



Staple line reinforcement during Sleeve Gastrectomy with SeamGuard: single center retrospective case-control study over a 5-year period.

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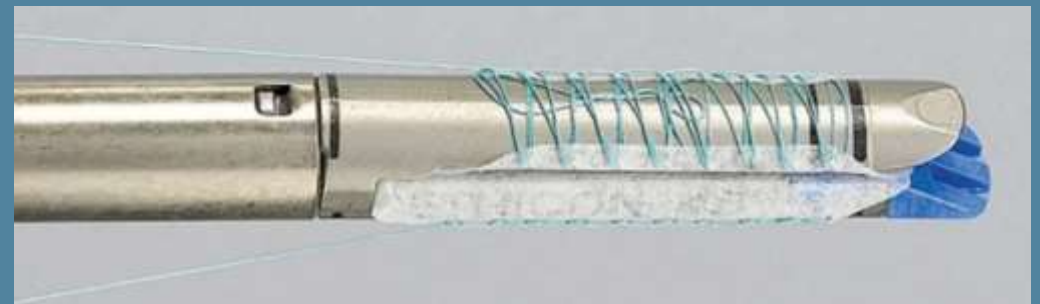
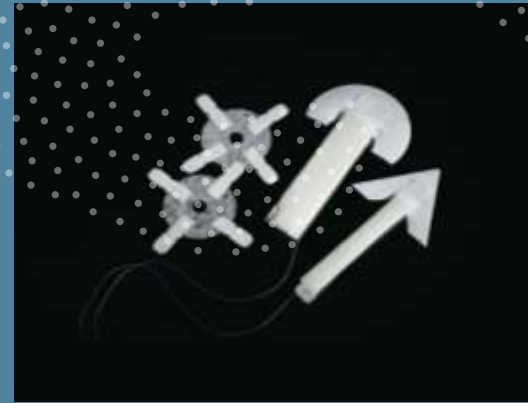
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GORE[®] SEAMGUARD[®] staple line reinforcement

It is specifically engineered to reduce the incidence of perioperative leaks and bleeding in a variety of minimally invasive surgeries.

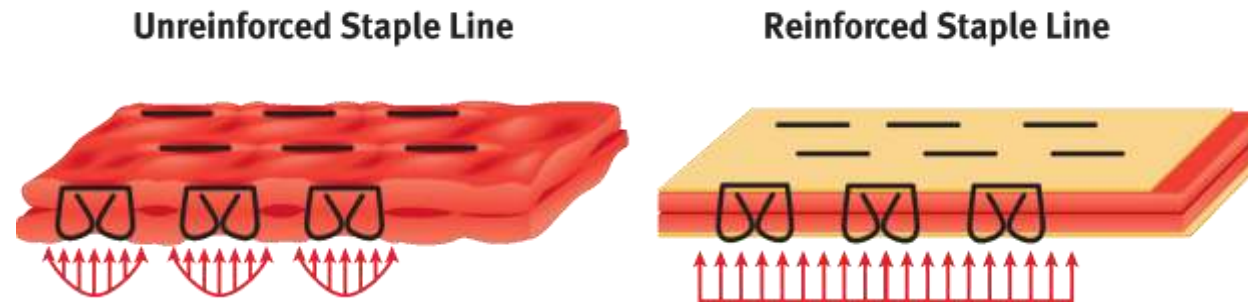
Stapling Applications

- Bariatric
- Thoracic
- Colorectal
- Solid organ



Mechanics of Staple Line Reinforcement

GORE® SEAMGUARD® Reinforcement mechanically increases the strength of the resection line; it *“evenly redistributes the staple pressure exerted on the tissue over a wider surface area and thereby reduces staple-line bleeding”*¹ and leakage.



1. Nguyen NT, Longoria M, Welbourne S, Sabio A, Wilson SE. Glycolide copolymer staple-line reinforcement reduces staple site bleeding during laparoscopic gastric bypass. A prospective randomized trial. *Archives of Surgery* 2005;140(8):773-778.

* Baker, R.S. et al. The Science of Stapling and Leaks. *Obesity Surgery*, 14, 2004. 1290-1298.

