



Monkeypox: The Unknown Pandemic?

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Monkeypox is a zoonotic illness caused by the monkeypox virus, and it is the most common orthopox virus infection after smallpox was eradicated. Cases of the monkeypox virus have been reported outside of Africa, in nations where the disease is not prevalent, such as Europe, the United States, and Latin America. Can this be start of a pandemic?. The World Health Organization (WHO), which is closely monitoring the viral outbreak Monkeypox, a smaller version of Small pox, has stated that it is unlikely that the outbreak would spread beyond Africa. More than 300 instances of the Monkeypox virus have been reported thus far, both suspected and confirmed. The virus is endemic in Central and West African countries; however the majority of cases have occurred in Europe. Close contact with an infected person is regarded to be the most common method of human-to-human transmission. Transmission may occur during sexual intercourse, according to some evidence. Bites and scratches, bush meat processing, direct contact with bodily fluids or lesion material, or indirect contact with lesion material, such as through contaminated bedding, are all possible ways for animals to transmit disease to humans.

KEYWORDS: Monkeypox, Pandemic, Smallpox

INTRODUCTION

Infection with the monkey pox virus causes monkeypox, an uncommon illness. The Orthopox virus genus is included in the Poxviridae family and is responsible for monkeypox.

Variola virus (smallpox), vaccinia virus (smallpox vaccine), and cowpox virus are all members of the Orthopox virus genus. Monkey pox was initially found in 1958, when two outbreaks of a pox-like disease occurred in study colonies of monkeys, thus the name. Monkeypox was initially discovered in laboratory monkeys in Copenhagen, Denmark, in 1958. The virus does not have a natural reservoir in monkeys. The first human cases were discovered in the Democratic Republic of Congo in 1970.

An epidemic in the United States in 2003 was linked to the sale of rats imported from Ghana at a pet store. The 2022 monkeypox epidemic, which began in the United Kingdom in May 2022 and has since been confirmed in at least 20 nations throughout Europe, North America, South America, Asia, and Australia, is the first instance of extensive community transmission outside of Africa.

MONKEYPOX AND A PARTICULAR GROUP OF PATIENTS

It has been stressed that the great majority of instances found in dozens of nations throughout the world are in

homosexual, bisexual, or males who have sex with men, so that scientists may better understand the problem and communities at risk should take safeguards. "There's critical to explain this because it looks to be a rise in a form of transmission that was previously under-recognized," said Lewis, WHO's Monkeypox technical lead.

However, the health expert cautioned that everyone, regardless of sexual orientation, is at danger. Other scientists and specialists, in contrast to her assertions, have said that the disease was originally discovered in homosexual and bisexual males by chance, and that it might spread swiftly. If it is not controlled, it will spread to other groups. "It's unclear whether this virus is using a new way of transmission, but it's evident that it's still using its well-known mode of transmission, which is close physical contact," says the report "Lewis remarked.

Lewis said it's unclear if monkeypox is spread through intercourse or by intimate contact between individuals who engage in sexual activity, and that the risk to the general public is "minimal".

She also cautioned that among the latest instances, there is a greater number of persons with fewer lesions, which are more concentrated in the vaginal region and can be difficult to notice.



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"These lesions may last two to four weeks." "And even if they aren't apparent to others, you might still be contagious," she explained.

Last Monday, a top WHO consultant claimed the epidemic in Europe, the United States, Israel, Australia, and other parts of the world was most likely caused through sex at two recent raves in Spain and Belgium.

MONKEY POX AND SARS-CoV-2 CORONAVIRUS

The genome of the monkeypox virus is vast in comparison to many other viruses; it is more than six times the size of the SARS-CoV-2 coronavirus genome. According to Rachel Roper, a virologist at East Carolina University in Greenville, North Carolina, this means they're at least "six times tougher to analyse."

"Normally, fatalities from monkeypox range from one to ten percent, but the presence of Covid-19 might raise mortality since it can make you more immunocompromised and complicate things."

