

Laparoscopic Vertical Sleeve Gastrectomy (LVSG): Efficacy of Using GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement to Buttress the Staple Line

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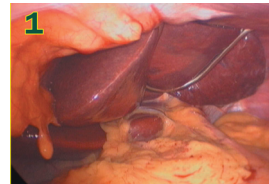
INTRODUCTION

- Minimally Invasive Bariatric Surgery continues to evolve with the development of both new techniques and technology.
- The LVSG procedure is gaining increasing acceptance.
- Many questions regarding surgical technique, patient selection, and treatment outcomes remain unanswered.
- Gagner et al* in a small case study previously suggested a role for GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement in the performance of the LVSG.
- This study provides comparative data to better assess the role of GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement.

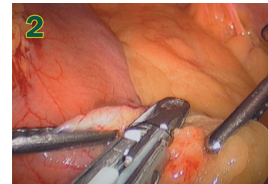
METHODS

- IRB - approved prospective clinical database.
- Ninety-two consecutive LVSG procedures performed between January 1, 2006 and September 1, 2007.
- Group 1: LVSG performed without use of staple line buttressing material.
- Group 2: LVSG performed utilizing GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement for staple line buttressing.
- Demographic, peri-operative and post-operative data.
- Comparative evaluation using chi-square, Fisher exact test and student t-testing.

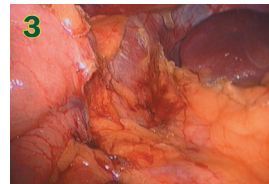
LVSG SURGICAL TECHNIQUE



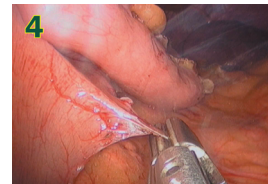
- Supine position with foot board
- Umbilical access when feasible. Bladeless ports (4 x 12 mm and 1 x 5 mm) and Epigastric Natheson Liver Retractor



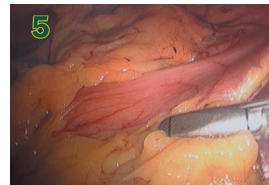
- 45 degree / 10 mm laparoscope
- 42 cm instrumentation/10 mm ligasure/42 cm clip applier



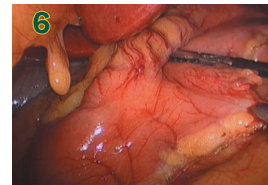
- Proximal greater curve mobilization until left crura is fully visible



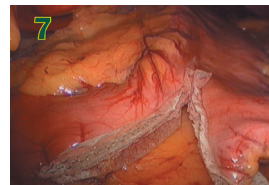
- Division of gastropancreatic adhesions



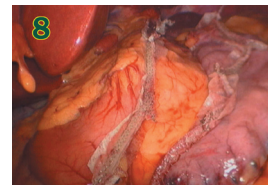
- Distal greater curve mobilization to point 4-6 cm from pylorus



- 32 Fr bougie utilized to size gastric sleeve



- Gastric transection utilizing ECHOLON 60 CM stapler with and without GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement



- Specimen extraction via umbilical port site 19 Fr Jackson Pratt Drain

RESULTS

Demographic Data	Group 1	Group 2	p-value
Patients (#)	46	46	ns
Age (yrs)	49	47	ns
BMI	45	44	ns
Sex (M/F)	8/38	8/38	ns
Peri-Operative Data			
Conversions	0	0	ns
OR time (min)	86	87	ns
Surgical usage	10	8	ns
Staple line oversewing	6	0	p <.05
Transfusion	0	0	ns
Post-Operative Data			
Staple line leaks	0	0	ns
Transfusions (# pts)	2	0	ns
ICU admissions (bleeding)	2	0	ns
Re-operations	0	0	ns
Readmissions	1	0	ns

Infected Hematoma

CONCLUSION

- Avoiding staple line complications is central to performing the LVSG.
- The use of GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement allows us to confidently utilize a smaller bougie (32 Fr) to size the gastric tube.
- Our study suggests that GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement is effective in decreasing bleeding complications related to the long staple line associated with the LVSG.
- The efficacy of GORE SEAMGUARD® Bioabsorbable Staple Line Reinforcement in decreasing the number of staple line leaks requires larger sample sizes to determine its importance in this capacity.