CMV Colitis in Immunocompetent Patients—A Case Series

Anushka Verma1  Muppa Indrakeela Girish2  Amol S. Dahale2  Ashok Dalal3  Sanjeev Sachdeva3

1 Department of Physiology, Lady Hardinge Medical College, New Delhi, India
2 Department of Gastroenterology and Hepatology, DY Patil Medical College, Pune, Maharashtra, India
3 Department of Gastroenterology and Hepatology, Govind Ballabh Pant Institute of Postgraduate Medical Education and Research, New Delhi, India

Address for correspondence: Amol S. Dahale, MD, DM, Department of Gastroenterology and Hepatology, DY Patil Medical College, Pune, Maharashtra, India (e-mail: amolsd_1986@yahoo.com).

Cytomegalovirus (CMV) colitis is a common occurrence in immunocompromised patients but uncommon in immunocompetent patients with usually mild and self-limiting symptoms and rarely gives rise to serious complications.1 Gastrointestinal involvement is very rare in immunocompetent individuals; however, the commonly involved sites are colon and rectum.2 We aimed to share our experience of CMV colitis in immunocompetent patients. We are sharing our experience of four patients having immunocompetent status. Our aim was to analyze clinicoepidemiological-associated attributes of CMV colitis in immunocompetent individuals. The average age of patients in the study was 53.5 years (Table 1). In the present study, no of patients were four in which two were females (50%) and two were males (50%). Frequently occurring symptoms were abdominal pain and diarrhea. Three patients presented with abdominal pain (75%) and two patients with bloody diarrhea (50%). Comorbidities seen in involved patients were diabetes in 2 (50%) and hypertension and coronavirus disease 2019 in another (25%); one patient did not have any comorbidities. Diabetes was controlled in two patients with antidiabetic treatment and hemoglobin A1c was under-control. The common organs involved were sigmoid and rectum. The common

Fig. 1 Transverse colon showing multiple discrete deep ulcers.

Fig. 2 Histopathological examination: Arrow showing cytomegalic cells containing basophilic intranuclear inclusion body.
finding in colonoscopy was multiple superficial and deep ulcers (► Fig. 1). The diagnosis of CMV colitis within the four patients was on the basis of histopathology and immunohistochemistry. Tissue CMV polymerase chain reaction (qualitative) was performed in two patients’ samples, and only one of them was positive. Histopathology reports of all four patients showed inclusion bodies with cytopathic effect, which was confirmed within immunohistochemistry (► Fig. 2). Three patients received treatment, and subsequently, their condition improved. However, one patient expired due to myocardial infarction before receiving the treatment. CMV colitis is very uncommon in immunocompetent patients and should be considered with appropriate clinical intervention to achieve positive outcome from the treatment.

### Table 1 Clinical, colonoscopic features and outcome of cases

<table>
<thead>
<tr>
<th>Age/Sex</th>
<th>Comorbidity</th>
<th>Clinical features</th>
<th>Colon areas involved</th>
<th>Colon findings</th>
<th>Diagnosis</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>65/F</td>
<td>Diabetes</td>
<td>Pain abdomen, diarrhea</td>
<td>Transverse, ascending colon, cecum</td>
<td>Multiple, deep and superficial ulcers</td>
<td>HPE + IHC</td>
<td>Cured</td>
</tr>
<tr>
<td>52/F</td>
<td>Nil</td>
<td>Pain abdomen, bloody diarrhea</td>
<td>Sigmoid</td>
<td>Multiple, superficial ulcers</td>
<td>HPE + IHC</td>
<td>Cured</td>
</tr>
<tr>
<td>45/M</td>
<td>Diabetes</td>
<td>Pain abdomen, bloody diarrhea</td>
<td>Rectum, rectosigmoid</td>
<td>Multiple superficial ulcers</td>
<td>HPE + IHC PCR+</td>
<td>Cured</td>
</tr>
<tr>
<td>55/M</td>
<td>Hypertension COVID-19</td>
<td>Diarrhea</td>
<td>Rectum</td>
<td>Multiple, deep ulcers</td>
<td>HPE + IHC</td>
<td>Death</td>
</tr>
</tbody>
</table>

Abbreviations: COVID-19, coronavirus disease 2019; HPE, histopathological examination; IHC, immunohistochemistry; PCR, polymerase chain reaction.

### Conflict of Interest

None.

### References