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PERIANAL ULCER – A RARE SEQUALE OF CMV INFECTION

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Abstract

Cytomegalovirus (CMV) is a herpes-type virus. Most of the time, the virus produces mild or no symptoms in healthy people. However, in immunocompromised patient, serious CMV infections can occur. It can develop at any level along the gastrointestinal tract, but perianal ulcer is one of rare form of CMV manifestation. We presented case of a 33-year-old gentleman presented with painless per rectal bleeding for 3 months' duration. Physical examination revealed a near-circumferential perianal ulcer extending into the rectum. Colonoscopy showed no synchronous proximal lesion. During examination under anesthesia, the ulcer was shown to be extended until distal to dentate line. Wedge skin biopsy was performed with subsequent immunohistochemistry test was consistent with CMV infection. HIV serology test later was positive. Although it is rare, all immunocompromised patients with perianal ulcer should be suspected for CMV infection. Tissue biopsy is mandatory for confirmation of diagnosis. Antiviral therapy is the mainstay of treatment.

Keywords
Anal, Cytomegalovirus, Immunocompromised Patient, Ulcer

Introduction

The etiology of perianal ulcer is broadly divided into non-infectious and infectious causes. Non-infectious causes consist of malignancy, trauma, Behchet's disease, fixed drug eruption and psoriasis. Infectious ulcer is more common, with herpes, syphilis and chanchroid being the main causative pathogens.

Cytomegalovirus (C M V) is an encapsulated DNA virus which belongs to Beta herpes viridae family. CMV is transmissible through body fluid and it is endemic in all parts of the world. Infection in immunocompetent individual commonly occurs during the first two decades of life and usually asymptomatic with rare progression beyond benign viral syndrome.

As for the gastrointestinal tract, colitis the commonest manifestation, followed by esophagitis and enteritis [1].

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Case Report

A 33-year-old gentleman presented with painless per rectal bleeding for 3 months' duration. Physical examination revealed a near-circumferential perianal ulcer extending into the rectum. Additionally, there was a smaller satellite ulcer at one o'clock position (Figure 1).The ulcer was shallow with punched out edges with slough at its base. No discharge was seen from the ulcer. There was no regional enlarged lymph node. Colonoscopy showed no synchronous proximal lesion. During examination under anesthesia, the ulcer was shown to be extended until distal to dentate line. Wedge skin biopsy was performed. The histopathological examination showed enlarged infected cells with intracytoplasmic inclusions (Figure 2). Subsequent immunohistochemistry test was consistent with CMV infection. Serology tests for IgM and IgG were conducted, showing positivity in the IgG.

Patient only revealed his homosexual practice after the diagnosis was made. He was tested for HIV and his serology HIV-1 was tested positive and his CD 4 count was found to be 18, indicating an immunocompromised state. He was then started on intravenous Ganciclovir 200mg OD for 3 weeks duration. Further ophthalmological assessment showed large retinitis with cotton wool spots at superotemporal and which confirmed presence of concomitant CMV retinitis.

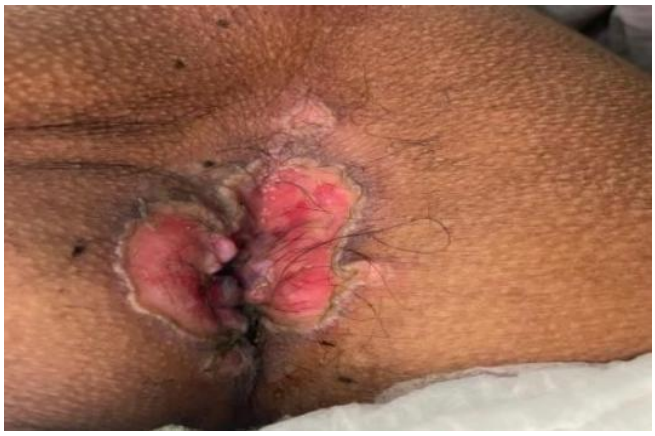

Figure 1: Perianal ulcer with small satellite lesion at one o'clock

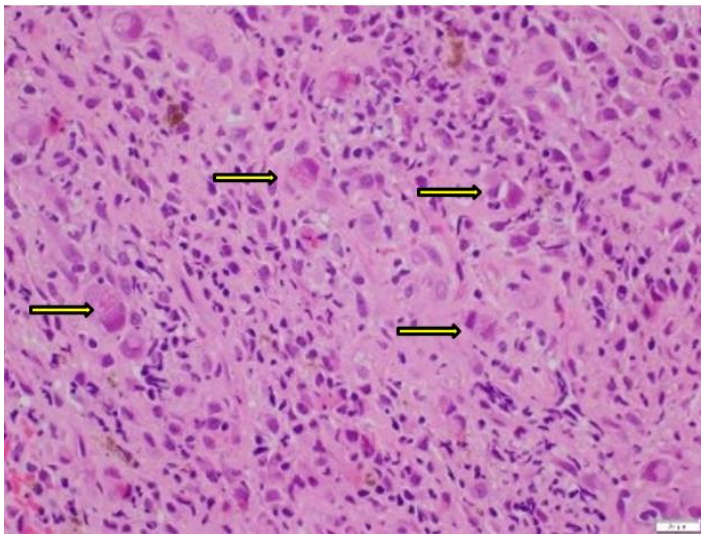

Figure 2: CMV infected cells are enlarged with intracytoplasmic inclusions(H&E,400x)

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Discussion

With the increasing number of patients with immunosuppression, CMV has emerged as one of the opportunistic infections seen in clinical practice. Gastrointestinal tract manifestations accounted for 10% of CMV disease in Acquired Immuno-Deficiency syndrome (AIDS) patients [2].

CMV infection can develop at any level along the gastrointestinal tract, but perianal ulcer is one of rare form of CMV manifestation. No exact reason has been identified as the reason of CMV preferentially resides in the perianal region. One of possible cause is via fecal shedding from infected gastrointestinal tract [3].

Patient with perianal ulcer requires thorough examination and assessment. History or risk factors contributed to immunocompromised state should be obtained. Bedside evaluation to assess the ulcer is important but is sometime limited due to pain and inability to visualize the proximal extent of the ulcer into the rectum. Colonoscopy will be able to identify synchronous lesion in the colon and rectum, although the endoscopic findings of CMV infection is greatly varied [4].

Skin biopsy is performed to confirm the diagnosis as well as to exclude other condition especially malignancy. The gold standard for CMV disease diagnosis is by identifying cytomegalic with intracytoplasmic inclusion cell on H&E staining [6]. Immunohistochemical staining with monoclonal antibodies is also used to aid histopathologic diagnosis.

Identification of CMV in gastrointestinal tract, may have important implications of patient care, as this finding should expedite the evaluation for other susceptible organ, especially chorioretinitis, which often leads to progressive blindness. This is demonstrated in our patient who has concomitant CMV retinitis.

Ganciclovir, anucleoside structurally related to acyclovir, has been regarded as the first line treatment for CMV infection in immunocompromised patient. Antivirals with activity against CMV has significantly improved the prognosis [5].

Conclusion

CMV infection should be suspected among immunocompromised patients with perianal ulcer. Tissue biopsy is mandatory for confirmation of diagnosis. Antiviral therapy is the mainstay of treatment.

Conflict of interest

The authors declare that they have no conflicts of interest relevant to this study.

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