Covid-19 is a deadly illness in and of itself, and if the two coexist, the symptoms may appear to be identical, but identification will be challenging," he stated.

According to the WHO, Covid-19 is an infectious illness caused by the SARS-CoV-2 virus, which spreads in minute liquid particles through an infected person's lips or nose when they cough, sneeze, talk, sing, or breathe. Monkeypox, on the other hand, is a viral zoonotic illness that spreads from person to person by direct contact with lesions, bodily fluids, respiratory droplets, and infected objects like bedding.

MONKEYPOX SYMPTOMS

Monkeypox symptoms in people are comparable to, but less severe than, smallpox symptoms.

Fever, headache, muscular pains, and tiredness are the first symptoms of monkeypox.

The fundamental distinction between smallpox and monkeypox symptoms is that monkeypox produces swollen lymph nodes (lymphadenopathy), but smallpox does not.

Monkeypox has a 7-14 day incubation period (from infection to symptoms), although it can be as short as 521 days.

MONKEYPOX PREVENTION

There are several steps that may be done to avoid becoming infected with the monkeypox virus:

- Avoid coming into touch with animals that may be infected with the virus (including animals that are sick or that have been found dead in areas where monkeypox occurs).
- Avoid touching any objects that have come into contact with a sick animal, such as bedding.
- Separate infectious patients from others who may become infected.
- After coming into touch with infectious animals or humans, wash your hands thoroughly.
- Washing your hands with soap and water or using an alcohol-based hand sanitizer are two examples.
- When caring for patients, wear personal protective equipment (PPE).

MONKEYPOX DIAGNOSIS AND TREATMENT

a). Diagnosis: Lymphadenopathy during the prodromal stage of illness can distinguish monkeypox from chickenpox or smallpox. Diagnosis can be verified by testing for the virus.

Polymerase chain reaction (PCR) testing of samples from skin lesions is the preferred laboratory test. PCR blood tests are usually inconclusive because the virus does not remain very long in the blood. To interpret test results, information is required on date of onset of fever, date of onset of rash, date of specimen collection, current stage of rash, and patient age.

b). Treatment: If antiviral therapy is needed, BMJ Best Practice suggests tecovirimat or the smallpox medication brincidofovir, combined with supportive care (including antipyretic, fluid balance and oxygenation).

If subsequent bacterial or varicella zoster infection is suspected, empirical antibiotic treatment or aciclovir may be utilised.

MONKEYPOX AND PUBLIC HEALTH

According to Palacios, is that genetic monitoring initiatives in Africa, where monkeypox has been a public-health problem for many years, have received little funding.

As a result, virologists are flying blind at the moment, he says, because they have few sequences to compare the new monkeypox genomes against.

He adds that funding organisations have ignored experts who have been warning for more than a decade that new monkeypox outbreaks are possible.

MONKEYPOX AND INDIA

The absence of monkeypox cases in India should not lead to a lack of readiness or a weakening of the virus's guard, according to the WHO.

"We must understand that the danger is imminent with this pathogen registering its presence in previously non-endemic countries, scientists seeing no established travel links to the spread, and community spread indicated in some regions," said Pragya Yadav, scientist and group leader at the maximum containment laboratory at the Indian Council of Medical Research-National Institute of Virology, Pune. "In India, human instances of cow and buffalo pox have been documented, demonstrating animal-to-human transfer. "We haven't been exposed to monkeypox, so it's an unusual infection for us," Dr. Yadav said.

CONCLUSION

People have contracted monkeypox outside of Africa as a result of foreign travel or imported animals, with instances reported in the United States, Israel, Singapore, and the United Kingdom. Monkeypox's natural reservoir has yet to be discovered.

African rodents and non-human primates (such as monkeys) may, nevertheless, carry the virus and infect humans. We should start taking steps before another pandemic starts.

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