

Small Bowel Perforation within an Inguinal Hernia due to a Foreign Body

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We present a patient with small bowel perforation within an inguinal hernia due to a foreign body inserted in the esophagus 15 years previously. The unusual sequence of the medical events is discussed.

Case Description

A 74-year-old man presented with an irreducible right inguinal hernia and was discharged with arrangements made for elective surgical repair at a future date. Twelve days later he was admitted to hospital with a high fever and nausea but without abdominal pain. His symptoms resolved the following day and he was discharged. Two days later he was again admitted with severe pain, swelling and erythema of the right groin of one day's duration.

The patient's medical history revealed that 15 years previously a squamous cell carcinoma of the larynx necessitated a total laryngectomy, partial pharyngectomy and partial esophagectomy with creation of a tracheostomy, insertion of a polyethylene tube in the esophageal inlet, and gastrostomy. Two years later he underwent a boujinage procedure of the esophagus.

Two years prior to the present admission the patient had an episode of upper gastrointestinal bleeding for 3 days, presenting as melena.

At the current admission his abdomen was soft with no evidence of peritonitis, and normal bowel sounds. There was a large irreducible inguinoscrotal hernia that was tender on palpation with overlying swelling and erythema. No further X-ray examination or CT of the abdomen was done. A

diagnosis of a strangulated inguinal hernia was reached. Surgery revealed a large direct inguinal hernia containing a loop of ileum. The polyethylene tube that had been inserted in the esophagus 15 years previously had perforated the ileum in two places. The affected bowel was resected and a primary end-to-end anastomosis was performed. The patient made a good recovery and was discharged from hospital 7 days later.

Comment

Perforation of the small intestine not due to blunt or perforating trauma is a rare event. It may be caused by tumor inflammation, infection, or ingestion of foreign bodies [1–5]. The foreign bodies that induce perforation are usually sharp edged, although perforation of the bowel by fruit or vegetables has been reported [2]. Usually, foreign bodies with blunt edges pass along the bowel and are evacuated without causing significant complications [1].

There is some evidence that foreign bodies can become lodged in the bowel for a significant length of time prior to causing ulceration or perforation of the intestinal wall [1]. Intestinal perforation by migrated biliary stent [5] has been described, as well as a further case of intestinal perforation by biliary stent in an incarcerated hernial sac [6].

In the case presented here, a foreign body had been implanted in the esophagus inlet 15 years previously. (Unfortunately, more detailed information concerning the indication for implanting it was not available to us.) The polyethylene tube had become detached from its original plant site and

passed along the bowel until it lodged in the ileum in the hernial sac, probably causing the gastrointestinal bleeding. The polyethylene tube found at surgery was 3 cm in length.

Stent perforation can occur in a "fixed" bowel like the duodenum, or in an acquired situation such as intra-abdominal adhesion or hernia. In our patient the polyethylene tube was entrapped in a relatively immobile small bowel situated in an inguinal hernia, causing contact with the wall of the bowel and, subsequently, its ulceration and perforation.

The case reported is an example of a rare iatrogenic complication caused by an unusual sequence of events, demonstrating the unpredictability of some medical events.

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