

Gastrogastrostomy: A novel Surgical Technique for Angularis Stenosis

Background:

Reflux and regurgitation are established unwanted post Laparoscopic sleeve gastrectomy (LSG) outcomes. Aetiology is multifactorial and not fully understood. More evidence emerging suggestive of anatomical and functional stenosis as a contributing factor for poor outcomes including above mentioned and even weight regain.

Endoscopic treatment can be effective in temporising symptoms but patient will often require further intervention, and often get offered gastric bypass as a definitive management in those with refractory reflux with or without hiatus hernia repair if present.

Purpose:

We describe a novel surgical technique and its outcomes in patients with refractory symptoms related to angularis/post LSG conduit stenosis.

Methods:

Retrospective study of prospectively collected data of patients underwent gastrogastrostomy stricturoplasty for management of symptomatic post LSG angularis stenosis. Demographic and clinical data were collected related to pre, post LSG and pre-gastrogastrostomy BMI, symptomatology, medications. Preoperative investigations such as imaging, endoscopy, pH and manometry studies were obtained. Gastrogastrostomy was performed laparoscopically in all patients at the area of stenosis identified laparoscopically and correlated to preoperative imaging. Stricturoplasty was performed by initiating gastrostomy on the inferior surface of the conduit at stenotic area to allow laparoscopic tri-stapler through the gastrostomy to achieve gastrogastrostomy anastomosis. Gastrotomies were closed using absorbable braided barbed sutures. Postoperative recovery and follow up information were collected.

Results:

4 patients underwent gastrogastrostomy alone and 2 had gastrogastrostomy with hiatus hernia repair. (66%) were females. Average age was 46.6 ± 11.7 years. Average pre LSG BMI and BMI pre-gastrogastrostomy were 38 ± 3.5 and 30.4 ± 2.1 (kg/m^2) respectively. LSG to gastrogastrostomy was 6.2 ± 2.2 years. All patients had 3DCT findings suggestive of conduit stenosis. 3 (50%) patients had endoscopic evidence of stenosis and underwent trial of dilatation prior to their final intervention. Nil had immediate complications. 3 month follow up revealed resolution of symptoms in all except for one with persistence of mild reflux symptoms.

Conclusion:

Gastrogastrostomy is a technically easy, safe procedure that is effective in management of post LSG symptomatic conduit stenosis in appropriately selected patients. It may help avoid morbid and challenging conversion procedures such as gastric bypass.