

CMV Induced Terminal Ileum Stricture Presenting as a High Grade Small Bowel Obstruction

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Learning Objective

Immunocompetent patients presenting with high grade small bowel obstructions must be evaluated with a broad differential in mind.

Case Presentation

A 60-year-old HIV-negative, immunocompetent black male presented to the emergency department with a small bowel obstruction. CT scan of the abdomen demonstrated circumferential wall thickening of the terminal ileum. Colonoscopy was unrevealing due to incomplete bowel prep. He was initially deemed a poor candidate for surgery given severe cardiomyopathy. Outpatient colonoscopy was planned for after completion of two weeks of prednisone for presumed Crohn's disease.

After discharge, the patient had persistent abdominal pain requiring readmission. Colonoscopy showed ulcerations and erosions in the terminal ileum and cecum with a terminal ileum stricture that could not be traversed. Biopsies were taken that showed crypt distortion and ulceration; immunohistochemical staining was positive for Cytomegalovirus (CMV). The patient underwent a right ileocelectomy with side-to-side functional end-to-end anastomosis.



Figure 1. CT abdomen/pelvis showing partial small bowel obstruction.



Figure 2. Colonoscopic image demonstrating terminal ileum stricture

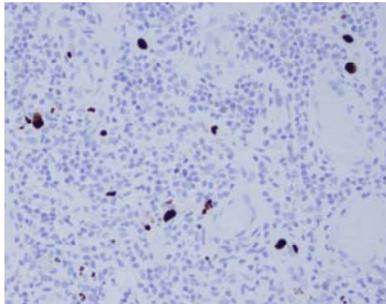


Figure 3. Biopsy with immunohistochemical staining.

Discussion

- Seroprevalence of prior CMV infection ranges from 40-100% in the adult population and the seroprevalence is inversely correlated with the country's socioeconomic development.
- Cytomegalovirus infections in immunocompetent adults are most commonly asymptomatic or present as a mononucleosis like syndrome
- A systematic review of immunocompetent patients with CMV in any system in 2008 described 60 patients with CMV colitis.
- CMV ileitis has been primarily described in AIDS patients and is found in 4% of CMV cases affecting the GI tract
- There is only one other case report of a patient with a CMV-induced colonic stricture presenting as an acute intestinal obstruction in an immunocompetent adult.
- This is the only case of CMV terminal ileocolitis with primary ileal involvement that caused an acute intestinal obstruction in an immunocompetent adult.

Treatment:

- In most cases, the infection is self-limited and resolves without treatment
- There are several options for systemic treatment of CMV infection but there are currently no studies to prove the utility of these treatments.

Prognosis:

- CMV infection in an immunocompetent can vary from asymptomatic and self resolving to having significant morbidity and mortality.

REFERENCES:

- Muacevic and Adler. 2016. Cytomegalovirus Colitis in Immunocompetent Patients.
- Friel et al. 2017. Epidemiology, clinical manifestations, and treatment of cytomegalovirus infection in immunocompetent adults.

Implication

Cytomegalovirus must be included in a differential diagnosis for an immunocompetent patient presenting with a small bowel obstruction.