

# *Clostridium difficile* Colitis in a Patient With Abdominal Distention, Pain, and Severe Constipation

Amy N. Cowan, MD; and Geeta Kutty, MD

This case reinforces the need to consider infectious disease as a possible cause of constipation for a patient on opioids.

**Dr. Cowan** is a Staff Hospitalist at George E. Wahlen VAMC. **Dr. Kutty** is a Gastroenterology Fellow at the University of Utah School of Medicine, and Dr. Cowan is an Assistant Professor at the University of Utah Hospital Department of Internal Medicine, both in Salt Lake City.  
**Correspondence:** Dr. Cowan (amy.cowan@va.gov)

A 66-year-old man with steroid-dependent asthma, well-controlled diabetes mellitus (DM), and chronic pain on hospice presented to George E. Wahlen Veteran Affairs Medical Center (VAMC) from an extended care facility with a 4-day history of progressive abdominal distention, diffuse pain, and constipation. The patient's history was remarkable for a 20-year period of managing asthma with 10 to 60 mg prednisone daily. He continued to experience frequent exacerbations despite using maximum medical therapy. Chronic neck, back, and leg pain had been managed with increasing narcotics over the prior year.

On presentation, the patient reported taking the following medications: daily oxycodone 20 to 30 mg, tramadol 200 mg, gabapentin 1,200 mg, and frequent doses of morphine concentrate. Due to episodes of constipation and diarrhea, the veteran had recently self-discontinued taking stool softener (Senna plus). One month prior to this admission, the patient was enrolled in hospice service by his primary physician for severe COPD due to chronic hypoxic respiratory failure and worsening frailty. His baseline oxygen requirement was 4 to 5 L of supplemental oxygen with continued dyspnea upon any ambulation. The patient reported frequent falls prior to admission. Despite chronic steroid use, the patient's DM was well controlled with metformin. His hemoglobin A<sub>1c</sub> ranged from 6.0 to 7.8.

The patient was supine and appeared to

be uncomfortable but not in acute distress on exam. His body habitus was Cushingoid, and he appeared much older than his stated age. His vitals were as follows: temperature 100.2°F, heart rate of 104 beats per minute, blood pressure of 98/56 mm Hg, and 95% oxygen on 4L nasal cannula (baseline 4-5L). A respiratory exam revealed distant breath sounds without wheeze, rhonchi, or rales, and a cardiac exam revealed no murmurs. He was in sinus rhythm with tachycardia. The abdomen was obese with purple striae and markedly distended. On percussion, his abdomen was tympanic with tinkling bowel sounds. He had no rebound tenderness, peritoneal signs, or fluid wave.

Laboratory results revealed a white blood cell (WBC) count of 13,790 cells/ $\mu$ L with a neutrophilic shift of 82.0, and an elevated creatinine of 2.16 mg/dL up from a baseline of 1.12 mg/dL. The chemistry panel was abnormal with a 125 mmol/L sodium (reference range 137-145 mmol/L). The remainder of the complete blood count was normal without anemia. Lactate, blood cultures, urine analysis, and chest X-ray all were unremarkable. A noncontrast computed tomography scan of the abdomen showed diffuse large bowel dilation with fecal impaction and wall thickening within the sigmoid colon, concerning for stasis (Figures 1A and 1B).

## DIAGNOSIS

On admission, the authors' differential diagnosis included fecal impaction with large

**FIGURE 1** Computed Tomography of the Abdomen



A, Arrows indicate dilated bowel wall; B, Arrow indicates impacted stool in cecum.

bowel obstruction, colitis, narcotic induced ileus, dehydration leading to severe constipation, and delayed gastric emptying secondary to long-standing DM. Ciprofloxacin and metronidazole antibiotics were initiated out of concern for possible colitis and potential bacterial translocation. Intravenous fluids were initiated, and the patient was instructed to have nothing by mouth (NPO) aside from the antibiotics. All opioids, including tramadol, were held. Out of concern for narcotic-induced constipation, a dose of methylnaltrexone to induce stooling was administered but had no effect on the constipation.

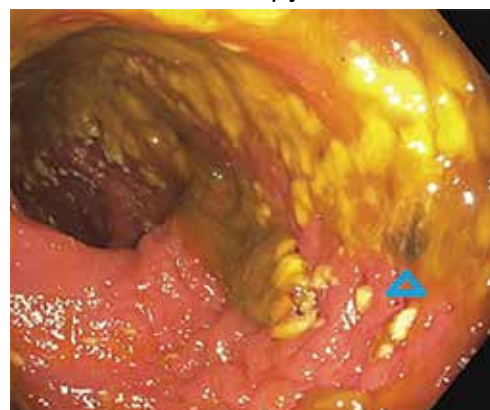
The gastroenterology department was consulted for a possible endoscopy to aid in decompression of the sigmoid. However, given the amount of distention and concern for perforation with endoscopy, the patient did not undergo endoscopy on admission. The patient remained afebrile on hospital day 3, and all antibiotics were discontinued. His WBC count normalized with complete resolution of the kidney injury. Antibiotic stewardship and infectious disease consults at George E. Wahlen VAMC reviewed the case and supported the decision to stop all antibiotics since it was not clear whether or not the patient was infected. Despite aggressive bowel care that included a nasogastric tube for large-volume polyethylene glycol and lactulose, various enemas and suppositories, the patient remained constipated.

On hospital day 5, still NPO, the patient had several bilious liquid stools that appeared to have a sediment quality to them. His abdomen remained distended, tympanic, and uncomfortable to palpation. He was examined frequently due to concern for possible perforation. On hospital day 8, gastroenterology re-evaluated the need

for endoscopy and proceeded with a flexible sigmoidoscopy. Results showed multiple, yellowish polypoid lesions consistent with pseudomembranous pancolitis (Figure 2).

Polymerase chain reaction analysis of the colonoscopy stool samples were positive for *Clostridium difficile* (*C difficile*). The patient was started on IV metronidazole and oral vancomycin. His diet advanced and over the next few days he began stooling. He was subsequently discharged back to an extended care facility for rehabilitation. During this hospitalization, he made it clear he wished to be discharged from hospice services. He wanted to regain his strength through aggressive physical and occupational therapies.

**FIGURE 2** Colonoscopy



Arrow indicates *Clostridium difficile* colitis.

## CONCLUSION

Typical clinical manifestations of fulminant colitis include fever, diarrhea, abdominal pain, distention, and frequently WBC counts > 20,000 cells/ $\mu$ L. However, *C difficile* colitis, also known as pseudomembranous colitis, occasionally can present as an acute ileus, with little or no diarrhea.<sup>1</sup> This veteran had several risk factors for *C difficile* infection, which included long-term residence in an extended care facility, frequent asthma exacerbations that required antibiotics, severe chronic disease, aged > 65 years, and ciprofloxacin given the first 3 days of this hospitalization.<sup>2</sup> Until the endoscopy results were presented, no one on the patient's care team, including gastroenterology and infectious disease, had included an infectious etiology in the differential diagnosis. This case reinforces the need to broaden differential diagnoses

and look beyond assumptions that opioids without an adequate bowel regime were the cause. Avoiding anchoring heuristics can be a challenge as this case demonstrates.

## Author disclosures

The authors report no actual or potential conflicts of interest with regard to this article.

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