

## A Rare Complication of Screening Colonoscopy

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### 1. Case Report

A 51-year-old Asian male with no significant past medical history presents to the Emergency Department (ED) with chief complaint of increasing abdominal pain following an outpatient screening colonoscopy. Per patient and chart review a complete colonoscopy had been achieved and revealed no polyps or abnormalities. At conclusion of procedure retroflexion was attempted in the rectosigmoid region and was felt to be difficult due to small size of the rectum. As a result, a retroflex view of rectum was not obtained. Additionally, this maneuver was noted to induce significant bleeding. Intervention was precluded because the endoscopist was not able to identify the lesion. Patient remained hemodynamically stable and free of significant symptoms in the immediate post procedure period but soon developed abdominal pain. Given the concern for laceration, patient was sent to ED for further evaluation. In ED the initial physical examination was largely non-contributory. Initial lab findings were all within normal limits. A Computed Tomography (CT) Abdomen and Pelvis without IV Contrast (Figure 1 and 2) revealed a small amount of perirectal blood indicative of colonic microperforation with no organ injuries as well as pneumoperitoneum. The patient was admitted to the inpatient service and managed conservatively with intravenous Piperacillin/Tazobactam and normal saline. Overnight, the patient developed chills, bloating, severe abdominal pain and difficulty taking deep breaths. The next morning his physical exam was positive for tenderness to palpation in lower abdomen bilaterally. Additionally, he was noted to have a low-grade fever (99.6°F) and an elevated white blood cell count of 18.6 k/μL. Over the next 48 hours, the patient continued to have low grade fevers (99.6°F – 100.5°F) despite resolving leukocytosis. Other significant lab findings included hemo-

globin of 16.1 g/dL on admission with continuous drop to 10.9 g/dL two days later, as well as, elevated total bilirubin (4.4 mg/dL) with 0.0 mg/dL direct bilirubin. A follow up CT Abdomen and Pelvis with IV Contrast performed on the fifth day of admission revealed an unexpected finding. Representative images from the two CT scans (CT Abdomen and Pelvis without contrast and with contrast) are presented here. What is the diagnosis?

The answer is large perirectal hematoma. Peritonitis suggestive of hemoperitoneum.

Demonstrated above the CT Abdomen and Pelvis with Contrast (Figure 3 and 4) revealed significant enlargement of perirectal hematoma (7.5 cm X 5.5 cm when compared to the initial CT scan 4 cm x 3 cm). Also noted was development of peritonitis (peritoneal thickening and mesenteric edema) and resolving hemopneumoperitoneum. This case report aims to highlight an unlikely complication of luminal endoscopy. Although current guidelines recognize hemorrhage as a risk of colonoscopy [1, 2], it is often in conjunction with polypectomy and blood loss into the gastrointestinal lumen rather than peritoneal cavity. An extensive literature review revealed few identified cases of hemoperitoneum following colonoscopy. Most were associated with polypectomies, splenic injury, hepatic injury or significant pre-existing conditions such as, cardiovascular disease [3]. Our case is unique for the patient had no known chronic medical conditions, prior surgeries and no polypectomy was performed during procedure. Additionally, the delayed progression of the peritoneal hematoma with significant drop in hemoglobin occurring over several days is a rather unusual presentation. The exact mechanism resulting in the perirectal hematoma is unclear, but etiology is likely secondary to vasculature rupture by mechanical force during retrof-

flexion and microperforation of rectum in view of mild pneumoperitoneum and peritonitis. Colonoscopy is the current gold standard for colorectal cancer screening. While it offers valuable benefits, it is important to note that it is an invasive procedure with potential serious complications. Current guidelines estimate the occurrence of perforation and hemorrhage in healthy patients to be 0.1-0.3%, however this may be underreported due to the retrospective nature of most studies [1, 2]. This case provides an important teaching point that intra-abdominal hematoma and hemoperitoneum can develop as a result of colonoscopy despite the absence of overt organ injury. An awareness of this complication along with subsequent abdominal imaging can help make a diagnosis.

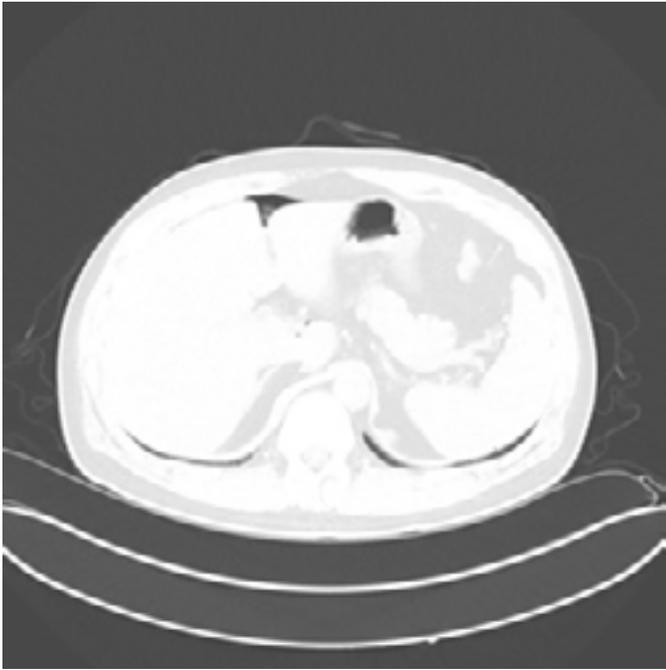


Figure 1:

