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Mpox now a global emergency: a reality versus myths

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Abstract

The global landscape of infectious diseases significantly transformed after the COVID-19 pandemic. Among the growing concerns, mpox had emerged as a serious infectious illness that needed immediate and urgent action. Recognizing the seriousness of the situation, the World Health Organization (WHO) declared mpox a health emergency. The rise in mpox cases has sparked a flurry of arguments and debates among healthcare experts and the general public. This spike of attention, however, has resulted in a proliferation of myths and misconceptions about the condition. In response to this critical moment in global public health, the authors seek to clarify falsehoods while shedding light on the significant difficulties that mpox poses to the healthcare community and society.

Keywords: Mpox (monkeypox); monkeypox virus; communicable diseases; infectious disease medicine; public health; pandemics

1. INTRODUCTION

Mpox has emerged as a significant public health issue. It has been declared a health emergency by the World Health Organization (WHO). The number of cumulative confirmed mpox cases reported to WHO from 1 January 2022 to 7 August 2022 is 27,814. During this time frame, 11 deaths have been attributed to mpox [1].

Because of the recent surge in the number of cases, it has become a hot topic for discussion among healthcare professionals and the general population. This trend has led to some myths or misconceptions about mpox. Therefore, due to its mounting clinical significance, the authors have decided to identify the myths associated with mpox and then try to unmask the reality by providing the rationale behind every fact. In this study, we set out to identify and debunk six common myths and misconceptions.

To do this, we conducted a thorough literature search, focusing on searching databases for review articles, and used particular keywords such as ‘mpox misunderstandings’, ‘common mpox myths’ and ‘challenges in mpox comprehension.’

Our scientific methodology strictly follows evidence-based practice standards customized for literature-based investigations. Our strategy ensured that the issue was thoroughly investigated.

We carefully examined each myth, and our investigation included offering counterarguments and competing opinions. This method gave a comprehensive view of the myths

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around mpox. The research presented here significantly contributes to the world of viral diseases by dispelling common mpox myths. We give significant insights into the virus's origin, routes of transmission, and worldwide consequences through a thorough literature review. Our study improves knowledge and plays an important role in improving public health awareness by addressing misunderstandings. The findings serve as an avenue for future research initiatives, influencing governmental decision-making and creating worldwide awareness of mpox. This study, in essence, presents evidence-based insights that are important for research, public health efforts, and policy creation in the context of mpox. We recommend readers to read our brief review for a thorough examination of these beliefs, complete with data and reasoned arguments debunking these misunderstandings.

2. CLARIFICATION OF COMMON MYTHS ABOUT MPOX

2.1. Myth number 1: Mpox is a newly discovered/identified virus

Verdict: Baseless, illogical reasoning

The long-lasting aftermath of COVID-19 has sensitized the world about the news of any novel or newly extensively monitored and studied. A study reported that 42.7% of participants believed the mpox virus was a new discovery [2]. However, mpox is not a newly identified virus. The available medical literature revealed that mpox was first identified in the laboratory in monkeys in 1958. But it was 1970 when cases of mpox were discovered in humans [3].

The cases were discovered in Congo and had a higher incidence in Central and West African countries. A limited number of these cases have also been found in countries like Israel, Singapore, the UK, and the USA.

It is crucial to make clear that, even though mpox is not a recently discovered disease, current events have departed from previous norms. Mpox has been observed in several nations, deviating from its prior patterns by not being restricted to limited endemics. With this difference, we can better convey to our readers how mpox's epidemiological features are changing. However, we have a pool of authentic data and tested established medical information and guidelines.

It's worth mentioning that the smallpox vaccine is efficacious against the mpox virus. Further, newer vaccines are being developed. Additionally, for treatment purposes, there is also an existing antiviral medication.

2.2. Myth number 2: It's a sexually transmitted infection

Verdict: Not necessarily!

With the recent surge in the number of mpox, the idea of sexual transmission of this disease has been propagated widely. However, despite the involvement of genital areas, it cannot be exclusively labeled as a sexually transmitted disease. Rather, it can spread from one person to the other with close contact, respiratory droplets, sharing fomites, and also through vertical transmission.

Moreover, animal-to-human transmission is also possible. Humans can contract this infection by coming in contact with bodily fluids or through bites of rodents and different species of monkeys [4].

2.3. Myth number 3: Mpox only affects specific groups of the population such as men having sex with men and bisexual men

Verdict: Wrong!

