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VIDEO | ENDOSCOPY

Expanding Horizons of Vascular Interventions: Endoscopic Ultrasound-Guided Angioembolization for a Refractory Upper Gastrointestinal Bleed From a Gastric Dieulafoy Lesion

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CASE REPORT

A 41-year-old man with a known history of alcohol-related chronic pancreatitis, presented with hematemesis and postural hypotension for 2 days. He had undergone endoscopic ultrasound (EUS)-guided coil-glue embolization of a splenic artery pseudoaneurysm a year ago for similar clinical complaints. At presentation, investigations revealed severe anemia (hemoglobin 5.6 gm/dL), raised blood urea nitrogen: creatinine ratio (36.7), and normal liver function tests. After 2 units of blood transfusions, he underwent computed tomography angiography (abdomen) revealing a suspected contrast blush from the left gastric artery. Esophagogastroduodenoscopy showed pooled blood in fundus with no definite localizable source. He was subjected to digital subtraction angiography (DSA) with coil embolization of the left gastric artery. One-week post-DSA, the patient presented again with hematemesis. Multi-disciplinary team decided for EUS assessment for bleeding-source localization. Assessment was done with a linear echoendoscope (GIF UCT180; Olympus, Tokyo, Japan), after infusing normal saline to fill up the gastric fundus with the patient in the left lateral decubitus position. A persistently wide-caliber vessel, without any sign of tapering, coursing directly toward the mucosal surface, with arterial flow pattern (color doppler) (Figures 1 and 2) was visualized suggestive of the gastric Dieulafoy lesion.

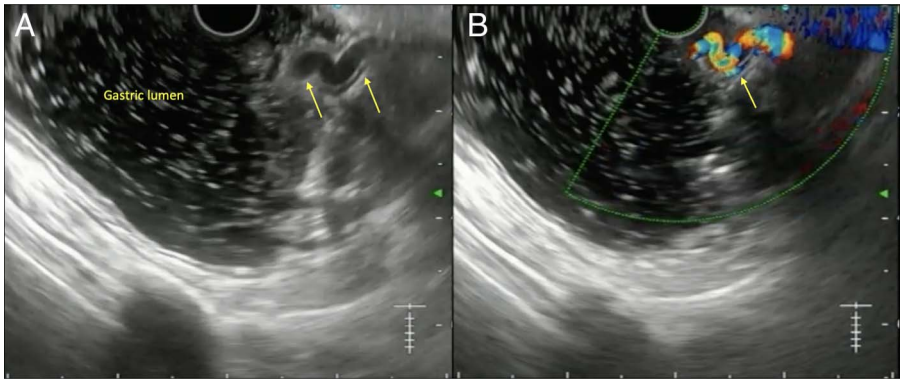

Figure 1. (A) Endoscopic ultrasound assessment of the gastric fundus with saline instillation in lumen of the stomach, revealed a persistently wide-caliber vessel, without any sign of tapering, coursing directly toward the mucosal surface (yellow solid arrow); (B) confirmation with color Doppler revealed a positive flow signal suggestive of the gastric Dieulafoy lesion (yellow solid arrow).

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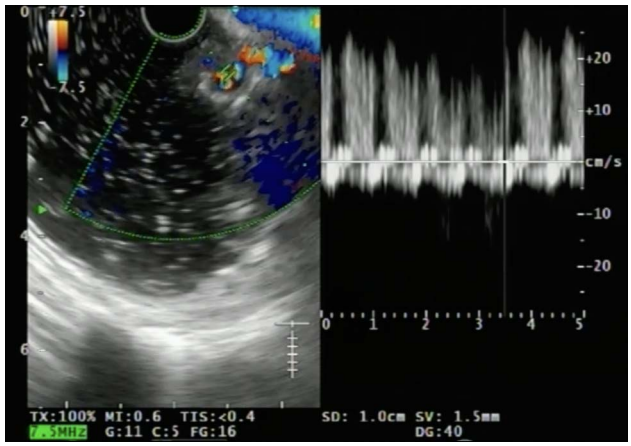

Figure 2. Endoscopic ultrasound-guided localization and confirmation of the gastric Dieulafoy lesion with use of power doppler demonstrating an arterial waveform.