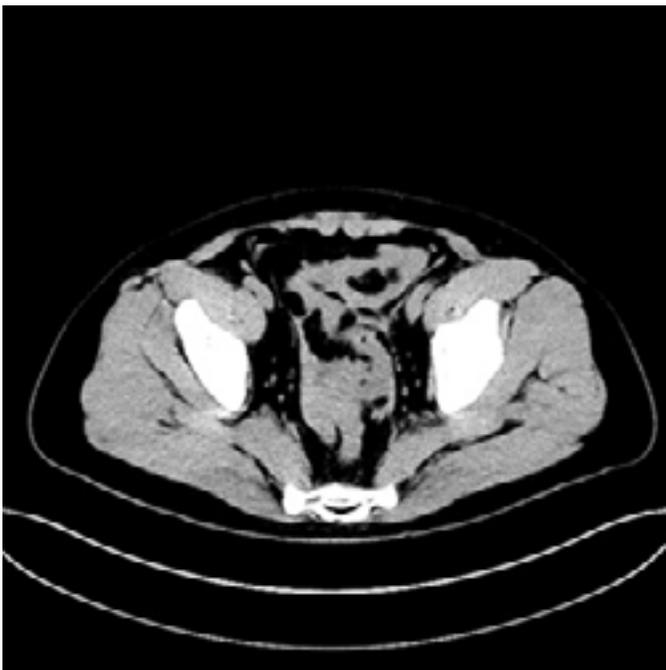


Figure 2:

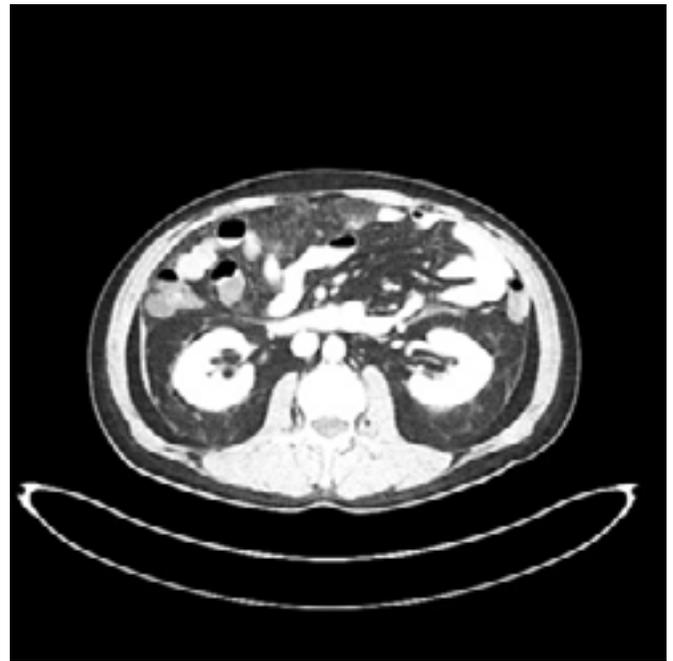


Figure 3:

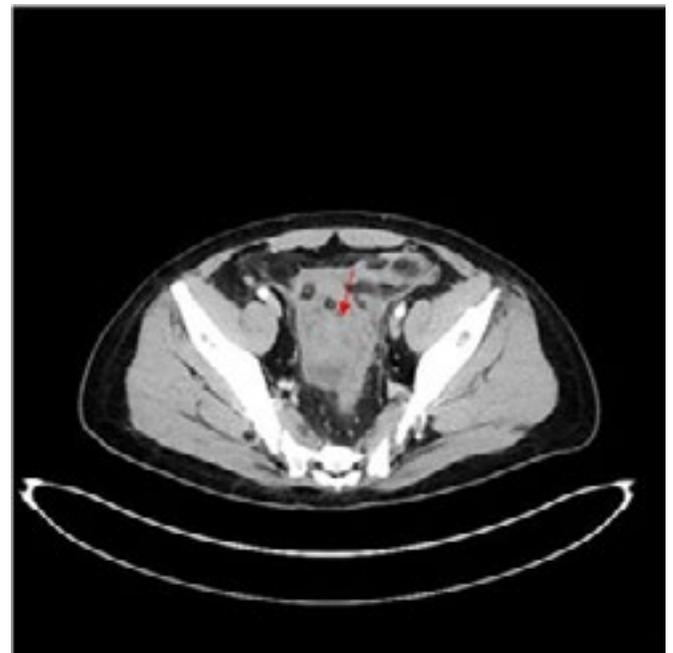


Figure 4:

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