Perigastric fluid collection after endoscopic sleeve gastroplasty

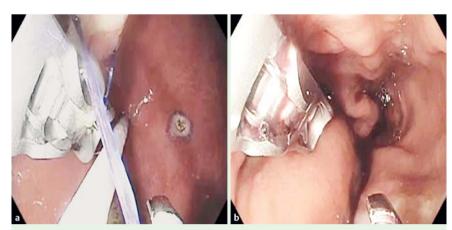


Fig. 1 Endoscopic views showing: **a** the technique used to perform endoscopic sleeve gastroplasty (ESG); **b** the appearance after completion of the ESG procedure.



Fig. 2 Computed tomography (CT) scan of the abdomen with intravenous contrast 12 days post-endoscopic sleeve gastroplasty: a on coronal view, showing a rimenhancing 3.3×3.7-cm collection; b on axial view, showing a rimenhancing 3.3×2.9-cm collection.



A 39-year-old woman with a body mass index (BMI) of 32 kg/m² was evaluated for suitability for endoscopic management of her obesity. Because of her interest in a durable weight loss intervention, she elected to undergo an endoscopic sleeve gastroplasty (ESG). The procedural details have been described previously by Sha-

raiha et al. and Lopez Nava et al. [1-3]. In brief, the volume of the stomach is reduced by approximately 70% using a full-thickness endoscopic suturing system (OverStitch; Apollo Endosurgery, Austin, Texas, USA) (\circ Fig. 1).

The patient recovered well in the days immediately after the procedure but pre-

sented with gradual onset vomiting and abdominal pain 12 days after her ESG. An erect abdominal radiograph showed a non-obstructive bowel gas pattern without any evidence of free gas. An abdominal contrast-enhanced computed tomography (CT) scan revealed a rim-enhancing 3.3×2.9×3.7-cm fluid collection in the fundus along the greater curvature of the stomach, suggestive of a perigastric collection, with surrounding stranding of the omental fat (**© Fig. 2**).

She did not have fever or chills, and her vital signs were stable, with a normal temperature and a white blood cell (WBC) count of $11.1 \times 10^3/\mu$ L. The patient was given a stat dose of intravenous etrapenem and was discharged with oral ciprofloxacin 500 mg twice daily and metronidazole 400 mg three times daily for 7 days. At follow-up 3 weeks later, her symptoms had completely resolved and follow-up imaging revealed no residual collection.

There has only been one documented case of perigastric inflammatory serous fluid collection after ESG (adjacent to the fundus), which resolved with percutaneous drainage and antibiotics [4]. One possible cause of the perigastric fluid collection may be intractable vomiting causing a small leak along the thin-walled fundus. When such a collection is identified, we recommend initial conservative therapy with oral antibiotics if there are no signs or symptoms of sepsis. Depending on the size and location of the collection, percutaneous drainage could be performed.

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