

## Case Report

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# An Unusual Presentation of Diverticulitis

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### The Case

The patient is an 85-year-old male with a past medical history of hypertension, hyperlipidemia, benign prostatic hypertrophy, hemorrhoids (external and internal), chronic anal fissure, and diverticulosis who presents to the clinic with a two week history of constant abdominal pain in his left lower quadrant along with intermittent bright red blood per rectum. He reports a rectal bleeding frequency of approximately 2-3 times a week. The abdominal pain is described to be dull and achy, not relieved by bowel movements, and not associated with movement or eating. The patient also reports feeling tired and his hemoglobin has been down trending from 12.7 two months ago to 11.5 today. The patient takes amlodipine 5mg and dutasteride 0.5 mg daily. His only surgical history is transurethral prostatic resection in 2002. He has a ten-pack year smoking history and has quit since 2019. The patient drinks 1 glass of alcohol about 1-2 times a week. His most recent colonoscopy was 08/2023 and was found to be negative for cancer and polyps. The patient denies any fever, nausea, vomiting, chills, night sweats, dizziness, change in diet, travel history, and recent antibiotic exposure. He reports unintentional 15-pound weight loss in the past year. Physical exam shows a soft, non-distended abdomen with no signs of peritonitis. The only positive finding on examination is pain in left lower quadrant with superficial and deep palpation.

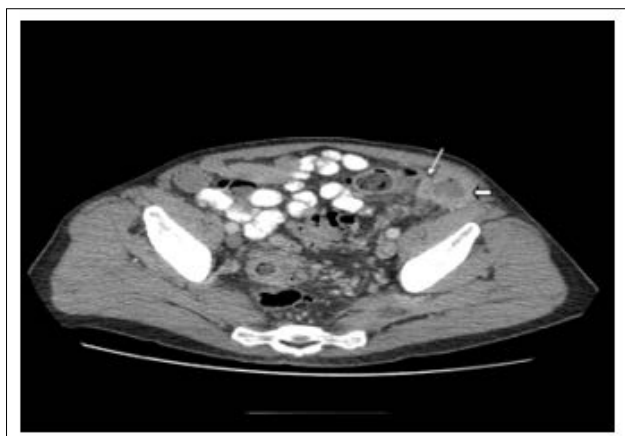
### The Diagnosis

The patient was suspected to have diverticulitis and was started on ciprofloxacin 500 mg BID for ten days. CBC with differential, CMP, and CT abdomen pelvis with IV contrast were ordered. The patient arrived at clinic after ten days and was found to have a tender bulge in the left lower quadrant, chills, and leukocytosis (12,600 white blood cells). Vitals were within normal limits and the patient was given another 10-day course of ciprofloxacin 500 mg BID with the addition of metronidazole 500 mg TID. He was advised to go to the emergency department if pain was not improving. CT results at this time demonstrated left colonic diverticulosis without signs of diverticulitis and large pan colonic stool burden and he was advised to go the ED for further workup. In the ED, he had labs which revealed microcytic anemia (hemoglobin of 12.5), leukocytosis (13,780 white blood cells), and electrolyte abnormalities (sodium of 123 and chlorine of 91). As the patient's CT results were not consistent with his exam, the

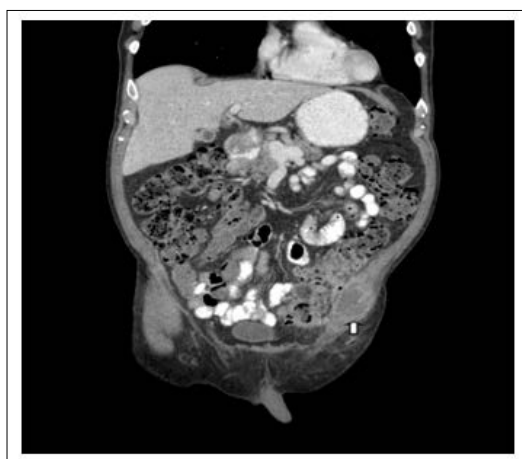
ER physician requested Radiology to take a second look at the CT after which an addendum for a "rim-enhancing fluid collection with a foci of air measuring 3.7x3.1x5.8 cm in the left lower quadrant adjacent to the left inguinal canal and proximal sigmoid colon/distal descending colon. There is adjacent mesenteric fat stranding and edema concerning for complicated diverticulitis with intra-abdominal abscess formation." He was admitted for 3 days during which he was treated with IV Zosyn, pain control, and supportive care. The abscess was not amenable to drainage per interventional radiology. Diet advanced and he was discharged home with outpatient follow up with primary care provider and gastroenterologist. At this hospital discharge follow up with his PCP, his pain had improved and the LLQ bulge had resolved.

### Discussion

This patient had exam findings that were consistent with diverticulitis but imaging findings were initially presented as non-concerning for inflammation and suggested constipation. Had the PCP and ER doctor relied solely on the CT report, the patient's outcome could have been much different. By requesting re-evaluation of the scan and alerting the Radiologist of the physical exam findings, the presence of complicated diverticulitis with the formation of an intrabdominal abscess was unveiled. CT scan of the abdomen has emerged as the diagnostic choice to verify diverticulitis due to high sensitivity, specificity, positive, and negative predictive values above 95% [1]. Common CT findings in uncomplicated diverticulitis include colonic wall thickening and pericolic fat stranding [2]. However, wall thickening associated with muscular hypertrophy from diverticulosis may be hard to distinguish from that associated with diverticulitis when pericolic inflammatory changes are absent [2]. Delayed intervention of diverticulitis can increase risk of secondary inflammatory changes including formation of abscess, stricture, fistula, intestinal obstruction, perforation, and peritonitis [3]. Identification of abscess may be managed with CT-guided percutaneous drainage or conservative management [4]. Patients with an abscess from complicated colonic diverticular disease were found to have a 4.5 fold increase in 1 year mortality compared to the general population [5]. Hence, it is important to take a comprehensive approach in diagnosing and managing diverticulitis that includes the patient's history, labs, and radiology results prior to making a premature diagnosis on CT scan without weighing other factors.



**Figure 1:** Axial Computed Tomography (CT) Image of the Abdomen with IV and Oral Contrast Demonstrates an Abscess along the Left Lower Abdomen near the Rectus Musculature (Short Arrow). There is Inflammation within the Adjacent Mesenteric Fat along Inflamed Colonic Diverticula Suggesting Diverticulitis as the Cause of the Abscess.



**Figure 2:** Coronal CT Image from the Same Study Again Demonstrates the Abscess in the Lower Left Abdomen (Short Arrow) just Adjacent to Inflamed Colonic Diverticula and Encroaching on the Adjacent Rectus Musculature.

**Takeaway:** When imaging reports do not align with history and exam findings, communication amongst physicians is key to diagnosis. Unusual presentations and complications of diverticulitis must be kept in mind when presented with equivocal CT imaging results due to risk of adverse events with delayed treatment.

#### References

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