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CASE REPORT

Acute Pancreatitis Following Intragastric Balloon Placement in a Young Adult: A Case Report and Literature Review

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Abstract

Background: Intragastric balloon (IGB) therapy is a minimally invasive endoscopic intervention for weight reduction in patients with obesity. Although generally safe, rare but clinically significant complications such as acute pancreatitis have been reported.

Case Presentation: A 19-year-old male presented with acute epigastric pain, nausea, and vomiting three weeks after intragastric balloon insertion. Laboratory investigations demonstrated markedly elevated serum lipase (>3× upper limit of normal) and leukocytosis. Imaging revealed peripancreatic fat stranding consistent with early acute pancreatitis. The intragastric balloon was endoscopically deflated and removed, followed by supportive management, resulting in complete clinical recovery.

Conclusion: Acute pancreatitis is an uncommon but important complication of intragastric balloon therapy. Early recognition and prompt management are essential to achieve favorable outcomes.

Keywords: Intragastric balloon; Acute pancreatitis; Obesity; Bariatric endoscopy.

1. Introduction

Obesity is a major global health problem associated with significant metabolic and cardiovascular morbidity [1]. Intragastric balloon (IGB) therapy has emerged as a temporary minimally invasive endoscopic option for weight loss, particularly for patients who are not candidates for bariatric surgery [2], [3]. The mechanism involves gastric distension, resulting in early satiety and delayed gastric emptying. Although generally safe, IGB therapy is associated with adverse events such as nausea, vomiting, ulceration, balloon migration, and rarely acute pancreatitis [4]–[6].

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Acute pancreatitis following IGB placement remains an uncommon but clinically significant complication, requiring early recognition to prevent morbidity. The aim of this case report is to highlight acute pancreatitis as a rare but clinically significant complication following intragastric balloon placement, emphasizing early recognition, diagnostic approach, and management.

2. Case Presentation

A 19-year-old male presented to the emergency department with severe epigastric pain associated with nausea and repeated vomiting. He denied alcohol intake and had no prior similar episodes. He had undergone intragastric balloon placement for weight reduction three weeks prior.

Laboratory investigations revealed markedly elevated serum lipase (1174 U/L, >3× upper limit of normal) and leukocytosis (16×10^9/L). Liver enzymes were mildly elevated, and renal function was normal. Abdominal ultrasound demonstrated no gallstones or biliary dilatation. Computed tomography (CT) of the abdomen showed subtle peripancreatic fat stranding involving the pancreatic tail, consistent with early acute pancreatitis (Figs. 1 and 2).

The diagnosis of acute pancreatitis was established based on the Revised Atlanta Classification, requiring at least two of the following: (1) characteristic abdominal pain, (2) serum lipase >3× upper limit of normal, and (3) imaging findings consistent with pancreatitis. In this case, all three criteria were fulfilled. Upper endoscopy revealed a deflated intragastric balloon. Approximately 500 mL of fluid was aspirated, and the balloon was successfully removed without complications. The patient was managed conservatively with intravenous fluids, analgesia, and bowel rest. Clinical improvement occurred within 48 hours, and he was discharged in stable condition. At follow-up, the patient remained asymptomatic.

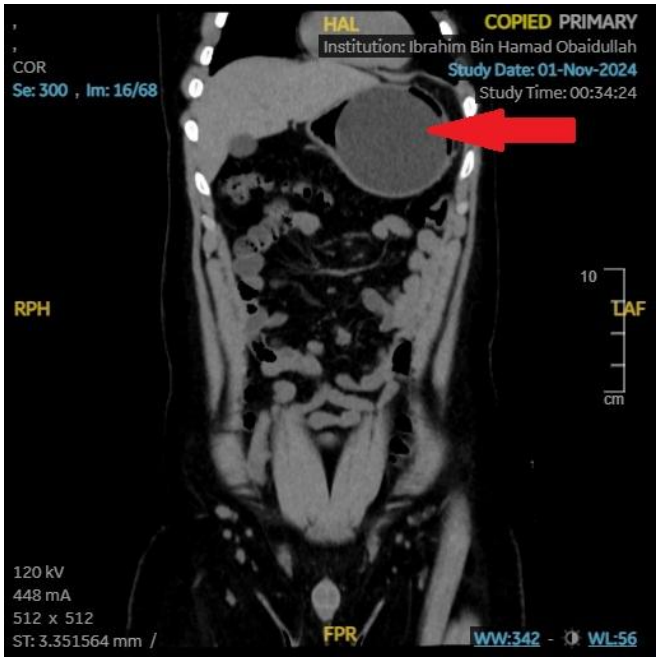

Fig. 1. Coronal CT image demonstrating an intragastric balloon within the gastric lumen. The arrow shows the intragastric balloon.

