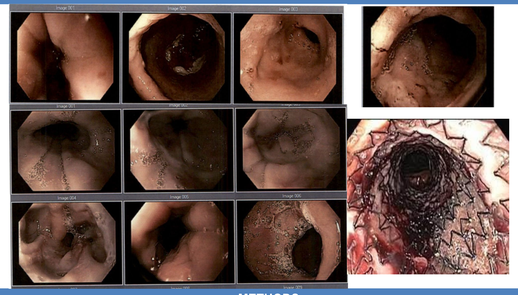
TO STENT OR NOT TO STENT: ENDOLUMINAL STENT OUTCOMES IN BARIATRIC LEAKS

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BACKGROUND

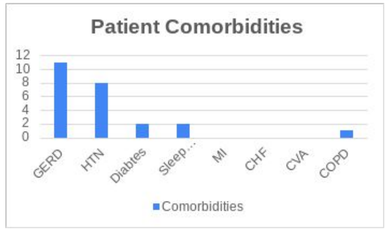
Bariatric surgery allows for rapid, often sustained weight loss and effective treatment of the comorbidities associated with morbid obesity. However, staple line and anastomotic leaks remain one of the most severe complications, often resulting in significant morbidity and mortality. Although surgical intervention remains the gold standard, endoluminal stenting has proven a less invasive alternative for the management of leaks. Stenting however is associated with a multitude of complications such as stent migration, bleeding, perforation, and death. This study examines stenting in Bariatric surgery and its associated outcomes.



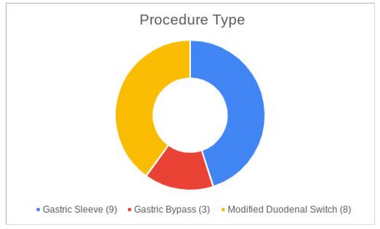
METHODS

- A database was constructed by identifying patients of multiple providers between gastroenterology and general surgery across multiple hospitals and facilities between February 2018 and February 2020
- Patients were identified to have undergone bariatric surgery with associated leaks. Patient characteristics, comborbidities, stent information, and outcomes were obtained from patient records and scanned documents. Salient patient data was extracted, including stent size and location, stent complications such as bleeding, perforation, migration and death, returns to endoscopy suite, and the need for percutaneous drainage vs Laparoscopic drainage.

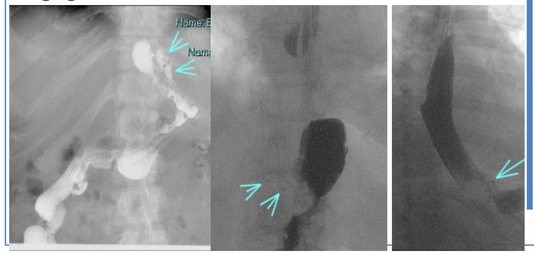
RESULTS

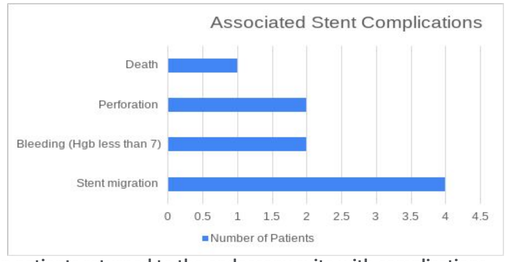


The mean age of the 20 selected patients was 43.4, of which the majority were female (13). Average BMI was 42 with a Charlson Comorbidity Index of 0.45, and average length of stay of 13.2 days. A total of 9 patients underwent a Sleeve Gastrectomy, 3 patients a bypass, and 8 Modified Duodenal Switch.

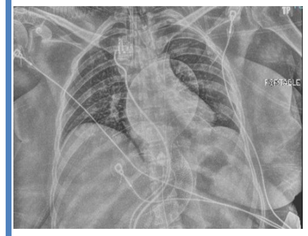


Leaks occurred either at the sleeve staple line or across the G-J anastomosis requiring stenting with a total length ranging from 120-150cm.



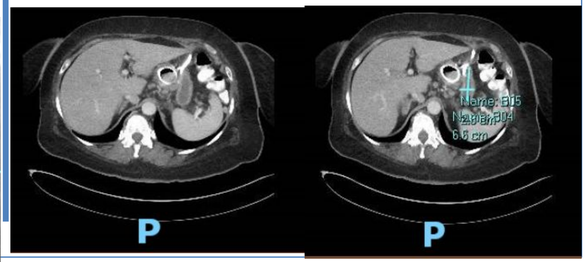


Ten patients returned to the endoscopy suite with complications ranging from stent migration (n=4), bleeding with Hgb less than 7 or requiring transfusion (n=2), perforation (n=2), or death (n=1).





Ten patients required percutaneous drainage and six laparoscopic drainage. Of the twenty patients ten were ultimately discharged on TPN



CONCLUSION

- Endoluminal stenting is a safe and minimally invasive alternative to the surgical management of leaks post bariatric surgery. Stenting however is not benign, and associated with several complications such as bleeding, perforation, migration, and death requiring repeat endoscopy or surgical vs percutaneous drainage.
- The cohort outlined in this study were representative of the success and pitfalls of stenting as a management tool for leaks associated with Bariatric Surgery.

Future Research

- Future work will be conducted to evaluate outcomes in stenting vs the use of pigtail catheters in the management of leaks, and associated complications

References

Buchwald H, Avidor Y, Braunwald E, et al. *Bariatric Surgery A Systematic Review and Meta-Analysis*. https://jamanetwork.com/

Filicori F, Swanström LL, Swanstrom LL. *"Endoscopic Therapy of Post-Bariatric Surgery Strictures, Leaks and Fistulas."*

Martínez Hernández A, Beltrán Herrera H, Martínez García V, et al. Stent Management of Leaks After Bariatric Surgery: a Systematic Review and Meta-analysis. *Obes Surg*. 2022;32(4):1034-1048. doi:10.1007/s11695-022-05890-8

4Murino A, Arvanitakis M, le Moine O, Blero D, Devière J, Eisendrath P. Effectiveness of Endoscopic Management Using Self-Expandable Metal Stents in a Large Cohort of Patients with Post-bariatric Leaks. *Obes Surg*. 2015;25(9):1569-1576. doi:10.1007/s11695-015-1596-8

Rogalski P, Swidnicka-Siergiejko A, Wasielica-Berger J, et al. Endoscopic management of leaks and fistulas afterbariatric surgery: a systematic review and meta-analysis. *Surg Endosc*. 2021;35(3):1067-1087. doi:10.1007/s00464-020-07471-1

Kanters AE, Shubeck SP, Varban OA, Dimick JB, Telem DA. Incidence and Efficacy of Stent Placement in Leak Management after Bariatric Surgery: An MBSAQIP Analysis. *Ann Surg*. 2020;271(1):134-139. doi:10.1097/SLA.0000000000003023

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