

Splenic Injury: An Unusual Complication of Colonoscopy

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To the Editor: Splenic injury is an uncommon complication of colonoscopy. However, failure to recognize this unusual condition can lead to a significant morbidity and mortality. Here, we report a case of 59-year-old male who presented with abdominal pain after a screening colonoscopy and was ultimately diagnosed with a perisplenic hematoma associated with the procedure.

A 59-year-old male on peritoneal dialysis (PD) with a significant medical history of end-stage renal disease as a result of IgA nephropathy, presented to Bassett Medical Center with a 2-day history of sharp abdominal pain across periumbilical area associated with nausea, light headedness, and bloody PD fluid that started immediately after a screening colonoscopy. The colonoscopy was performed by an experienced gastroenterologist attending who did not note any difficulty during the procedure. The procedural time was 42 min. His abdominal examination revealed diffuse tenderness and decreased bowel sounds. Initial laboratory investigations were unremarkable, including a normal coagulogram and a stable hemoglobin level without any leukocytosis. Computed tomography (CT) of the abdomen without contrast was performed, demonstrating a crescentic shape of high density surrounding the spleen [Figure 1a and 1b]. The patient was diagnosed with a perisplenic hematoma associated with colonoscopy. He received broad-spectrum intravenous antibiotics, and his PD was temporarily withheld. His pain gradually subsided, and he remained hemodynamically stable. His follow-up CT scan on the 4th day of admission demonstrated a decrease in size of

the splenic hematoma. His PD was resumed without any blood observed in his PD fluid.

Splenic injury is an uncommon but potentially fatal complication of colonoscopy with less than 100 reported cases in the literature.^[1] The pathophysiologic foundation of this rare complication is not well-understood but is believed to be associated with stretching of the splenocolic ligament secondary to the movement of colonoscope causing tear in the splenic capsule.^[2] The most common presentation is abdominal pain that usually occurs during or immediately after the procedure although the pain can be delayed for up to 48–72 h after the injury. Pain is typically located in left upper quadrant but is described as generalized in about one-third of patients. Abdominal examination is generally nonrevealing as the majority of patients do not have guarding or rigidity. Given the nonspecific presentation, patients are often misdiagnosed with abdominal discomfort due to distension of the colon from the procedure.^[2] CT scan of the abdomen is the diagnostic imaging modality of choice with a sensitivity and specificity of >95%. The CT findings vary from mild subcapsular hematoma to fatal splenic rupture accompanied by massive hemoperitoneum, depending on the degree of injury.^[3] Ultrasonography (US) of abdomen could be an alternative in patients with hemodynamic instability that precludes transportation for a CT scan, and a rapid diagnosis is required before a surgical exploration. However, the sensitivity of the US is generally compromised by colonic distension after the colonoscopy.^[4] Conservative management with bed rest, intravenous fluid resuscitation/blood transfusion, intravenous antibiotics, and close hemodynamic monitoring is feasible in milder cases (as seen in our case) but splenectomy is generally required in patients with hemodynamic instability or American Association of the Surgery of Trauma Grade III–IV injury on CT scan, or who require more than one unit of blood transfusion during the first 24 h.^[5]

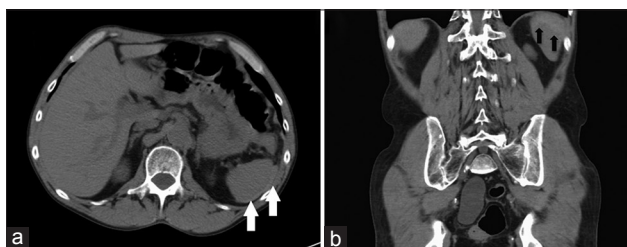


Figure 1: A case of 59-year-old male who was diagnosed with a perisplenic hematoma associated with colonoscopy. (a) White arrows: Crescentic shape of high density surrounding the spleen; (b) black arrows: Crescentic shape of high density surrounding the spleen.

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In conclusion, we report a case of 59-year-old male who was diagnosed with a perisplenic hematoma associated with colonoscopy and was successfully managed with a nonsurgical strategy. As the utilization of colonoscopy expands, physicians should be familiar with this uncommon but potentially life-threatening complication. High index of suspicion is the key to the timely diagnosis.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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