



Intragastric balloon and epigastric pain: Beware of the pancreas

To the Editor,

A 28-year old man presented to the emergency department with vomiting and epigastric pain radiating to the right shoulder.

He was a non-alcoholic, non-smoker, and did not take drugs. His past history was uneventful apart from the insertion of a bioenteric intragastric balloon four months ago, after which his weight dropped from 103 kg to 84 kg.

Clinical evaluation revealed epigastric tenderness but no acute abdomen, visceromegaly, jaundice, or fever. Investigations were suggestive of acute pancreatitis with an increased serum amylase level of 967 u/L (28-100 u/L).

The hepatic and renal profiles were normal. His serum calcium level was 8,85 mg/dL (8,1-10,4), and the triglyceride level was 37 mg/dL. His aminotransferase levels were also normal.

After 48 h, the patient recovered with clear oral fluids and supportive medical treatment, including intravenous fluids and analgesics. This coincided with declining amylase levels.

The electrocardiogram was unrevealing, and the chest and abdominal x-rays were normal. Abdominal ultrasonography demonstrated a normal liver, spleen, and biliary tree. The gallbladder was normal in appearance without gallstones or sludge. The balloon was located in the pyloric region. Magnetic resonance imaging did not identify gallstones in the bile ducts. However, T2-weighted sequences revealed a mild increase in signal intensity in the body of the pancreas because of edema, just behind the intragastric balloon.

In the absence of a toxic, lithiasic, metabolic, or pharmacological etiology, we concluded that the acute pancreatitis was caused by the intragastric balloon and decided to remove the balloon by endoscopy.

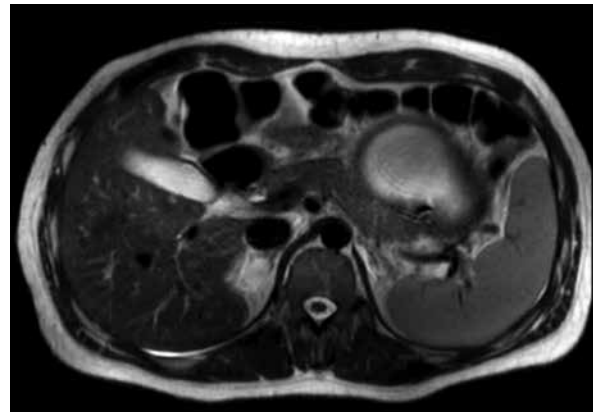


Figure 1. Axial T2 weighted sequences Intragastric balloon (thick arrow). Pancreatic edema (thin arrow).

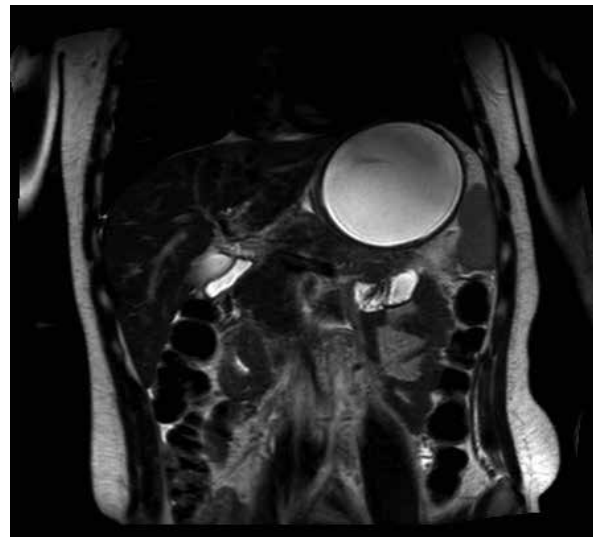


Figure 2. Coronal T2 weighted sequences Intragastric balloon (thick arrow). Pancreatic edema (thin arrow).

Address for Correspondence: Bridet Lionel, Department of Gastroenterology, Hospital Galdakao-Usansolo, Vizcaya, Galdakao, Spain
E-mail: lionelbridet@hotmail.fr

Received: September 14, 2012 **Accepted:** November 19, 2012

© Copyright 2015 by The Turkish Society of Gastroenterology • Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2015.4227

Three months after discharge, the patient was free of abdominal symptoms, and the follow-up check of serum amylase level was normal.

The bioenteric intra-gastric balloon is an endoscopic device for temporary treatment of obesity (1). It is intended for temporary weight loss with a recommended maximum placement period of 6 months, after which there is a high risk of balloon deflation.

It habitually achieves a sustainable weight loss of 10-20%.

The main side effects are usually mild, including nausea, vomiting, epigastric pain, and peptic esophagitis (2). A few case reports of gastric perforations or obstructions have been described (3). Intestinal obstruction may occur because of migration of a part of the deflated balloon (4).

In our literature review, we found only two previous case reports of clinical and biological evidence of acute pancreatitis associated with intra-gastric balloons (5,6). In our case, acute pancreatitis could have been secondary to pancreatic compression by the balloon, explaining the extensive and rapid weight loss in this short period.

In conclusion, we consider it important to measure the serum amylase level in patients with abdominal pain and an intra-gastric balloon to rule out acute pancreatitis.

Ethics Committee Approval: N/A.

Informed Consent: N/A.

Peer-review: Externally peer-reviewed.

Author contributions: Concept - L.B.; Design - L.B., A.O.C.; Supervision - L.B., J.C.N.; Resource - L.B., M.N.L.; Materials - L.B.; Data Collection&/or Processing - L.B.; Analysis&/or Interpretation - L.B.; Literature Search - L.B., M.N.L.; Writing - L.B.; Critical Reviews - L.B.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

Maria Navajas-Laboa, Lionel Bridet, Aitor Orive-Calzada, Jose Luis Cabriada-Nuno

Department of Gastroenterology, Hospital Galdakao-Usansolo, Vizcaya, Galdakao, Spain

REFERENCES

1. Galloro G, De Palma GD, Catanzano C, et al. Preliminary endoscopic technical report of a new silicone intra-gastric balloon in the treatment of morbid obesity. *Obes Surg* 1999; 9: 68-71. [\[CrossRef\]](#)
2. Imaz I, Martinez-Cervell C, Garcia-Alvarez E, Sendra-Gutiérrez JM, González-Enríquez J. Safety and effectiveness of the intra-gastric balloon for obesity. A meta-analysis. *Obes Surg* 2008; 18: 841-6. [\[CrossRef\]](#)
3. Genco A, Bruni T, Doldi SB, et al. BioEnterics intra-gastric balloon: the Italian experience with 2,515 patients. *Obes Surg* 2005; 15: 1161-4. [\[CrossRef\]](#)
4. Moszkowicz D, Lefevre JH. Deflated intra-gastric balloon-induced small bowel obstruction. *Clin Res Hepatol Gastroenterol* 2012; 36: 17-9. [\[CrossRef\]](#)
5. Negrin Dastis S, François E, Deviere J, et al. Intra-gastric balloon for weight loss: results in 100 individuals followed for at least 2.5 years. *Endoscopy* 2009; 41: 575-80. [\[CrossRef\]](#)
6. Mohammed AE, Benmoussa A. Acute pancreatitis complicating intra-gastric balloon insertion. *Case Rep Gastroenterol* 2008; 2: 291-5. [\[CrossRef\]](#)