



## Reemergence of monkey pox: a new global threat?

Pathum Sookaromdee<sup>1\*</sup> and Viroj Wiwanitkit<sup>2</sup>

<sup>1</sup> Atlantic Pacific University, Chengdu, China

<sup>2</sup> Professor, Dr DY Patil University, Pune, India

Correspondence Author: Pathum Sookaromdee

Received 9 Mar 2022; Accepted 30 Mar 2022; Published 13 Apr 2022

### Abstract

Monkey pox has spread over Europe, posing a serious public health threat. Monkey pox is an unusual pox illness that has resurfaced, and zoonosis is assumed to be the cause. Human-to-human transmission is now being monitored. A growing number of reported instances in numerous countries has drawn the attention of the medical community. COVID-19 taught us that in the event of an outbreak, we must respond quickly, thoroughly investigate, and take action quickly. Although monkey pox is an old disease, it may have a new genetic mutation that causes a more severe illness and a broad epidemic.

**Keywords:** monkey pox, emergence, outbreak

### Introduction

Pox is a serious infection that can lead to an acute sickness with dermatological symptoms. Pox, smallpox, and chickenpox are the most well-known human pox illnesses. Aside from the well-known pox infections, emergent zoonotic pox infections have emerged as a fascinating new topic in infectious medicine [1]. The introduction of monkey pox into Europe has become a growing public health concern [2]. The monkey pox is a type of atypical pox disease, and zoonosis is thought to be the reason for its reemergence [1].

Human monkeypox is a newly discovered viral infection [3]. The disease's endemic region is Africa. The major risk factor for infection is visiting a forest [4]. Monkey pox and varicella co-infection has also been documented [5]. Patients with human monkeypox infection frequently experience acute disease, according to clinical features. The chief signs of the sickness, according to Kalthan *et al*, were fever and rash. Lymphadenopathy was found in 54.5 percent of the participants [6]. Currently, a new diagnostic test kit is available to assist with infection confirmation and diagnosis [7]. The new revelation on expanded human-to-human transmission of monkeypox infection [8] is a major source of concern right now.

### Current concern on monkey pox outbreak from imported cases

A growing number of reported cases in numerous countries has alerted the medical community [2, 9 -10]. Six unconnected persons travelling from Nigeria were diagnosed with monkeypox in non-African countries between September 2018 and May 2021: four in the United Kingdom and one each in Israel and Singapore [9]. In July 2021, a man travelling from Lagos, Nigeria, to Texas became the seventh person diagnosed with monkeypox in a non-African country [8]. 144 (74%) of the 194 monitored interactions were flying contacts [9]. The patient was given tecovirimat, an antiviral for treating orthopoxvirus infections, and his residence had to be decontaminated on a big scale [9]. A case of monkeypox was diagnosed in a returning tourist from Nigeria to Maryland, USA, on March 9, 2022 [10].

Given the global health consequences, Costello proposed that public health systems be informed of viable ways to prevent the spread of monkeypox [10]. Seven monkeypox cases have since been confirmed in England later [2]. These cases of imported monkey pox in both America and Europe could indicate that the illness could resurface in numerous parts of the world.

### Conclusion

The current concern to be monitored is human-to-human transmission. The medical community is paying attention to an increasing number of reported cases in several nations. COVID-19 taught us that in the event of an outbreak, there should be a quick response, thorough investigation, and early control. Monkey pox is an old illness, but it could have a novel genetic aberration that leads to a more troublesome sickness and widespread epidemic. The current need may include a) clinical investigation of newly emerging cases, including in-depth molecular investigation of the pathogen, b) disease control system implementation, including good case screening aimed at preventing disease importation from endemic areas, and c) preparedness for possible large-scale outbreak correspondence.

### References

1. Wiwanitkit S, Wiwanitkit V. Atypical zoonotic pox: Acute merging illness that can be easily forgotten. *J Acute Dis*, 2018; 7:88-89.
2. Mahase E. Seven monkeypox cases are confirmed in England. *BMJ*, 2022, 377 doi: <https://doi.org/10.1136/bmj.o1239>
3. Di Giulio DB, Eckburg PB. Human monkeypox: An emerging zoonosis. *Lancet Infect Dis*, 2004; 4(1):15-25.
4. Quiner CA, Moses C, Monroe BP, Nakazawa Y, Doty JB, Hughes CM, *et al*. Presumptive risk factors for monkeypox in rural communities in the Democratic Republic of the Congo. *PLoS One*, 2017; 12(2):e0168664.

5. Hoff NA, Morier DS, Kisalu NK, Johnston SC, Doshi RH, Hensley LE, *et al.* Varicella coinfection in patients with active monkeypox in the Democratic Republic of the Congo. *Ecohealth*, 2017. doi: 10.1007/s10393-017-1266-5.
6. Kalthan E, Dondo-Fongbia JP, Yambele S, Dieu-Creer LR, Zepio R, Pamatika CM. Twelve cases of monkeypox virus outbreak in Bangassou District (Central African Republic) in December 2015. *Bull Soc Pathol Exot*, 2016; 109(5):358-363.
7. Li D, Wilkins K, McCollum AM, Osadebe L, Kabamba J, Nguete B, *et al.* Evaluation of the geneXpert for human monkeypox diagnosis. *Am J Trop Med Hyg*, 2017; 96(2):405-410.
8. Nolen LD, Osadebe L, Katomba J, Likofata J, Mukadi D, Monroe B, *et al.* Extended human-to-human transmission during a monkeypox outbreak in the Democratic Republic of the Congo. *Emerg Infect Dis*, 2016; 22(6):1014-1021.
9. Rao AK, Schulte J, Chen TH, Hughes CM, Davidson W, Neff JM, *et al.* Monkeypox Response Team. Monkeypox in a Traveler Returning from Nigeria - Dallas, Texas, July 2021. *MMWR Morb Mortal Wkly Rep*, 2022; 71(14):509-516.
10. Costello V, Sowash M, Gaur A, Cardis M, Pasiaka H, Wortmann G, *et al.* Imported Monkeypox from International Traveler, Maryland, USA, 2021. *Emerg Infect Dis*, 2022; 28(5):1002-1005.