

# LIFE AFTER A LEAK: A RARE COMPLICATION FOLLOWING POST SLEEVE GASTRECTOMY

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## Background

A 32 year-old female, C, presented to the clinic with intentions to proceed forward with having gastric bypass surgery. She has been in contact with a weight loss surgeon and underwent the procedure 6 months after being seen in clinic. Shortly afterwards, she endured a myriad of complications.

## Case Report

Less than 30 days after having an elective laparoscopic vertical sleeve gastrectomy, C required rehospitalization. She began to experience nausea, vomiting, and, dehydration. A CT abd was performed and showed a gastric leak along the staple line. She was treated with upper endoscopy and esophageal stent. Upper GI swallow confirmed a sealed leak and C was restarted on clears and discharged home on Augmentin for 10 days. Two weeks later she presented to a GI with chest pain and vomiting and inability to tolerate liquids, she was sent directly to ER. CT scan showed a persistent leak and distal migration of the stent. She developed leukocytosis and fever and it was discovered she had a new intraabdominal abscess spanning from liver to spleen and a large pleural effusion. IR performed a thoracentesis and drain placement and she remained stable and was discharged to short-term rehab on TPN. She returned to have her stent removed 1 month later and a small fistula had formed distal to the esophagus

## Vitals

Vital Signs Most Recent in Last 24 Hr  
Temperature Oral: 36.8 DegC (09/27/  
Peripheral Pulse Rate: 83 bpm (09/27/  
Respiratory Rate: 16 br/min (09/26/  
Systolic Blood Pressure: 125 mmHg ((  
Diastolic Blood Pressure: 77 mmHg ((  
Mean Arterial Pressure, Cuff: 93 mmHg  
SpO2: 96 % (09/27/19 15:00:00 EDT)

## Labs/Imaging

CT Chest/Abdomen/Pelvis:

1. No pulmonary artery emboli.
2. Gastric sleeve procedure with history of leak and subsequent esophagogastric stent placement, now with increase in size of the contained leak. An active leak is not entirely excluded. The stent has migrated distally.
3. Extensive inflammatory changes around the stomach, increased since the prior study, infection is not excluded.
4. Peripancreatic inflammation, likely secondary to the gastric inflammation. (2)

Upper GI:

1. Esophageal stent in place. Persistent gastric leak.

CT Chest/Abdomen/Pelvis:

1. No definite extraluminal oral contrast identified in this patient with status post gastric sleeve with esophageal/gastric stent.
2. New lobulated left subphrenic abscess with a component anterior to the left lobe of the liver and a second component posterior to the spleen.
3. Moderate to large left pleural effusion associated with atelectasis of the lingula and left lower lobe. This is a new finding. (5)

## References

1. <https://emedicine.medscape.com/article/197081-treatment#d15>
2. <https://reference.medscape.com/features/slideshow/bariatric-surgery>
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194572/>
4. [https://www.medscape.com/viewarticle/471952\\_5](https://www.medscape.com/viewarticle/471952_5)

## Discussion

- Gastric leak is one of the most feared complications after a sleeve gastrectomy. Leaks can be classified based either on the time of onset, clinical presentation, site of leak, radiological appearance, or mixed factors. Type I or subclinical leaks are those that are well localized without dissemination into the pleural or abdominal cavity, nor inducement of systemic clinical manifestations, usually they are easy to treat medically. Type II are leaks with dissemination into abdominal or pleural cavity, or the drains with consequent severe and systemic clinical manifestations. Type A are microperforations without clinical or radiographic evidence of leak, while type B are leaks detected by radiological studies but without any clinical finding, and finally, type C are leaks presenting with both radiological and clinical evidence. Gastric leaks can be due to mechanical or ischemic causes. Direct tissular injury is categorized as “mechanical-tissular” causes and usually appear within 2 d of surgery compared to the “ischemic causes” that usually appear on day 5-6 post operatively. Clinical presentation can vary widely between totally asymptomatic patients to the signs and symptoms of a septic shock including fever, abdominal pain, peritonitis, leucocytosis, tachycardia, hypotension. Fever and tachycardia are the two most important clinical factors in the detection of gastric leaks and should never be neglected. Debates still exist on which diagnostic modality is the most sensitive and specific concerning the diagnosis of a post sleeve gastrectomy leakage, but all of them agree that early detection is associated with better outcomes. CT is considered to be the best non-invasive modality for detection and confirmation of a gastric leak. The treatment modality should be based on the clinical status of the patient and the timing of the leak. Transluminal endoscopic surgery, diversion using a stent and closure with glue or clips are all reasonable options.

## Conclusion

- Ms C was continued on TPN and clear liquids. A pigtail drain was placed at the site of the fistula. Follow up of her abscessogram showed persistent leak and migration of her abdominal drain. It was repositioned and TPN restarted. She has been successfully started on soft foods despite the persistent fistula. In the case of clinical symptoms, exercising appropriate clinical judgment is paramount for good patient outcomes. In this case, Ms C was diagnosed in an appropriate manner with minimal delay in care.