



IMAGE | SMALL BOWEL

## Traumatic Isolated Intramural Duodenal Hematoma Causing Intestinal Obstruction

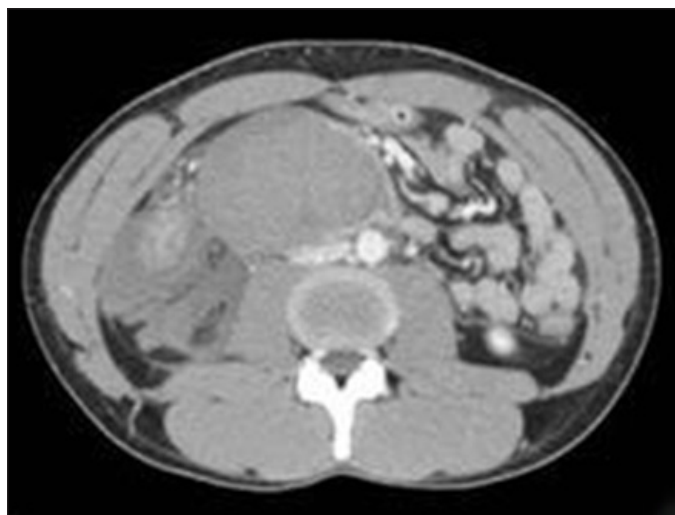
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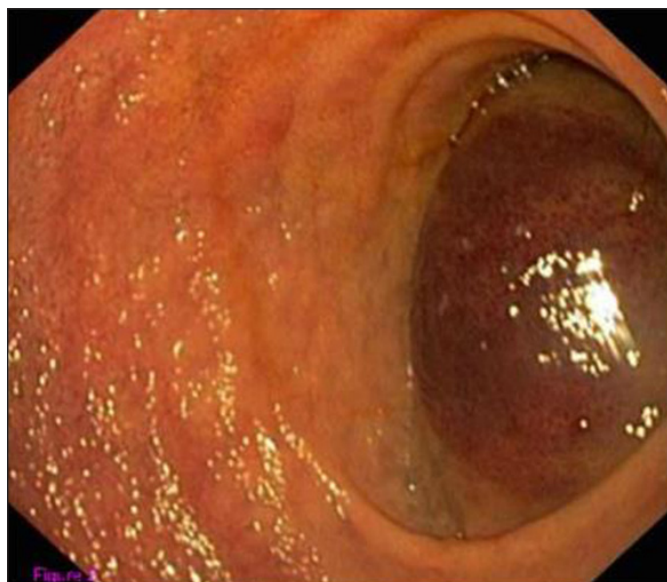
### Case Report

A 21-year-old man was admitted 36 hours after a blunt abdominal trauma occurred during a sporting competition. He complained of colic epigastric abdominal pain, nausea, and vomiting. He was hemodynamically stable; blood counts and metabolic panel were normal. Abdominal CT showed an intestinal obstruction caused by an 8 x 6 x 11 cm hematoma on the right lateral duodenal wall without signs of active bleeding (Figure 1). He underwent gastric decompression and started total parenteral nutrition and intravenous pump inhibitors. Esophagogastroduodenoscopy (EGD) performed 48 hours after the diagnosis showed an extrinsic compression by a bluish obstruction in the first part of the duodenum resembling an extraparietal hematoma (Figure 2). After 5 days, repeat EGD revealed a massive parietal hematoma in the posterior wall of the duodenal bulb. Two weeks later, an endoscopic ultrasound to evaluate the possibility of endoscopic drainage showed a delimitation of the lesion below the third layer of the duodenal wall, surrounded by the remaining layers (Figure 3). Endoscopic drainage was not performed, and the patient was managed conservatively. Three weeks later, EGD showed complete reabsorption of the hematoma; a soft oral diet was started (Figure 4). On follow-up, the patient was asymptomatic.

Prompt diagnosis and adequate therapy of intramural duodenal hematoma (IDH) are crucial, as delay in diagnosis and treatment beyond 24 hours increases mortality from 11% to 40%. During the 1970s, the majority of patients who presented with



**Figure 1.** Abdominal CT at admission showing an 8 cm x 6 cm x 11cm hematoma on the lateral duodenal wall, compressing and displacing the duodenum without active bleeding signs. The head of the pancreas was dislodged to the left.



