Spontaneous intramural jejunal hematoma: Two cases

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To the Editor,

Oral anticoagulants are used for indications including pulmonary thromboembolism and atrial fibrillation (1). We present two cases of jejunal hematoma associated with oral anticoagulant use.

A 77-year-old man on warfarin for atrial fibrillation presented with melena and abdominal pain. Abdominal examination revealed diffuse tenderness, without any guarding or rebound.Hemoglobin was 10 g/dl, and INR was 5.78. Abdominal ultrasound revealed free fluid around the liver and in the Morrison's pouch. Abdominal computed tomography displayed increased jejunal wall thickness (14 mm) consistent with hematoma (Figure 1).

Oral intake was withheld and intravenous hydration was initiated. Warfarin was discontinued. The patient received vitamin K, fresh frozen plasma, and erythrocyte suspension according to INR and hemoglobin values.



Figure 1. Contrast CT of a 70-year-old male patient at the level of the celiac truncus, gallbladder, and both renal hila, showing remarkable dilatation and mural thickening of the jejunal loop with a hematoma, compared with the adjacent normal loops.

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Figure 2. A. Axial CT of a 74-year-old male patient at the level of aortic bifurcation, showing a segment of the small bowel with mural thickening, located anteriorly to the psoas muscle. **B.** Oblique coronal CT image of the same patient showing mural thickening and dilatation in a 15 cm long segment of the small bowel.

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A 75-year-old man on warfarin for pulmonary thromboembolism presented with abdominal pain. Abdominal examination revealed tenderness over the left lower quadrant without any guarding or rebound. Hemoglobin was 13 g/dl, and INR was 8.5. Abdominal ultrasound revealed concentric thickening (10 mm) of the intestinal wall in left lower quadrant. Abdominal CT displayed intestinal wall thickening in a segment of 15 cm over the jejunal loops (Figure 2a, 2b). The abdominal MRI showed thickening of the intestinal wall, consistent with hemorrhage in the small intestine wall (Figure 3). This patient was also managed conservatively.

Warfarin is a widely used anticoagulant. The major complication of oral anticoagulant use is hemorrhage (1,2).

Prior to the advances in the anticoagulant therapy, the most common cause of intramural hematoma was trauma (3). Currently, most common reason behind small bowel hematoma is warfarin overdose (4). Among other risk factors, hemophilia, idiopathic thrombocytopenic purpura, leukemia, lymphoma, myeloma, chemotherapy, vasculitis, pancreatitis, and pancreatic cancer can be mentioned (5). It is most commonly encountered in the jejunum, followed by ileum and duodenum (6).

While the proper diagnostic method is CT, ultrasound can be a preliminary examination (2). MR imaging is an increasingly popular modality because of its advantages such as multiplanar imaging, no radiation exposure, and high tissue resolution (7).

Intestinal rest, nasogastric decompression, blood transfusion, and correction of the coagulation di-

REFERENCES

- 1. Polat C, Dervisoglu A, Guven H, et al. Anticoagulant-induced intramural intestinal hematoma. Am J Emerg Med 2003; 21: 208-11.
- 2. Hou SW, Chen CC, Chen KC, et al. Sonographic diagnosis of spontaneous intramural small bowel hematoma in a case of warfarin overdose. J Clin Ultrasound 2008; 36: 374-6.
- Grant AH, Brown S, Kaufman JH. Intestinal obstruction during anticoagulant therapy. J Mich Med Soc 1963; 62: 678-80.
- 4. Abbas MA, Colins JM, Olden KW. Spontaneous intramural small bowel hematoma: clinical presentation and long-term outcome. Arc Surg 2002; 137: 306-10.
- Abbas MA, Collins JM, Olden KW. Spontaneous intramural small bowel hematoma: imaging findings and outcome. AJR Am J Roentgenol 2002; 179: 1389-94.



Figure 3. T2-weighted coronal abdominal image of the patient depicting a convex bulging in the left abdominal wall, hyperintense small bowel wall consistent with edema and mural thickening.

sorders is the first step of therapy. Surgical treatment is indicated in cases with significant intraluminal hemorrhage, intestinal perforation, and ischemia (4).

In conclusion, acute abdominal pain in patients receiving anticoagulants should arise suspicion for small bowel hematoma. Tests for intramural hematoma of the intestine should be performed rapidly at the early stage in order to avoid unnecessary laparotomy.

- 6. Jones WR, Haridin WJ, Davis JT, Hardy JD. Intramural hematoma of the duodenum: a review of the literature and case report. Ann Surg 1971; 173: 534-44.
- Leonardou P, Kierans AS, Elazazzi M, et al. MR imaging findings of small bowel hemorrhage: two cases of mural involvement and one of perimural. J Magn Reson Imaging 2009; 29: 1185–9.

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