

LETTER TO THE EDITOR MONKEYPOX, SEXUAL HEALTH, AND CANCER. ARE THERE CORRELATIONS?

Letícia Alves Rodrigues de Azevedo

<https://orcid.org/0000-0002-8882-1166>
Centro Universitário de Belo Horizonte
(UniBH), Belo Horizonte, Minas Gerais,
Brazil

Clara Sobreira Dias Lopes

<https://orcid.org/0000-0002-5797-4039>
Pontifícia Universidade Católica de Minas
Gerais (PUC Minas), Belo Horizonte, MG,
Brazil

Gustavo Drummond Pinho Ribeiro

<https://orcid.org/0000-0001-8294-0538>
Hospital das Clínicas da UFMG, Belo
Horizonte, MG, Brazil

Lucas Henrique Lobato de Araujo

<https://orcid.org/0000-0001-8528-3166?lang=en>
Hospital das Clínicas da UFMG, Belo
Horizonte, MG, Brazil

Stany Rodrigues Campos de Paula

<https://orcid.org/0000-0001-5164-0954>
Grupo Oncoclínicas, Belo Horizonte, MG,
Brazil

Carolina Martins Vieira

<https://orcid.org/0000-0001-7883-0926>
Grupo Oncoclínicas, Belo Horizonte, MG,
Brazil

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Contributions: All authors influenced the design and/or planning of the study; in obtaining, analyzing and interpreting the data, as well as writing and critically revising it with an intellectual contribution, and approved the final version to be published.

Conflict of interest: none

Funding sources: None

MONKEYPOX, SEXUAL HEALTH, AND CANCER. ARE THERE CORRELATIONS?

Dear Editor, Monkeypox is an infection caused by the monkeypox virus (MPXV) that circulates in animals in Africa and, therefore, is frequently reported in humans on that continent. However, before May 2022, it was a rarely reported disease in other continents; people who lived outside the endemic region and had the disease had usually traveled to such places or through infected animals. The scenario changed when in May 2022, the World Health Organization (WHO) reported 257 laboratory-confirmed cases of smallpox and 120 suspected cases in 23 countries.^{2,3}

Since then, the number of cases has been increasing worldwide, and by October 2022, 71,096 cases were confirmed in 107 countries. Brazil and Spain reported the highest number of cases in the United States. However, in Brazil, the Monkeypox Situation Room, installed in May 2022 to monitor notifications, carry out case investigations, and prepare technical documents to provide public actions, has been deactivated.^{2,3}

The monkeypox virus is closely related to the smallpox virus (both belong to the Poxviridae family), a disease that has been eradicated since 1980. Transmission to humans can occur through contact with an infected animal or another infected human. Man-to-man spread can occur through contact with

skin that has a rash, sore, or smallpox scab, as well as respiratory droplets or oral fluids during intimate contact—kissing, anal sex, vaginal and orovaginal sex. It is essential to highlight that contact with contaminated objects, fabrics, and surfaces is also a form of transmission. The profile of infected people is those who declare themselves to be men who have sex with other men. Meanwhile, the risk of contamination is not limited to sexually active people, i.e., anyone who has close contact with someone with symptoms can contract the disease.⁴

The symptoms of Monkeypox are relatively nonspecific, such as fever, headache, lymph node enlargement, and back and muscle pain. However, not all patients have flu-like symptoms. Frequently, one to three days after the onset of the fever, a rash appears, which usually appears on the face and spreads to other parts of the body, such as the vagina, anus, and mouth. The lesions start hyperemic and evolve into firm fluid-filled blisters and then crusts. These scabs, in turn, will heal after several weeks. For patients with the infection, isolation is recommended for 21 days so that all rashes disappear.⁴

It was observed that the presentation of Monkeypox in the current outbreak has symptomatological characteristics different from those observed in the cases found in Africa. This can delay diagnosis and cause the infected person to come into contact with more people. Thus, health professionals need to be aware of penile and perianal alterations; symptoms with or without lesions, penile edema, rectal pain, and pain on defecation.⁴

Currently, there is still no specific treatment for Monkeypox. The Food and Drug Administration (FDA) approved antivirals for smallpox, tecovirimat and brincidofovir can be used, but there is no evidence to support their effectiveness in this setting. Cidofovir, CMX-001, and ST-246 showed promising

results in *in vitro* and even in *in vivo* studies.¹

Immunosuppressed individuals (such as cancer patients on active treatment) are candidates for antiviral therapy or antibody treatment, as monkeypox infection in this population may be associated with increased mortality, which is typically considered low (ranges from 6 to 8 %) (JAMA). The first death from MPXV in Brazil was recorded on July 29, 2022, referring to a 41-year-old patient hospitalized in Belo Horizonte (MG) with a previous lymphoma diagnosis.^{7,8}

Cancer patients are probably a distinct subgroup - as they have risk factors such as myelosuppression associated with cytotoxic chemotherapy and immune activation associated with immunotherapy. Longer follow-up is needed to understand better the effect of MPXV in cancer patients, including the need to discontinue specific cancer treatments because of the infection.

