Partial Small Bowel Obstruction Caused by Ingestion of Plastic Bag Containing Methamphetamine Leading to Small Bowel Necrosis

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Introduction

Small Bowel obstructions are one of the most common pathologies treated by general surgeons; the majority of these obstructions are caused by adhesions or hernias [1]. Less than 2% of SBOs are caused by foreign bodies [1]. Rarely are these foreign bodies found to be ingested drugs or paraphernalia. Body packing has been described in medical literature as the swallowing of small amounts of loosely wrapped drugs due to the fear of arrest [2,3]. Body packers usually present to the hospital due to the toxic effects of drugs, bowel obstruction, or for medical assessment after arrest [2]. When bowel obstruction develops from such instances, surgical intervention is often indicated [2].

Case Presentation

The Patient: 46 YO Caucasian Male

Chief Complaint: 5 days of abdominal pain

HPI: A 46 YO male with a PMH of anal fistula, HIV, IV drug use, Kaposi sarcoma, neurosyphilis, who presents with 5 days of abdominal pain. The patient had sharp abdominal pain throughout his abdomen with nausea and vomiting. Emesis was dark brown. The patient endorsed diarrhea that day but no flatus in 2 days.

Medical history: anal fistula, HIV, IV drug use, Kaposi sarcoma, neurosyphilis

Surgical History: none

Social History: IV drug use, no tobacco or alcohol use

Physical Exam: Afebrile/HDS, Tachycardic to 120, abdomen was slightly distended, tender to palpation, no rebound or guarding. No masses or obstruction appreciated on DRE. No hernias.

Labs: WBC 6.96, LA 1.3, Cr 0.7., Urine drug screen positive for methamphetamine and amphetamine

CT of abdomen and pelvis: Dilated small intestine with multiple air-fluid levels, likely obstruction. An exact point of obstruction is not identified and is likely in the distal jejunum or proximal ileum

Case Presentation

Hospital Course: Patient was placed NPO, and treated with IV fluids, he refused placement of NGT, but accepted on day 4. 3.7 liters of bilious fluid was drained once NGT was inserted. Patient had a bowel movement on day 4 and started passing gas on day 5. A small bowel follow through was obtained and contrast did not reach the colon at 22 hours but shortly after he started to pass gas and had another BM. On Day 7 he was progressing well and tolerating a CLD. On day 9-10 he began to vomit and had increased abdominal pain with distension. Repeat CTAP was obtained showing a suspected small bowel obstruction with transition point in proximal ileum; contrast was in the colon. He subsequently improved the next day with return of bowel function but on day 12 his abdomen became distended and tender to palpation. A decision was made to take him for diagnostic laparoscopy, with possible exploratory laparotomy.

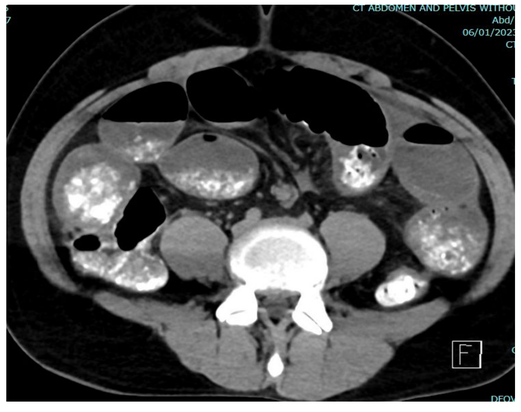


Figure 1A: CT scan showing dilated small bowel with contrast throughout small bowel and within colon



Figure 1B: CT scan showing contrast within sigmoid colon

Results and Treatment

Surgery: Using an open hasson technique a 5mm port was inserted into the supraumbilical area. A 5 mm scope was introduced into the abdomen where dilated loops of small bowel were encountered obstructing view. A decision was made to perform a midline laparotomy for entry into the peritoneal cavity. Small bowel was ran from ligament of treitz to ileocecal valve. A portion of the ileum was severely adherent to the pelvic side wall and had a palpable foreign body. Using blunt dissection adhesions were released. A portion of ileum appeared to be very inflamed and a decision was made to resect. A primary anastomosis was made between the ends of small bowel by creating two enterotomies in the distal and proximal ends, a GIA 80 blue load staple was used to create a common channel. The enterotomies were closed in 2 layers using 3-0 vicryl and 3-0 silk. The fascia was closed with 1 PDS suture and skin was closed with staples. The small bowel was cut open on the back table revealing a plastic bag from within.



Figure 2: Picture showing resected portion of ileum and plastic bag that once contained methamphetamine, Ileum is inflamed and adhered upon itself.

Pathology Report: Microscopic examination of the sections from the proximal margin show reactive mucosa with crypt architecture distortion. There is acute inflammation and necrosis which is full-thickness and extends into the submucosa. Sections from the distal margin show complete necrosis and acute inflammation of the mucosa. Remaining bowel show full-thickness necrosis and acute inflammation of the mucosa with extension into the submucosa and serosal tissues. There is marked acute serositis. The wall of the small bowel shows abscess formation.

Post-operatively: Patient postoperatively did well. He quickly had return of bowel function and was advanced to a general diet. Postoperative course was uncomplicated and the patient was discharged home.

Conclusion

Small bowel obstructions caused by body packing is relatively uncommon. We present a case of a partial small bowel obstruction secondary to the ingestion of a plastic bag containing methamphetamine that led to small bowel necrosis. This case highlights the importance of having a high clinical suspicion of foreign body and drug packing causing SBO in patients with a history of drug use, who provide different histories, and have no history of prior surgeries or abdominal pathologies. Not having this as a differential could delay needed surgical intervention and shows the deleterious effects of methamphetamine on the tissue of the small bowel.

References

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