Phytobezoar causing SBO after RYGB: Two cases managed with laparoscopic extraction

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INTRODUCTION

Phytobezoar is an intraluminal collection of undigested plant matter. Due to the small aperature of the pylorus, bezoars in general most often occur in the stomach. After gastrojejunostomy there is increased risk of SBO from bezoar due to bypass of the pylorus. Plant matter becomes impacted as the bowel caliber narrows from jejunum to ileum.

CASE 1

A 49 y/o female, hx of RYGB, presented with 2 days of N/V & abdominal pain, which began after a meal. CT showed a dilated gastric remnant and SBO (Fig 1). On diagnostic laparoscopy, the proximal Roux limb was identified and run distally past the jejunojejunostomy. A transition point was encountered in the mid-ileal common channel. Gentle laparoscopic palpation revealed an obstructing intraluminal mass. To minimize spillage, atraumatic graspers were used to occlude the bowel proximal and distal to the mass. A longitudinal antimesenteric enterotomy was made, and an impacted bezoar was expelled into an endocatch bag (Fig 2). The bezoar was comprised of short fibrous pieces, which looked like coconut. Stay stures were placed on each side of the enterotomy and at each vertex. Using suture retraction the defect was closed transversely with a laparoscopic stapler. The bag was removed and the fascial defect closed. The pt had return of bowel function on POD#3 and subsequently tolerated diet. At follow-up she endorsed snacking on coconut flakes while preparing her meal.



Figure 1- Fecalization of a small bowel loop in the pelvis representing phytobezoar causing SBO.

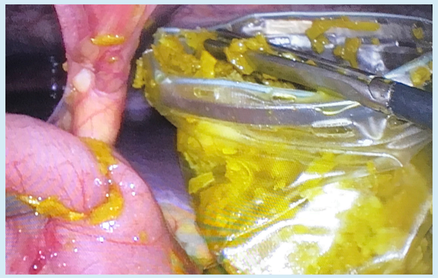


Figure 2- Placement of coconut bezoar in endocatch bag.

CASE 2

A 53 y/o edentulous male, hx of RYGB, presented with 1 day of N/V & abd pain, which began after dinner. CT showed distended biliopancreatic and distal Roux limbs. The proximal common channel was also dilated with transition point at a possible bezoar (Fig 3,4).

On diagnostic laparoscopy, an obstructing intraluminal mass was palpable in the common channel. A phytobezoar was extracted similarly. Here the enterotomy was closed with single-layer running 3-0 Vicryl suture. The bezoar consisted of poorly-chewed green beans (Fig 5). Diet was tolerated after early return of bowel function. Upon discharge, dietary instructions were provided to minimize risk of recurrence.

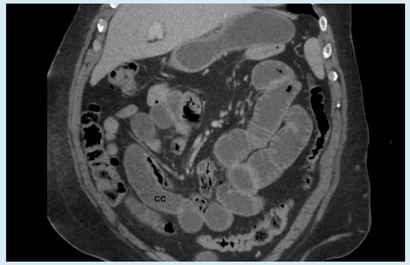


Figure 3- Dilated common channel (CC) with transition point located at suspected phytobezoar (arrow).

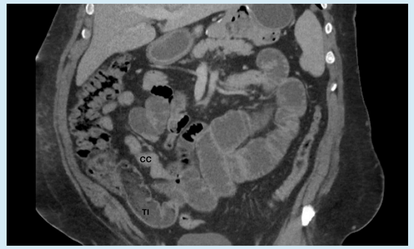


Figure 4- The distal common channel (CC) is collapsed and decompressed, except for the terminal ileum (TI).

DISCUSSION

Bezoars are responsible for a small fraction of SBO (< 1%). Even after RYGB, bezoar is a relatively infrequent cause of bowel obstruction. Ingestion of fibrous fruits or vegetables, especially if poorly cooked should be discouraged with history of bypass. Edentulous pts are at especially high risk due to inadequate mastication- eg celery, mango, and fruit skins are problematic. Without gastric surgery, bezoars more often form in the stomach. Delayed gastric emptying and gastric outlet obstruction increase the risk of gastric bezoar- which can lead to ulceration and pressure necrosis. Phytobezoar causing SBO may be suspected if CT shows a mottled ovoid intraluminal mass at the transition point (Fig 1,3). Prompt surgical intervention is indicated. Bowel resection is rarely necessary. Laparotomy with fragmentation / milking of bezoar past the ileocecal valve is well-described. As described here, laparoscopic extraction via enterotomy is an effective technique, with the inherent advantages of a minimally-invasive approach for pain, hernia risk, and wound complications.



Figure 5- A portion of the bezoar shows poorly chewed, undigested green beans in this edentulous patient.