



Clinical features and management of Mpox in African Americans living with HIV



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Background

Black men experience a disproportionate burden of mpox cases (27%) in the recent 2022 mpox outbreak among men who have sex with men (MSM).¹ African Americans represent only 13% of the U.S. population, but account for 42.1% of human immunodeficiency virus (HIV) cases.² Limited research exists on the clinical features, management, and outcomes of mpox in Blacks with HIV.

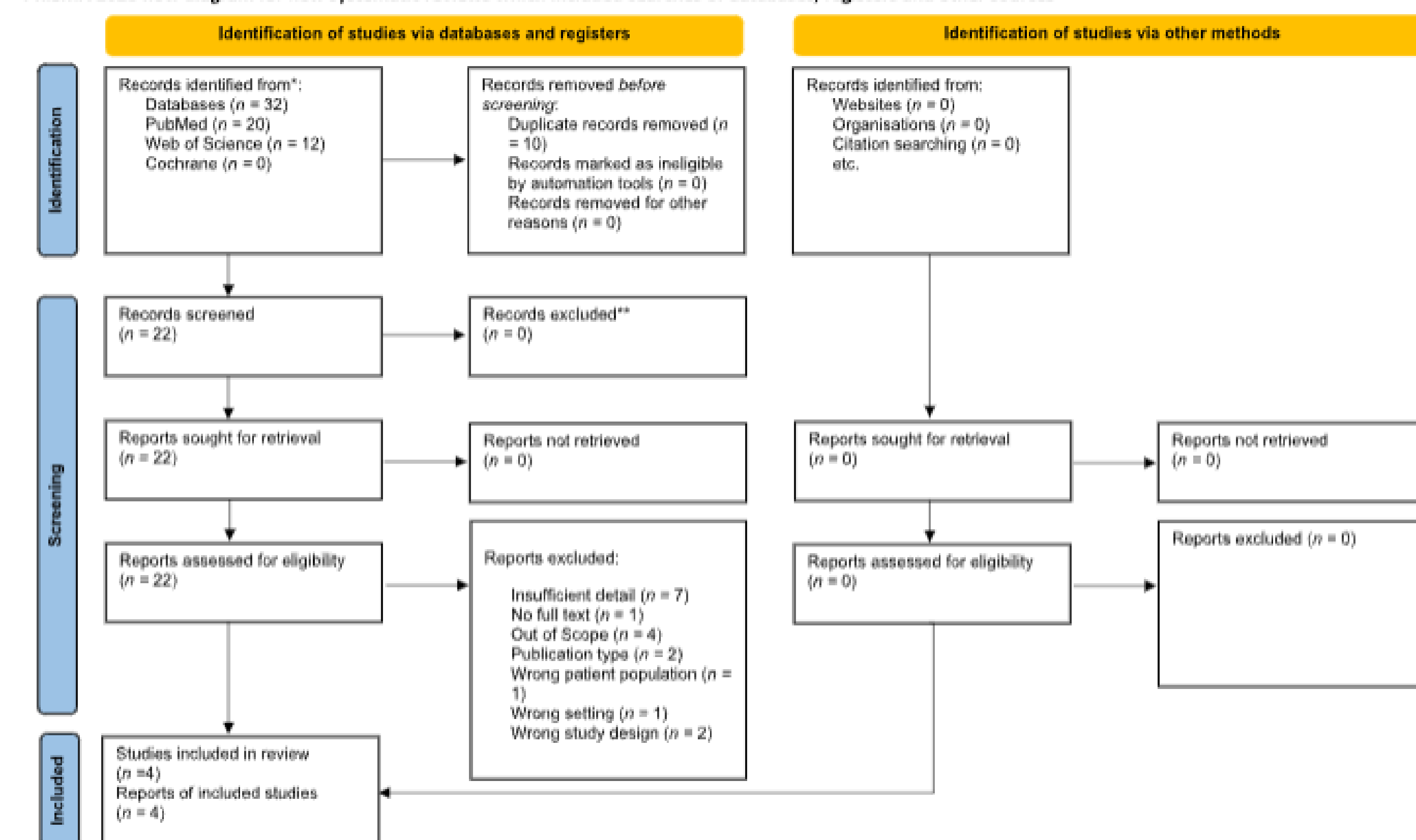
Objectives

The purpose of the study is to review existing literature on mpox in black men with HIV to investigate the clinical features and management of mpox in this patient population.

