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### Opinion

# Monkeypox in India and its Myths

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## Article Info

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According to the World Health Organization (WHO), the disease, which is known as monkeypox, was initially detected in Kerala and has been found in 78 nations, with more than 18,000 patients [1]. The first case of monkeypox in India was reported in Kerala [2]. The affected man displayed indications of the illness when he returned to Kerala from the UAE, according to Kerala's Health Minister, Veena George [1]. He experienced monkeypox symptoms and was in close contact with a victim in another country [1]. However, 10 cases of monkeypox have been reported in Kerala, India [1]. According to the Health Department official statement, the India's first verified case of monkeypox was treated and released at the Government Medical College Hospital in Thiruvananthapuram [3].

The virus that causes monkeypox belongs to the family Poxviridae's. It is a virus. It wasn't made by people; instead, it was made by wild creatures [4]. There are two primary strains: The congo strain

which can cause death (up to 10% mortality), and the West African strain, which has a 1% fatality rate [6].

After having symptoms, the patient should seek medical attention and testing [11]. Then separate yourself by avoiding touch with others. The WHO advises that individuals clean their hands on a regular basis [2].

There are currently no specific vaccines to treat monkeypox virus, but an antiviral developed to treat smallpox (tecovirimat or TPOXX) has been approved for treatmentof monkeypox, and other vaccines for smallpox exist because they are from the same family, but they provide limited protection against monkeypox compared to TPOXX [7].

Even if the number of cases of monkeypox is rising, fewer people die from it than during the COVID-19 epidemic [13]. Monkeypox is not a novel strain of COVID-19. Even though monkeypox is a member of a separate family (Poxviridae)[4]), it has a unique transmission and lifespan. Unlike COVID, it is not disseminated by the air [2]. Since it was initially found in the 1950s through a study on monkeys, monkeypox is not a new illness [2]. The first case of monkeypox in humans was recorded in 1970 in the Congo African area. Even the monkeypox illness has been thoroughly researched, and medical literature contains all of the information on its distribution and prevention [14]. This virus affects animals as well as people. When people come into contact with contaminated animal flesh, they become infected with the virus.

Monkeypox is not a disease that only affects gay and bisexual men; rather, it is a disease that is only spread by infected animals and humans. Infection occurs when an infected animal is consumed or comes into contact with meat or blood. The infected person can also infect the host when they come into close contact, such as through clothing, bedding, sharing towels, and using the same utensils [10].

The first instance of monkeypox was discovered in monkeys in the 1950s, and was given the name monkeypox. When people come into intimate contact with ill or dead animals, they can get the monkeypox virus, which is exclusively transferred among animals and does not just harm monkeys [16].

The monkeypox virus is self-limiting since the majority of its symptoms go away quickly. In certain instances, it is lethal to people and is severe. Although there is no particular vaccination for monkeypox, it can be treated with TPOXX, a vaccine that is more resistant to the monkeypox virus since smallpox and monkeypox are members of the same family of viruses [15]. The monkeypox is a treatable disease but it should be prevented by international level vaccination programs since the treatment leads to health and commercial loss of patients. Authentic awareness among the people about this disease is recommended as there are people who spread information which has no scientific evidence and help the society to be away from the panic and suffering of a health issue under study.

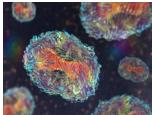


Figure 1: Monkeypox Virus [5]



Figure 2: Monkeypox symptoms [10]



Figure 3: Monkeypox vaccine [12] Authors' contributions: MPS, UM, MGP, MS: Developed an idea and wrote the manuscript, AJ, SSK: Verified the data.

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**References:** 

- 1. The Hindustan times [citedOct 172022]. Available from: https://www.hindustantimes.com/india-news/firstmonkeypox-case-reported-in-india-symptoms-treatment-andvaccines-101657809922266.html.
- World Health Organization [citedOct 172022]. Available from: https://www.who.int/news-room/factsheets/detail/monkeypox.
- 3. Shine J. India confirms first case of monkeypox death.
- Shafaati M, Zandi M. State-of-the-art on monkeypox virus: an emerging zoonotic disease. Infection. 2022October3. epub ahead of print;50(6):1425-30. doi: <u>10.1007/s15010-022-</u> <u>01935-3</u>, PMID <u>36192607</u>.
- 5. CelPres [citedOct 172022]. Available from: https://www.sciencedirect.com/science/article/pii/S14778939 22001600.
- 6. World Health Organization (WHO) [citedOct 172022]. Available from: https://www.sciencedirect.com/science/article/pii/S14778939 22001600.

- Russo AT, Grosenbach DW, Brasel TL, Baker RO, Cawthon AG, Reynolds E et al. Effects of treatment delay on efficacy of tecovirimat following lethal aerosol monkeypox virus challenge in cynomolgus macaques. J Infect Dis. 2018;218(9):1490-9. doi: 10.1093/infdis/jiy326, PMID 29982575.
- Kumar N, Acharya A, Gendelman HE, Byrareddy SN. The 2022 outbreak and the pathobiology of the monkeypox virus. J Autoimmun. 2022;131:102855, ISSN 0896-8411. doi: 10.1016/j.jaut.2022.102855, PMID 35760647.
- 9. Cleveland Clinic. Monkeypox [citedOct 172022]. Available from: https://my.clevelandclinic.org/health/diseases/22371monkeypox.
- Kekatos M. These are the symptoms of monkeypox and how to treat them. ABC News [cited Oct 1720]. Available from: https://abcnews.go.com/Health/symptomsmonkeypox-

treat/story?id=84907957.11.Healthline. Available from: https://abcnews.go.com/Health/symptoms-monkeypox-treat/story?id=84907957. Vol. 22.

- Arora S. Monkeypox vaccine IMVANEX approved by European Commission. Adda [cited Oct 172022]. Vol. 24\*7 Current Affairs;July272022. Available from: https://currentaffairs.adda247.com/monkeypox-vaccineimvanex-approved/Last.
- Sitaula C, Shahi TB. Monkeypox virus detection using pretrained deep learning-based approaches. J Med Syst. 2022;46(11):78. doi: <u>10.1007/s10916-022-01868-2</u>, PMID 36201085.
- Petersen BW, Kabamba J, McCollum AM, Lushima RS, Wemakoy EO, MuyembeTamfum JJ et al. Vaccinating against monkeypox in the Democratic Republic of the Congo. Antiviral Res2019February. 2019;162:171-7. doi: <u>10.1016/j.antiviral.2018.11.004</u>, PMID 30445121, PMCID <u>PMC6438175</u>.
- 15. Centers for disease control and prevention. Patient'sguide to monkeypoxtreatment with

TPOXX. Last updatedSep 19, 2022 https://www.cdc.gov/poxvirus/monkeypox/ifsick/treatment.html#:~:text=There%20are%20no%20trea tments%20specifically,used%20to%20treat%20monkeyp ox%20effectively. [last accessedOct 182022].

 United Nations. UNnews global perspectives human stories;July. Available from: https://news.un.org/en/story/2022/07/1123212. Vol. 2 52022 [citedOct 182022].

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