

LATE PRESENTATION OF AN INTRA-ABDOMINAL FOREIGN BODY

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Bowel obstruction by a foreign body is rare. The authors describe the case of a 77-year-old woman who had small-bowel obstruction due to a foreign body 40 years after a transabdominal hysterectomy. A loop of small bowel had herniated through a metal ring and had become necrotic. The ring and involved bowel were excised and the patient's clinical course was uncomplicated. The original purpose of the ring remains a mystery. The time frame between the introduction of a foreign body and the occurrence of symptoms in this case appears to be the longest ever reported.

L'occlusion intestinale causée par un corps étranger est rare. Les auteurs décrivent le cas d'une femme de 77 ans victime d'une occlusion de l'intestin grêle causée par un corps étranger 40 ans après avoir subi une hystérectomie transabdominale. Une anse de l'intestin grêle avait fait hernie à travers un anneau métallique et s'était nécrosée. On a excisé l'anneau et la partie nécrosée de l'intestin et l'état clinique de la patiente a évolué sans complications. La raison d'être originale de la présence de l'anneau demeure un mystère. Ce cas semble présenter la période la plus longue écoulée entre l'introduction d'un corps étranger et la manifestation des symptômes.

We report an unusual case in which a metallic ring was introduced into the bowel during a transabdominal hysterectomy performed 40 years before the patient, a 77-year-old woman, was admitted to our hospital with symptoms of bowel obstruction.

CASE REPORT

A 77-year-old woman was seen in the emergency department with a 1-day history of increasing band-like pain in the left upper quadrant, extending across the midline. This was associated with the emesis of all con-

sumed fluids and an absence of flatus and bowel movements.

The patient's only significant medical history was an emergent transabdominal hysterectomy that was performed for delayed postpartum bleeding 40 years earlier.

On examination the patient was in moderate discomfort, with a blood pressure of 155/109 mm Hg, a heart rate of 90 beats/min and a body temperature of 35.1 °C. Bowel sounds were present, and the abdomen was not distended. Moderate pain was elicited upon deep palpation of the left side of the abdomen. No masses or hernias could be appreciated, and re-

bound and guarding were absent. Occult blood was not present in the stool. The leukocyte count was slightly elevated at $11.4 \times 10^9/L$. Plain abdominal radiography demonstrated the absence of air in the colon beyond the splenic flexure with no dilatation or air fluid levels. In the middle of the abdomen on the left side a 4-cm diameter radiopaque ring was seen (Fig. 1). The patient stated that the ring had been placed during her hysterectomy 40 years before "to help stop the bleeding." The findings on abdominal ultrasonography were unremarkable.

Over the next 20 hours, the pa-

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tient's symptoms progressed. Fullness in the left side of the abdomen developed, with voluntary guarding and signs of peritoneal irritation. The leukocyte count increased to $16.5 \times 10^9/L$ and her temperature rose to $38.5^\circ C$. Computed tomography of the abdomen and pelvis demonstrated dilated, fluid-filled loops of proximal small bowel involved with the ring, with collapsed loops distally (Fig. 2).

At operation, a single loop of small bowel was found to have herniated through the metallic ring and was necrotic. The proximal and distal bowel appeared healthy. The ring and the involved loop of small bowel were excised as a single specimen, and a primary anastomosis was performed (Fig. 3). On examination,

the ring was quite heavy, continuous and covered in a fine layer of fibrous tissue.

The patient did well and was discharged home on the 10th postoperative day.

DISCUSSION

Bowel obstruction created by the presence of a foreign body is a clinical rarity. Although a wide variety of intra- and extracolonic foreign bodies have been reported to cause bowel obstruction, overall it is not a common source of morbidity. Two large studies, examining 2254 cases of intestinal obstruction, did not list foreign bodies as the cause of a single case.^{1,2}

The most common source for

bowel obstruction secondary to a foreign body is a laparotomy sponge that is retained after either abdominal or pelvic surgery.³ However, vaginal pessaries,⁴ surgical drains,⁵ vascular grafts,⁶ migrating Angelchik prostheses⁷ and even ventriculoperitoneal shunts⁸ have all been implicated in the development of bowel obstruction.

Our patient carried the metallic ring for 40 years before it became symptomatic. The exact circumstances that led to the ring being placed in her abdomen are not clear. Unfortunately, the medical records were not available from that period and the patient could not provide additional information. Communication with gynecologists from several hospitals did not contribute to any explanation for the presence of the ring, to any known surgical therapy (historic or otherwise) or even identify it as an instrument. The only explanation with the limited amount of information available is as follows: Before laparotomy pads were routinely marked with radiopaque strips, they were anchored to heavy metallic rings that were similar in size to our specimen. During the effort of performing the hysterectomy and controlling the hemorrhage, the ring may inadvertently have been lost in the abdomen where it remained for the next four decades. However, this idea is confounded by the fact that there was no evidence of retained sponges or the sterile capsule they should have produced — the abdomen was completely free of adhesions.

Although the events that led to the placement of the metallic ring in the patient's abdominal cavity are not clear, the late presentation and mode of bowel strangulation is unique. We also believe that this was the longest time frame in which a foreign body has been present before causing symptoms.



FIG. 1. Supine abdominal film showing a 4-cm diameter radiopaque ring located in the left abdomen.



FIG. 2. Computed tomography scan at the level of the ring demonstrates loops of distended small bowel in close association with the metallic object.

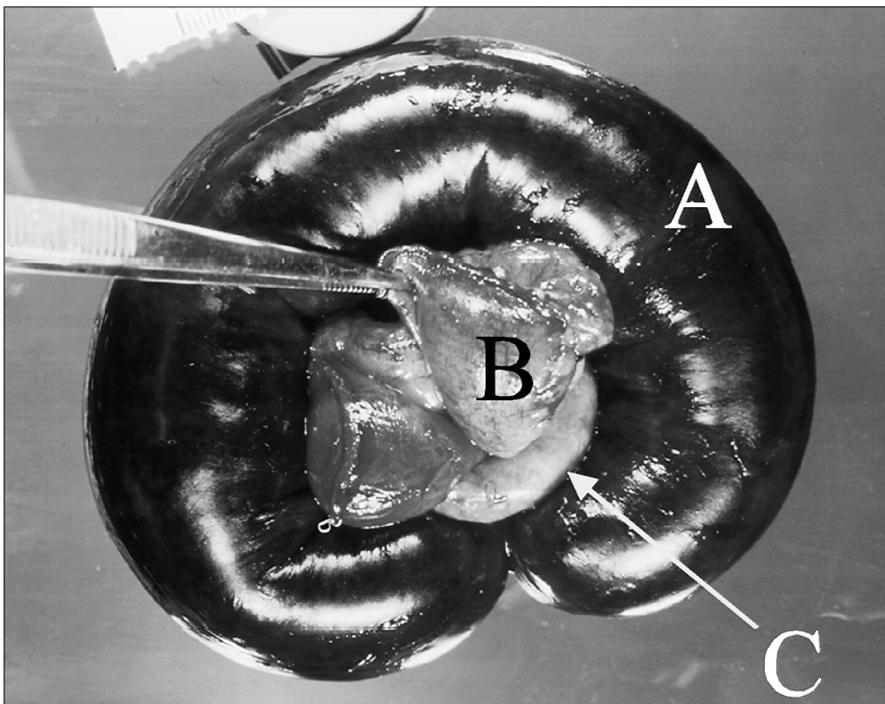


FIG. 3. Surgical specimen illustrating the herniated loop of necrotic bowel (A), proximal and distal viable small bowel (B) and the constricting metal ring (C).

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