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EDITORIAL COMMENT

Mpox: A Re-emerging Disease and its Public Health Implications

Mpox: Yeniden Ortaya Çıkan Bir Hastalık ve Halk Sağlığına Etkileri

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In recent years, Mpox (formerly referred to as monkeypox) has gained global attention as a reemerging zoonotic disease with significant public health implications. Initially confined to Central and West Africa, the viral disease has now spread to new regions, raising concerns about its epidemiology, modes of transmission, and the necessity for timely public health interventions.[1]

In the current issue, Eren et al.[2] provide a comprehensive review of Mpox, titled "Mpox: Travel Medicine and Infection Control". First identified in 1958 in monkeys used for research, Mpox was recorded in humans for the first time in the Democratic Republic of the Congo (DRC) in 1970. Since then, sporadic outbreaks have occurred in various parts of Africa, with an increasing frequency observed in recent years. Endemic areas are primarily located in tropical rainforests, where the virus is sustained within animal reservoirs, including rodents and primates, with humans acting as incidental hosts.[1,2]

Historically, human Mpox infections occurred primarily through close contact with infected animals. However, recent outbreaks have revealed a concerning shift toward human-to-human transmission. Notably, transmission now commonly occurs through direct contact with bodily fluids, lesions, or contaminated materials, such as bedding. The increased occurrence of urban outbreaks, particularly in non-endemic countries such as the United States and parts of Europe, underscores the virus's potential to spread beyond its traditional geographical boundaries, thereby elevating the risk of widespread infections.

The surge in Mpox cases outside of Africa, particularly during 2022 and 2023, prompted the World Health Organization (WHO) to declare a global health emergency. This declaration emphasized the potential for Mpox to evolve into a broader public health crisis. Several factors have contributed to the disease's reemergence, including increased global travel, shifting ecological conditions, and a lack of widespread immunity due to the discontinuation of routine smallpox vaccinations.[1,3,4]

The reemergence of Mpox presents several key challenges that complicate its management. Firstly, the disease is often underreported in endemic regions due to weak surveillance systems and limited healthcare access. This underreporting allows the virus to circulate undetected within animal reservoirs and small human outbreaks, thereby increasing the risk of larger outbreaks. Secondly, there remains no widely available, specific treatment for Mpox. The use

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of vaccines is largely limited to smallpox vaccines, which provide some cross-protection. Renewed efforts toward the development of vaccines and therapeutic interventions are essential to preventing large-scale outbreaks.[3,5–7]

On the other hand, the ongoing Mpox outbreaks highlight the broader implications of zoonotic disease reemergence in an increasingly interconnected world. Human interaction with wildlife is rising due to factors such as deforestation, urbanization, and climate change, further increasing the risk of zoonotic disease transmission. Once considered a rare disease confined to specific regions, Mpox now poses a global health threat. Public health strategies must therefore prioritize strengthening disease surveillance systems, improving access to diagnostic tools, and ensuring the equitable distribution of vaccines, particularly to vulnerable populations in endemic areas.[3,4]

In conclusion, the reemergence of Mpox underscores the critical importance of preparedness in global public health.[1] Lessons from past zoonotic outbreaks, including Ebola and COVID-19, serve as reminders that early detection, timely responses, and effective communication are essential to controlling the spread of infectious diseases. As the global community continues to address the challenges posed by Mpox, coordinated international efforts will be indispensable in curbing transmission and preventing future pandemics. The need for proactive and comprehensive measures cannot be overstated - Mpox serves as a potent reminder of the vulnerabilities inherent in global health systems, and the importance of building resilient public health infrastructures worldwide.[8]

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