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Severe Gastrointestinal Bleeding Following Transesophageal Echocardiography and Ablation for Atrial Fibrillation: A Case Report



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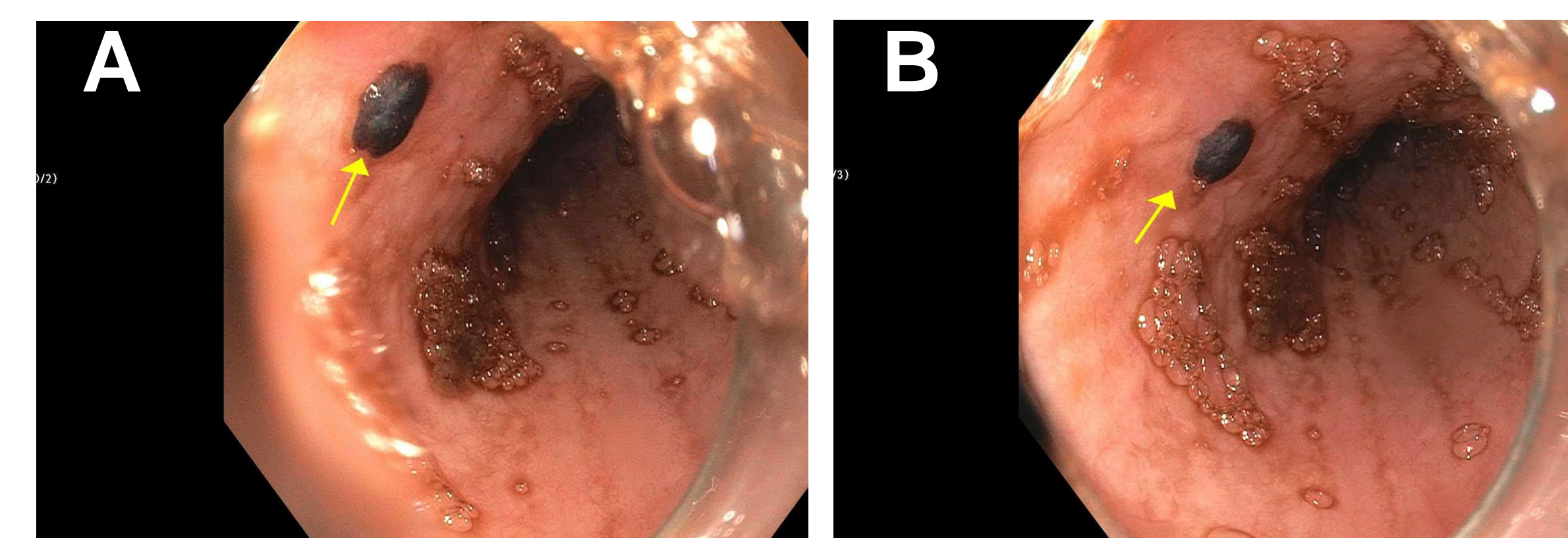
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INTRODUCTION

