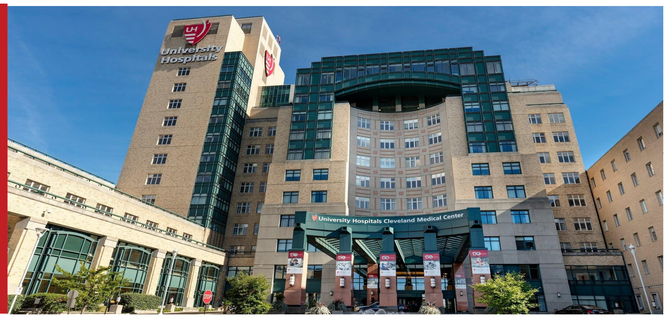
Gastric Bypass Reversal, The Patient's Journey: An Analysis of Pre-Reversal Interventions and Post-Reversal Outcomes

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Background

- Bypass reversal although rare, can be performed safely for the treatment of adverse, severe and persistent symptoms following Roux-en-Y gastric bypass (RYGB) [1].
- Some postoperative RYGB conditions such as marginal ulcers, strictures, small bowel obstructions and severe malnutrition can be recurrent and cause symptoms of chronic abdominal pain, nausea, emesis, diarrhea and bloating [2].
- Recurrent conditions that are recalcitrant to multiple surgical revisions and endoscopic interventions can ultimately affect patient satisfaction and quality of life eventually leading patients and providers to seek RYGB reversal therapy.
- This study seeks to review and analyze the entirety of a patient's journey after initial gastric bypass to revisions/interventions and eventual reversal with emphasis on post-operative outcomes of these patients after the reversal.

Study Design

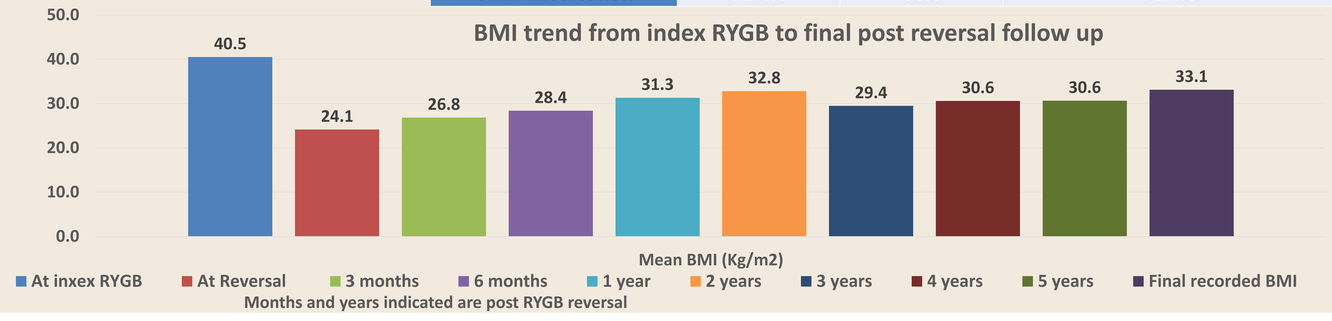
- Single institution retrospective cohort study of RYGB revision patients from 1/1/ 2013 to 1/1/2021 and followed for 5 years post reversal.
- In depth chart review was performed for 7 RYGB reversal patients in this cohort.
- Pre reversal information was obtained from index surgery, symptoms, interventions, procedures, revisions, endoscopic findings, weight and BMI.
- Post reversal follow-up detailed persisting and resolved symptoms, reflux medications, and weight and BMI at 3 months, 6 months, 1, 2, 3, 4, and 5 years post-operatively.

Results

- At index surgery, mean age was 40.5±5.8 years and Mean BMI at index surgery was 40.5±5.8Kg/m^2
- Mean time to reversal was 50.9months
- At time of reversal; 85.7% of patients were on medications for reflux, mean number of pre-reversal surgeries, procedures and upper endoscopies (after initial) were 2.6 ± 1.5, 8.6 ± 8.3 and 10.9 ± 9.8 respectively.
- After reversal; 57% of patients had mean of 2 ± 1.4 number of additional related interventions.
- At final follow up; 14.3% of patients reported resolution of pre reversal symptoms, 86% reported improvement and 14.3% reported no change.

Distribution of symptoms and indications for reversal	
	Proportion of affected patients
Nausea	71%
Abdominal pain	57%
GJ Ulcer	57%
GJ Stricture	43%
Diarrhea	29%
Malnutrition	29%
GI bleed	14%
Bloating	14%
Kidney stones	14%

Symptoms	Proportion of patients		
	1year(7pts)	2years (5 pts)	Most recent follow up (7 pts)
Abdominal pain	57%	60%	57.1%
Nausea	43%	60%	42.9%
Emesis	28.6%	40%	42.9%
diarrhea	43%	40%	28.6%
constipation	29%	60%	14.3%
Food intolerance	14.3%	0%	0%
reflux	0%	20%	14.3%
Anemia	0%	20%	14.3%
Globus sensation	0%	20%	0%
Bloating	0%	20%	14.3%
GERD medication	71.4%	60%	71.4%



Conclusions

1. Patients who eventually undergo RYGB reversal usually have a pre-operative course with multiple procedures and interventions in an attempt alleviate the recurrent symptoms and complications related to gastric bypass.
2. Persistent abdominal pain and nausea are the most common symptom that can decrease patient satisfaction and quality of life, eventually leading to RYGB reversal.
3. Symptomatic relief can be achieved in most patients.
4. Nutritionally, reversal tends to be effective in resolving chronic malnutrition and some weight loss is still maintained after reversal.
5. In conclusion, although reversal of bypass is not common, it often resolves inability to eat and pain without significant weight gain.

References

1.Ma, P., Ghiassi, S., Lloyd, A., Haddad, A., Boone, K., DeMaria, E., & Higa, K. (2019). Reversal of Roux en Y gastric bypass: largest single institution experience. *Surgery for Obesity and Related Diseases*, *15*(8). https://doi.org/10.1016/j.soard.2019.05.005

2.Griffith PS, Birch DW, Sharma AM, Karmali S. Managing complications associated with laparoscopic Roux-en-Y gastric bypass for morbid obesity. *Can J Surg*. 2012;55(5):329-336. doi:10.1503/cjs.002011

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