Under EUS guidance, the vessel was punctured with a 19-G EUS-FNA needle and 2 mL of cyanoacrylate-glue was injected, leading to complete obliteration, confirmed on Doppler (Figure 3; Video 1). He was discharged subsequently, with no further bleeding episodes on 1-year out-patient follow-up.

Dieulafoy lesion is an uncommon cause of refractory gastrointestinal bleed, which can be fatal.[1] Excellent results have been reported using EUS-angioembolization for management of variceal[2] and nonvariceal bleeding.[3,4] Doppler assessment, identifying bleeding source, especially with blood pooling in fundus along with real-time visualization of flow obliteration, makes it an attractive option in such difficult scenarios (DSA failure and refractory bleed), like our index case.[5]

DISCLOSURES

Author contributions: J. Dhar: patient management, drafting of the article, acquisition, analysis and interpretation of data, final approval of the manuscript; U. Gorsi: patient management, acquisition, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript; SK Sinha: patient management, acquisition, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript; J. Samanta: conception and design, performed the procedure, patient management, acquisition, analysis and interpretation of data, critical revision of the manuscript, final approval of the manuscript. All authors have approved the final version of the manuscript. J. Samanta is the article guarantor.

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REFERENCES

1. Son JH. Life-threatening gastrointestinal bleeding from a Dieulafoy's lesion in the Duodenum: A case report. *Korean J Gastroenterol.* 2024;83(3):119–22.
2. Samanta J, Nabi Z, Facciorusso A, et al. EUS-guided coil and glue injection versus endoscopic glue injection for gastric varices: International multicentre propensity-matched analysis. *Liver Int.* 2023;43(8):1783–92.
3. Samanta J, Dhar J, Mangipudi UK, Siddharda BV, Gupta P, Gupta V. Hunting for the pseudoaneurysm in a vascular maze: Endoscopic ultrasound solving the puzzle. *Endoscopy.* 2023;55(S 01):E839–E840.
4. Samanta J, Dhar J, Bhowmick M, et al. Bleeding giant pseudoaneurysm non-visualized on arterial phase imaging: Endoscopic ultrasound-guided angioembolization to the rescue. *Endoscopy.* 2023;55(S 01):E739–E740.
5. Dhar J, Samanta J. Endoscopic ultrasound-guided vascular interventions: An expanding paradigm. *World J Gastrointest Endosc.* 2023;15(4):216–39.

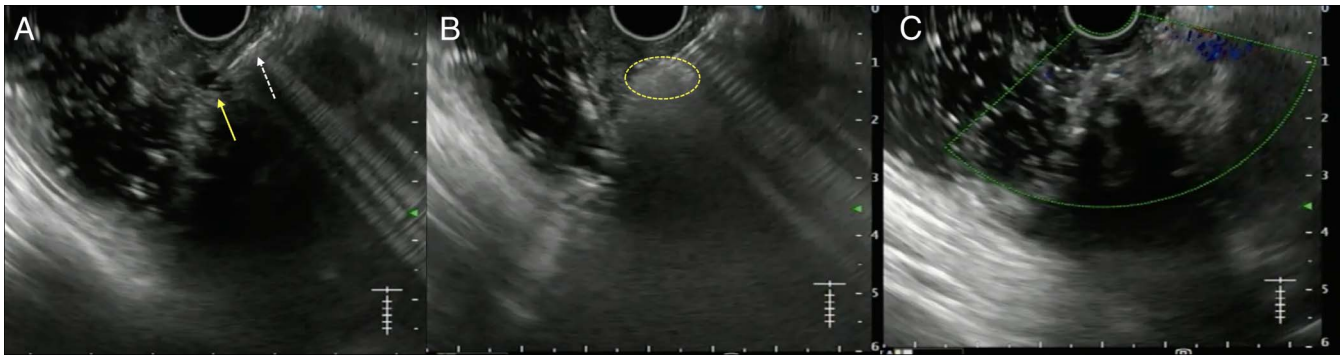

Figure 3. EUS-guided angioembolization of the gastric Dieulafoy lesion. (A) Under EUS guidance, the vessel (gastric Dieulafoy; yellow solid arrow) was punctured using a 19-G EUS-fine needle aspiration needle (white dotted arrow); (B) cyanoacrylate glue injected (2 mL) leading to the formation of a glue-cast (dotted yellow circle); (C) color Doppler assessment post procedure revealed complete obliteration of blood flow. EUS, endoscopic ultrasound.