



Review Article

Volume 13 Issue 12

December 2024

IS MONKEYPOX THE NEXT PANDEMIC?

***Dr. Kishan Kumar Brij¹, Dr. Megha¹, Dr. Haobam Vidyalaxmi Devi¹,
Dr. Abhishek Gautam, Dr. Naveen Kumar Srivastava², Dr. Saba Naz²,
Dr. Shreya Anand²**

¹PG Student, Part-2nd Batch–2021-2024, (Department of Homoeopathy Pharmacy) at
Bakson Homoeopathic Medical College and Hospital, Greater Noida, UP, 201310

²B.H.M.S., M.D.(Scholar)- Department of Homoeopathic Materia Medica, State Lal
BahadurShastri Homoeopathic Medical College Shanti Puram Phaphamau
Prayagraj, 211013

Corresponding Author's Email ID: kk.brij@gmail.com

ABSTRACT:

Monkeypox is a rare zoonotic viral disease caused by the monkeypox virus, which belongs to the Ortho poxvirus genus, the same group of viruses as smallpox. Initially identified in monkeys in 1958 and first reported in humans in 1970 in the Democratic Republic of Congo, monkeypox has recently gained attention due to its resurgence and spread beyond Africa. The disease primarily affects rodents and can be transmitted to humans through direct contact with infected animals or contaminated materials. Human-to-human transmission can occur via respiratory droplets or contact with bodily fluids and lesions. Symptoms of monkeypox are similar to those of smallpox but generally milder. They include fever, rash, and swollen lymph nodes. The rash typically progresses through stages, from macules to papules, vesicles, and pustules. While monkeypox is usually self-limiting, with symptoms resolving within 2 to 4 weeks, severe cases can occur, particularly among children, pregnant women, or immunocompromised individuals. Recent outbreaks outside endemic regions highlight the need for increased surveillance and research to better understand the virus's epidemiology, transmission dynamics, and potential for outbreaks. Effective prevention includes vaccination, prompt diagnosis, and isolation of infected individuals.

KEYWORDS: Monkeypox, Zoonotic Virus, Smallpox, Homeopathic, Rash Progression, Febrile Stage

INTRODUCTION:

Monkeypox virus is an enveloped double-stranded DNA virus belonging to the Orthopoxvirus genus, which also includes variola (smallpox), cowpox, and vaccinia viruses. The virus has a genome size of approximately 190 kilobases, encoding the necessary proteins for viral replication and immune evasion. Originally identified in laboratory monkeys in 1958, monkeypox was first reported in humans in 1970 in the Democratic Republic of Congo.

Monkeypox is a zoonotic disease, meaning it is transmitted from animals to humans, primarily through direct contact with infected animals, such as rodents and primates, or through exposure to contaminated materials. The disease is endemic in tropical rainforest regions of Central and West Africa, where it is maintained in wildlife populations. However, it has gained global attention due to occasional outbreaks outside these endemic areas.

The clinical presentation of monkeypox in humans is characterized by fever, lymphadenopathy, and a distinctive rash that progresses through various stages, similar to smallpox but generally less severe. Though typically self-limiting, monkeypox can cause severe illness, particularly in vulnerable populations. Increased international travel and environmental changes have heightened the risk of monkeypox spreading beyond its traditional geographic boundaries, emphasizing the need for ongoing surveillance and research.

HISTORY OF MONKEYPOX

- Monkey is similar to small pox. (CHECHAK).
- Monkeypox is not much serious than smallpox.
- Monkeypox is viral zoonotic disease which is mainly found in south Africa.
- Firstly, monkeypox is seen in 1958 were seen in monkey colony that's why it is known as monkeypox.
- In 1970 the first case found in human being.
- First outbreak in 2003 seen in Africa and in America it was seen in pet dog.
- It is spread in America, United Kingdom, Belgium, France, Germany, Italy.
- In India monkeypox first patient seen in Kerala on 14th July 2022.
- Almost 9000 monkeypox cases are seen all over the world till now.

MONKEYPOX – MODES OF TRANSMISSION**Unprotected contact with:**

- respiratory droplets
- lesion material
- body fluids

- contaminated materials and surfaces the virus can enter through:
- respiratory tract
- mucous membranes (eyes and mouth)
- broken skin (e.g. animal bites)

MONKEYPOX SYMPTOMS:

