



Sevelamer-Induced Ischemic Colitis

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LEARNING OBJECTIVES

- Sevelamer can cause ischemic colitis anywhere throughout the gastrointestinal tract
- Histological hallmark is a “fish-scale” crystalloid structure in the mucosa

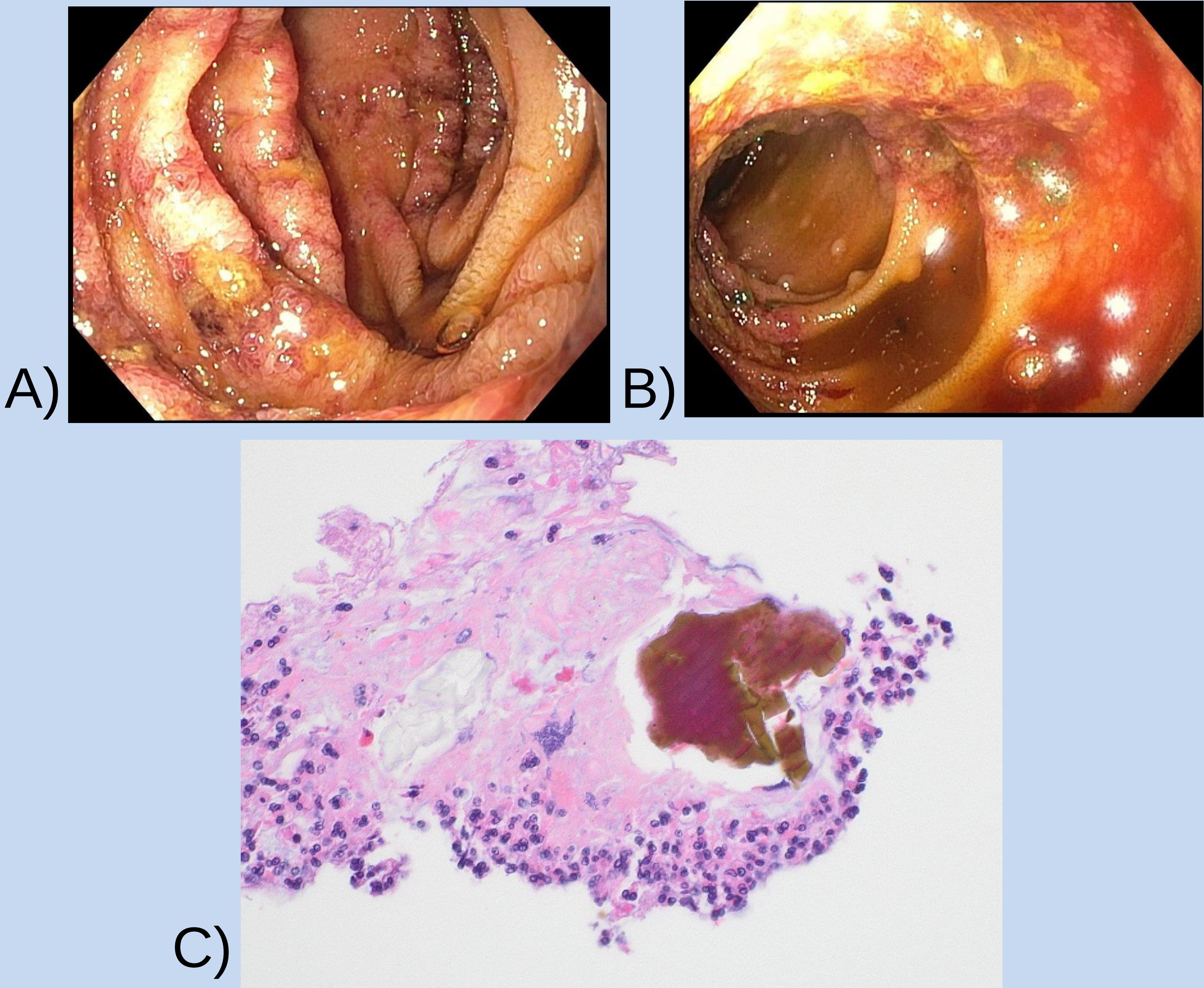
CASE PRESENTATION

A 35 year-old male with ESRD on peritoneal dialysis presented with two days of hematochezia and severe abdominal pain.

CLINICAL COURSE

- 4 episodes of maroon-colored loose stools in the last 24 hours
- Clostridium difficile and comprehensive GI panel were negative for acute infection
- CRP was elevated to 42.6 mg/L, WBC 12.9 10³/uL, and hemoglobin 7.5 g/dL
- CT angiography of the abdomen showed two short segments in the small bowel with inflammation concerning for ischemia
- Colonoscopy and push enteroscopy on day 3 of hospitalization showed ulcerative inflammation in D4 and in the terminal ileum 6cm proximal to the ileocecal valve

CLINICAL COURSE



A) Diffuse ulcerated mucosa of the fourth portion of the duodenum. B) Patchy ulcerations of the terminal ileum. C) Terminal ileum biopsy showing crystalloid structures in an area of necrosis suspicious for pill-associated mucosal necrosis.

- Biopsy results at the terminal ileum and D4 showed mucosal necrosis and acute inflammation with crystalloid structures consistent with pill-associated mucosal necrosis
- Further history revealed that he was started on sevelamer a few weeks prior to hospitalization
- Sevelamer was discontinued resulting in resolution of patient’s symptoms

DISCUSSION

- Sevelamer has been documented to cause ischemic colitis
- Patients frequently present with melena and abdominal pain
- A histopathological hallmark is “fish-scale” crystalloid structures in the mucosa
- A review from 2017 which examined published case reports in which sevelamer caused ischemic colitis reported that crystalloid structures were present in 13 out of 16 patients (Yuste)
- If suspecting sevelamer-induced ischemic colitis, it is important to stop the sevelamer immediately
- Sevelamer induced enteritis can occur throughout the entire gastrointestinal tract
- Video capsule endoscopy or push enteroscopy should be considered if standard upper endoscopy and colonoscopy do not identify the source
- Complications such as perforation, acute anemia, stricture formation, and ulceration can occur if sevelamer is not discontinued

CONCLUSION

- Consider sevelamer as a cause of ischemic colitis in patients with hematochezia and recent initiation of the medication
- If suspecting sevelamer-induced colitis consider push enteroscopy or capsule endoscopy if lesions not seen on colonoscopy or EGD
- Cessation of sevelamer leads to resolution of the colitis