CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 8 (2015) 88–91

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

# Rare complication post sleeve gastrectomy: Acute irreducible paraesophageal hernia

Osamah Al-Sanea[a], Ahmed Al-garzaie[a], Mohamad Dernaika[b], Johnny Haddad[a,*]

[a] Bariatric and Metabolic Surgery Department, Somna Care, Procare Riaya Hospital, Al Khobar, Saudi Arabia
[b] Gastroenterology Department, Somna Care, Procare Riaya Hospital, Al Khobar, Saudi Arabia

ARTICLE INFO

*Article history:*
Received 19 December 2014
Received in revised form 17 January 2015
Accepted 25 January 2015
Available online 28 January 2015

*Keywords:*
Sleeve gastrectomy
Intrathoracic migration
Fixation of the sleeve
Gastrophrenic membrane

ABSTRACT

*INTRODUCTION:* Laparoscopic sleeve gastrectomy has been accepted as a standalone effective bariatric procedure. With the increase in the number of cases done worldwide, we are witnessing the emergence of new unexpected complications.
*PRESENTATION:* A seemingly straight forward sleeve gastrectomy was complicated by acute post-operative vomiting which was diagnosed as an acute intra thoracic migration of part of the new sleeve. Surgical repair was done, with reduction and fixation of the stomach. Patient was subsequently relieved of his symptoms and discharged.
*DISCUSSION:* This is a rare complication of a relatively well studied operation. Faced with severe post operative repeated vomiting, clinical suspicion and correct use of all para-clinical tools should help delineate the cause.
*CONCLUSION:* We report this case hoping to expand the existing literature on the topic and to highlight the potential role of gastrophrenic membrane dissection in the occurrence of such complication.


## 1. Introduction

In many parts of the world vertical sleeve gastrectomy has become the most commonly performed operation in the treatment of morbid obesity, it surpassed gastric bypass in 2013 in many areas of the world [1].

As the number of sleeves performed yearly increased and as the experience grew so did new complications and new dilemmas in managing them.

Early postoperative sleeve gastrectomy complications are well described in the literature; they include staple line leaks, bleeding, infection and abscess formation, trocar site hernia, intestinal occlusion [2–4].

We describe the case of an acute postoperative sleeved herniation through the esophageal hiatus and its subsequent management.

## 2. Presentation of case

A 23 year old male patient suffering from morbid obesity body mass index BMI = 39 presented to our international center of excellence in bariatric and metabolic surgery. Bariatric surgery was discussed with him and a choice of laparoscopic sleeve gastrectomy was reached.

A detailed history was taken from the patient, revealing no significant comorbidities, no gastro-esophageal reflux disease (GERD) nor any atypical reflux symptoms. Patient has no past surgical history, he has a family history of obesity, diabetes mellitus and hypertension.

He has been progressively suffering from an increase of his weight with many failed dietary regimens, at the time of our interrogation he admits to a distorted self image, poor social integration as well as a significant limitation of his physical activity and a fear of aggravation of his condition in the future.

His preoperative workup including a general preoperative laboratory exams was completely normal. He underwent a laparoscopic sleeve gastrectomy, our standard technique involves the use of 3 trocars and proceeding with the usual dissection until complete visualization of the left Crus, with complete liberation and exposure of the posterior fundus which is sleeved with the last staplers. At the time of the operation no hiatal hernia was noted nor any hiatal defect, we calibrate our stapling over a 36 French orogastric tube starting at almost 2 cm from the pylorus. No perioperative leak test is done, no drainage was left in place, patient is kept nil per mouth on the day of the operation and was given the usual postoperative anti-emetics and painkillers.

Patient had 2 episodes of post-operative non-bloody vomiting consisting mainly of gastric secretions, treated conservatively while

* Corresponding author at: Somna Care, Bariatric and Metabolic Surgery Department, Saudi Arabia. Tel.: +966 542883239.
*E-mail address:* Johnny.haddad@gmail.com (J. Haddad).