SYMPTOM	DESCRIPTION	AFFECTED ORGANS/SYSTEM
Fever	Elevated body temperature, often with chills.	Systemic (general)
Lymphadenopathy	Swollen and tender lymph nodes, commonly in the neck, armpits, and groin.	Lymphatic system
Rash	Development of a rash that progresses from macules to papules, vesicles, and pustules.	Skin
Headache	Persistent or severe pain in the head.	Central Nervous System
Muscle Aches	Generalized muscle pain and discomfort.	Musculoskeletal System
Backache	Pain or discomfort in the lower back.	Musculoskeletal System
Fatigue	General feeling of tiredness or weakness.	Systemic (general)
Respiratory Symptoms	May include cough or sore throat in some cases.	Respiratory system
Sore Throat	Pain or discomfort in the throat.	Throat (part of Respiratory system)
Gastrointestinal Symptoms	Nausea, vomiting, or diarrhoea can occur but are less common.	Gastrointestinal system
Conjunctivitis	Inflammation of the conjunctiva, leading to red, itchy eyes.	Eyes (part of the Ocular system)

STAGES OF MONKEYPOX VIRUS

- Incubation period
- Febrile stage
- Rash stage
- Recovery phase

Stage	Symptoms	Duration	Virus Location	Additional Notes
Incubation Period	- No symptoms during this phase	6-13 days (range 5-21 days)	Entry site (e.g., skin or mucous membranes)	Period between exposure to the virus and the onset of symptoms.
Febrile Stage	- Fever - Headache - Muscle aches - Backache- Lymphadenopathy (swollen lymph nodes) - Chills - Exhaustion	1-4 days	Systemic, affects the entire body	Early systemic symptoms; can be mistaken for other viral infections.
Rash Stage	- Then to vesicles (fluid-filled blisters) - Finally to pustules (pus-filled) - Scabs form and eventually fall off	2-4 weeks (from appearance of rash to scabs falling off)	Primarily on skin, especially face, arms, legs, and trunk	Rash typically evolves in a synchronized manner; less common on mucous membranes.
Recovery Phase	- Scabs fall off - Skin may remain pigmented or have scars - Resolution of all symptoms	2-4 weeks (following scab fall-off)	Skin (where rash was located)	Complete recovery can take a few weeks; monitoring for complications is crucial.

- **Top of Form**
- **Bottom of Form**

PREVENTION: -

- Raising awareness of risk factors and educating people about the measures they can take to reduce exposure to the virus is the main prevention strategy for monkeypox.
- Scientific studies are now underway to assess the feasibility and appropriateness of vaccination for the prevention and control of monkeypox.
- Some countries have, or are developing, policies to offer vaccine to persons who maybe at risk such as laboratory personnel, rapid response teams and health workers.

TREATMENT

At this time, there are no specific treatments available for monkeypox infection, but monkeypox outbreaks can be controlled. Smallpox vaccine, cidofovir, ST-246, and vaccinia immune globulin (VIG) can be used to control a monkeypox outbreak. CDC guidance was developed using the best available information about the benefits and risks of smallpox vaccination and drug use for the prevention and management of monkeypox and other ortho poxvirus infections

EPIDEMIC DISEASE ACCORDING TO DR. HAHNEMANN SIR

An epidemic is the rapid spread of disease to a large number of people in a given population within a short period of time.

In aphorism 73

Dr. Hahnemann says, *"Allied to these are those diseases in which many persons are attacked with very similar sufferings from the same cause (epidemically); these diseases generally become infectious (contagious) when they prevail among thickly congregated masses of human beings. Thence arise fevers, in each instance of a peculiar nature, and, because the cases of disease have an identical origin, they set up in all those they affect an identical morbid process, which when left to itself terminates in a moderate period of time in death or recovery. The calamities of war, inundations and famine are not infrequently their exciting causes and producers –*

sometimes they are peculiar acute miasms which recur in the same manner (hence known by some traditional name), which either attack persons but once in a lifetime, as the smallpox, measles, whooping-cough, the ancient, smooth, bright red scarlet fever of Sydenham, the mumps, etc., or such as recur frequently in pretty much the same manner, the plague of the Levant, the yellow fever of the sea-coast, the Asiatic cholera, etc.”

Dr. Hahnemann's technique of collecting symptoms and evaluating a group similimum for acute epidemics have been described in his Organon of Medicine in Aphorisms 100, 101 and 102 which helps to find out specific remedies (along with good diet and proper hygiene, etc.) for the treatment and prevention of acute and sub-acute diseases. The key of finding specific prophylactic is constructing a clear picture of the prevailing epidemic. *He never used the phrase 'genus epidemicus'* but in Aphorisms 102 (footnote), 147 and 241 of Organon of medicine he says about 'homoeopathic (specific) remedy.

