Post-Colonoscopy Pain, Dizziness: A Case of Splenic Injury

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Colonoscopy, a routine screening and diagnostic procedure, carries a low but definite risk of complications. While perforation is the most commonly discussed severe adverse event, clinicians must consider other less frequent but equally critical possibilities when patients present with post-procedural symptoms. A 65-year-old woman's presentation with left upper quadrant pain and dizziness after an otherwise uncomplicated colonoscopy illustrates this diagnostic challenge, pointing to a rare but serious complication: splenic injury.

KEY TAKEAWAYS

- The Pivot: Splenic injury, though rare, must be on the differential for post-colonoscopy abdominal pain, especially with signs of hypovolemia.
- The Data: Incidence of post-colonoscopy splenic injury is estimated at 0.00001% to 0.0001%, with mortality rates up to 5%.
- The Action: Prompt imaging (CT scan with contrast) is essential for diagnosis, and management ranges from conservative to surgical, depending on injury grade and hemodynamic stability.

A 65-year-old woman presented to the emergency department complaining of acute onset left upper quadrant abdominal pain and dizziness, approximately six hours after undergoing a routine screening colonoscopy. Her medical history included well-controlled hypertension and hyperlipidemia. The colonoscopy itself had been unremarkable, with no polyps found and no reported difficulties during the procedure. She received conscious sedation with midazolam and fentanyl. Initial vital signs in the emergency department showed a blood pressure of 90/60 mmHg, a heart rate of 110 beats per minute, and a hemoglobin level of 9.8 g/dL, a notable drop from her pre-procedure baseline of 13.2 g/dL. This clinical picture immediately raised concerns for internal hemorrhage, a critical consideration in any patient presenting with pain and signs of hypovolemia following an invasive abdominal procedure.

The patient's symptoms, particularly the left upper quadrant pain radiating to the left shoulder (Kehr's sign), strongly suggested diaphragmatic irritation, often indicative of splenic pathology. While colonic perforation is the most common serious complication of colonoscopy, presenting typically with diffuse abdominal pain, guarding, and fever, the specific localization of pain in this case pointed away from a simple perforation. The rapid decline in hemoglobin, coupled with the hemodynamic instability, mandated immediate investigation for a bleeding source. The differential diagnosis in such a scenario must include not only colonic perforation but also mesenteric injury, retroperitoneal hemorrhage, and, critically, splenic injury.

Diagnosing the unexpected bleed

Emergency physicians ordered a computed tomography (CT) scan of the abdomen and pelvis with intravenous contrast. The CT scan revealed a large perisplenic hematoma and active extravasation of contrast material from the spleen, consistent with a splenic laceration. There was also a significant amount of free fluid in the peritoneal cavity, indicating hemoperitoneum. The spleen itself appeared enlarged and heterogeneous. This finding confirmed the diagnosis of iatrogenic splenic injury, a rare but potentially life-threatening complication of colonoscopy. The mechanism of splenic injury during colonoscopy is typically attributed to traction on the splenocolic ligament, which connects the splenic flexure of the colon to the spleen. Excessive force or torque applied to the colon during scope advancement, particularly in cases of difficult splenic flexure negotiation, can tear this ligament, leading to capsular or parenchymal splenic damage. Patient factors such as splenomegaly, prior abdominal surgery, or inflammatory bowel disease may increase susceptibility, though none were present in this patient.

Splenic injury following colonoscopy is an infrequent event, with reported incidences ranging from 0.00001% to 0.0001% of procedures. Despite its rarity, the mortality rate associated with this complication can be as high as 5%, primarily due to delayed diagnosis and subsequent hemorrhagic shock. The insidious onset of symptoms in some cases, where pain may be mild initially, complicates early recognition. This patient's rapid deterioration, however, facilitated prompt diagnostic imaging. The American Association for the Surgery of Trauma (AAST) splenic injury scale classifies splenic trauma from Grade I (subcapsular hematoma less than 10% surface area, or capsular tear less than 1 cm deep) to Grade V (shattered spleen or devascularization). This patient's presentation with active extravasation and significant hemoperitoneum likely placed her at Grade III or IV, necessitating urgent intervention.

Management of splenic injury depends heavily on the patient's hemodynamic stability and the grade of injury. For hemodynamically stable patients with lower-grade injuries, non-operative management (NOM) is often attempted, involving close monitoring, serial hemoglobin measurements, and bed rest. This approach has seen increasing success rates, with up to 80% of patients avoiding surgery. However, this patient's persistent hypotension and tachycardia, despite initial fluid resuscitation, indicated hemodynamic instability. The active contrast extravasation on CT also signaled ongoing bleeding, making NOM a high-risk strategy. The decision was made for immediate surgical exploration.

