Single-Center Outcomes with Endoscopic Suture Fixation of Esophageal Stents

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Introduction

In the age of advanced endoscopy, esophageal stents have become a mainstay in the management of esophageal disorders. However, the dynamic nature of the esophagus often leads to stent migration, resulting in repeat interventions and treatment failure.

Endoscopic suture fixation has been recently utilized to secure esophageal stents to the esophageal wall, yet documented migration rates remain variable.

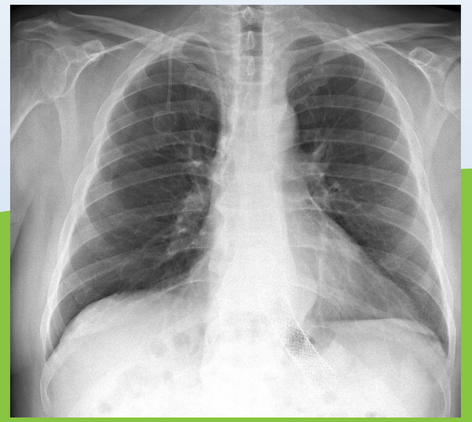
We sought to evaluate clinical outcomes of patients at our institution who underwent endoscopic suture fixation.

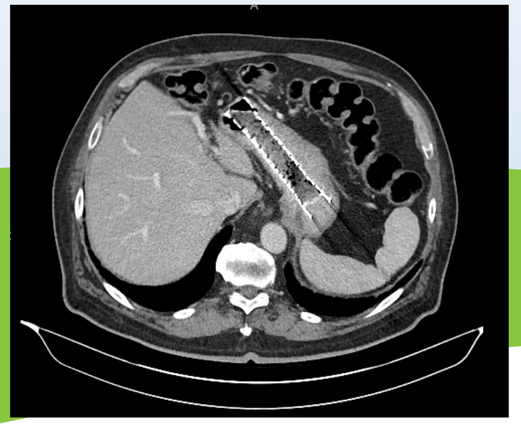
Methods

- Included all patients who underwent fully covered, self-expandable metal stent (FCSEMS) placement with endoscopic suture fixation by the Apollo Overstitch suture fixation device between January 1, 2018, and May 17, 2023.
- Primary end points were migration confirmed via imaging studies or follow up endoscopy.
- Technical success was measured as successful stent placement with suture fixation.
- Clinical success was measured via a resolution of the patient's preprocedural symptoms.

Results

- Of 135 patients who underwent esophageal stent placement, 22 had placement with suture fixation. Indications included malignant strictures (54.5%, 12/22), benign strictures (27.3%, 6/22), or esophageal perforations (18.2%, 4/22).
- Technical success of endoscopic placement and suture fixation was 100% and clinical success was achieved in 77.3% of patients.
- Stent migration occurred in 36.3% of patients of whom 50% were symptomatic.
- No adverse events associated with suture fixation.





Conclusions

- Our series shows that this procedure is safe, with no identified complications and a 100% technical success rate.
- Our demonstrated migration rate is lower than the documented rates for non-fixated esophageal stents in the literature, further supporting its efficacy.
- Our experience adds to growing support for the consideration of endoscopic suture fixation at the time of stent placement.

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