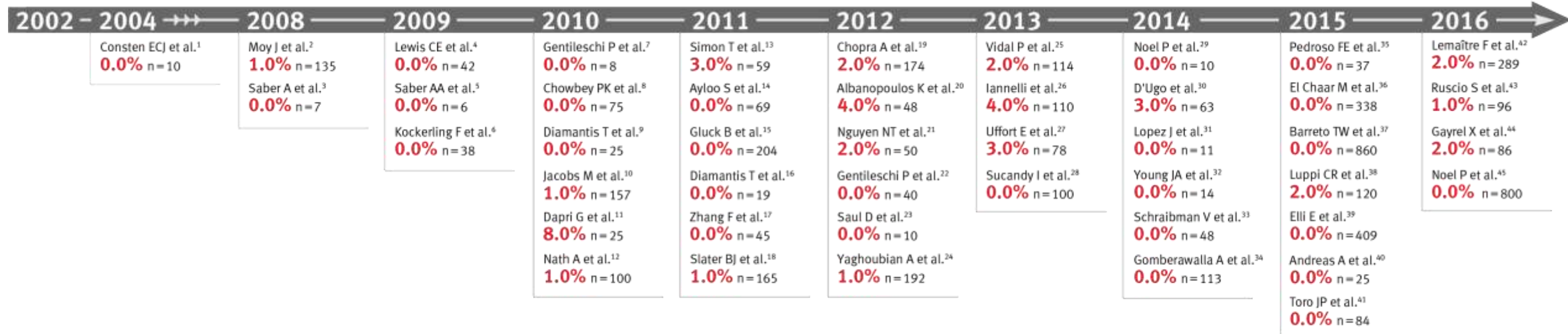


1.1% LEAK RATE

0.7% LEAK RATE

Systematic review data*

Contemporary studies**



46 studies • 5,598 patients

Sleeve gastrectomy papers (% leaks)

* Gagner, Michel, and Jane N. Buchwald. "Comparison of laparoscopic sleeve gastrectomy leak rates in four staple-line reinforcement options: a systematic review." *Surgery for Obesity and Related Diseases* 10.4 (2014): 713-723.

** Includes published sleeve gastrectomy papers through July 2016 that identifies adult patients reinforced with GORE® SEAMGUARD® Reinforcement.

Decreased blood loss⁴⁶ (p>.01)



100% of expert panelists agreed that
*“Staple line reinforcement
will reduce bleeding along
staple line.”*⁴⁷

No reinforcement = 54% more bleeding on average⁴⁶

- Rosenthal, Raul J. International Sleeve Gastrectomy Expert Panel Consensus Statement: best practice guidelines based on experience of > 12,000 cases. Surgery for Obesity and Related Diseases 8.1 (2012): 8-19.

Reduces bleeding complications

Randomized prospective clinical data

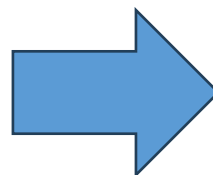
Significantly lower use of clip instruments⁴⁸ (p>.0001)



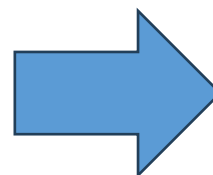
“Intraoperative staple line bleeding was significantly reduced in our study group, as demonstrated by the significantly lower use of clip instruments.”⁴⁸

