SMALL BOWEL ISCHEMIA SECONDARY TO GASTRIC PACEMAKER WIRES IN A PATIENT WITH LUPUS

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Background

- 38 year-old female with a history of systemic lupus erythematosus (SLE) on oral steroids and past surgical history was significant for a subtotal colectomy with ileo-rectal anastomosis for lupus colitis in 2012.
- October 2018- Open gastric stimulator placement for gastroparesis.
- January 20019- Revision of the battery pocket due frequent flipping of the battery in the subcutaneous pocket.

Case Presentation

- Presented to the emergency department on February 2019 with acute abdominal pain for 3 days associated with nausea and vomiting.
- Physical examination- abdomen was tender to palpation over the epigastrium with guarding.
- Laboratory studies- WBC of 1118/mm^3 (normal: 4000 to 11,000) and a serum lactate of 5.6 mmol/L (normal:, 0.5 to 2.2).
- CT - diffuse bowel dilation with thickening, mesenteric fat stranding, and air-fluid levels. The pacemaker wires were seen to be making a 360 degree loop around one of the bowel loops.

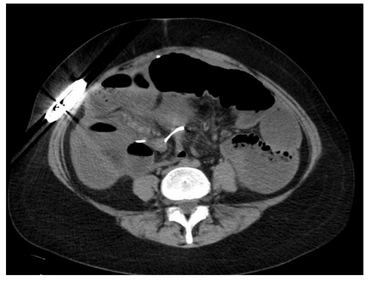


Figure 1. Computerized Tomography – Dilated small bowel with gastric stimulator wire seen looping around one of the small bowel loops suggesting possible strangulation.

Case Presentation

- She became acutely hypotensive and required fluid resuscitation and vasopressors.
- Patient underwent emergency laparotomy after resuscitation.
- A long segment of the of ileum was noted to be ischemic secondary to the gastric pacemaker wires forming a 360 degree loop around the base of the mesentery, resulting in bowel gangrene.
- Gangrenous bowel extended up to the ileo-rectal anastomosis.
- The affected bowel was resected starting from a point 150 cm from ligament of treitz to the ileo-rectal anastomosis. Around 140 cm of distal small bowel was resected and the gastric stimulator explanted.
- Patient was left in discontinuity and returned to the OR 48 hours later for a hand sewn anastomosis between the small bowel and the rectal stump. Patient was left with 150 cm of small bowel.
- On follow up over the last one year, patient has developed signs and symptoms of short gut syndrome and is being currently managed medically.

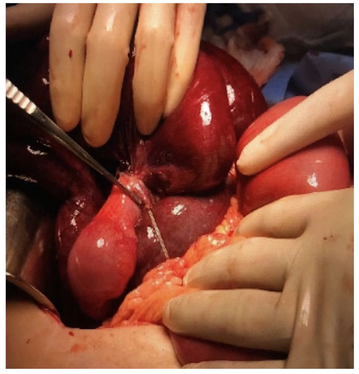


Figure 2. Gastric pacemaker wire wrapped around the mesentery causing gangrene of the small bowel.



Figure 3. Ischemic Small Bowel

Conclusion

- Small bowel obstruction and bowel ischemia is a rare but potentially devastating complication of this procedure as the bowel could get entangled around the pacemaker leads.
- This is the second reported case of this particular complication.
- History of total colectomy may make supracolic compartment easily accessible to small bowel and allow wires to form loop around small bowel mesentery.
- History of lupus and steroid usage might have played role in lack of scarring around the wires. This might have allowed wires to wrap around the small bowel freely.

References

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