

Title:

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Duodenal obstruction after non-endoscopic intragastric balloon placement: a rare but severe complication

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CASE REPORT

We report the case of a female in her mid-30s with no prior medical history who presented to the Emergency Department with intense upper abdominal pain lasting 12 hours. She had undergone the placement of a non-endoscopic, swallowed intragastric

balloon the day before. Physical examination revealed significant tenderness in the upper abdomen without signs of peritoneal irritation. Abdominal computed tomography showed a 12-cm balloon lodged in the duodenum with peritoneal effusion with no evidence of free perforation (Fig. 1). The patient underwent exploratory laparoscopy, which identified serous peritoneal effusion in the pelvic and perihepatic regions and duodenal distention with ischemic mucosa caused by the balloon. Intraoperative endoscopy was performed to remove the balloon, revealing continuous, circumferential ulceration of the duodenal wall without perforation (Fig. 2). Follow-up endoscopy after 12 days showed a pseudodiverticulum at the balloon site, with granulating mucosa and reduced size (Fig. 2). She resumed oral feeding and had a favorable recovery.

DISCUSSION

Complications of intragastric balloons include intestinal obstruction, typically due to deflation and migration, with most cases involving the ileum or colon (1). Non-endoscopic intragastric balloons have also been linked to esophagitis, pancreatitis, gastric dilation, and perforation (2). The Spanish Intragastric Balloon Consensus Statement highlights the importance of proper technique and post-procedural monitoring to minimize complications (3). In our case, the balloon likely inflated in the duodenum due to the lack of endoscopic guidance during placement. Although surgical intervention was ultimately avoided, this case underscores the need to adhere to consensus-recommended practices, particularly in the use of non-endoscopic intragastric balloons.

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Fig. 1. Abdominal computed tomography with intravenous contrast revealing a 12-cm balloon filled in the duodenum, without evidence of perforation.

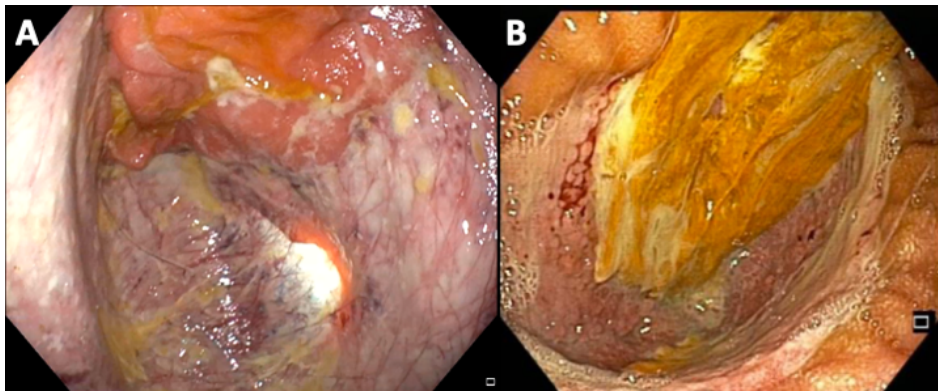


Fig. 2. A. Intraoperative endoscopy image showing circumferential ulceration of the duodenal wall, with a very thin wall and light from the laparoscopic instruments. B. Endoscopic image 12 days after balloon removal, showing a pseudodiverticulum with reduced size with granulating mucosa.