Embolic complications associated with endoscopic injection of cyanoacrylate for bleeding duodenal ulcer

An 87-year-old man with severe cardiac disease, on treatment with an antiplatelet agent, was admitted to our department with acute melena, in a hemodynamically unstable state, and with a hemoglobin level of 6 mg/dL. Emergency endoscopy revealed an extensive ulcer in the antero−
inferior bulb wall with pulsatile bleeding. A thoracoabdominal computed tomography (CT) scan showed linear opacification of the common hepatic artery (Fig. 1), its right branch, and some splenic branches (Fig. 2), with a heterogeneous area in the spleen (Fig. 2) and in the pancreatic head (Fig. 3) highly suggestive of infarction lesions. The patient started treatment with an intravenous broad−spectrum antibiotic, along with nutritional support measures, and the liver test parameters improved considerably. Blood cultures failed to isolate any bacterial strain. The patient was discharged on day 15. Six−month imaging follow−up showed remarkable improvement.

Bleeding peptic ulcer is still the main cause of upper gastrointestinal hemorrhage [1]. Several endoscopic hemostatic methods with similar efficacy are currently available [1]. The use of NB2C, a successful and well−established substance used in variceal hemorrhage, is still controversial in the context of bleeding peptic ulcer [2, 3]. Encouraging results have shown it to have good hemostatic efficacy when conventional endoscopic techniques have failed to control bleeding [2, 3]. However, it has been associated with severe embolization with infarction [2, 4, 5]. The present case highlights a potential adverse effect of cyanoacrylate use.

References
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Fig. 1 Ulcer on the anterosuperior bulb wall, on 24−hour second−look endoscopy: a with visible vessel; b after second NB2C treatment.

Fig. 2 Abdominal CT scan showing radiopaque material in a the common hepatic artery and b its right branch and some splenic branches. Multiple areas of splenic infarctions are visible in b.

Fig. 3 Abdominal CT scan showing a heterogeneous area in the pancreatic head.