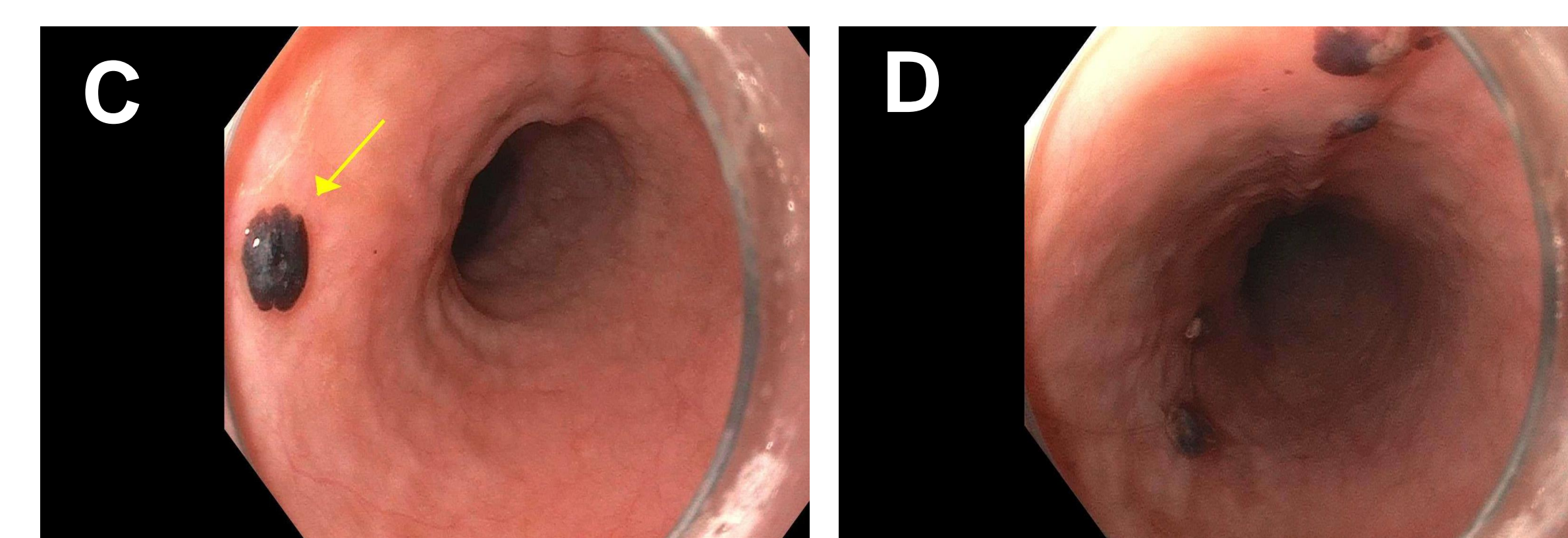
- Transesophageal echocardiograms (TEE) are performed to evaluate a variety of cardiac disorders. It involves blind intubation of the esophagus and carries a small risk of esophageal injury.
- The incidence of TEE-related hemorrhage has been estimated to be between 0.02% to 1.0%.
- This case describes a case of severe upper gastrointestinal bleeding (GIB) following TEE and ablation for atrial fibrillation.

CASE DESCRIPTION

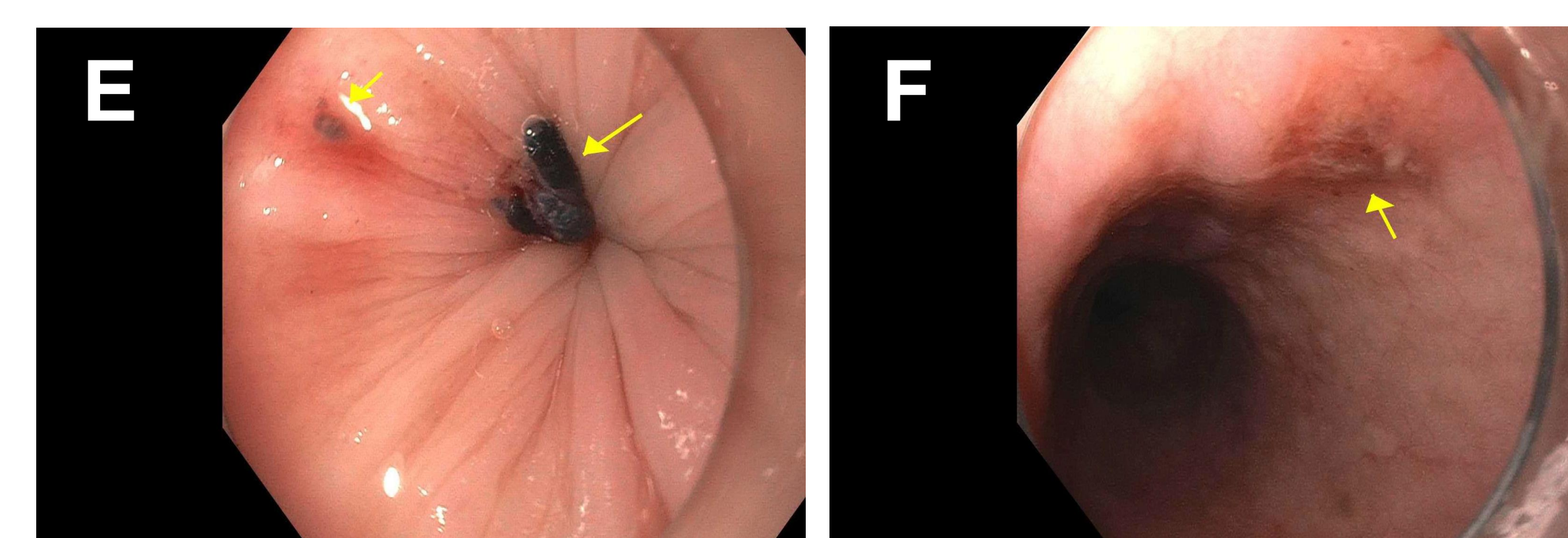
- A 66-year-old male with a history of atrial fibrillation and upper GI bleeding underwent TEE with ablation with the intention of doing a Watchman procedure in the future. Anticoagulation had been resumed two weeks prior to the procedure.
- The patient underwent ablation and shortly afterwards had hematemesis followed by an episode of melena. The hemoglobin fell from 11.2g/dl to 8.7g/dl and the patient required vasopressor support and transfusion.
- EGD performed the following day revealed many 2-3 mm non-actively bleeding erosions with clots at their bases throughout the entire esophagus, with a large blood clot found in the cardia and gastric body.
- Although no active bleeding was noted, the patient continued to have a hemoglobin drop so a CT angiogram was performed which was unrevealing. The patient was managed conservatively and stabilized with no further episodes of bleeding, and his anticoagulation was eventually resumed without further complications.



