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AUTHOR AFFILIATION

CASE DISCUSSION

A 90-year-old man was admitted to the hospital in 2015 with a 12-hour history of abdominal pain, nausea, and small-volume emesis following an evening meal. He also had a three-month history of early satiety without associated nausea, vomiting, pain, or other gastrointestinal complaints. Eleven years prior to admission, the patient had an open low anterior resection for a large tubulovillous adenoma of the upper rectum. Seven years before admission, he underwent open repair of a large hiatal hernia with prosthetic reinforcement.

At the initial examination, the patient was alert, oriented, and complaining of severe abdominal pain. He was hypertensive with otherwise normal vital signs and a body mass index of 22. His abdomen was distended, tympanic, and diffusely tender. His laboratory tests included a white blood cell count of 14,400 per μL , a serum bicarbonate of 15 mEq/L, and a serum lactate of 6 mmol/L. Attempts at nasogastric tube placement were unsuccessful secondary to resistance during insertion. A computerized tomography (CT) scan obtained in the emergency department demonstrated (i) markedly dilated loops of small bowel with a transition point in the distal ileum, (ii) portal venous gas, (iii) a small ventral hernia containing a non-obstructed loop of colon, and (iv) a foreign body (possibly a bezoar) freely floating within the lumen of a distended, intraabdominal stomach (Figure 1).

The patient was given intravenous fluids and antibiotics, and then four hours after arrival

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blood or tissue was associated with it. Upon examination

Polypropylene or polyester mesh erosion into the gastrointestinal tract after ventral hernia repair is a well-described phenomenon.¹⁴⁻¹⁷ PTFE hernia mesh had been considered relatively safe regarding erosion and stula formation.¹⁶ However, PTFE erosion into the gastrointestinal tract after repair of ventral hernia^{18,19} and hiatal hernia (Table 1) is now known to occur. Erosion of biologic mesh into the gastrointestinal tract may occur at a lower incidence compared to erosions with synthetic nonresorbable mesh (Table 1), but accurate denominator data are unavailable. Regarding synthetic nonresorbable mesh materials (i.e., polytetra uoroethylene, polypropylene, polyester), assuming all types are prone to gastrointestinal erosion may be reasonable. The risk of erosion with newer synthetic resorbable mesh materials is unclear, as adequate follow-up is unavailable.

Of note, the above erosive mesh complications at the hiatus are reminiscent of complications associated with the placement of the Angelchik prosthesis to treat reflux disease, which was noted in the 1980s.²⁰⁻²³ The potential hazards of hiatal prosthesis placement appear to have persisted into the modern era, though the precise risk is difficult to quantify.

Case Report

This case represents a delayed, relatively asymptomatic erosive complication after ePTFE reinforcement of a hiatoplasty. Although mesh utilization during hiatal hernioplasty has been debated in the surgical literature, many repairs continue to be performed.

Learning Objectives

Long-term follow-up of all mesh hiatoplasties is recommended, with the knowledge that a mesh-related complication can occur years after implantation.

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