

Is there a role for magnetic resonance imaging for assessing anal pain in patients with monkeypox?

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Case Report

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Abstract

30 years-old man with no skin lesions at physical exam, referred severe anal pain for 4 days. Rectal swab was positive for Monkeypox, and proctitis was diagnosed, with anorectal abscesses only characterized in magnetic resonance imaging. This is the first description of clinical and imaging presentation of anorectal disease related to Monkeypox virus infection in an unusual presentation without the typical cutaneous rash and presenting complicated anorectal abscesses.

Introduction

A recent outbreak of monkeypox involving nonendemic countries was identified in May 2022. Thousands of cases have been described in men who have sex with men (MSM) and skin lesions in the perianal area and rectal pain were commonly described. Proctitis was described as a clinical manifestation of monkeypox infection, but specific imaging findings were not described until now.

Case Presentation

We report a case of 30 years-old MSM who presented to the emergency room for anal pain that started 4 days before. He is HIV positive under anti-retroviral therapy with undetectable viral load and high CD4+ lymphocyte count. On physical exam there was no skin lesions. Digital rectal examination was limited due to severe pain and showed painful fluctuating bulging adjacent to anterior anal border. Magnetic resonance imaging (MRI) showed enlarged pelvic and inguinal lymph nodes, diffuse anorectal thickening, mucosal enhancement (Figure 1A) and mesorectal abscesses (Figure 2).

A surgical drainage was performed and a small rectal perforation 7.0 cm from the anal verge with abundant purulent content was observed. Rectal swabs and cultures from the abscesses were positive for aerobic and anaerobic bacterial pathogens, including *Ureoplasma spp.* Tests for *Neisseria gonorrhoea*, *Chlamydia trachomatis* and *Treponema pallidum* were negative. Polymerase chain reaction of the rectal lesions swab was positive for Monkeypox. Patient was discharged after six days of hospitalization, with complete remission of symptoms after 15 days.

Discussion

The presented case illustrates the imaging findings of perianal disease related to Monkeypox virus infection in an unusual clinical presentation with no cutaneous rash and complicated anorectal disease, only characterized by MRI. Although nonspecific, these imaging findings must be understood in the context of a multicolonized patient, when the presence of other sexually transmitted infections may mislead the diagnosis.

In the presence of severe anal pain with abnormal findings in physical exam, ruling out perianal abscess is important since this complication was reported in different recent published cohorts [1–3]. In that context, imaging studies can be recommended in cases where the direct visualization of a suspected

abscess is challenging, as well as to estimate volume, to map adjacent structures before treatment and to identify fistulous tracts. MRI provides superior accuracy for perianal and rectal disease compared to other methods and is recommended as preferential modality of investigation [4,5].

The multidisciplinary team involved in the management of patients with Monkeypox anorectal disease should consider MRI to evaluate locoregional disease extension, particularly when clinical symptoms are disproportionate to physical examination and in the scenario where the digital rectal examination is limited.

Declarations

Ethical Approval

This study followed all Institutional Ethical Committee recommendations. Only radiological images were presented and all identifications were removed.

Consent to participate:

Written informed consent was obtained from the patient.

Consent to publish:

The participant has consented to the submission of the case report to the journal.

Competing interests

The authors declare that they have no conflict of interest.

Authors' contributions

All authors made substantial contributions to the conception of the work or the analysis and interpretation of the data. JFR was directly involved in the clinical management of the patient and contributed to clinical data recompilation and interpretation. MVSF, JMB, JABA and NH contributed to the study conception and drafted the manuscript. FRF contributed with the radiological images analysis and interpretation. All authors critically revised the manuscript and have approved the final version submitted for publication.

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Availability of data and materials

The authors declare that the data supporting the findings of this study are available within the paper.

