

Use of Non-stapler Specific Buttress Material to Avoid Staple Line Bleeding in Robotic Sleeve Gastrectomy

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Introduction

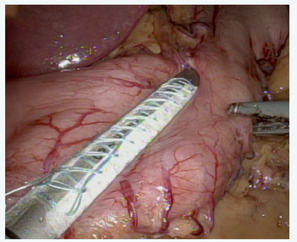
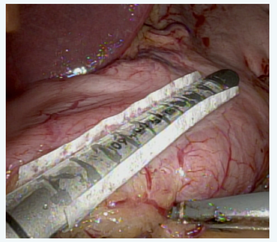
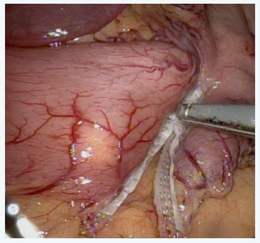
Despite much discussion in meetings and among experts, there are currently no publications on feasibility of routine use of buttress material with a robotic 60mm stapling device during sleeve gastrectomy.

Methods

With IRB approval, we studied all consecutive robotic sleeve gastrectomies performed by a single surgeon at an academic fellowship program in a prospectively-collect database. Revisions, and cases where a concurrent hiatal hernia was repaired were excluded. All operations were performed with the Xi Sureform 60mm stapler, starting with single black load then serial green loads (all with absorbable buttress material, Gore Seamguard, expressly designed for the Echelon Flex60 stapler, Ethicon Endosurgery, rather than for the Sureform) then variable blue/white without buttress.

Results:

Demographics	
Sex	74%. 26%
Mean BMI	47.2
Preoperative Anticoagulation	11.7%

Outcome	Percentage	N (119)
30-Day Morbidity by MBSAQQIP	4.2%	5
Mortality	0%	0
Conversion to Open	0%	0
Conversion to Laparoscopic*	1.7%	2
Deviation from typical procedure**	5.0%	6
Operative Takeback	0.8%	1

*Conversion to laparoscopic approach was required in 2 cases: 1 with lesser curve bleeding and 1 in which the stapler locked out
**The cases that required deviation from typical procedure were due to stapler lockouts. In these cases, we upsized the stapler, omitted the buttress, and/or converted to a laparoscopic approach

Conclusions

- Absorbable two-sided buttress designed for a different (laparoscopic) stapler worked well with a robotic stapler and lockouts were rare.
- Bleeding complications were rare, as were conversions.
- Robotic adoption by sleeve surgeons who prefer absorbable buttress is limited; this series should dispel concerns.