Less bleeding = Fewer clips

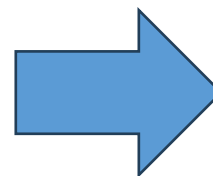
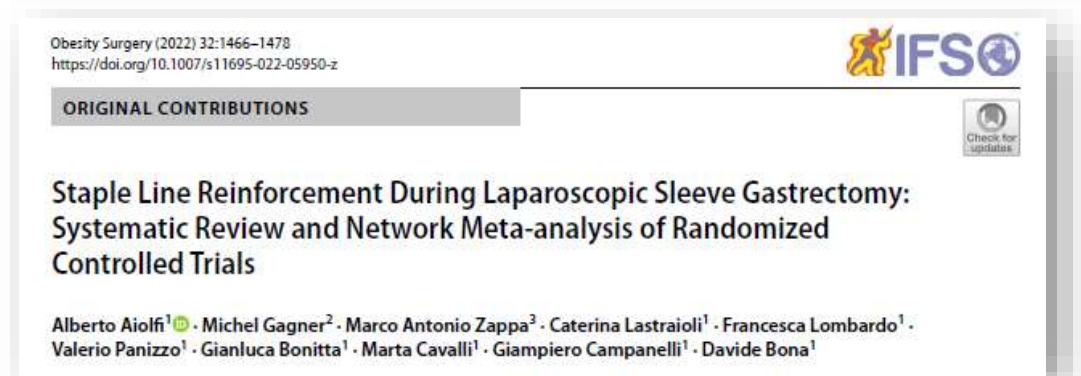
- Miller KA, Pump A. Use of bioabsorbable staple reinforcement material in gastric bypass: a prospective randomized clinical trial. *Surgery for Obesity & Related Diseases* 2007;3(4):417-422



leak rate in LSG was significantly lower using APM staple-line reinforcement than oversewing, BPS reinforcement, or no reinforcement.



significantly lower rate using APM staple-line reinforcement as compared to oversewing, use of sealants, BPS reinforcement, or no reinforcement



SR seems associated with a reduced risk of bleeding, leak, and overall complications compared to NR while no differences were found vs. GR, GoR, and CR.

Obesity Surgery (2023) 33:2237–2245
<https://doi.org/10.1007/s11695-023-06649-5>

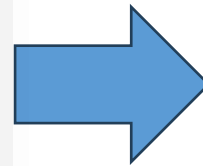


REVIEW



Seamguard Buttressing of the Staple Line During Laparoscopic Sleeve Gastrectomy Appears to Decrease the Incidence of Postoperative Bleeding, Leaks, and Reoperations. A Systematic Review and Meta-Analysis of Non-Randomized Comparative Studies

Abdul-Rahman F. Diab¹ · Sarah Alfieri² · William Doyle² · Bilal Koussayer² · Salvatore Docimo¹ · Joseph A. Sujka¹ · Christopher G. DuCoin¹



SeamGuard buttressing appears to decrease the incidence of postoperative bleeding, postoperative leaks, and reoperations.



University College London Hospitals
NHS Foundation Trust

Staple line reinforcement during Sleeve Gastrectomy with SeamGuard: single center retrospective case-control study over a 5-year period.

- Five years: Jan 2014 – Jan 2019
- Total number of primary Laparoscopic Sleeve Gastrectomy (LSG): **626**
 - Reinforced with SeamGuard: **450**
 - Surgeon 1: 216
 - Surgeon 2: 119
 - Surgeon 3: 115
 - Not reinforced with SeamGuard: **176**
 - Surgeon 4: 34
 - Surgeon 5: 142

Mr. Marco Adamo, Mr. Mohamed ElKalaawy, Mr. Andrew Jenkinson

Table 2. Preoperative demographics.

