

A Common Infection in a Highly Atypical Patient: Hematochezia from Cytomegalovirus Colonic Ulcer in a Young and Healthy Immunocompetent Patient

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Introduction

- Gastrointestinal (GI) cytomegalovirus (CMV) infections are far more common in immunocompromised as opposed to immunocompetent patients.
- Immunocompetent patients who do develop GI tract CMV infections are typically older with medical comorbidities. As such, descriptions of GI CMV infections in younger immunocompetent patients are lacking.
- Here we present a case of a GI CMV infection in a young and healthy immunocompetent patient.

Case Presentation

- A 41-year-old male with presented with painless, intermittent hematochezia.
- Past medical history: hyperlipidemia and hypothyroidism
- Medications: emtricitabine/tenofovir for pre-exposure prophylaxis, levothyroxine, and atorvastatin.
- Social history: insertive and receptive intercourse with one male partner.
- Vital signs and exam: normal
- Colonoscopy: revealed a cecal ulcer surrounded by nodular-appearing mucosa that felt firm and was friable when biopsied (Figure 1). The remaining colon and terminal ileum were normal.
- Colonoscopy pathology: was positive for CMV(Figure 2).

Case Presentation (Cont.)



Figure 1. Ulcer with surrounding nodular mucosa (black arrow) to the right of the appendiceal orifice in the cecum

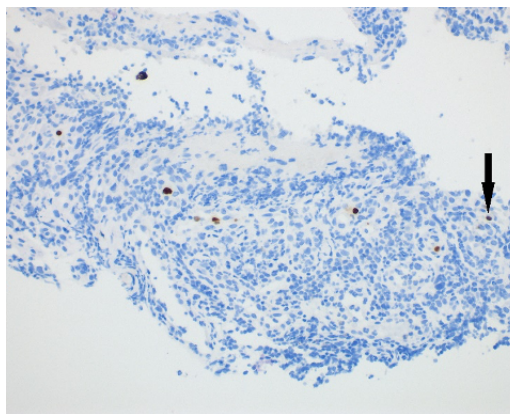


Figure 2. Immunohistochemical stain for cytomegalovirus (CMV) at 20x magnification. The brown nuclear stains correspond to CMV positive cells (black arrow)

- Normal tests: comprehensive metabolic panel and complete blood count.
- Negative tests: human immunodeficiency virus, syphilis, viral hepatitis, chlamydia and gonorrhea.

Case Presentation (Cont.)

- Treatment: Valganciclovir 900 milligrams twice daily for 21 days.
- Clinical follow up: subsequent test for CMV deoxyribonucleic acid polymerase chain was negative. Hematochezia resolved. Repeat colonoscopy revealed normal mucosa in the cecum.

Discussion

- GI CMV infections in immunocompetent patients are rare and typically occur in older patients with medical comorbidities.
- One study identified 56 immunocompetent patients with GI CMV infections (mean age of 73 years) that had a higher 6-month mortality rate (39.2%) than 117 immunocompromised patients with CMV GI infections (21.9%), highlighting the significant comorbidities in the immunocompetent group.
- Another study of 13 immunocompetent patients with GI CMV infections (median age 81 years) found 54% had immune-modulating conditions (i.e. diabetes, liver or renal failure).
- A third study of 89 immunocompetent patients with GI CMV infections (median age 70 years) showed a majority had significant comorbidities.
- Further such case reports are needed to inform clinicians about risk factors and presentation of GI CMV infections in young healthy immunocompetent patients.