http://dx.doi.org/10.1016/j.ijscr.2015.01.040

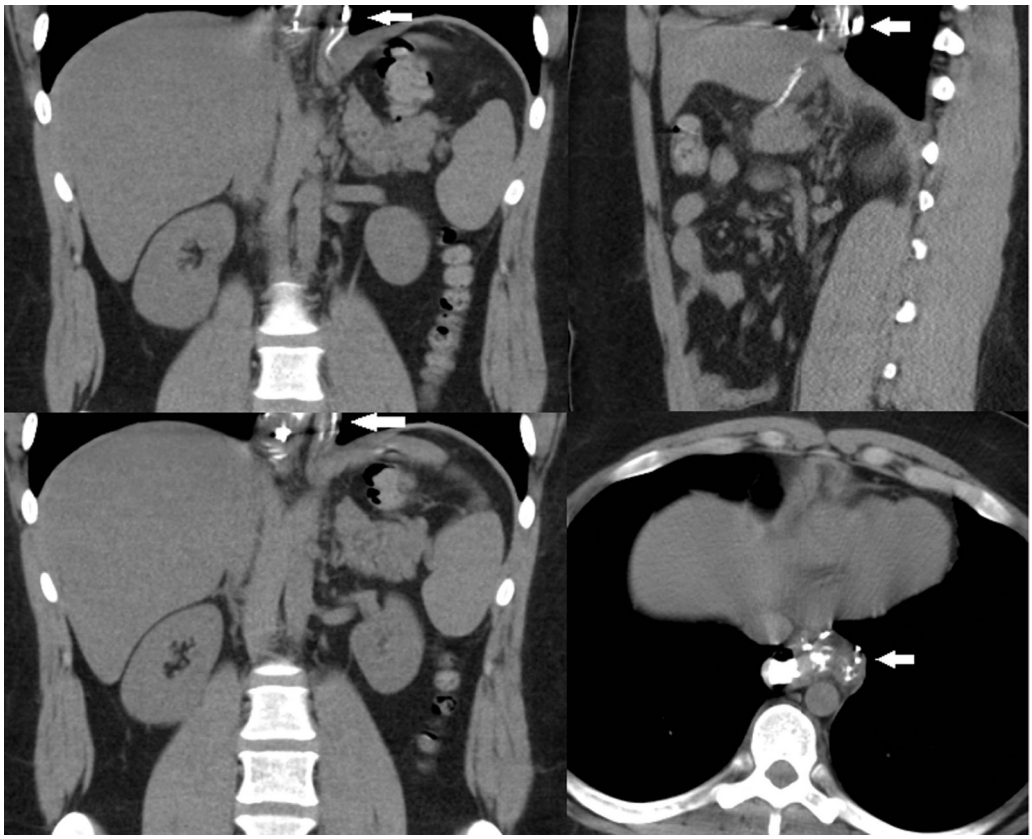

**Fig. 1.** Abdominal CT scan showing possible intra-thoracic staple line (white arrow).

in the recovery rom. He felt unwell since then and vomited twice at night moderate amounts.

On the first post-operative day he was noxious and vomited roughly 100 ml every couple of hours and it was clear saliva so he was not started on the usual bariatric protocol and was kept nil by mouth. He complained of moderate incisional pain, his vitals signs were all within normal range. Physical examination was unremarkable. Patient was reassured, and advised to walk until patient's nausea resolved. The review of the surgical video gave no indication of narrowing or angulation to suggest obstruction and patient reassured that the condition will resolve spontaneously.

Patient failed to improve over the next 2 days and a gastrografin swallow was scheduled for the next day and the limited gastrographin study showed an obstructed sleeve at the hiatus. An abdomino-pelvic computed tomography showed an intact staple line, with moderate edema at the gastroesophageal junction, no extravasation of any contrast material, a normal looking sleeve with no rotation, and was reported as normal as some contrast passed but the very limited lower thoracic cuts, showed a staple line possibly migrated into the thorax which were missed by the general radiologist as shown in Fig. 1. A gastroscopy was scheduled for the next day though up till now patient had less vomiting, just a

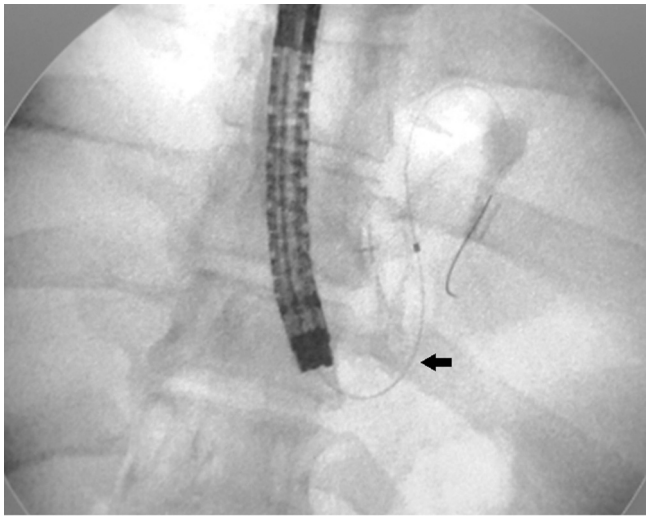

**Fig. 2.** Gastroscopy showing the catheter inside the stomach in an intrathoracic position (black arrow).