Background Pseudo aneurysms usually occur after vascular injuries or erosions such as in trauma or inflammation like pancreatitis and are associated with high morbidity and mortality. Digital subtraction angiography with coil embolization is established treatment for aneurysm. There are limited data in the literature on endoscopic ultrasound (EUS) guided thrombin injection for pseudo aneurysm. The aim of the study is to assess the efficacy of EUS guided thrombin injection in pseudo aneurysm.

Methods Prospective data collection was done at SMS Hospital, Jaipur from January 2018 to December 2018. All patients with pseudoaneurysm with a history of gastrointestinal bleed were enrolled consecutively. Data related to demography, laboratory parameters, radiological imaging, pseudo aneurysm and endotherapy were analyzed.

Results Eight patients with median age 34 (27–58) years, all male was studied. Etiology of pseudo aneurysm was chronic pancreatitis in 6 (75%) and idiopathic in 2 (25%) patients. Site of pseudo aneurysm was splenic artery in 5 (62.5%), left hepatic artery in 2 (25%) and gastroduodenal artery in 1 (12.5%) patients. Median size of pseudo aneurysm was 2.9 cm x 2.6 cm (1.8x1.9- 4x5 cm). All patients presented with a history of gastrointestinal bleeding and two patients had hemobilia. Median hemoglobin at the time of presentation was 5.2 gm/dl (4.1–12.2 gm/dl) and requirement of packed red cell transfusion was 3(0–5) units. Thrombin requirement was 400 IU (200–500IU) for loss of Doppler flow signals. Computed tomography (CT) and EUS after 4 weeks and 3 months showed obliterated pseudoaneurysms in 7 (87.5%) patients, while recurrence was seen in 1 (12.5%) patient after 6 weeks of thrombin injection. Two patients had post-procedure pain abdomen required intravenous analgesics. (figure 1)

Conclusions EUS-guided thrombin injection provides a new option for the management of pseudoaneurysm.