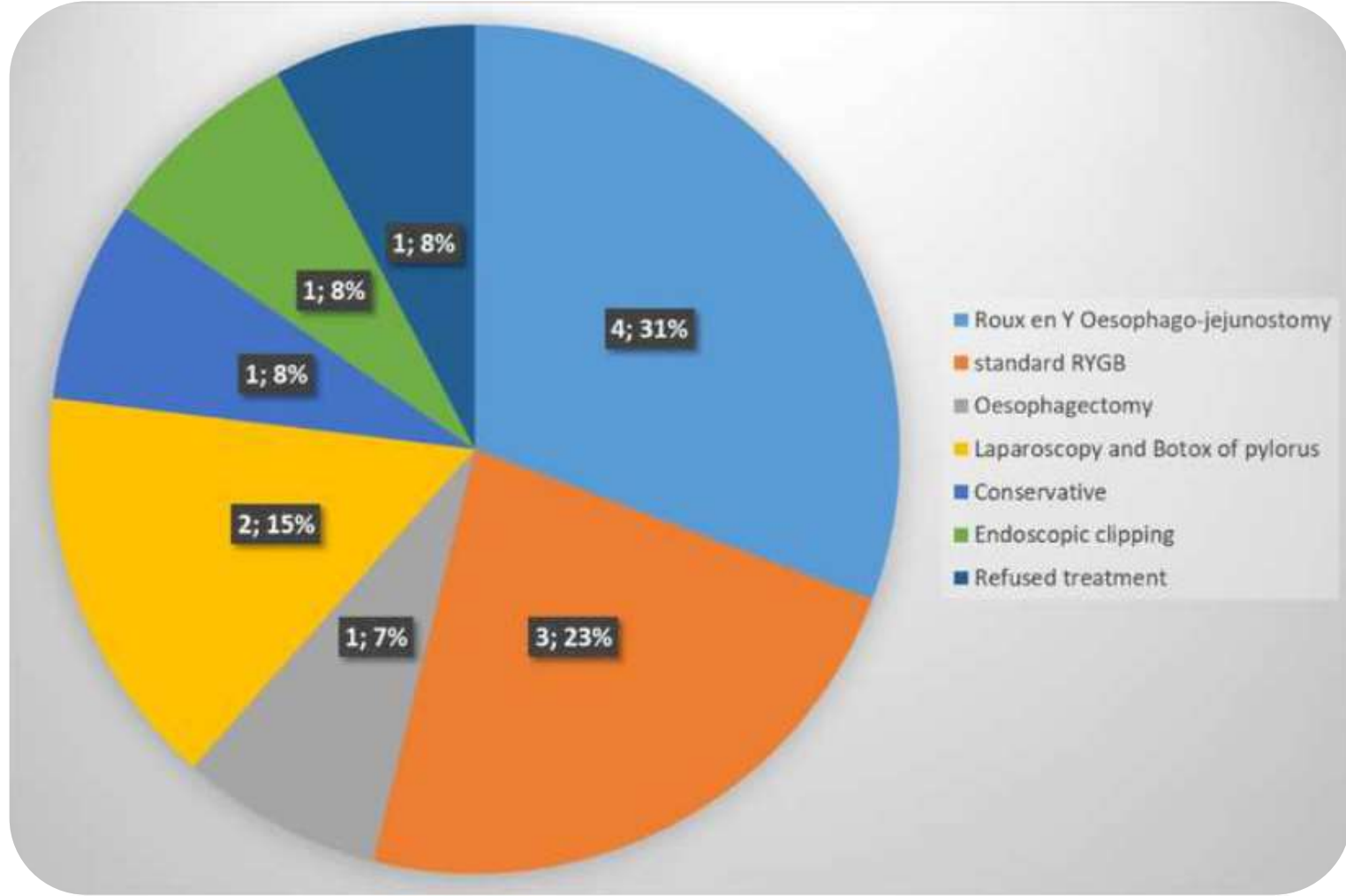
	Group GoR+ (n=450)	Group GoR- (n=176)	<i>P</i> value
Age (years)	41.5 ± 11.6	43.1 ± 9.9	0.09
BMI (Kg/m ²)	44.2 ± 7.6	45.1 ± 6.5	0.13
Preoperative weight (Kg)	123.7 ± 16.4	127.8 ± 17	0.006
Sex (F/M)	338/112	132/44	0.9
Previous abdominal surgery (YES/NO)	139/311	66/110	0.11
Patients with BMI>50	31/399	51/145	0.03

Table 3. Comparison of Staple Line Complications between the two groups.

	Group GoR+ (n=450)	Group GoR- (n=176)	<i>P</i> value
Staple line leak	0	2 (1.13%)	<i>0.02</i>
Staple line bleed	0	2 (1.13%)	<i>0.02</i>
Total staple line complications	0	4 (2.26%)	<i>0.001</i>


Table 4. Staple Line Complications coming from other centers.

	Reinforcement	No Reinforcement
Staple line leak	0	11
Staple line bleed	0	2
Total staple line complications	0	13



Conclusions

SeamGuard appeared to reduce leak and **bleeding** after LSG (Systematic Reviews)



UCLH experience shows that SeamGuard is associated with a lower rate of staple line reinforcement



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Thank You !!

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