# Histoacryl injection for treatment of varices in the ascending colon

A 50-year-old man with alcoholic liver cirrhosis was admitted to our emergency department with massive hematochezia and hypovolemic shock. On admission, laboratory data included hemoglobin 3.1 g/dL, hematocrit 9.9%, platelet count 81×10<sup>9</sup>/L, lactates 13.9 mmol/L, and international normalized ratio 1.29. Resuscitation was initiated with intravenous fluids and transfusion of 4 units of packed red blood cells. Terlipressin 2 mg and ceftriaxone 1 g were administered.

Esophagogastroduodenoscopy revealed small esophageal varices with no evidence of recent bleeding. After oral preparation, total colonoscopy was performed, which showed markedly dilated, tortuous veins with a visible fibrin plug in the ascending colon, indicative of colonic varix with recent bleeding (> Fig. 1a); there was no blood in the colon. N-butyl-2-cyanoacrylate (Histoacryl; B. Braun, Melsungen, Germany) was injected into the varix, resulting in initial active spurting bleeding from the site of the fibrin plug and from the site of injection ( Fig. 1b), which resolved after subsequent injections. In total, 2 mL of Histoacryl was injected (> Fig. 1c, Video 1).

The patient had no recurrent bleeding and hemoglobin levels remained stable. He was discharged 7 days later with nonselective beta blocker medication.

Esophageal varices are a common cause of gastrointestinal bleeding in patients with



Colonic varix in the ascending colon with a visible fibrin plug. Hemostasis was achieved following injection of 2 mL of N-butyl-2-cyanoacrylate, with initial active spurting bleeding from the site of the injection, which resolved after subsequent injections.

portal hypertension, but ectopic varices are extremely rare (between 1% and 5% of all variceal bleeding), especially in the ascending colon [1,2]. Because of the infrequency with which bleeding ectopic varices present, the ideal therapeutic intervention is unknown [3,4]. This is the first report of successful endoscopic hemostasis with injection of N-butyl-2-cyanoacrylate in bleeding ascending colonic varices.

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**Competing interests:** None

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#### **Bibliography**

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**Fig. 1** Histoacryl injection for treatment of varices in the ascending colon. **a** Ascending colonic varix with visible fibrin plug. **b** Active spurting bleeding from the site of the fibrin plug and from the site of needle injection with N-butyl-2-cyanoacrylate. **c** Colonic varix after hemostasis with 2 mL of injected N-butyl-2-cyanoacrylate.