This is a widely propagated concept that mpox involves only men having sex with men and bisexual men [5]. However, it is against the scientific evidence. The review of the medical literature reveals that although it is more prevalent in homosexual and bisexual men, this infection is not solely present in these groups of the population [6]. Pan et al. have revealed numerous transmission mechanisms in their study work. These include transmission from lesions through contact with infectious bodily fluids, respiratory transmission via upper respiratory tract droplets, transmission through sexual contact, transmission between animals and humans, and vertical transmission [7].

It is worth mentioning that this false perception that mpox only affects specific groups of the population such as men having sex with men and bisexual men can lead to the development of stigmatization among the LGBTQ+ community, which can cause significant health disparity.

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2.4. Myth number 4: Mpox is analogous to COVID-19
Verdict: This is not true; the two infections are very different

Although the number of mpox cases has increased tremendously in the past few weeks, the extensive coverage of this infectious disease in print and electronic media has created hype that mpox is the next pandemic affecting the globe just like SARS-CoV-2 [8]. It is propagated that mpox will drastically affect the lives of the masses globally. This statement is false at many levels. First, mpox and SARS-CoV-2 are entirely different viruses belonging to two different virus classes. Furthermore, mpox is not as contagious as COVID-19. The review of the available medical literature revealed that mpox has an annual primary attack rate of 1.7/10,000 in individuals who were not vaccinated for smallpox. Additionally, it is much lower in the vaccinated individuals (0.04/10,000) [9,10]. In contrast, in the case of COVID-19, the overall attack rate was found to be 45% with a 95% confidence interval of 38–53 [11]. The second crucial difference between the epidemics of mpox and COVID-19 is in clinical presentation. COVID-19 mainly involves the respiratory tract, whereas mpox manifests as a painful maculopapular rash. They subsequently develop into vesicles and pustules. These cutaneous lesions are usually well-circumscribed with a central umbilication. The disease usually is self-limiting and resolves over two to four weeks [5].

2.5. Myth number 5: Mpox is limited only to African countries
Verdict: A misconception based on lack of scientific evidence

Historically, the first case of mpox was discovered in the Democratic Republic of Congo, Africa. Afterward, multiple outbreaks of mpox have been reported in Central and Western Africa. The higher prevalence in African countries resulted in a perception that mpox is just limited only to African countries and does not pose any significant risk for the rest of the world. This is factually incorrect as the review of the recent medical literature reveals that mpox also affected United Kindom, Spain, Portugal, Canada, Germany, France, Netherlands, the United States of America, Australia, Italy, Belgium, Switzerland, and the United Arab Emirates [12].

This myth culminated in a false sense of discrimination against certain national, cultural, social, regional, professional, or ethnic groups. Additionally, it negatively affected trade, travel, and tourism in the so-called highly endemic areas. Hence, the WHO has changed the names of two old variants of mpox. The virus found in Central Africa (the Congo Basin virus) was named Clade I, whereas the one found in Western Africa was called Clade II. The WHO has also changed the name of mpox [13].

2.6. Myth number 6: The belief that mpox is not a valid public health concern
Verdict: Wrong and falsely reassuring.

With the tremendous increase in the cases of mpox, initially, there was confusion about mpox as a major public health concern. Therefore, even the public health experts were reluctant to label it as a major public health emergency during the early course of the pandemic. However, on 23 July 2022 WHO announced the multi-countries outbreak of mpox. It also stressed that mpox represented a public health emergency of international concern [14]. However, it is important to note that the status of mpox as a public health emergency has changed over time. Currently, mpox is not a public health emergency.

Serial number	Common myth	Clarification
1	Newly discovered virus	It was first documented in 1958 while researchers were conducting experiments on monkeys. In 1970, cases of mpox were discovered in humans. These were discovered in Congo and more frequently in Central and West African countries.
2	Sexually transmitted infection	It can spread by any form of close contact, respiratory droplets, sharing fomites, and through vertical transmission. Moreover, animal-to-human transmission is also possible, and humans can contract this infection by coming in contact with the body fluids or through bites by rodents and different species of monkeys [4].
3	Affects specific populations depending on the form of sexual activity	This illness does not only affect homosexual and bisexual males, although it is more common among them.

Serial number	Common myth	Clarification
4	Analogous to Covid-19 virus	Mpox is not as contagious as COVID-19. COVID-19 mainly involves the respiratory tract, whereas mpox manifests as a painful maculopapular rash.
5	Limited only to African countries	Multiple outbreaks of mpox have been reported in Central and West Africa. The virus found in Central Africa, Congo basin virus is named Clade I, whereas the virus found in Western Africa is designated as Clade II [13].
6	Mpox is not a valid public health concern	Mpox represents a public health emergency of international concern [14]. However, the status has changed over time.

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Availability of data and material

Upon reasonable request, the datasets of this study can be available from the corresponding author.

Ethics Approval

Not applicable.

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