

CLINICAL VIGNETTE

Nausea, Vomiting, and Abdominal Pain in an 82-Year-Old Woman

Nam C. Lim, M.D.

Case Report

An 82-year-old female presented with one-day history of intermittent dull pain in the lower abdomen. On the day prior to presentation, she vomited three times approximately three hours after dinner. Although uncomfortable, she managed to sleep during the night. She woke up in the morning with colicky low abdominal pain. She vomited again after she ate a small amount of applesauce. She had well-formed brownish stool. She thought she had the stomach flu but came to the office for evaluation.

Her medical history was remarkable for various gastrointestinal problems. Thirty-four years ago, she had a prolonged hospital stay of over one-month for peritonitis following appendectomy for perforated gangrenous appendicitis. She had constipation for more than 12 years requiring mild laxatives and bowel softener, and she also had intermittent episodes of symptomatic GERD. Six years ago, she underwent colonoscopic examination for rectal bleeding and three benign polyps and one pedunculated malignant polyp were removed. She was shown to have Duke A well-differentiated adenocarcinoma, however, there had been no recurrence of malignancy since. In the two years prior to presentation, she had at least three episodes of possible partial small bowel obstruction, and all resolved spontaneously without hospitalization.

Family history was unremarkable for tuberculosis, inflammatory bowel disease, colonic polyposis or malignancy.

Physical exam was remarkable for a mildly distended abdomen with rare bowel sounds. A low midline scar was noted. Diffuse lower abdominal tenderness was present with some referred pain to the right lower quadrant when compression was applied to the left lower quadrant. There was no peritoneal sign or guarding present. Rectal examination revealed no mass or blood. Laboratory studies included WBC 11.700 with 85% PMNs and slightly elevated amylase at 103. EKG showed normal sinus rhythm, and chest x-rays were negative. Upright and supine abdominal x-rays showed few air/fluid levels that were compat-

THIS
COLUMN
INTENTIONALLY
LEFT
BLANK

ible with small bowel obstruction.

She was admitted to the hospital and treated with nasogastric suction and IV fluids. Surgical consultation was obtained. Barium small bowel series on the second hospital day revealed the proximal small bowel to be markedly dilated. No contrast material was seen in the colon until 18 hours later. Although she felt better with systemic resuscitation for three days, her small bowel obstruction had not improved.

She underwent exploratory laparotomy, release of small bowel obstruction and closure of two enterotomies. Multi-site adhesions were found. There was a loop of densely adherent small bowel stuck to the undersurface of the midline surgical wound which was not the site of obstruction. One section of small bowel with obstruction had a dense plastic adhesion in the lower part of the abdomen. Upper part of the abdomen was filled with filmy adhesions. Postoperative course was uneventful, and patient was discharged in good condition.

Discussion

Small bowel obstruction can be caused by a variety of conditions including postoperative adhesion, malignant tumor, hernia, inflammatory bowel disease, volvulus and intussusception. The most common cause of small bowel obstruction in the United States is adhesion from a prior laparotomy accounting for approximately 60% of all cases.¹ According to Zbar et al, the most common operative procedure associated with a subsequent small bowel obstruction is appendectomy with an incidence of 10.7% during a follow-up period of 5.3 years. In the study, small bowel obstruction occurred more frequently in the first 40 months after appendectomy and in those individuals who underwent appendectomy for ruptured appendicitis.² Since small bowel obstructions occur more frequently in the earlier years after appendectomy, patients who present with non-specific initial symptoms (fever, nausea, vomiting, abdominal pain) years after appendectomy may be misdiagnosed in the early stage of the condition.

There are many unresolved issues in the management of postoperative small bowel obstruction although numerous studies have been published. The problem as to when patients with postoperative adhesion small bowel obstruction should be treated non-operatively stems from the difficulty in discriminating between ischemic irreversible bowels and non-ischemic viable bowel. Furthermore, it is impossible to predict whether the initially viable bowel will

remain as such during the course of non-operative management. Nevertheless, partially obstructed patients with no evidence of ischemia or peritonitis can be managed non-operatively, at least initially. Studies showed that a significant number of non-operative cases will resolve within 48 hours while some may take up to 5 days.^{3,4} Operative management may be considered for patients whose only previous laparotomy was an appendectomy since it is unlikely for the obstruction to resolve non-operatively.⁵ Further, patients with unrelieved partial small bowel obstruction should also undergo surgery. In patients presenting with postoperative small bowel obstruction, the most common cause is band adhesions which are most frequently associated with strangulating obstruction after prior appendectomy.⁶

Conclusion

An 82-year-old female with partial small obstruction 34 years after prior appendectomy was presented. She was treated non-operatively initially then underwent laparotomy two days later. Adhesion small bowel obstruction should be considered in patients who present with non-specific symptoms (fever, nausea, vomiting, abdominal pain) with a history of gastrointestinal problems and prior abdominal surgeries. Further, all individuals with previous history of abdominal surgery carry the life-long risk of subsequent small bowel obstruction.

REFERENCES

1. Bass KN, Jones B, Bulkley GB. Current management of small-bowel obstruction. *Adv Surg.* 1997;31:1-34.
2. Zbar RI, Crede WB, McKhann CF, Jekel JF. The postoperative incidence of small bowel obstruction following standard, open appendectomy and cholecystectomy: a six-year retrospective cohort study at Yale-New Haven Hospital. *Conn Med.* 1993 Mar;57(3):123-127.
3. Sosa J, Gardner B. Management of patients diagnosed as acute intestinal obstruction secondary to adhesions. *Am Surg.* 1993 Feb;59(2):125-128.
4. Seror D, Feigin E, Szold A, et al. How conservatively can postoperative small bowel obstruction be treated? *Am J Surg.* 1993 Jan;165(1):121-126.
5. Meagher AP, Moller C, Hoffmann DC. Non-operative treatment of small bowel obstruction following appendectomy or operation on the ovary or tube. *Br J Surg.* 1993 Oct;80(10):1310-1311.
6. Cox MR, Gunn IE, Eastman MC, Hunt RF, Heinz AW. The operative aetiology and types of adhesions causing small bowel obstruction. *Aust N Z J Surg.* 1993 Nov;63(11):848-852.