Prevention, in turn, takes place through avoiding contact with people who are infected or with suspected individuals, in addition to objects that may be contaminated. Patients with a positive or suspected diagnosis must undergo other STI tests, as according to Patel et al. (2020), many had some sexually transmitted infections.⁴

It is known that there is a marginalization in the issue of sexual health in cancer patients, being a subject little explored by the professionals who accompany them. It is necessary that this patient's sexuality is not taboo and that he has the freedom to talk about it, even more so because of the implications of infectious and contagious diseases in immunocompromised patients. Knowing sexual health and guiding the patient properly will prevent Monkeypox and other sexually transmitted infections.⁴

Vaccination can also be an excellent means of prevention, as it aims to break transmission chains and thus control the outbreak. Smallpox

vaccine is now known to cross-protect against Monkeypox, but clinical data are limited. Second- and third-generation smallpox vaccines are safer, and some may be useful in Monkeypox; also, MVA-BN has approved smallpox prevention. The Centers for Disease Control (CDC) recommends giving the vaccine within four days of exposure, which can prevent the disease from occurring, and within two weeks to reduce the severity of symptoms.⁶

According to the OMS, currently, mass vaccination is still not necessary. Thus, WHO's interim guidance on vaccines is that different risk groups, such as immunosuppressed people (among them, cancer patients), should be included. Therefore, a plan for global vaccination against Monkeypox is necessary, as the supply of vaccines is scarce and strategies for accessing distribution are still under discussion. Regarding immunocompromised patients, the response to vaccination may be ineffective (especially if there is a high degree of immunosuppression), and passive immunization through vaccinia immunoglobulin (VIG) may be discussed in severe cases.^{5,6}

Thus, given the entire global scenario of MPXV, Brazil needs to prepare effectively so that the same thing as in the COVID-19 pandemic does not happen. It is believed that we are better prepared to fight this disease. According to several experts, the best way to fight the disease is to test, track and contain it through well-aligned protocols between the Unified Health System (SUS) spheres. Health professionals must be aware of the vulnerabilities that impact social protection, access to education, good levels of health literacy, prevention of diseases and injuries, the possibilities of exercising health promotion and maintaining a good living, and psychosocial well-being.

Thus, groups at risk of developing a

more severe condition or even death from MPXV, such as cancer patients, should be identified and prioritized. Raising public awareness is a fundamental part of controlling the transmission of the disease,

and even immunocompetent individuals should be aware that their behavior can lead to the transmission of the virus to other immunologically weakened people, resulting in more severe conditions.

REFERENCES

1. Sala de Situação de Monkeypox [Internet]. Ministério da Saúde. Available from:<https://www.gov.br/saude/pt-br/composicao/svs/resposta-a-emergencias/sala-de-situacao-de-saude/sala-de-situacao-de-monkeypox>
2. Gessain A, Nakoune E, Yazdanpanah Y. Monkeypox. Hardin CC, editor. *New England Journal of Medicine*. 2022 Oct 26;
3. Mulka L, Cassell J. The changing face of monkeypox. *BMJ*. 2022 Aug 10;01990.
4. Guarner J, del Rio C, Malani PN. Monkeypox in 2022—What Clinicians Need to Know. *JAMA* [Internet]. 2022 Jun 13 [cited 2022 Jun 16].
5. Rizk JG, Lippi G, Henry BM, Forthal DN, Rizk Y. Prevention and Treatment of Monkeypox. *Drugs* [Internet]. 2022 Jun 28;82.
6. Menezes YR, Miranda AB de. Severe disseminated clinical presentation of monkeypox virus infection in an immunosuppressed patient: first death report in Brazil. *Revista da Sociedade Brasileira de Medicina Tropical* [Internet]. 2022 Aug 29 [cited 2022 Sep 5];55.
7. Walter K, Malani PN. What Is Monkeypox? *JAMA* [Internet]. 2022 Jun 9 [cited 2022 Jun 13].