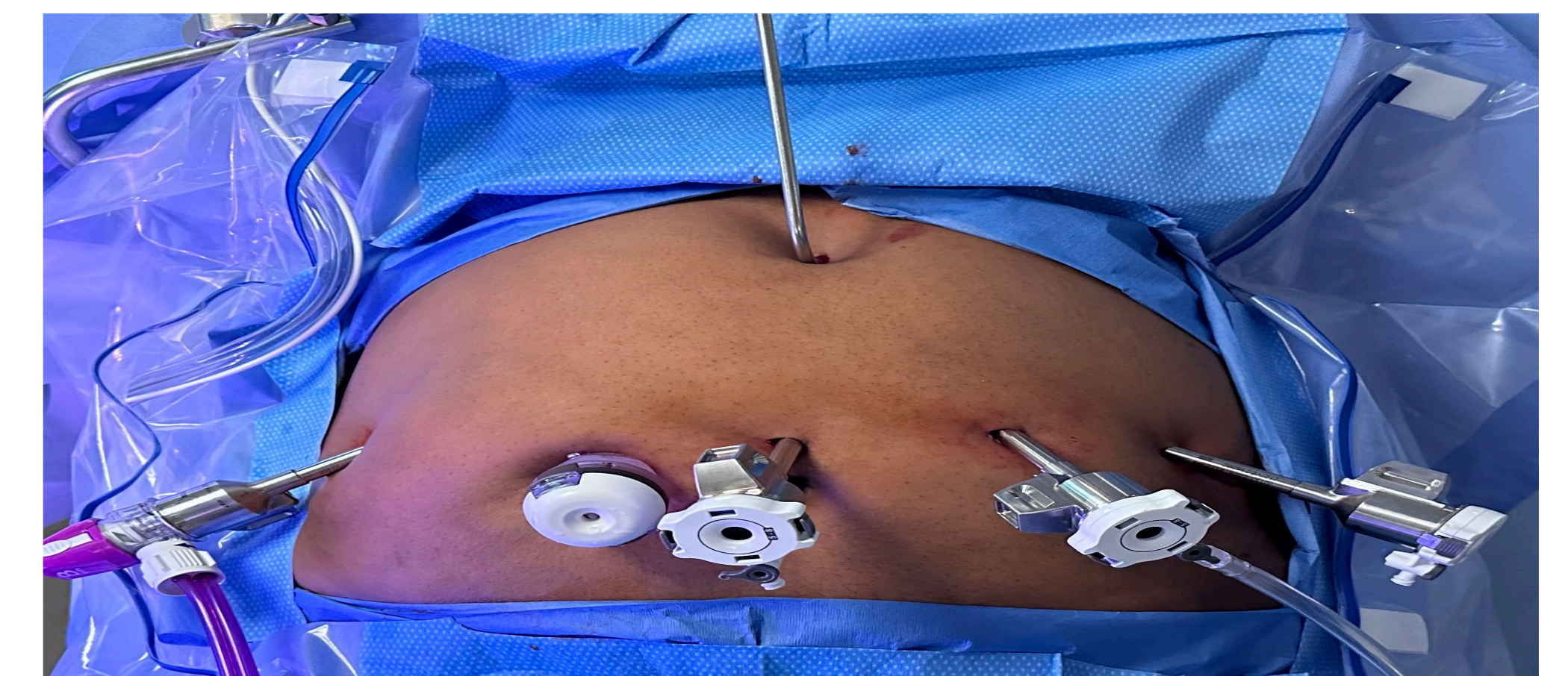
Sex (female)	88%
Age	41 [23-65]
BMI	47 [36-69]
Hiatal hernia (HH)	20%

Outcomes

Mean Operative Time, minutes	42 min Lap (76 min w/ HH) 73 min Robotic (95 min w/ HH)
LOS, minutes	1316.5 [~22 hours]
Complications	None
Leak	0
Bleeding requiring transfusion	0
Reoperation	0
Readmission within 30 days	0
Incisional hernia	0
De novo GERD	1

Results

- 15 cases were completed laparoscopically and 35 completed robotically based on OR availability.
- Difference in operative time for laparoscopic cases was 42 min single fire vs 53 min by the same surgeon using a multi-fire stapler
- Limited data was available to compare use of the multi-fire robotic stapler as the robotic stapler was only used for revisional cases (band to sleeve) or in the presence of complex hernia where use of the single fire staple was not indicated or feasible
- There were no significant differences in length of hospital stay compared to cases using a multi-fire stapler.
- There were no acute post operative complications.
- 1 patient developed de novo GERD
- There was 50% follow-up at 12 months with an average of 56.7% EBWL.



Conclusions

- This data supports that the single-fire stapler is safe and effective at sleeve gastrectomy creation.
- Use of the single fire stapler decreases operative time, but larger studies comparing all patient factors and cost will be needed to determine the significance of this outcome.