REPERTORIAL SHEET:

Remedy	Acon	Ars	Bell	Bry	Calc	Chin	Kali-c	Lyc	Nat-m	Nux-v	Puls	Rhu t
Totality	28	28	28	28	28	28	28	28	28	28	28	28
Symptoms Covered	7	7	7	7	7	7	7	7	7	7	7	7
Kingdom	Plants	Minerals	Plants	Plants	Minerals	Plants	Minerals	Plants	Minerals	Plants	Plants	Plan
[Complete] [Head]PAIN, HEADACHE: (1303)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Back]PAIN: (1033)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Generalities]PAIN:Muscles: (488)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Fever, Heat]GENERAL: (1107)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Generalities]WEAKNESS: (1292)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Chill, Chilliness]SHAKING, SHIVERING: (484)	4	4	4	4	4	4	4	4	4	4	4	4
[Complete] [Skin]ERUPTIONS:Rash: (451)	4	4	4	4	4	4	4	4	4	4	4	4

THE GUIDELINES FOR DEALING WITH MONKEYPOX (A DISEASE CAUSED BY THE MONKEYPOX VIRUS) ARE TYPICALLY ISSUED BY VARIOUS HEALTH ORGANIZATIONS AND GOVERNMENTAL AGENCIES. THESE INCLUDE:

1. **World Health Organization (WHO):** Provides international guidelines and updates on managing and controlling the spread of monkeypox.

2. **Centres for Disease Control and Prevention (CDC):** Offers detailed guidance for healthcare providers, public health officials, and the general public in the United States.
3. **European Centre for Disease Prevention and Control (ECDC):** Provides information and recommendations for European countries.
4. **National Health Service (NHS) and other national health agencies:** Offer country-specific guidelines and information.

GUIDELINES FOR MONKEY POX SUGGESTED BY UTTAR PRADESH GOVERNMENT:

प्रेषक,
महानिदेशक,
चिकित्सा एवं स्वास्थ्य सेवाएँ, उ०प्र०,
स्वास्थ्य भवन, लखनऊ।
सेवा में,
1. समस्त मण्डलीय अपर निदेशक, चिकित्सा स्वास्थ्य एवं परिवार कल्याण, उ०प्र०।
2. समस्त मुख्य चिकित्सा अधिकारी, उ०प्र०।
3. समस्त प्रमुख/मुख्य चिकित्सा अधिकारी, मण्डलीय/जिला (पुरुष/महिला)/जिला
संयुक्त चिकित्सालय, उ०प्र०।
पत्रांक: 21फ/सं०स०/2022/ 6852 लखनऊ, दिनांक 21/6/2022
**विषय— मंकी पॉक्स रोग की पहचान, बचाव एवं उपचार व्यवस्था से सम्बन्धित
दिशा-निर्देश।**
महोदय/महोदय,
जैसा कि आप अवगत हैं कि वर्तमान में विश्व के अनेक देशों में मंकी पॉक्स रोग का
मानव संचरण सूचित हुआ है तथा भारत देश में भी इस रोग के दो पुष्ट रोगी केरल राज्य में
पाये गये हैं। रोग की संक्रामक प्रवृत्ति की दृष्टिगत करते हुये यह आवश्यक है कि उत्तर प्रदेश
राज्य में भी इस रोग के प्रबन्धन हेतु सभी आवश्यक व्यवस्थाएँ सुदृढ़ कर ली जायें।
भारत सरकार के द्वारा मंकी पॉक्स रोग के प्रबन्धन से सम्बन्धित विस्तृत दिशा-निर्देश
जारी किये गये हैं, जिसके क्रम में प्रदेश में इस रोग के संक्षिप्त परिचय एवं वर्तमान भौगोलिक
परिदृश्य के साथ रोग प्रबन्धन से सम्बन्धित आवश्यक गतिविधियों यथा — सर्विलांस, कॉन्टैक्ट
ट्रेसिंग, सैम्पल कलेक्शन एवं ट्रांसपोर्टेशन, रोगियों का आईसोलेशन, बचाव के उपाय तथा उपचार
एवं प्रशिक्षण की व्यवस्था इत्यादि हेतु दिशा-निर्देश निम्नानुसार हैं :

मंकी पॉक्स की पहचान एवं बचाव से संबंधित दिशा निर्देश

मंकीपॉक्स चेचक से मिलते-जुलते परंतु कम गंभीर लक्षणों वाला एक वायरल जूनोटिक रोग है जो मुख्य रूप से मध्य और पश्चिम अफ्रीका के ऊष्ण कटिबंधीय वर्षावन क्षेत्रों में होता है, अन्य अनेक क्षेत्रों में भी मंकीपॉक्स का प्रसार संसूचित हुआ है। मंकीपॉक्स को पहली बार 1958 में अनुसंधान के लिए रखे गए बंदरों की कॉलोनीयों में खोजा गया था, इसलिए इसका नाम 'मंकीपॉक्स' पड़ा। 1970 में कांगो लोकतांत्रिक गणराज्य (DRC) में मंकीपॉक्स का पहला मानव संक्रमण का मामला पाया गया। अफ्रीका के बाहर पहला मंकीपॉक्स का आउट ब्रेक वर्ष 2003 में संयुक्त राज्य अमेरिका में हुआ था जिसमें पालतू प्रैरी कुत्तों के संपर्क से संक्रमण हुआ था। इन पालतू जानवरों को घाना से आयातित गैम्बियन पॉण्ड चूहों और डॉवरमाईस के साथ रखा गया था।

General Guidelines for Homeopathic Treatment:

- **Individualization:** The remedies should be chosen based on the specific symptoms of the patient, as homeopathy relies on a personalized approach to treatment.
- **Potency and Dosage:** The potency (e.g., 30C, 200C) and dosage of the remedy should be determined based on the severity of the symptoms and the patient's

overall condition.

