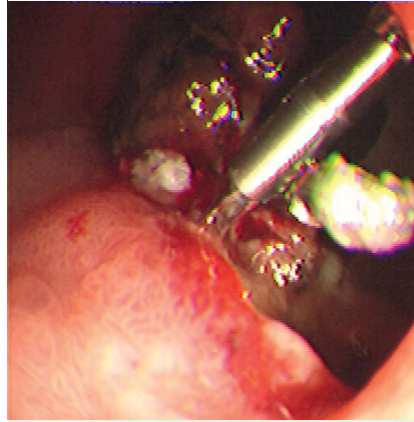


## Duodenal intramural hematoma and delayed perforation: rare but fatal complication of endoscopic therapy for a bleeding duodenal ulcer

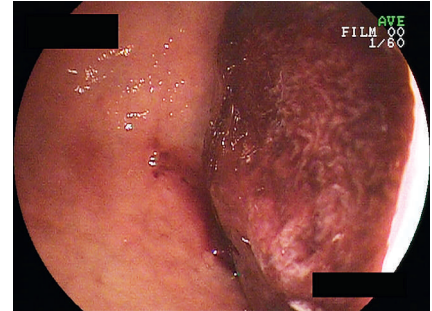
A 57-year-old woman was admitted with drug-induced hepatitis. An episode of tarry stool passage occurred on the third day in hospital and was treated using a proton pump inhibitor. The bleeding reoccurred on the fourteenth day and upper gastrointestinal endoscopy revealed an actively bleeding duodenal ulcer (● Fig. 1). Initial hemostasis was achieved with an injection of diluted epinephrine and application of two hemoclips. In the mean time, the patient's hepatitis resolved. Three days after endoscopy, the patient had vomiting and upper abdominal pain. An abdominal computed tomography (CT) scan disclosed a hyperdense mass over the duodenum. Repeat endoscopy revealed a duodenal intramural hematoma (DIH) with a severe luminal obstruction (● Fig. 2), and conservative management was started. One week later, the patient experienced a sudden onset of upper abdominal pain. A repeat CT scan revealed duodenal perforation (● Fig. 3), which was surgically repaired. However, on day 56 in hospital, the patient died of post-operative complications.

DIH is a rare complication of endoscopy. Rohrer et al. [1] reported that five of 227 patients developed DIH following endoscopic therapy for bleeding peptic ulcers. This provisional diagnosis was based on an abdominal CT scan indicating the presence of a duodenal mass with density (Hounsfield units) consistent with blood serum. The diagnosis was confirmed by endoscopy. The management of DIH typically involves a conservative regimen, except for patients with bowel perforations associated with abdominal trauma. The symptoms usually resolve in 10–15 days, and drainage is required only if patients have prolonged obstructive symptoms [2,3]. Serious complications of DIH, such as pancreatitis, are rare [4,5]. To our knowledge, our patient is the first case of delayed ulcer perforation in a DIH leading to emergency surgical treatment to be reported in the literature.

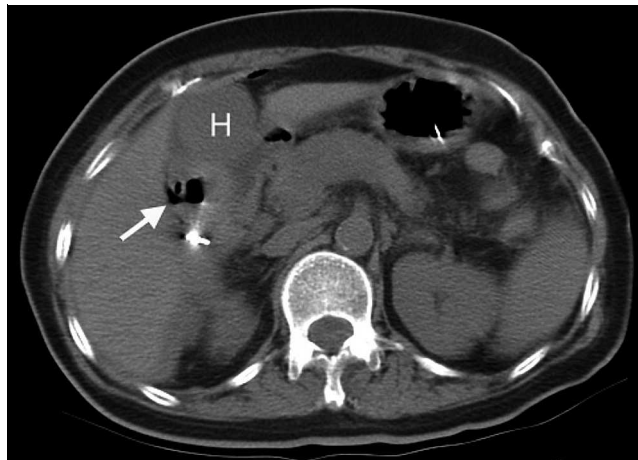
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**Fig. 1** Endoscopic view of the duodenal ulcer. Two hemoclips were placed at the base of the bleeding vessel.



**Fig. 2** Repeat endoscopy showing a large violaceous mass, which was partially obstructing the duodenal lumen.



**Fig. 3** An abdominal computed tomography (CT) scan showing a large hematoma in the duodenum (H). The perforation site (indicated by the arrow) was located proximal to the ulcer, with the hemoclip still in place.

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