

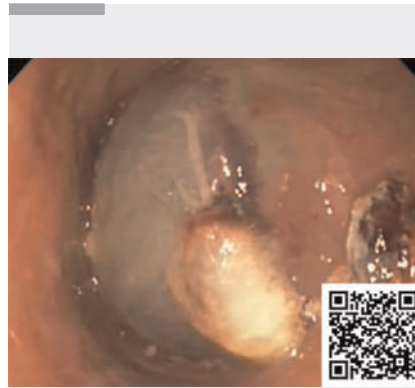
## Endoscopic ultrasound-guided esophageal hematoma drainage after radiofrequency ablation for atrial fibrillation



Transesophageal radiofrequency ablation (RFA) for atrial fibrillation may cause esophageal injuries, including hematomas, which are rare but potentially serious [1]. Endoscopic ultrasonography (EUS) is a valuable tool for both diagnosis and minimally invasive management of such complications, enabling precise targeting and drainage [2].

A 67-year-old woman developed dysphagia, odynophagia, epigastric pain, and inability to tolerate oral intake after transesophageal RFA. Gastroscopy (Evis Exera III GIF H190; Olympus, Japan) revealed a lesion obstructing the esophageal lumen at 18 cm (▶ **Video 1**). EUS (GF-UCT linear ultrasound endoscope; Olympus, Japan) confirmed a submucosal hematoma, and thoracic computed tomography (CT) showed a 4-cm hematoma in the mid-esophagus. EUS-guided drainage was performed. The procedure involved puncturing the hematoma with a 19-gauge needle (Expect; Boston Scientific, United States) and placing a 0.035-inch guidewire (VisiGlide; Olympus, Japan) under fluoroscopic guidance. The tract was dilated using a 6-Fr cystotome (Cystotome; Endo-Flex, Germany), and a 7-Fr, 5-cm plastic pigtail stent (Bile Duct Stents; Endo-Flex, Germany) was inserted into the hematoma cavity. Enteral nutrition was started via a nasogastric tube. One week later, CT showed the hematoma size reduced to 2.5cm. The stent was removed 1 month later, with a follow-up endoscopy revealing mucosal ulcerations. The esophageal mucosa was normal at 6 months, and the lumen remained patent.

This case demonstrates the efficacy of EUS-guided drainage for esophageal hematomas occurring after RFA. Early intervention prevents progression to perforation or fistula, which can be fatal [3]. EUS offers several advantages: it enables real-time visualization, precise targeting, and safe decompression, minimizing risks associated with surgical or blind pro-



▶ **Video 1** Endoscopic ultrasound-guided esophageal hematoma drainage after radiofrequency ablation for atrial fibrillation.

cedures. Its minimally invasive nature allows faster recovery and mucosal healing, as seen in this patient. Given the increasing use of transesophageal ablation techniques, EUS-guided management should be considered a valuable option in similar cases [1,2]. To our knowledge, this case is the first such reported in the English-language literature.

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### Conflict of Interest

The authors declare that they have no conflict of interest.

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