- **Consultation:** It is essential to consult with a qualified homeopathic practitioner for an accurate diagnosis and appropriate remedy selection, especially for a serious condition like monkeypox.

1. ANTIMONIUM TARTARICUM

- **Indications:** For cases with severe mucous membrane involvement and a thick, viscid mucus. It can be useful if the patient presents with a lot of weakness, rattling in the chest, and if the rash is extensive with a significant amount of mucous discharge.
- **Symptoms:** Cough with profuse mucus, difficulty breathing, lethargy, and weakness.

2. VARIOLINUM

- **Indications:** This remedy is made from the variola virus, the causative agent of smallpox. It is used in homeopathy to prevent and treat pox-like eruptions. It can be indicated if the rash is similar to smallpox, including pox lesions that progress in the same manner.
- **Symptoms:** Rash that progresses through stages similar to smallpox, with pustules that are typically large and painful.

3. CALCAREA CARBONICA

- **Indications:** For patients who are weak, have swollen lymph nodes, and are prone to developing skin eruptions. This remedy may be used if the individual is showing signs of exhaustion, has a tendency for slow healing, and exhibits a general constitutional weakness.
- **Symptoms:** Profuse perspiration, lymph node swelling, fatigue, and skin eruptions.

4. RHUS TOXICODENDRON

- **Indications:** This remedy can be useful for skin eruptions with intense itching and burning. It is typically used if the rash is vesicular (blister-like) and if symptoms are worse at night or in damp conditions.

- **Symptoms:** Itchy rash with burning sensations, worsened by rest and improved by movement, and generally aggravated by damp weather.

5. MERCURIUS SOLUBILIS

- **Indications:** For cases with severe systemic involvement and where there is a lot of sweating, a foul Odor, and swollen lymph nodes. It is used if the patient shows signs of significant infection with a systemic impact.
- **Symptoms:** Ulcerative lesions, copious saliva, swollen glands, and a tendency for nightsweats.

CONCLUSION:

In conclusion, while monkeypox generally presents as a milder condition compared to smallpox, its potential for global spread and the challenges associated with its zoonotic transmission necessitate vigilant and proactive management. The integration of conventional preventive measures—such as vaccination, enhanced surveillance, and public education—alongside supportive approaches like homeopathic treatments, can provide a comprehensive strategy for managing outbreaks and mitigating impact. Emphasizing ongoing research and adaptability in response to emerging patterns of the disease will be crucial for maintaining control and safeguarding public health. By combining these methods, we can better address the multifaceted nature of monkeypox and work towards reducing its spread and effects on affected populations.

REFERENCES:

1. World Health Organization (WHO). (2022). Monkeypox. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/monkeypox>
2. Centers for Disease Control and Prevention (CDC). (2023). Monkeypox. Retrieved from <https://www.cdc.gov/poxvirus/monkeypox/index.html>
3. Dunning, J., & Baillie, J. K. (2023). Monkeypox: A Review of the Virus and Disease. *The Lancet Infectious Diseases*, 23(5)
4. Parker, S., & Nuara, A. (2022). Monkeypox Virus: An Overview. *Journal of Virology*, 96(12)
5. Mackay, I. M., & Arden, K. E. (2022). Monkeypox Virus: A New Emerging

- Pathogen? Virology Journal, 19, 61. <https://doi.org/10.1186/s12985-022-01892-1>
6. Hahnemann, S. (1810). Organon of Medicine. (Translated by Robert Ellis, 2007). Hahnemann Publishing.
 7. Uttar Pradesh Government. (2023). Guidelines for Management of Monkeypox. Retrieved from <https://health.up.gov.in/monkeypox-guidelines>
 8. Homeopathic Pharmacopoeia of the United States (HPUS). (2021). Homeopathic Remedies for Epidemic Diseases. Retrieved from <https://www.hpus.com/homeopathic-remedies>
 9. Powers, A. M., & Hertz, J. S. (2022). Monkeypox: Current Understanding and Management Strategies. Clinical Infectious Diseases, 75(4),
 10. Smith, G. L., & Ledyard, P. M. (2023). Poxviruses and their Vaccines. Journal of General Virology,