Gastric outlet obstruction: a rare complication in patients with intragastric balloon treatment for obesity

Nicole Kool,1 Simon Andreas Müggler1,2

DESCRIPTION

A 43-year-old female patient presented to the emergency department with sudden onset of recurrent vomiting and epigastric pain for 5 days. The patient was not able to keep any food or fluid down. Two months ago, an intragastric balloon (MedSil, Mytishchi, Moscow region, Russia) was inserted endoscopically as a treatment for obesity with an initially uneventful course. On physical examination, there was a palpable resistance in the right mid-abdomen with no pain on palpation. Blood testing did not reveal any signs of infection. A CT scan showed a massive dilatation of the stomach (maximum diameter of 34 cm), caused by a trapped intragastric balloon in the gastric antrum with consecutive gastric outlet obstruction (figure 1, arrow). After the insertion of a gastric tube, 2 L of fluid were drained and the vomiting resolved. On the following day, the intragastric balloon was removed via endoscopy, and the patient, who did not report any residual symptoms, was discharged on the same day.

Intragastric balloon treatment was introduced in the 1980s for patients with obesity (body mass index between 30 and 40 kg/m²) who failed to lose weight with diet and exercise.1 A fluid-filled balloon is inserted and removed after 6 months via endoscopy. In the majority of cases, this option is safe and efficient therapy. Patients mainly present with vomiting and nausea in the first week after insertion. Studies have shown a mean weight loss of 18.4 kg within the first 6 months after insertion.2 Although patients lose a considerable amount of weight, it is important to note that the effect may be temporary with weight regain within 1 year after removal. Intragastric balloons should therefore be considered a catalyst for weight loss but the long-term benefit of the intervention depends on lifestyle changes.13 Contraindications for intragastric balloon treatment are a history of bariatric or gastric surgery, a large hiatus hernia, any inflammatory disease of the gastrointestinal tract, increased risk for upper gastrointestinal bleeding, inability to take proton pump inhibitors, pregnancy and uncontrolled psychiatric disease or illicit drug and alcohol abuse.3 Nausea, vomiting, dyspepsia and abdominal pain are the most common adverse events and occur in approximately 30% of patients, with a good response to supportive measures. Exacerbation of acid reflux may occur after intragastric balloon insertion, whereof a proton pump inhibitor has to be prescribed for the duration of intragastric balloon treatment. Major complications such as gastrointestinal ulceration, dehydration, gastric outlet obstruction, gastric perforation or balloon deflation with distal migration and bowel obstruction are less common but can be dangerous.1

Learning points

► Intragastric balloon treatment is a therapeutic option for obese patients with a body mass index between 30 and 40 kg/m² who have failed to lose weight with diet and exercise; however, long-term maintenance of weight loss depends on lifestyle changes.

► Gastric outlet obstruction is a rare, but major, complication in patients with intragastric balloon treatment and should be considered in patients with recurrent vomiting.

► Other major complications include gastrointestinal ulceration, dehydration, gastric perforation or balloon deflation with distal migration and bowel obstruction.

Contributors

NK wrote the initial manuscript. SAA edited the manuscript. All authors were responsible for the patient’s care. All authors read and approved the final manuscript.

Funding

The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

To cite: Kool N, Müggler SA. BMJ Case Rep Published Online First: [please include Day Month Year]. doi:10.1136/bcr-2018-224394
Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

© BMJ Publishing Group Ltd (unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.

REFERENCES