



Monkeypox Presenting with Myocarditis: A Case Report

Gupta Dhruv^{1*}, Dimitre Dimitrov² and Nishi Yadav³

¹Specialist Dermatologist, Ahalia Hospital, Mussaffah, Abu Dhabi, UAE

²Specialist Dermatologist, SKMC, Abu Dhabi, UAE

³Specialist Dermatologist, Ahalia Hospital, Mussaffah, Abu Dhabi, UAE

*Corresponding author: Gupta Dhruv, Specialist Dermatologist, Ahalia Hospital, Mussaffah, Abu Dhabi, UAE; E-mail: dr_dhruv7@hotmail.com

Abstract

Monkeypox is a zoonotic Orthopoxvirus infection primarily endemic to Central and Western Africa. In recent years, there have been global outbreaks of monkeypox, including cases with atypical cutaneous lesions. We present the case of a 25-year-old Nigerian male with left-sided chest pain and vesiculopustular lesions predominantly in the genital region. The patient was diagnosed with monkeypox infection complicated by acute myocarditis, a rare presentation. Laboratory investigations, including troponin T levels and cardiac imaging, supported the diagnosis. The patient was treated with high-dose aspirin, blood thinners, antihypertensive, and NTG for myocarditis, along with isolation to prevent transmission. The patient's symptoms resolved within a week, and follow-up cardiac imaging showed no sequelae of myocarditis.

Keywords: Monkeypox; Myocarditis

Introduction

Monkeypox, caused by a zoonotic Orthopoxvirus, is typically a self-limited disease with mild symptoms. However, recent outbreaks have shown cases with unusual cutaneous manifestations. Here, we describe a rare case of monkeypox presenting with myocarditis, emphasizing the importance of recognizing potential complications in infected patients.

Case Presentation

A 25-year-old Nigerian male presented with left-sided chest pain and vesiculopustular lesions involving the face, trunk, suprapubic area, and extremities. The patient had associated fever, myalgia, and palpable bilateral inguinal lymph nodes. Considering the clinical history and examination findings, monkeypox infection was suspected.

Diagnostic Assessment

Laboratory tests were unremarkable, except for elevated troponin T levels. The 12-lead ECG showed persistent ST elevation in anterior leads, and cardiac magnetic resonance imaging confirmed myocarditis. Coronary angiography revealed normal

lumen and blood flow in arteries, ruling out coronary artery disease.

Management and Treatment

The patient received high-dose aspirin, blood thinners, antihypertensives, and NTG for acute myocarditis. Additionally, he was placed in isolation to prevent viral transmission. The patient remained hemodynamically stable throughout his hospital stay, with resolution of chest pain and normalization of troponin levels.

Follow-up and Outcomes

The patient's cutaneous lesions resolved within 21 days of isolation, and follow-up cardiac imaging after eight weeks showed no signs of myocarditis or cardiac complications.

Discussion

Myocarditis is a known complication of viral infections, and viral myocarditis can be caused by direct viral injury or immune-mediated mechanisms. There have been only a few reported cases of monkeypox associated myocarditis. Our case adds to the

Received date: 17 June 2023; **Accepted date:** 21 June 2023; **Published date:** 27 June 2023

Citation: Gupta Dhruv, Dimitre Dimitrov, Nishi Yadav (2023) Monkeypox Presenting with Myocarditis: A Case Report. SunText Rev Case Rep Image 4(5): 191.

DOI: <https://doi.org/10.51737/2766-4589.2023.091>

Copyright: © 2023 Gupta Dhruv, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



limited literature on this rare complication, suggesting that monkeypox may have tropism for the myocardium or elicit an immune-mediated response [1-9].

Conclusion

This case highlights the potential complication of myocarditis in patients with monkeypox infection. It emphasizes the importance of monitoring patients for cardiac complications and considering monkeypox directed treatment in affected individuals. With wider availability of tecovirimat, healthcare providers should be aware of the potential cardiac implications and follow the guidelines provided by the Centers for Disease Control and Prevention (CDC) for monkeypox treatment.

Conflicts of Interest

None disclosed.

References

1. Harris E. What to know about monkeypox. *JAMA*. 2022; 327: 2278-2279.
2. Guarner J. Monkeypox in 2022-what clinicians need to know. *JAMA*. 2022; 328: 139-140.
3. Morgan J, Roper MH, Sperling L, Schieber RA, Heffelfinger JD, Casey CG, et al. Myocarditis, pericarditis, and dilated cardiomyopathy after smallpox vaccination among civilians in the United States, January-October 2003. *Clin Infect Dis*. 2008; 46: 242-250.
4. Rodriguez-Nava G, Kadlecik P, Filardo TD, Ain DL, Cooper JD, McCormick DW, et al. Myocarditis attributable to monkeypox virus infection in 2 patients, United States, 2022. *Emerg Infect Dis*. 2022; 28: 2508-2512.
5. Pinho AI, Braga M, Vasconcelos M, Oliveira C, Santos LD, Guimaraes AR, et al. Acute myocarditis: a new manifestation of monkeypox infection? *JACC Case Rep*. 2022; 4: 1424-1428.
6. Thornhill JP, Barkati S, Walmsley S, Rockstroh J, Antinori A, Harrison LB, et al. Monkeypox virus infection in humans across 16 countries - April-June 2022. *N Engl J Med*. 2022; 387: 679-691.
7. Dumont M, Guilhou T, Gerin M, Fremont-Goudot G, Nivose PL, Koubbi A, et al. Myocarditis in monkeypox-infected patients: a case series. *Clin Microbiol Infect*. 2022.
8. Cheema A, Ogedegbe OJ, Munir M, Alugba G, Ojo TK. Monkeypox: a review of clinical features, diagnosis, and treatment. *Cureus*. 2022; 14.
9. Treatment information for healthcare professionals. Centers for Disease Control and Prevention. 2022.