

Editorial

MONKEY POX: A GLOBAL HEALTH HAZARD

Momal Khan¹, Noor-ul-Ain Liaquat²

doi: <https://doi.org/10.51127/JAMDCV5I2editorial>

How to cite this:

Khan M, Liaquat NA. Monkey pox: A global health hazard. JAMDC. 2023;5(2): 55-57

doi: <https://doi.org/10.51127/JAMDCV5I2editorial>

The monkeypox virus was declared a global health hazard by WHO in 2022, affecting six WHO regions with 110 countries reporting almost 87 thousand cases and 112 deaths worldwide.¹ The virus belongs to the genus Orthopoxvirus and has two clades, clade I and clade II. The recent monkeypox outbreak in 2022-2023 was caused by the clade IIb strain.

The first human case was reported back in 1970 in Congo, Africa.² Monkeypox was endemic in Africa but did not gain much recognition until its outbreak in the United States of America in 2003. The virus spread to the United Kingdom (UK) when a British citizen visited Nigeria and contracted the disease, resulting in becoming an index case in the UK.³ As of January 2023, 85,142 cases have been reported worldwide with the highest number of cases reported in the USA (29980).² In Southeast Asia, the outbreak began on 18th August 2022 and India reported 12 cases and 1 death till September 2022.⁴ In Pakistan 2 cases have been reported in Jinnah Hospital Lahore resulting in WHO declaring it a global health hazard in 2022.⁵ Worldwide, most deaths were reported in the United States (21) followed by Brazil (14), Peru confirmed 12 deaths, Nigeria 7, while Mexico and Ghana reported 4 deaths each and Spain and Cameroon each had 3 deaths.³ The virus multiplies in rodents and small mammals which is then transmitted to humans via direct contact with infected animals having open wounds and scabs.

In humans, it is transmitted by direct contact with infected lesions, droplet infection, fomites and sexual transmission especially in homosexual males.⁶ The individuals most likely to be at risk are male homosexuals, people with multiple sex partners, sex workers, and healthcare workers. Children, pregnant females, HIV patients and those who are immunosuppressed are most likely to have more severe disease.

The mean incubation period of the disease is 9 days.⁷ The infected patient may experience nonspecific symptoms such as fever, headache, chills and backache. There can be lymphadenopathy and skin rash is a hallmark of the disease. The rash is vesiculopapular in nature and can lead to permanent scarring and discoloration, which can have a huge psychological impact on the affected individual. The rash can be swabbed and sent to the lab for PCR to reach the final diagnosis.⁸ The disease can progress to severe complications such as cellulitis, abscess, pneumonia, diarrhoea, sepsis or septic shock, keratitis and encephalitis.⁹ Once diagnosed, the patient is isolated. Most people recover with hydration and supportive treatment with no need for pharmacological therapy, while a few people might need antivirals. Cidofovir and tecovirimat are currently approved for the treatment of people showing severe signs and symptoms of monkeypox. Active immunization can be achieved in susceptible patients via the vaccinia virus vaccine which is the same vaccine used for protection against smallpox. In immunosuppressed patients, vaccinia immunoglobulins can be used for restraining the disease.¹⁰ As with any other disease or health hazard, prevention is considered a far

¹MCPS trainee Community Medicine, Akhtar Saeed Medical and Dental College, Lahore.

²FCPS trainee Community Medicine, Akhtar Saeed Medical and Dental College, Lahore.

better option than treatment. The same is the case with monkeypox, the precautionary measures that are advised for the control and prevention of the disease are surveillance, isolation, and contact tracing. Personal preventive measures advised for prevention of the disease are to avoid close contact with the patient, disinfect the household items used by the affected individual, repeated handwashing, wear disposable gloves and masks, avoid contact with wild animals and unprotected homosexual activity.⁹ Mass Vaccination is not recommended for the general population as a preventive measure, but it is indicated for healthcare workers who are constantly involved in working with patients suffering from Monkeypox.¹¹ The psychological load connected with this disease's treatment poses a challenge for institutions and will most likely require a long-term commitment.¹² Government of Pakistan has requested WHO to provide the Monkeypox vaccine for frontline Health care workers. WHO has promised to provide Mpox vaccine despite its short supply globally and will also assist the Pakistani government in lab testing and provision of testing kits.

Pakistan, being a developing country and already combating diseases that have been eradicated worldwide such as polio, must be hypercautious for infections that can be controlled in the initial stages. The coronavirus pandemic has already drained the country of its resources and being struck by another pandemic would leave us in shambles. Henceforth, it is the need of the hour to be foresighted and be aware of the disastrous effects it can have on the social, financial, mental, and emotional status of the country. Health education is the key to halting the progress of the disease as it is the best way to control any infectious disease.

REFERENCES

1. Mpox (monkeypox) (no date) World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/monkeypox-07> June 2023
2. Bukhari MH. The truth of monkeypox outbreak: a guide for the diagnostic laboratories, health care workers and community in Pakistan. *Biomedica*. 2022 Jun 10;38(2):53-6. doi: 10.51441/biomedica/5-734
3. Karagoz A, Tombuloglu H, Alsaed M, Tombuloglu G, AlRubaish AA, Mahmoud A, et al. Monkeypox (mpox) virus: Classification, origin, transmission, genome organization, antiviral drugs, and molecular diagnosis. *J Infect Public Health*. 2023 Feb 9. <https://doi.org/10.1016/j.jiph.2023.02.003>,
4. Siddiqui JA, Aamar H, Rija A, Essar MY. Preparedness of Pakistan in view of monkeypox emergence: a call for action. *Int J Surg*. 2023 Jan 1;109(1):34-5.
5. Abdullah, Ali S, Cancado FA, de Oliveira CA. The emergence of Monkeypox virus, new challenges to the healthcare settings in Pakistan. *J Med Virol*. 2023 Jan;95(1):e27899. doi: 10.1002/jmv.27899.
6. Wang Y, Leng P, Zhou H. Global transmission of monkeypox virus—a potential threat under the COVID-19 pandemic. *Front Immunol*. 2023;14. doi: 10.3389/fimmu.2023.1174223.
7. Miura F, van Ewijk CE, Backer JA, Xiridou M, Franz E, de Coul EO, et al. Estimated incubation period for monkeypox cases confirmed in the Netherlands, May 2022. *Eurosurveillance*. 2022 Jun 16;27(24):2200448. <https://doi.org/10.2807/1560-7917.ES.2022.27.24.2200448>.
8. Altindis M, Puca E, Shapo L. Diagnosis of monkeypox virus—An overview. *Travel Med. Infect. Dis* 2022 Sep 13:102459. <https://doi.org/10.1016/j.tmaid.2022.102459>.
9. Jiang RM, Zheng YJ, Zhou L, Feng LZ, Ma L, Xu BP, et al. Diagnosis, treatment, and prevention of monkeypox in children: an experts' consensus statement. *World J Pediatr*. 2023 Mar;19(3):231-42.
10. Khani E, Afsharirad B, Entezari-Maleki T. Monkeypox treatment: current evidence and future perspectives *J Med Virol*. 2023 Jan;95(1):e28229.
11. Reina J, Iglesias C. Vaccines against monkeypox. *Medicina clinica (English ed.)*. 2023 Apr 6;160(7):305-9. doi: 10.1016/j.medcle.2023.01.005

12. Hirani R, Rashid D, Lewis J, Hosein-Woodley R, Issani A. Monkeypox outbreak in the age of COVID-19: a new global health emergency. *Mil Med Res.* 2022 Dec;9(1):1-2. <https://doi.org/10.1186/s40779-022-00419-7>