

# Primary EUS-guided therapy of a giant visceral artery pseudoaneurysm: Expanding horizons (with video)

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A 39-year-old male, previously diagnosed case of alcohol-related acute necrotizing pancreatitis, presented to the emergency department with a history of increasing epigastric pain and passage of melenic stools for the preceding 2 days. Contrast-enhanced computed tomographic (CT) scan with angiography showed a 6.4 cm × 9.1 cm × 7.9 cm well-defined collection replacing pancreatic body and tail with a 3.8 cm × 6.5 cm × 6.1 cm pseudoaneurysm within the collection without any definite communication with the splenic artery [Figure 1]. The patient was a poor candidate for radiological intervention in view of lack of definite communication. Out of the options of EUS-guided, radiological, or surgical intervention offered, the patient opted for the EUS-guided approach. On EUS, a 5 cm × 7 cm large pseudoaneurysmal sac with turbulent flow on Doppler was noted and was punctured with a 19-G EchoTip<sup>®</sup> needle (G31520, Cook Medical, Indiana, USA) followed by deployment of 3 Nester<sup>®</sup> embolization coils (MWCE 35-14-18 × 3; Cook Medical, USA) and injection of 2 ml of cyanoacrylate glue

[Figure 2]. However, in view of incomplete obliteration of the pseudoaneurysm, a second session of 5 Nester<sup>®</sup> embolization coils (2 of MWCE 35-14-16



**Figure 1.** Computed tomography angiography showing a 6.4 cm × 9.1 cm × 7.9 cm well-defined collection replacing pancreatic body and tail (thin arrow) with a 3.8 cm × 6.5 cm × 6.1 cm pseudoaneurysm within the collection (thick arrow) without any definite communication with the splenic artery (arrow head)

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**Figure 2.** EUS-guided deployment of Nester® embolization coils (Cook Medical, USA) (white arrows) in the pseudoaneurysm

and 3 of MWCE 35-7-14; Cook Medical, USA) placement with 3 ml of glue injection was done, and complete obliteration of pseudoaneurysm was achieved [Video 1]. At 1-month follow-up, the patient remained asymptomatic with imaging showing complete obliteration of pseudoaneurysm.

Splenic artery pseudoaneurysm is a rare complication of acute pancreatitis.<sup>[1]</sup> Radiological angioembolization or surgery is the most commonly used treatment option with high success rate.<sup>[2]</sup> However, the presence of acute angle or narrow communication with parent artery poses difficulty for endovascular treatment with increased risk of failure, arterial dissection, or distant coil embolization.<sup>[2]</sup> Larger aneurysmal sacs are even more difficult to manage. EUS-guided coil with glue is a newer safe modality and can be effectively

used, with adequate expertise, to tackle giant visceral pseudoaneurysm as in the index case.<sup>[3-5]</sup>

#### *Declaration of patient consent*

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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#### *Conflicts of interest*

There are no conflicts of interest.

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