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Triple-sized intragastric balloon due to spontaneous hyperinflation

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Author contributions: R.M. and P.P. performed the procedure. T.R. collected the patient data. R.M. planned the manuscript, did the literature review, and created the first draft. M.S. and A.L.S planned and revised the manuscript. G.M. did a critical expert review and revision of the manuscript.

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Keywords: Obesity. Intragastric balloon. Bariatric surgery. Weight loss.

Dear Editor,
A 38-year-old female with a medical history of breast cancer, hypertension, diabetes mellitus and obesity (body max index 55 kg/m²) was admitted to the Emergency Room with complaints of nausea and vomiting. Three weeks prior to presentation, an intragastric balloon (IGB) (Orbera365™, Apollo Endosurgery Inc., Austin, TX) had been placed for weight loss, filled with 600 ml solution of saline and methylene blue dye. Upon physical examination, the patient was dehydrated with a bulging of the upper abdominal wall associated with mild abdominal pain. Laboratory tests showed severe metabolic alkalosis, hypocalcemia and hypokalemia. Abdominal x-ray revealed gastric distension with an increased size IGB, measuring 164.3 x 145.6 x 144.1 mm (estimated
volume of 1,800 ml), with an air-fluid level. Upper endoscopy showed the balloon stuck in the antrum. A catheter needle was used to puncture and deflate the balloon. Once deflated, it was removed with endoscopic forceps. The fluid was not sent for microbiologic culture. After IGB removal, hydroelectrolytic disturbances were resolved and oral feeding was promptly resumed without further complications.

Discussion
Adverse events after IGB placement may occur and are usually minor, without the need for endoscopic or surgical intervention (1,2). Although rare, spontaneous hyperinflation is a known complication after IGB placement (1). Spanish Intragastric Balloon Consensus (SIBC) recently evaluated the data from over 20,000 IGB cases. Spontaneous hyperinflation occurred in 0.07 % cases, with 0.03 % being symptomatic (2). Estimated time since placement and occurrence of hyperinflation was highly variable (7-47 weeks) (3,4). The exact mechanism that induces hyperinflation is not known but several reports point towards contamination of the sterile filling solution with gas-forming pathogens (fungal or bacteria) (4). Despite this, there is no role for the prophylactic use of antibiotics/antifungals to prevent hyperinflation (2,5). Placement of IGB under sterile conditions may be warranted to decrease the likelihood of this event, although further studies are needed. The SBIC recommends removal of the IGB in cases of symptomatic spontaneous hyperinflation, being reasonable to keep the balloon inside the stomach if asymptomatic (2). We consider that all gastroenterologists should be aware of this complication to avoid progression to a potentially life-threatening situation.

References


Fig. 1. A. Abdominal x-ray showing hyperinflated intragastric balloon (IGB). B-D. Upper endoscopy revealed a hyperinflated balloon impacted in the antrum. A needle catheter was used to puncture the balloon, allowing fluid drainage and its removal.