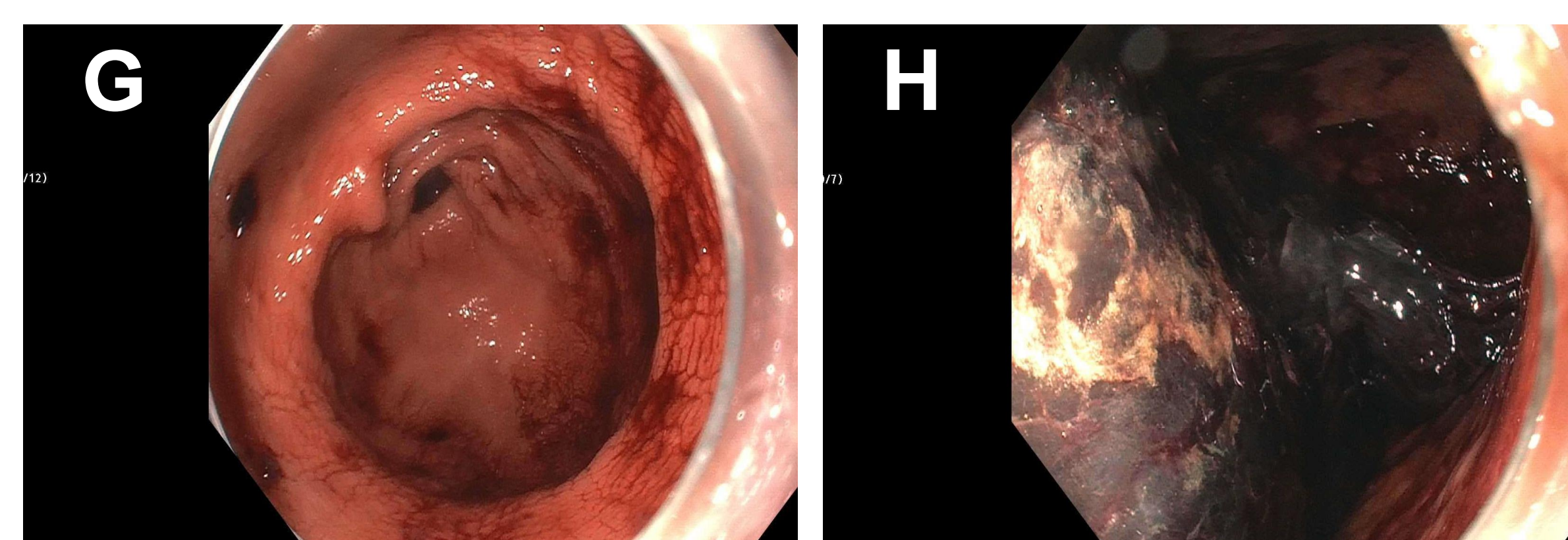
A, B. Upper Third of the Esophagus



C, D. Middle Third of the Esophagus



E, F. Lower Third of the Esophagus



G, H. Gastric Body

DISCUSSION

- TEE-related hemorrhage is a rare but known complication and is often due to direct mucosal trauma.
- Ablation may also induce thermal injury to the esophagus due to the proximity of the posterior left atrium and esophagus, causing esophageal ulcerations that can potentially lead to more serious complications such as atrioesophageal fistulae.
- Caution should be taken when evaluating patients planned for TEE/ablation, especially those with history of prior GIB.

REFERENCES

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- M. Martinek, C. Meyer, S. Hassanein, et al. Identification of a high-risk population for esophageal injury during radiofrequency catheter ablation of atrial fibrillation: procedural and anatomical considerations. Heart Rhythm, 7 (2010), pp. 1224-1230