


## Dysphagia after sleeve gastrectomy; A Case Report and Review of Literature

Farnoosh Larti<sup>1</sup>, Mohammad Moradi<sup>2</sup>, Saeed Safari<sup>3\*</sup> 

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### Introduction

Laparoscopic sleeve gastrectomy (LSG) is the most bariatric procedure being performed for obesity surgery worldwide. Although the procedure learning curve seems not too long, some complications of LSG can be major and/or life-threatening. Among these, one “less appreciable” major complication is dysphagia that can happen easily if the surgeon does not follow the standard steps of performing LSG. Here, we present one such chronic complication after LSG

### Case Presentation

A 34-year-old male came to our clinic with the chief complaint of dysphagia and inability to take any non-liquid food. He had undergone LSG seven months before this visit. He had the same experience of difficult eating in the whole time after his surgery; however, he had been told that solid intolerance can be normal during the first or second month after LSG and he must wait. His baseline and 7-month follow-up weight, height and BMI were 160 kg, 174 cm, 52.84 kg/m<sup>2</sup> and 110 kg, 173 cm, 36.75 kg/m<sup>2</sup>. He had an epigastric “crushing” sustained pain after eating any solid or semi-solid food, that never resolved unless he deliberately induced vomiting. The patient could only tolerate sips of liquids. He had thought of

suicide because of this problem and the fact that everybody told him this is normal after LSG and he had to cope with it. He was clinically stable but seemed depressed. Physical examination revealed no abnormal finding. We performed a set of barium meal study under fluoroscopy and upper GI endoscopy. Figure 1 shows the barium meal of our patient. The obstructed flow of the barium in mid-part of the sleeve is evident. In delayed graphics, a “corkscrew” appearance was evident compatible with a kink/twist. During upper GI endoscopy, the gastroenterologist could pass the lumen of sleeve into duodenum only with several rotating maneuver of the scope. The patient underwent a re-operation because of failure in endoscopic intervention.

We did a diagnostic laparoscopy. Figure 2 shows that we were not able to pass the lavage tube from the mid-part of the sleeve even with maneuver. The diagnosis of kink/twist was made. We performed a side-to-side sleeve-jejunostomy (150 cm after Treitz’s ligament) just proximal to the kink site. Thereafter, the passage of oral blue dye was obviously normal from the proximal part of the sleeve to the jejunal loop. The patient did well after surgery. He was discharged home on post-operative day two. Ten days later, he started to ingest semi-solid foods and at one month, he could normally tolerate small pieces of solid food. Three months after surgery he was experiencing normal eating life.

### Discussion

Sleeve gastrectomy has been shown to be an effective and quite safe procedure to lose weight. However, post-op complications include leakage or obstruction due to remnant stomach twist or stenosis (1). Other late post-op complications include adhesion bands or port-site hernia leading to obstruction or even bezoar (2). Therefore, post-op food intake intolerance should be closely evaluated. Distal obstruction might be due to technical error of sta-

1. Cardiology department, Imam Khomeini Hospital Complex, Tehran University of Medical Sciences, Tehran, Iran

2. Resident of General Surgery, Iran university of medical sciences, Firoozgar General Hospital, Tehran, Iran

3. Assistant professor of surgery, Iran university of medical sciences, Firoozgar General Hospital, Tehran, Iran

 Saeed Safari, [saeedsf@gmail.com](mailto:saeedsf@gmail.com)

pling leading to distal stenosis or twist (3). Early post-op obstruction might lead to proximal over-pressure and finally leakage which is really debilitating (4). Severe esophagitis might also occur due to remnant stomach twist (1). The onset of symptoms after the operation might vary from very early post-op to up to some months after the procedure according to different studies (5).

Therefore, a spatial understanding of the stomach anatomy and its fixing ligaments in addition to surgeon experience is of great importance during firing the stapling to avoid twist. Our patient experienced dysphagia at very early post-op period. Diagnosis was based on patients signs and symptoms and upper GI series and endoscopy to verify obstruction or twist (6).

Management of post-op twist is very difficult and multi-disciplinary. The surgeon must take in to account different factors to decide individually based on each patient conditions. Such patients must be referred to high volume centers for bariatric surgeries to undergo the best available option. Different options included balloon endoscopy, exploratory laparoscopic to release any possible adhesions, stenting in some cases, converting to gastric bypass and gastrojejunostomy (4, 6, 7). In our patient endoscopic interventions failed to remove the obstruction, however, exploratory laparoscopy was performed. No adhesions or port-site hernia was detected therefore we decided to perform a gastrojejunostomy. Adding gastrojejunostomy to sleeve could maintain weight loss and solve the main complication of food intolerance in our patient. We suggest to consider a bypass in patients who fail to respond to endoscopic less invasive procedures.

Mohamed E. Abd Ellatif (8) reported a large retrospective study on 3634 who had undergone sleeve gastrectomy. They reported that post-op obstruction occurred in eighty-six (2.3%) patients. Though, data of forty-five (1.23%) patients were included. They reported that the mean duration passed to present the signs and symptoms of obstruction was 59.8 days. They could detect the obstruction using upper GI series as in our study which yielded positive findings in 37 (82%) patients. They also performed spiral abdominopelvic CT with oral and IV contrast if the upper GI series could not detect the problem precisely. They managed their patients by endoscopic intervention in 43 patients (95.5%). However, 16 patients were treated by stenting, and other 29 ones were managed using balloon dilation. They indicated that only two patients failed to respond to balloon dilatation who underwent laparoscopy and gastropexy. They finally concluded that post-op stenosis and twist could be successfully managed with endoscopic interventions, however, some other studies failed to yield promising and long-standing results following endoscopy and forced to try more invasive interventions (9, 10) such as in our patient.

Other studies also reported promising results after balloon endoscopy or stenting, however, there is no consensus to manage post-op twist after sleeve gastrectomy. As this is a rare condition, large multi-center studies should be performed on a large number of patients to come to a conclusion regarding the best available options to manage this entity, especially when less invasive procedures such as endoscopic intervention fail.

### Conclusion

Although LSG is the most common bariatric procedure worldwide, its complications must be well-recognized and not neglected. Chronic food intolerance after LSG may be a sign of kink/twist and needs detailed work-up.

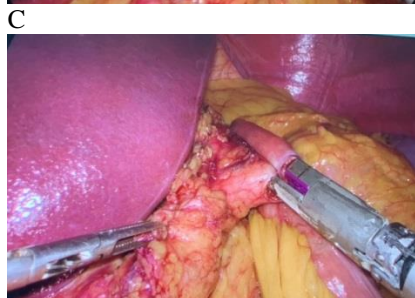
Figure 1. Barium meal shows obstructed flow of the barium in the sleeve column with “corkscrew” appearance in the delayed pictures (C and D).



D



Figure 2. Intra-operative view of the kink/twist site in mid-part of the sleeve (A and B) that could not be passed through by any maneuver of the lavage tube. A sleeve-jejunostomy (C) was made just proximal to the kink site and flow of the oral blue dye to jejunal loop was normal after this (D)



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