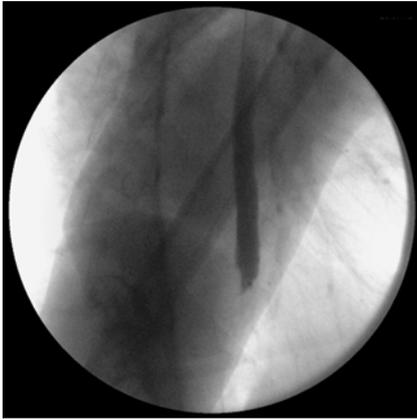


The feared postdilation complication in caustic esophageal stenosis: combined endoscopic and surgical treatment



► **Fig. 1** Fluoroscopic image showing the esophageal stricture and the absence of progression of contrast to the stomach.



► **Fig. 3** Laparoscopic image of the esophageal perforation.



► **Fig. 2** Endoscopic image showing the esophageal perforation into the abdominal cavity.

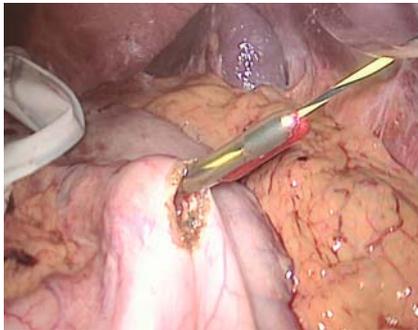


► **Video 1** A case of esophageal perforation during dilation and its treatment in the usual way with a combined endoscopic and laparoscopic procedure.

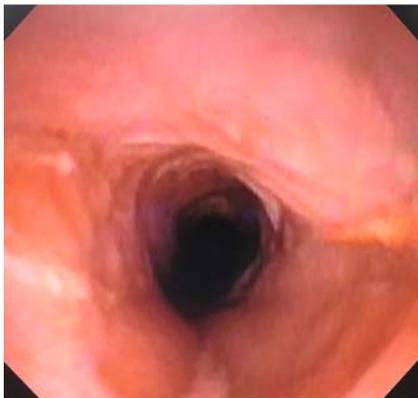
Esophageal stricture is a major complication after caustic ingestion. When the ingestion is associated with a suicide attempt, the damage is typically worse because a large amount is ingested [1]. Endoscopic dilation is the go-to for initial treatment, with surgical treatment being reserved for refractory cases. The success rate of dilation ranges from 40% to 90% [2,3]. Perforation is a complication with high morbidity and mortality that can occur during the dilation procedure, ranging from 0 to 32% of cases [4, 5]. We describe a case of esophageal perforation during dilation and how it was treated with a combined endoscopic and surgical procedure.

A 27-year-old man was referred to our department 40 days after ingesting caustic alkali in a suicide attempt. The stricture was identified 25 cm from the incisors (► **Fig. 1**). A contrast study showed segmental stricture up to the esophagogastric junction. A flexible guidewire was passed under fluoroscopy and dilation was performed with Savary-Miller bougies up to 8 French (Fr). At the end of the dilation, when the review was performed, an extensive perforation was seen in the

distal esophagus with exposure of the abdominal cavity (► **Fig. 2**; ► **Video 1**). The operation was performed with combined laparoscopic and endoscopic procedures. The perforation was identified (► **Fig. 3**) and a gastrotomy was performed on the distal body. The gastroscope (5.4 mm) passed through an abdominal trocar and a retrograde guidewire was passed through the esophagogastric junction and externalized through the mouth. With the guidewire and under



► **Fig. 4** Intraoperative esophageal dilation with bougies up to 10 Fr.



► **Fig. 5** Follow-up endoscopy was performed after 1 month, showing complete healing of the perforation.

laparoscopic vision, dilation was performed using Savary-Miller bougies up to 10 Fr (► **Fig. 4**). Another guidewire was passed to the duodenum and a nasoenteral tube was positioned. The esophagus was sutured and covered with an omental patch. Finally, the cavity was drained and the gastrostomy was performed through the gastrostomy orifice. The patient progressed well, accepting food through the nasoenteral tube, and

was discharged after psychiatric evaluation. Follow-up endoscopy was performed after 1 month, showing complete healing of the perforation (► **Fig. 5**).

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Competing interests

The authors declare that they have no conflict of interest.

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References

- [1] Arévalo-Silva C, Eliashar R, Wohlgelernter J et al. Ingestion of caustic substances: a 15-year experience. *Laryngoscope* 2006; 116: 1422–1426
- [2] Tharavej C, Pungpapong S-U, Chanswangphuvana P. Outcome of dilatation and predictors of failed dilatation in patients with acid-induced corrosive esophageal strictures. *Surg Endosc* 2018; 32: 900–907

- [3] Josino IR, Madruga-Neto AC, Ribeiro IB et al. Endoscopic dilation with bougies versus balloon dilation in esophageal benign strictures: systematic review and meta-analysis. *Gastroenterol Res Pract* 2018. doi:10.1155/2018/5874870
- [4] Song HY, Han YM, Kim HN et al. Corrosive esophageal stricture: safety and effectiveness of balloon dilation. *Radiology* 1992; 184: 373–378
- [5] Poley J-W, Steyerberg EW, Kuipers EJ et al. Ingestion of acid and alkaline agents: outcome and prognostic value of early upper endoscopy. *Gastrointest Endosc* 2004; 60: 372–377

Bibliography

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