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Case Report

Gossypiboma-intraluminal foreign body without bowel obstruction: a rare case report

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ABSTRACT

Gossypiboma, the retention of surgical sponges' post-operation, is a rare but serious complication. Intraluminal migration without causing bowel obstruction is exceptionally uncommon. A 35-year-old female presented with chronic abdominal pain nine years after undergoing open cholecystectomy. Contrast-enhanced computed tomography (CT) revealed a suspected intraluminal foreign body in the terminal ileum. Exploratory laparotomy identified an 8×6 cm retained sponge located 30 cm proximal to the ileocecal valve, entirely within the ileal lumen. The foreign body was removed via enterotomy, and a double-barrel ileostomy was performed due to localized edema. This case underscores the importance of considering gossypiboma in patients with a history of surgery presenting with non-specific gastrointestinal symptoms. CT imaging is pivotal for diagnosis. Strict adherence to surgical safety protocols is essential to prevent such occurrences.

Keywords: Gossypiboma, Textiloma, Intraluminal migration, Retained surgical sponge, Surgical complication

INTRODUCTION

Gossypiboma, also known as textiloma, refers to a retained surgical sponge that elicits a foreign body reaction. The incidence is estimated at 1 in 1,000 to 1,500 intra-abdominal operations, though underreporting is common due to medico-legal concerns.[1] Intraluminal migration without causing bowel obstruction is particularly rare and poses diagnostic challenges.

CASE REPORT

A 35-year-old female presented with intermittent abdominal pain and altered bowel habits. She had undergone open cholecystectomy nine years prior. Physical examination and laboratory tests were unremarkable.

Ultrasound imaging was inconclusive, prompting a contrast-enhanced CT scan, which revealed a spongiform intraluminal mass with internal air foci, suggestive of a retained surgical sponge (Figure 1). Patients underwent surgery, RT or CT in the department of surgery, G.R. Medical College and J.A. Group of Hospital Gwalior and Cancer Hospital and Research Institute Gwalior, (CHRJ, Gwalior) during the year January 2001 to 2006. The patients were investigated and treated according to the protocols.

Exploratory laparotomy uncovered an encapsulated sponge measuring approximately 8×6 cm, located intraluminally in the ileum about 30 cm proximal to the ileocecal valve. The surrounding bowel was viable with no signs of perforation or obstruction (Figure 2). The sponge was extracted via enterotomy on the antimesenteric border (Figure 3). Due to localized edema and potential anastomotic complications, a double-barrel ileostomy was fashioned. The postoperative period was uneventful, and ileostomy reversal was scheduled after eight weeks.

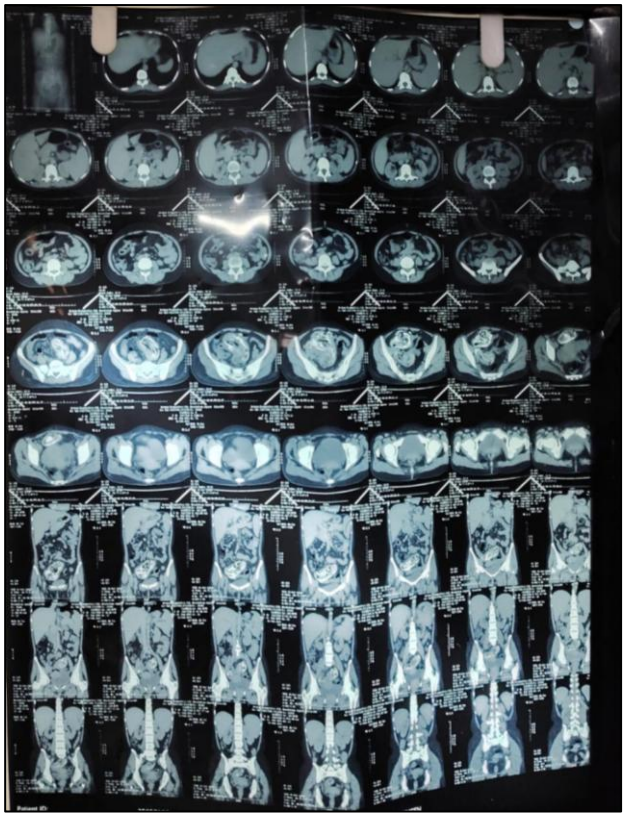

Figure 1: Contrast-enhanced CT scan showing a spongiform intraluminal mass with internal air foci in the terminal ileum, indicative of a retained surgical sponge.

Figure 2: Intraoperative image showing the gossypiboma being delivered through enterotomy.

Figure 3: Gross specimen of the retained sponge post-extraction.

DISCUSSION

Gossypiboma can remain asymptomatic for extended periods, especially when intraluminal and sterile. Migration into the bowel typically occurs through pressure necrosis and chronic inflammation.[2] In this case, the sponge migrated into the ileal lumen without causing overt signs of bowel obstruction or perforation, which is exceptionally rare. CT imaging is the preferred modality, offering high sensitivity in identifying retained sponges due to characteristic spongiform patterns and the presence of radiopaque markers.[3] However, diagnosis can be challenging if the sponge lacks radiopaque markers or if imaging findings are atypical.

Prevention is paramount. The World Health Organization's Surgical Safety Checklist emphasizes the importance of sponge counts before and after surgery.[4] Technological adjuncts, such as bar-coded and radiofrequency-tagged sponges, have been developed to minimize human error.[5]

CONCLUSION

This case highlights the need for vigilance in patients presenting with non-specific abdominal symptoms and a history of surgery, regardless of the time elapsed since the procedure. CT imaging plays a crucial role in diagnosis. Preventive measures, including strict adherence to surgical protocols and the use of technological adjuncts, are essential to avoid such preventable complications.

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