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Figures

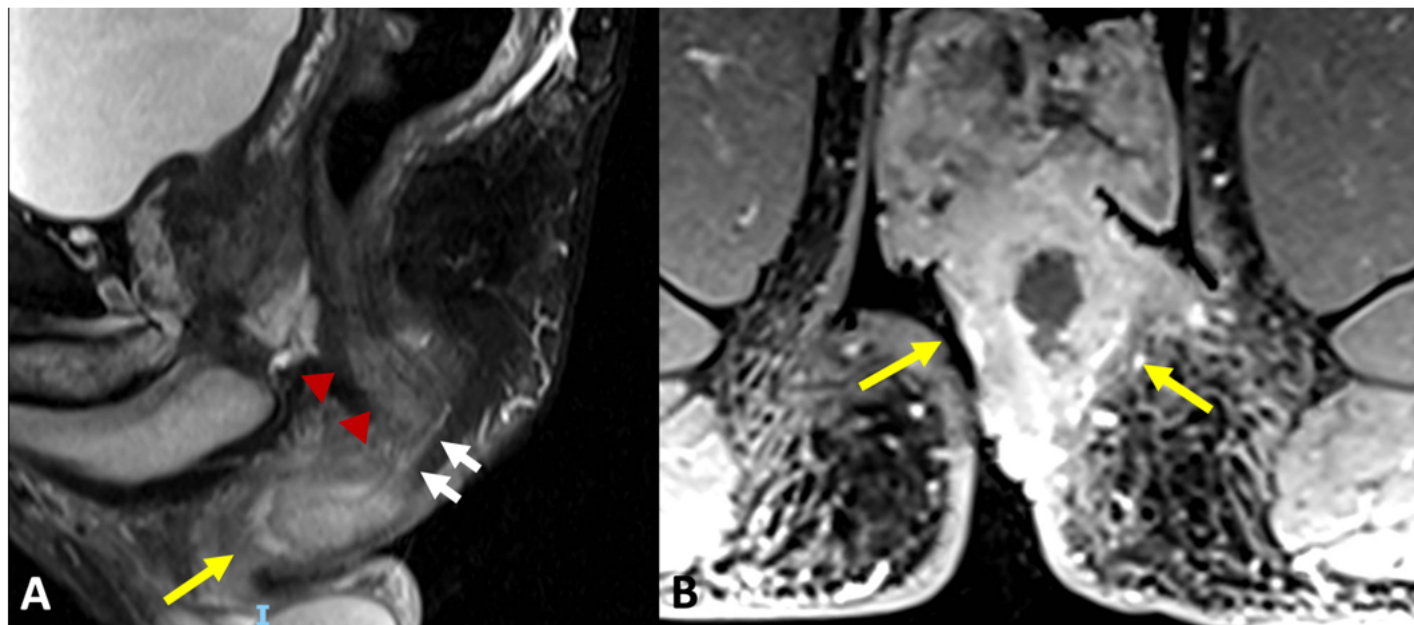


Figure 1

Contrast-enhanced MRI rectum. Fat-suppressed T2 weighted imaging (A) on the sagittal plane of the rectum showing thickening and mucosal edema of the anal canal (red arrowheads). Contrast enhanced

T1 on the axial plane shows a perineal fluid collection with intense peripheral enhancement (B) (yellow arrows), suggesting abscess, with a small communicating tract with the anal canal (white short arrows).

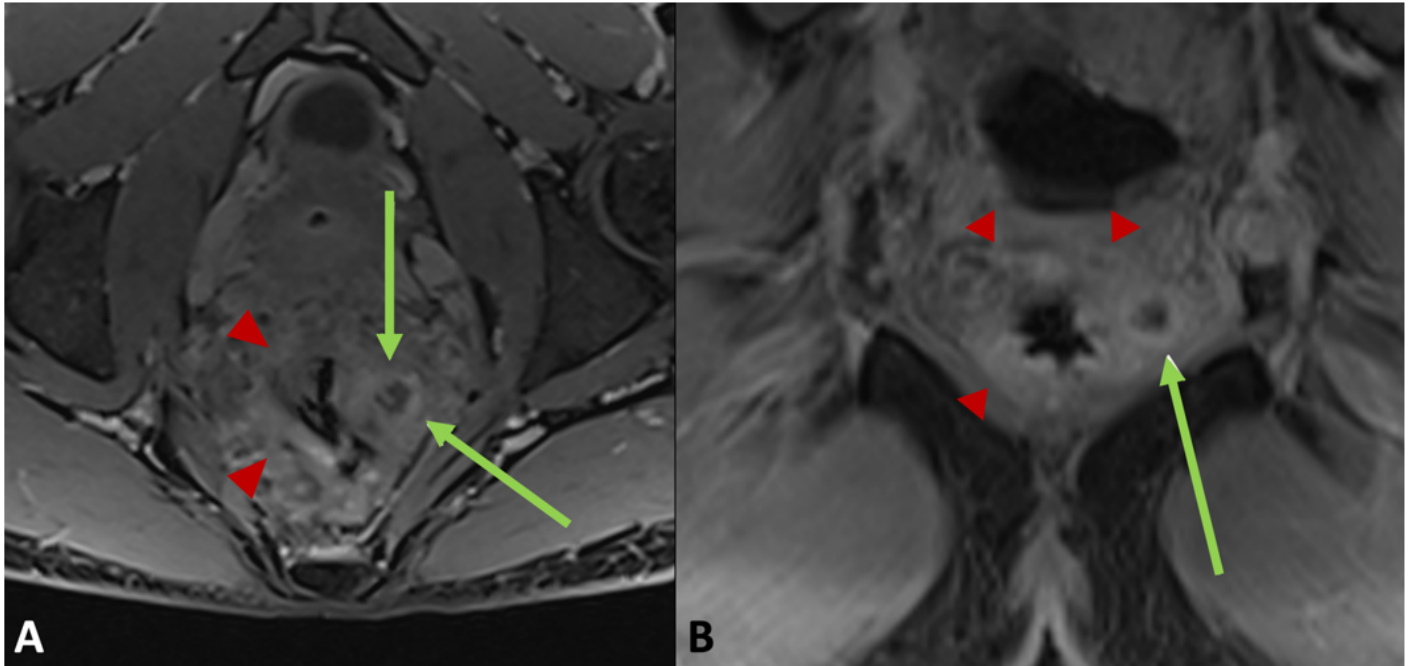


Figure 2

Contrast-enhanced MRI rectum showed on T1 weighted imaging on axial (A) and coronal planes (B), diffuse enhancement of the anal canal and lower rectum (red arrowheads) with adjacent small mesorectal abscess (green arrows).