

**IMAGES IN EMERGENCY MEDICINE**

## Imaging

**Elderly woman with abdominal pain**

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Email: [rnene@ucsd.edu](mailto:rnene@ucsd.edu)**KEYWORDS**

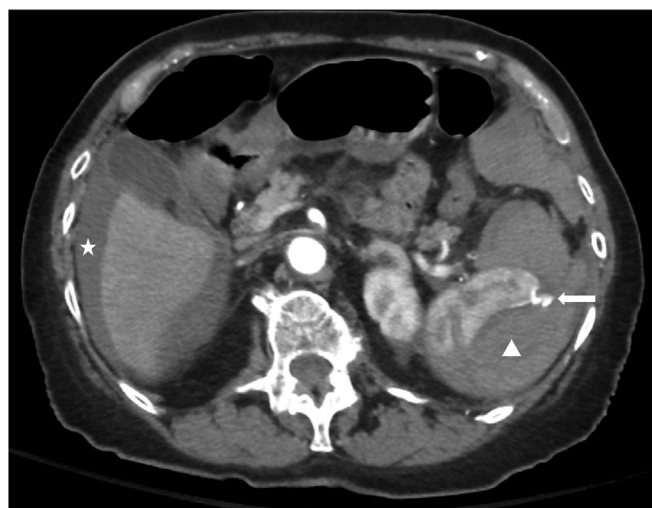
colonoscopy, hemoperitoneum, splenic injury

**1 | PATIENT PRESENTATION**

An 84-year-old female with a history of atrial fibrillation on apixaban presented to the emergency department with abdominal pain and distension after routine outpatient colonoscopy the previous day. On arrival, she was hypotensive to 74/40 with a 5-unit drop in her hemoglobin from the previous day. She was resuscitated with pRBCs and a computed tomography angiography (CTA) of the chest, abdomen, and pelvis was obtained, which demonstrated hemoperitoneum and a large perisplenic hematoma with active bleeding (Figure 1). She was taken emergently to the interventional radiology suite with successful embolization of the splenic artery.

**2 | DISCUSSION**

Colonoscopy is a very common and well-tolerated outpatient procedure; however, patients will typically present to the emergency department if they develop any complications.<sup>1-3</sup> Perforation and hemorrhage of the colon are the most common complications, while pneumothorax, pneumomediastinum, volvulus, incarcerated hernia, and retroperitoneal abscess are less commonly described.<sup>1,4,5</sup> Splenic injury is another rare but underreported complication of colonoscopy, with an estimated incidence of 0.004%.<sup>6,7</sup> Three mechanisms have been purported to explain how this injury can happen: direct trauma to the spleen as the endoscope passes through the splenic flexure; rupture of the splenic capsule due to traction on the splenicocolic ligament; and rupture of the splenic capsule due to traction from adhesions between the spleen and colon that were the result of prior surgery, inflammation or infection.<sup>8</sup> Abdominal ultrasound can help alert the



**FIGURE 1** Computed tomography (CT) angiography demonstrating hemoperitoneum (white star), a large perisplenic hematoma (white triangle), with active extravasation of contrast from the inferior pole of the spleen (white arrow)

provider to this diagnosis; however, CT with IV contrast can identify the source of bleeding and aid in determining the best means for management.<sup>1,2</sup> Extrapolating from the trauma literature, the presence of active contrast extravasation as seen in this case, increases the likelihood of needing emergent intervention with either IR embolization or splenectomy.<sup>9</sup> The emergency physician should maintain a high index of suspicion for any patient who presents with abdominal pain and hypotension following colonoscopy.

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**CONFLICTS OF INTEREST**

None.

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