Cytomegalovirus Colitis in an Immunocompetent Patient Presenting with New-onset Ulcerative Colitis: A Clinical Vignette

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INTRODUCTION

***Cytomegalovirus* (CMV) colitis** is a rare disease among immunocompetent patients presenting with **inflammatory bowel disease (IBD).** CMV can cause steroid-refractory IBD, which may require antiviral and infliximab (IFX) combination therapy.

CASE DESCRIPTION

A 23-year-old woman was admitted for dehydration and poor oral intake in the setting of eight bowel movements per day, bloody diarrhea, tenesmus, and weight loss. She had presented to an outside hospital 5-weeks prior with lower abdominal cramps and bright red blood per rectum.

A computed tomography (CT) scan showed bowel wall thickening and mucosal enhancement in the rectosigmoid and descending colon. A subsequent colonoscopy 2-weeks prior to admission was suggestive of severe ulcerative colitis (UC) and she was started on mesalamine and budesonide. Due to poor clinical response, she was switched to prednisone 40 mg for 5 days. Outpatient medical management failed and, upon admission, she was converted to methylprednisolone 20 mg every eight hours. Her symptoms continued despite the intravenous steroids for several days.

Serum CMV polymerase chain reaction (PCR) from admission returned positive at 1,758 IU/mL and colonic biopsies showed scattered CMV inclusions by immunohistochemical staining. The patient was started on ganciclovir 5mg/kg/dose IV for in addition to the steroid regimen and IFX infusions were deferred. By day 2 of ganciclovir IV and day 7 of methylprednisolone IV, IBD symptoms began to resolve.

At discharge on hospital day 12, patient was transitioned to twice daily oral valganciclovir 900 mg for a 3-week course and an oral prednisone taper. CMV PCR was 1,185 IU/mL on day 11 and <100 IU/mL at one week follow up. IFX therapy was initiated 45 days post discharge with improved symptoms, as characterized by a 17-lb weight gain at 3-month follow-up.

PATHOLOGY

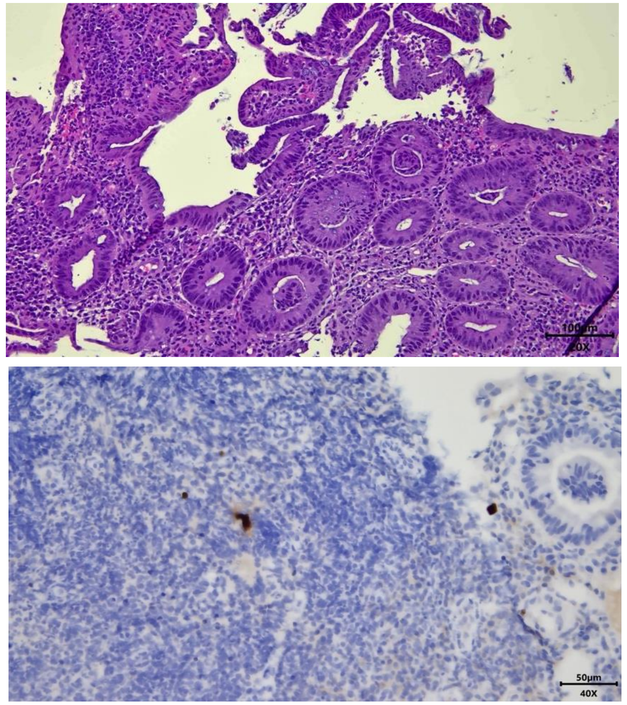

Figure 1. H&E stain (20x) of colonic biopsy demonstrating active chronic colitis (*top).* Immunohistochemical staining (40x) showing CMV immunoreactivity (*bottom).*

DISCUSSION

CMV colitis is a rare diagnosis in immunocompetent patients with early, steroid naïve IBD. Serum PCR positive infection has been reported more commonly after 2-3 weeks of steroid therapy. CMV infection is a recognized complication and marker of poor prognosis in moderate to severe UC, especially those who present with steroid refractory disease. It is believed that the inflammatory mediators associated with UC play a synergistic role in CMV reactivation and subsequent disease. In addition, local corticosteroid induced immunosuppression may further facilitate CMV gene transcription, resulting in disease progression and poor steroid response. There remains no consensus for management of UC with concomitant CMV colitis however, in our patient the use of antiviral and biologic therapy (IFX) promoted disease regression and clinical improvement.

TAKE HOME POINTS

- CMV is a rare diagnosis in immunocompetent patients with steroid-naïve IBD.
- CMV reactivation in patients with steroid-treated IBD may result in disease progression and poor steroid response
- There is no consensus about management of UC with concomitant CMV colitis

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