The surgical team performed an emergent laparotomy. Intraoperatively, they found a large volume of blood in the peritoneal cavity, estimated at 2.5 liters. The spleen had a deep laceration extending from the hilum into the parenchyma, consistent with a Grade IV injury. The splenocolic ligament was avulsed. Given the extent of the injury and the patient's ongoing instability, a splenectomy was performed. The procedure was completed without further complications. Post-operatively, the patient received two units of packed red blood cells and was transferred to the intensive care unit for close monitoring. She recovered uneventfully, with her hemoglobin stabilizing and vital signs returning to normal limits within 24 hours. She received appropriate vaccinations against encapsulated bacteria (pneumococcus, meningococcus, and Haemophilus influenzae type b) prior to discharge, a standard prophylactic measure following splenectomy to mitigate the risk of overwhelming post-splenectomy infection (OPSI).

The case highlights the importance of a high index of suspicion for splenic injury in patients presenting with left upper quadrant pain, shoulder pain, and signs of hypovolemia after colonoscopy. While rare, the potential for severe morbidity and mortality makes it a critical diagnosis to consider. The mechanism, as noted, is typically mechanical traction on the splenocolic ligament. Factors that may increase risk, though not always present, include difficult colonoscopy, particularly at the splenic flexure, patient comorbidities such as splenomegaly, adhesions from prior

surgery, or inflammatory bowel disease. The absence of these predisposing factors in this patient underscores that even routine procedures can lead to unexpected complications. The dry, sardonic truth is that sometimes, things just go wrong. Still, the diagnostic pathway in this case was efficient. The immediate recognition of hemodynamic compromise and the targeted use of CT imaging allowed for rapid diagnosis and definitive surgical management. This contrasts with cases where symptoms are more subtle, leading to diagnostic delays that can significantly worsen patient outcomes. The decision to proceed directly to surgery was appropriate given the patient's instability and the CT findings. Had she been stable, and the injury less severe, splenic artery embolization, a less invasive approach, might have been considered. This interventional radiology technique can effectively control bleeding in selected cases, preserving splenic function. But her active bleeding and profound anemia precluded this option.

The long-term implications for this patient include the lifelong risk of OPSI, necessitating adherence to vaccination schedules and prompt antibiotic treatment for any febrile illness. Patient education regarding these risks is paramount. This case also serves as a reminder for endoscopists to exercise caution and minimize excessive force during colonoscopy, especially when navigating the splenic flexure. While no technique can eliminate all risks, meticulous attention to scope manipulation and patient comfort can reduce the likelihood of iatrogenic injury. The trial was not powered to detect differences in complication rates between different endoscopist experience levels, and that gap matters. The data on specific maneuvers to avoid splenic injury are largely anecdotal, not derived from large, randomized controlled trials. That's because such a trial would be unethical and impractical given the rarity of the event.

CLINICAL IMPLICATIONS

This case underscores that even seemingly routine procedures carry inherent risks, and clinicians must maintain a broad differential for post-procedural complications. The specific constellation of left upper quadrant pain, dizziness, and a dropping hemoglobin after colonoscopy should immediately trigger suspicion for splenic injury, regardless of the procedure's reported ease. Delaying diagnosis in such cases can rapidly escalate a manageable injury into a life-threatening hemorrhage.

For gastroenterologists, this serves as a stark reminder of the mechanical forces at play during colonoscopy. While the incidence of splenic injury is low, the potential for severe patient harm warrants continuous vigilance, particularly when navigating the splenic flexure. Minimizing excessive traction on the colon and being acutely aware of patient discomfort during scope advancement are not merely best practices; they are critical for patient safety.

Emergency physicians and general practitioners seeing patients post-colonoscopy must be attuned to the subtle signs of internal bleeding. A patient presenting with unexplained abdominal pain, especially with any signs of hypovolemia, demands prompt and thorough investigation. Relying solely on the endoscopist's report of an 'unremarkable' procedure can be a dangerous oversight when the patient's clinical picture tells a different story. The cost of a CT scan is negligible compared to the cost of a missed, actively bleeding splenic injury.

Finally, the long-term management of splenectomized patients, including vaccination and education on OPSI, falls squarely on the primary care physician. This is not a one-off event; it is a lifelong risk that requires ongoing vigilance. The industry, particularly device manufacturers, could contribute by exploring scope designs or techniques that further reduce mechanical stress on colonic attachments, though the current evidence base for such innovations is thin.

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REFERENCES

1. 1. Touati MD, Bouzid A, Khefacha F, Ben Othmane MR, Belhadj A, Saidani A. Post-colonoscopy splenic injury: A case report on diagnostic challenges and treatment strategies. Int J Surg Case Rep. 2024;123:110243. doi:10.1016/j.ijscr.2024.110243

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