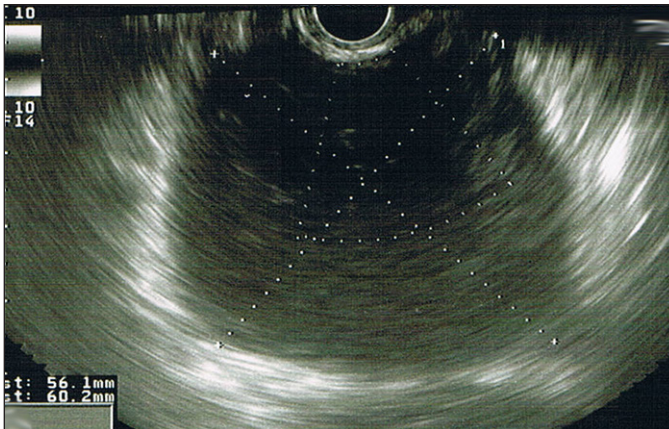
**Figure 2.** EGD on hospital day 2 showing extrinsic compression by a bluish swelling (extra-parietal hematoma) in the first part of the duodenum, blocking passage in the second duodenal portion.

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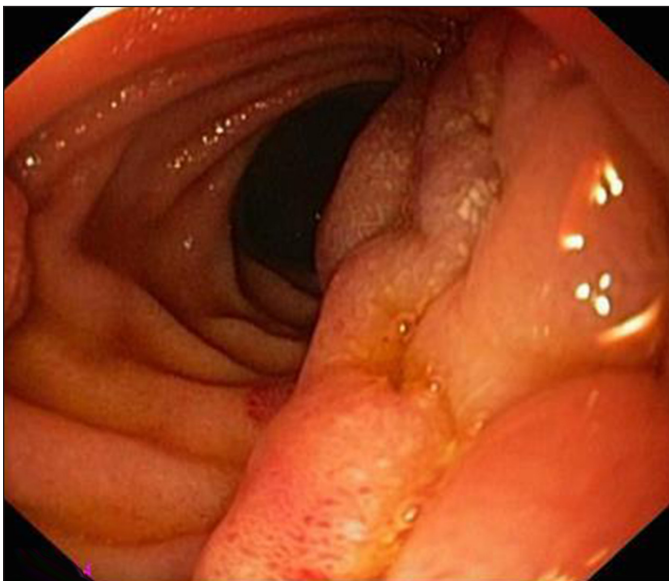


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**Figure 3.** EUS performed on hospital day 14 showing a healthy pancreas and a round lesion with a mixed echo-structure (8 cm x 5.6 cm x 6 cm DAP) extending from the gastric antrum to the second duodenal portion, localized below the third layer of the duodenal wall and surrounded by the remaining fourth and fifth layers.

a duodenal hematoma were treated with surgical therapy; today, the literature supports the conservative management of IDH, reserving operative treatment for persistent occlusions or progressive growth of hematomas.<sup>1,2</sup> Conservative treatment comprises gastric decompression, parenteral nutrition, and antibiotic prophylaxis. Any coagulation disorders should be excluded or treated.<sup>1,3</sup> We propose an endoscopic follow-up to monitor the grade of duodenal obstruction and the resolu-



**Figure 4.** EGD on hospital day 21 showing complete reabsorption of the hematoma.

tion of the lesion, and endoscopic ultrasound for drainage if needed. The outcome of conservative treatment is good, with complete resolution of IDH within 2–3 weeks.

## Disclosures

Author contributions: F. D'Arpa revised the manuscript, and is the article guarantor. G. Orlando and R. Tutino wrote and revised the manuscript. G. Orlando and EO Battaglia designed the manuscript, and acquired, analyzed, and interpreted data. G. Salamone acquired, analyzed, and interpreted data. G. Gaspare approved the final version of the manuscript.

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## References

1. Touloukian RJ. Protocol for the nonoperative treatment of obstructing intramural duodenal hematoma during childhood. *Am J Surg.* 1983;145(3):330–334.
2. Chen YY, Su WW, Soon MS, Yen HH. Gastrointestinal: Intramural hematoma of the duodenum. *J Gastroenterol Hepatol.* 2006;21(6):1071.
3. Cogbill T, Moore E, Feliciano D, et al. Conservative management of duodenal trauma: A multicenter perspective. *J Trauma.* 1990;30(12):1469–1475.

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