

# Gastric Occlusion Due to Intra-gastric Balloon with Gastric Necrosis and Portal Pneumatosis

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## CASE REPORT

A 48-year-old female with a body mass index of 38 kg/m<sup>2</sup> and previous insertion of an Orbera intra-gastric balloon (Bioenterics Intra-gastric Balloon, Apollo Endosurgery, Austin, TX) 7 days before presented with vomiting, tachycardia, and hypotension with tenderness in the upper abdomen. Blood analyses showed elevated C-reactive protein, renal failure, and electrolyte disorder. Abdominal computed tomography (CT) showed gastric occlusion due to the placement in the pylorus, with signs of gastric necrosis and extensive portal pneumatosis (Figure 1). No signs of perforation were seen. Fluid resuscitation was provided along with proton pump inhibitors (PPIs), antibiotics, and nil per os restriction. Gastroscopy showed gastric wall necrosis, so removal of the balloon was performed endoscopically. The patient was discharged 3 days later, with normal blood tests. A month later, abdominal CT showed no portal pneumatosis.

The main cause of occlusion after intra-gastric balloon placement is the spontaneous deflation and migration of the balloon. Gastric occlusion is rare; one study of 2,515 patients showed 19 presenting with gastric occlusion (0.76%).<sup>1</sup> Although the major complications are expected 3 months after intervention, gastric occlusion seems to be more frequent within the first days.<sup>2</sup> This complication is a diagnostic challenge because 7.4% of the patients presented with non-pathological vomiting during the first week post insertion.<sup>3</sup> In case of high inflammatory markers or hemodynamic instability, the performance of CT is mandatory. Portal venous gas is a consequence of the compression of the gastric wall and subsequent ischemia. In case of iatrogenic origin, this sign is resolved spontaneously when the cause is treated.<sup>4</sup> Prognosis depends on whether the balloon is removed to stop the progression to perforation. The appropriate equipment to undertake this technique is an endoscopic 25-gauge needle and a syringe to puncture and suction liquid for deflation. Surgical removal is not recommended, and it is only strictly indicated when there is evidence of perforation.<sup>5,6</sup> This complication can be easily misdiagnosed, and its evolution depends on an early onset of the treatment.

## DISCLOSURES

Author contributions: All authors contributed equally to manuscript creation. X. Quer Vall is the article guarantor.

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Informed consent was obtained for this case report.

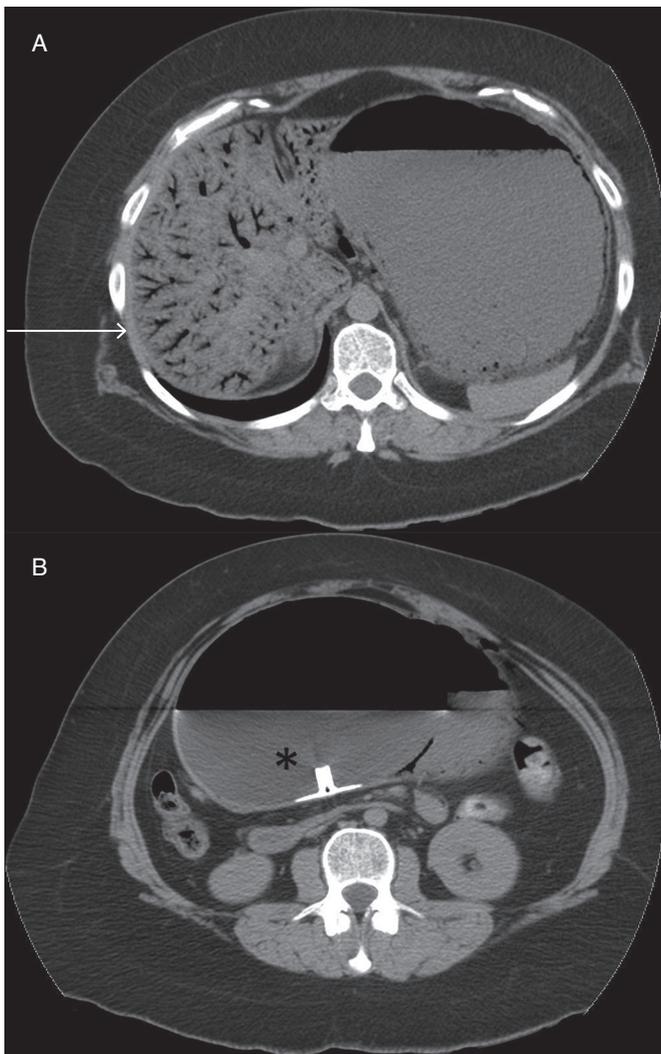
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**Figure 1.** Abdominal computed tomography showing (A) extensive portal pneumatosis among all the liver segments (arrow) and (B) the intra-gastric balloon with radiolucent zone (asterisk) causing occlusion at the pyloric level and gastric wall pneumatosis.

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