

## Monkeypox Related Enterocolitis/Proctitis: Uncommon Virus in A Patient with Rectal Pain

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### ABSTRACT

Monkeypox (MP) is a rare zoonotic disease that most commonly transmits from animals to humans in the Congo Basin of Africa. We present a case of a 59-year-old male who required hospitalization to manage intractable rectal pain secondary to monkeypox infection. While our patient's proctitis was secondary to monkeypox viral infection, nevertheless, it was not transmitted via sexual contact.

### INTRODUCTION

MP belongs to the same genus of viruses as smallpox, the Ortho poxvirus [1]. Since May 2022 the Monkeypox outbreak has expanded globally [2,3]. The WHO declared monkeypox as a Public Health Emergency of International Concern on July 23, 2022 [4]. Most cases of proctitis are associated with sexually transmitted proctitis in men who have sex with men (MSM), caused mainly by gonorrhea, chlamydia, syphilis, cytomegalovirus, and herpes simplex virus.

### OBJECTIVE

We present this patient case to illustrate the importance of considering alternative modes of transmission in monkey pox viral infection as a cause of proctitis.

### CASE REPORT

A 59-years-old male was admitted for intractable rectal pain and bright red blood with each bowel movement in July 2022. Two weeks before this admission, he had a fever, rigors, and groin lymphadenopathy following various sized vesicular lesions. They initially appeared in the face and then spread across the trunk, extremities, and gluteal area. The patient has been picking at all his lesions. Finally, the lesions crusted over and healed. One week later, the patient presented with mucus and bloody diarrhea. He was initially evaluated at another facility. His symptoms persisted with

associated tenesmus, new vesicular lesions in the anus area, swollen testicles, and unbearable rectal pain aggravated with straining. Colonoscopy found multiple ulcers in the anus, distal rectum, and small external hemorrhoids during retroflexion. The immunohistochemical stain on anal ulcer biopsy were negative for HSV-1, HSV-2, and Cytomegalovirus, and no viral cytopathic changes were identified. He was treated empirically with antibiotics. Additional history was obtained from the patient when he presented to our facility with intractable rectal pain. He had a history of HIV under treatment with bictegravir/emtricitabine/TAF(Biktarvy), diabetes mellitus, hypertension, and coronary artery disease. He was treated for syphilis one year ago. He admitted having a history of anal receptive intercourse but had not been sexually active since he was diagnosed with syphilis. He denied having any prolonged social contact. He lived at home alone and he

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denied any recent travel or contact with animals. The patient did not use illicit drugs. Physical examination was except for the digital rectal examination that showed a few small vesicles in the perianal area, normal sphincter tone, and posterior annular fissure with no signs of abscess or induration. Valacyclovir therapy was given empirically for possible HSV proctitis. Patient metabolic panel with a BUN of 13, creatinine 1.47. Further infectious work-up revealed WBC 10.04K/uL, CD4 count was unknown, and his HIV viral load was undetectable. CRP and procalcitonin were normal. The GI panel by PCR, RPR and SARS-CoV2 were negative. Serology results included: HSV 1 IgG and HSV-2 IgG positive, HSV 1 and 2 IgM was negative, CMV DNA quantitative PCR test was negative. Varicella (VZV) IgM Positive 1.58 and Varicella IgG was immune. July 28, 2022, Ortho poxvirus PCR swab of skin lesion was positive. Computer tomography showed sub centimeter retroperitoneal lymph nodes and numerous prominent lymph nodes within the perirectal and perianal region, with evidence proctitis. The patient was positive for Monkeypox with enterocolitis proctitis and a rectal ulcer, likely related to Monkeypox. The patient's skin lesions were crusted, but his significant pain in the rectum with ulcer suggested that the patient could benefit from Tecovirimat in order to shorten viral shedding and reduce duration of illness [5]. He was treated with hydrocortisone cream, sitz bath, lidocaine 5% ointment, and Deluded 1 mg IV twice as needed. He was discharged on oral pain medications as needed with a bowel regimen.

## DISCUSSION

This case report describes a patient with proctitis and rectal ulcer with a delayed diagnosis until skin lesions were noted, which heightened the suspicion of monkeypox. The patient's colonoscopy did not reveal results of MPXV because it was not detected by the pathologist or a sampling error. While thus far reported cases have been primarily men who report sexual contact with other men, in this case, the

patient denied sexual intimacy within the last year. More cases involving autoinoculation (digital contact) may be reported. The patient denied having any physical contact with anyone with skin lesions suggesting that he may have acquired monkeypox through an asymptomatic infectious period via large respiratory droplets or became infected through indirect contact with lesion material in fomites. This case also highlights the importance of including monkeypox in the differential diagnosis of anorectal lesions and the need for early antiviral treatment to reduce morbidity and hospitalization. The patient's significant pain was a barrier to discharge. Furthermore, it remains unknown how this patient's comorbidities of Diabetes, coronary artery disease and HIV impact the severity of illness, lesion progression, and duration. Ortho poxvirus is expected to have a more severe outcome in immunocompromised patients such as HIV-positive individuals [6]. Patients with diabetes, coronary artery disease and associated microvascular disorders have been shown to have an increased risk of Herpes Zoster occurrence [7]. Co-infections with secondary viruses should be considered especially in patients who are immunocompromised. The patient also had a positive Varicella IgM status and it's conceivable that the patient's medical condition (such as HIV) might contribute to the risk of VZV reactivation. Infection with MPXV directly may cause the patient's immune system to be more susceptible to a secondary infection and trigger VZV reactivation. VZV lesions causing skin breakdown may serve as an entry point for MPXV infection [8]. With this case we wish to raise awareness on including monkeypox in the differential diagnosis of skin vesicular papular rashes. Additionally, this case illustrates the means of spread with auto inoculation. The primary method for diagnosis is polymerase chain reaction analysis of specimens collected from infected lesions. When a patient presents with proctitis it would help to include diagnostic testing of Orthopoxvirus PCR swab of lesions accessible during a colonoscopy (**Figures 1(A&B) and Figure 2(C, D &E)**).



**Figure 1.** (A) Umbilical pustule lesion on right arm. (B) Perianal small lesions.



**Figure 2.** (C) Anus: Ulcer. (D) Descending Colon: diverticulum (E) Rectum: Ulcer.

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