A Novel Method of Esophageal Impacted Sharp Foreign Body Retrieval

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A 54-year-old woman presented with dysphagia after meat ingestion. On contrast enhanced computed tomography, bony fragment with sharp edges impacted in the esophageal wall was found just beyond the upper esophageal sphincter (Fig. 1). On retrieval attempt during endoscopy with foreign body forceps (Cook Medical, Wilson-Salem, North Carolina, United States), further injury to esophageal wall was noted due to impacted sharp margins. To avoid further damage, the foreign body was pushed distally with the help of foreign body forceps. This maneuver disimpacted its sharp edges from esophageal wall. Subsequently, we sprayed glue (n-butyl-2-cyanoacrylate) (Samarth Life Sciences, Mumbai, Maharashtra, India) around the foreign body. This measure solidified it and blunted its sharp edges facilitating safe retrieval of the foreign body using Roth net (US endoscopy, Mentor, Ohio, United States) (Fig. 2, Video 1).

Video 1
Impacted foreign body was pushed distally with the help of foreign body forceps and glue applied around the foreign body. After solidification of glue foreign body retrieved with Roth net. Online content including video sequences viewable at: https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0042-1742702.

Our technique averted severe trauma to esophagus. Glue (n-butyl-2-cyanoacrylate) polymerizes after contact with weak bases. It is commonly used for variceal obliteration and closure of fistulae.¹⁻³ This technique is a safe alternative in specific cases of sharp foreign body retrieval.

Fig. 1 Reconstructed contrast-enhanced computed tomography neck and thorax in axial (A) and coronal (B) view showing foreign body with sharp margins impacted in the esophageal wall (arrow mark).

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Conflict of Interest
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References

Fig. 2 After endoscopic retrieval of foreign body, solidified glue covering the sharp margins of bony fragment (A). After separation, bony fragment with sharp edges and solidified glue (B).