Methods

A systematic search was performed in PubMed, Web of Science, and Cochrane for all studies published from 05/01/22 to 10/01/23 using the following terms: ("monkeypox" OR "mpox") AND ("African American" OR "Black") AND ("HIV" or "AIDS" OR "acquired immunodeficiency syndrome" OR "human immunodeficiency virus"). The PRISMA guidelines were used for the selection of studies. Inclusion criteria for this systematic review were black men who were 18 years or older, living with HIV, and diagnosed with mpox. Abstracts and short communications without full-text, non-English papers, non-human studies, and studies that lack relevance for this systematic review were excluded.

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers). **If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>

Results

Our search returned 4 articles, reporting on four black men between 23-42 years old living in the U.S. All were poorly compliant with their antiviral therapy. Three had a CD4 count < 200 cells/mm³ and comorbidities including gonorrhea, chlamydia, syphilis, herpes simplex virus 1. Lesions were widespread, often involving the head, upper extremities, and anogenital region. Proctitis, phimosi, and oropharyngeal candidiasis were observed in three. Three were successfully treated with oral tecovirimat, while one received intravenous (IV) tecovirimat and vaccinia immune globulin intravenous (VIGIV) and remained hospitalized. Lesions were described as umbilicated papulovesicles and pustules on an erythematous base with punched-out erosions with yellow crust, and histology findings showed epidermal pallor and necrosis, ballooning degeneration, and multinucleation of keratinocytes. Bacterial superinfection occurred in one patient which was treated with antimicrobials, while the three other patients were started on empiric antibiotics for concern and prevention of possible bacterial superinfection.

Authors	N	Age	Gender	Antiretroviral therapy at time of diagnosis (ART)	CD4 count (cells/mm ³)	Comorbidities	Atypical symptoms	Lesion location	Superinfection	Hospitalization	Treatment
Derrick et al. (2023)	1	42	M	Poorly compliant	86	Herpes Simplex Virus 1, latent syphilis, varicella-zoster virus	Phimosi	Face, scalp, neck, chest, arms, thighs, mouth, genitals, dorsal hands, and volar web space.	No	No	Oral tecovirimat, valacyclovir
Rathore et al. (2023)	1	32	M	No	49	No	Proctitis, constipation, and rectal discharge and pain	Diffuse skin, external hemorrhoid, perioral area, thigh, groin.	No	Yes	Oral tecovirimat, antiviral treatment, cefepime, vancomycin, methocarbamol, intravenous morphine, topical hydrocortisone
Wegrzyn et al. (2023)	1	23	M	Poorly compliant	-	Chlamydia, syphilis	Lesions at various stages of healing	Chest, back, face, upper extremities, genitals	No	Yes	Azithromycin, doxycycline, vancomycin, piperacillin/tazobactam, antiviral therapy, oral tecovirimat, sulfamethoxazole/trimethoprim, amoxicillin/clavulanate, Bictarvir, emtricitabine/tenofovir
Miller et al. (2022)	1	30s	M	No	10	Gonorrhea, chlamydia, and syphilis.	Phimosi, urinary retention	Face, head, back, hand, genitals	Methicillin-resistant Staphylococcus aureus bacteremia	Yes	Oral tecovirimat, intravenous tecovirimat, Vaccinia Immune Globulin Intravenous (VIGIV), antimicrobials, trifluridine, antibacterial eye drops, ART

Table 1. Mpox clinical features and management in black men with human immune deficiency virus (HIV).

Conclusion

Mpox often presents as a mild condition that can resolve spontaneously in people with controlled viremia and elevated CD4 counts. However, in individuals with poorly controlled HIV, mpox can manifest as a severe ailment, characterized by necrotic skin lesions with slow healing, anogenital and rectal lesions, as well as involvement of various organ systems. Individuals living with HIV (PWH) tend to experience higher rates of healthcare utilization in cases of Mpox. Treatment typically involves supportive care, addressing symptoms, and the use of either single or combination antiviral drugs targeted at Mpox for individuals with severe Mpox disease. Future studies should investigate data from randomized clinical control trials and evaluate efficacy of therapeutic and preventive tools for Mpox in black men with HIV.

Disclosure Statement: All authors declare that they have no conflict of interest to disclose.

Limitations

Limitations of the study included relatively few studies available for inclusion and methods of reporting such as lack of CD4 count, sexual, and travel history that may have been interesting to evaluate.

References

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Contact

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