

# Successful Closure of a Rare Cause of Tracheoesophageal Fistula Using an Over-the-Scope Clip

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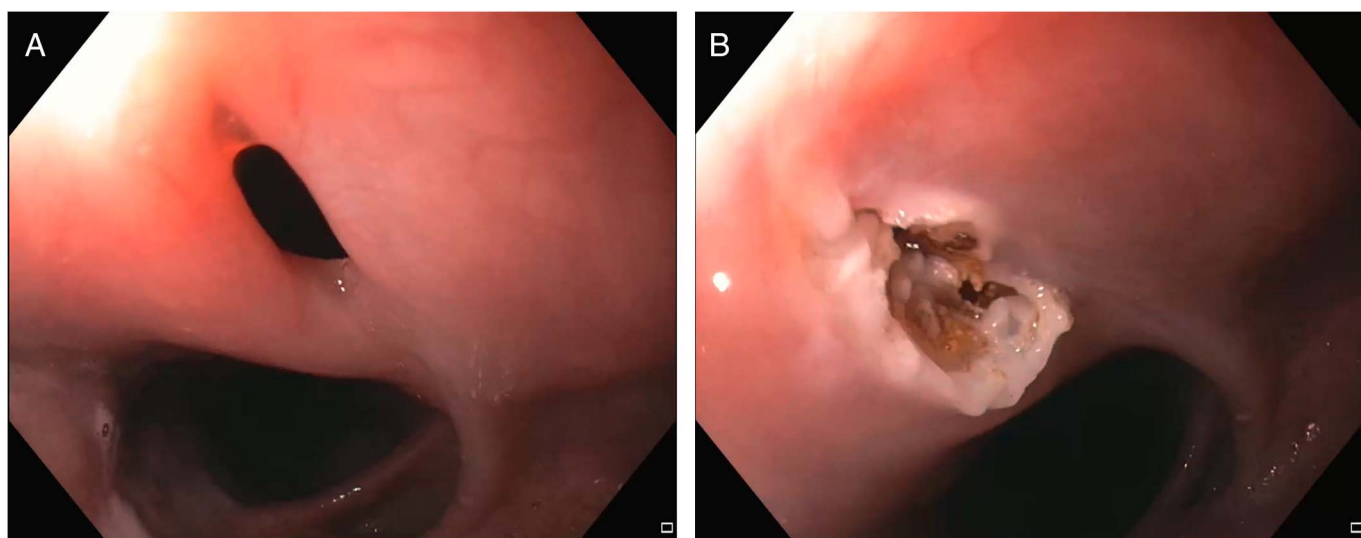
## CASE REPORT

A 27-year-old man with an accidental bullet injury to his neck was tracheostomized for prolonged mechanical ventilation and had multiple complications including right hemothorax and a bullet lodged in the subhepatic space. He was tracheostomized for 12 weeks. On restarting of oral feeds, he complained of persistent cough, aggravated by meal intake. A tracheoesophageal fistula (TEF) was suspected, probably due to the bullet injury/prolonged tracheostomy. Upper gastrointestinal endoscopy revealed TEF of size 15 mm with smooth margins at 25 cm from the incisors (Figure 1). After due discussion, endoscopic closure was decided. The margins of the defect were freshened with argon plasma coagulation to facilitate healing (Figure 1). An over-the-scope clip was placed over the fistula site (Figure 2) (size 11/6t; OVESCO Endoscopy, Tuebingen, Germany) to close it. There were no procedure-related complications. He was started on oral feeds 24 hours after the procedure. A follow-up upper gastrointestinal endoscopy 3 weeks later revealed healing of the fistula site (Figure 3). On the 24-month follow-up, he is doing fine.

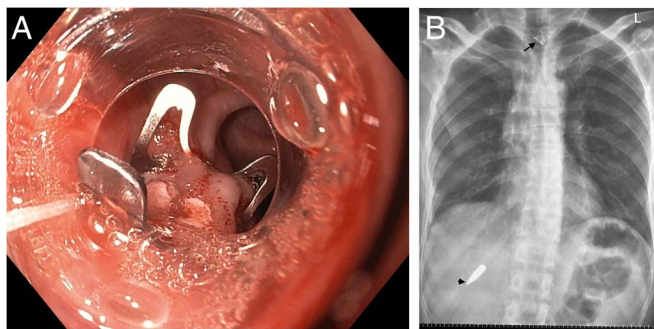
There are multiple devices for the endoscopic management of TEF,<sup>1</sup> and the use of an over-the-scope clip has a technical success of 87.5%.<sup>2</sup> Freshening the edges of chronic TEF by argon plasma coagulation increases the technical success.<sup>2</sup>

## DISCLOSURES

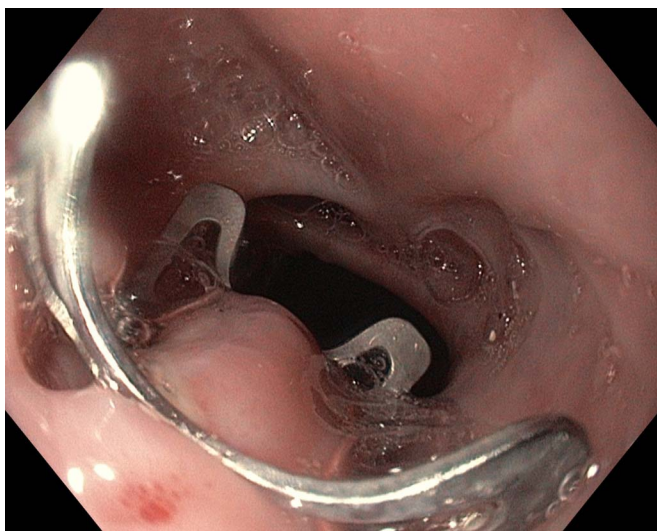
Author contributions: N. Kumar: data collection, video editing, and manuscript writing. A. Sachan: data collection and manuscript writing. G. Muktesh: review of the manuscript and video. R. Kochhar: review of the manuscript and video. J. Samanta: data collection, video editing, and manuscript writing, and is the article guarantor.



**Figure 1.** Endoscopic images showing fistula with smooth edges (A) and the edges freshened with argon plasma coagulation (B).



**Figure 2.** Fistulous opening closed with OVESCO (A), and the chest x-ray image showing the over-the-scope clip (arrow) and impacted bullet (arrow head) (B).



**Figure 3.** Follow-up endoscopy image showing the healed fistulous site with over-the-scope clip in situ.

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Informed consent was obtained for this case report.

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## REFERENCES

1. Ramai D, Bivona A, Latson W, et al. Endoscopic management of tracheo-oesophageal fistulas. *Ann Gastroenterol* 2019;32(1):24–9.
2. Haito-Chavez Y, Law JK, Kratt T, et al. International multicenter experience with an over-the-scope clipping device for endoscopic management of GI defects. *Gastrointest Endosc* 2014;80(4):610–22.

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