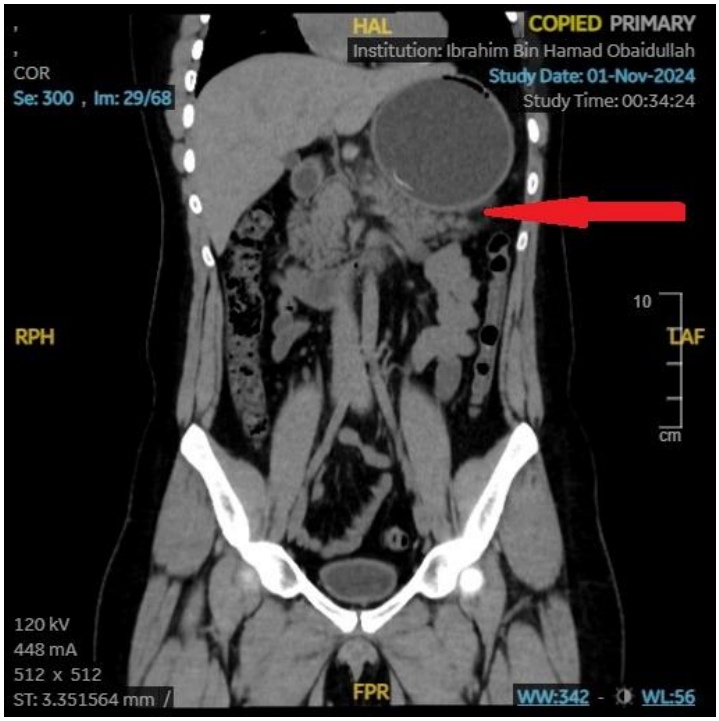

Fig. 2. Coronal CT image showing the intragastric balloon and adjacent pancreatic region. The arrow highlights inflammatory changes surrounding the pancreas.

3. Discussion

Acute pancreatitis following intragastric balloon placement has been increasingly reported but remains rare [6]–[9]. The proposed mechanisms include direct mechanical compression of the pancreas secondary to gastric distension and obstruction of pancreatic outflow due to balloon displacement.

Clinically, patients typically present with epigastric pain, nausea, vomiting, and elevated pancreatic enzymes. Cross-sectional imaging, particularly CT, is essential to confirm the diagnosis and assess severity, as reported in previous studies [10], [11].

Management is primarily supportive, including fluid resuscitation, analgesia, and bowel rest. Importantly, removal of the intragastric balloon is recommended when implicated. Consistent with previously reported cases, our patient demonstrated rapid clinical recovery following balloon removal.

Learning Points

- Acute pancreatitis is a rare but important complication of intragastric balloon therapy.
- Diagnosis should follow the Revised Atlanta Classification.
- Early balloon removal is associated with rapid and complete recovery.

4. Conclusion

Acute pancreatitis is an uncommon but clinically significant complication of intragastric balloon therapy. Clinicians should maintain a high index of suspicion in patients presenting with abdominal pain following recent balloon placement. Early diagnosis and timely intervention result in excellent outcomes.

5. Patient Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

6. References

1. World Health Organization. Obesity and overweight. Geneva: WHO; 2024.
2. Kim SH, Chun HJ, Choi HS, et al. Current status of intragastric balloon for obesity treatment. World J Gastroenterol. 2016;22(24):5495–5504. PubMed | CrossRef
3. Lari E, Burhamah W, Lari A, et al. Intragastric balloons: Past, present and future. Ann Med Surg. 2021;62:224–230. PubMed | CrossRef
4. Yorke E, Switzer NJ, Reso A, et al. Intragastric Balloon for Management of Severe Obesity: a Systematic Review. Obes Surg. 2016;26(9):2248-2254. PubMed | CrossRef
5. Imaz I, Martínez-Cervell C, García-Alvarez EE, et al. Safety and effectiveness of the intragastric balloon for obesity. A meta-analysis. Obes Surg. 2008;18(7):841–866. PubMed | CrossRef
6. Gore N, Ravindran P, Chan D. Pancreatitis from intra-gastric balloon insertion: Case report and literature review. Int J Surg Case Rep. 2018;45:79–82. PubMed | CrossRef
7. Alqabandi O, Almutawa Y, AlTarrah D, et al. Intragastric balloon and pancreatitis: Case series. Int J Surg Case Rep. 2020;74:263-267. PubMed | CrossRef
8. Alkhathami AA, Ahmed ZB, Khushayl AM, et al. Acute pancreatitis after intragastric balloon insertion: Case report. J Surg Case Rep. 2023;2023(3):rjad093. PubMed | CrossRef
9. Chirinos Vega JA and Cabrera-Hinojosa D. Intra-gastric balloon associated with acute pancreatitis. Rev Gastroenterol Peru. 2022;42(2):183–187. PubMed
10. Al Refai F, Khalil SK, Khalil SK, et al. Acute pancreatitis secondary to intragastric balloon: A case report and literature review. Cureus. 2023;15(9):e45230. PubMed | CrossRef
11. Vongsuvanh R, Pleass H, and van der Poorten D. Acute necrotizing pancreatitis, gastric ischemia, and portal venous gas complicating intragastric balloon placement. Endoscopy. 2012;44Suppl 2: E383-384. PubMed | CrossRef