



## Monkeypox: A Public Health Threat

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After facing the COVID-19 epidemic crisis, the world is at risk of another viral infection, the monkeypox, which has an epidemic potential. Monkeypox is a zoonotic disease caused by the monkeypox virus (1). The virus was first discovered in 1959 among Asian monkeys in Copenhagen, and in 1970 the disease gained attention in western and central Africa when it was found to be causing smallpox-like illness (2). Although it was first discovered among monkeys, natural reservoirs are still unknown. However, evidence suggests that African rodents, especially squirrels, are considered the largest natural reservoir of the monkeypox virus (3). It is also evident that the virus transmission among wild animals usually takes place either through physical contact, air, or handling the excreta. Moreover, human transmission usually occurs through physical contact with the infected person, animal, or contaminated material (2,4).

While talking about the incubation period of monkeypox, the observational studies in the mid-1980s reported it to be 10–14 days (2). A recent study reported it with an average of 5 to 21 days (5). It is established that during the incubation period, the disease is not contagious, and its transmission occurs by handling the body secretions, mostly from the respiratory tract or skin lesions (5,6). Clinical manifestation of monkeypox is more or less similar to the small-pox disease, which includes fever and malaise before the rash appears. However, coupled with these symptoms, almost 90% of patients develop severe lymphadenopathy, a unique feature of monkeypox (1,2,5).

Currently, monkeypox is considered a less severe disease, and most of the cases are found to be recovered on their own. However, the disease-specific mortality rate in Africa is between 1.5% to 17% (1). Although there is no established treatment for monkeypox yet, CDC recommends small-pox

vaccination as pre-exposure and post exposure prophylaxis of monkeypox for those who directly deal with the suspected monkeypox patients (2). Evidence also supports that a small-pox vaccination with 80–95% efficacy has been found to produce immunity against monkeypox (5).

As far as the epidemiology of monkeypox is concerned, the first case was reported in 1970 in Congo (2,7). After the reporting of the first case in 1970, sporadic cases were detected in the Congo basin countries and afterward in regions of western Africa. Presently, the disease is endemic to the Democratic Republic of the Congo (8). In 2003, monkeypox also emerged in the central USA as an outbreak (2). In 2018, the cases were also reported in the United Kingdom, and presently, monkeypox is spreading across countries of Europe and the United States (8).

Possible causes of this increased frequency of cases are the discontinued small-pox vaccination, increased wildlife interaction, and frequent population movement across countries. Moreover, a long incubation period of 21 days has also increased the risk of disease spread from endemic countries to the rest of the world (9).

Thus, it is established that monkeypox is an emerging zoonosis gaining the potential of an epidemic. Although, according to the daily times on June 4, 2022, there have been no reported cases of monkeypox in Pakistan so far, the government has declared a high alert in the country (10). Furthermore, the increasing number of monkeypox cases in non-endemic countries has made it a public health threat for Pakistan. The situation requires the surveillance of disease at a country level, and timely detection and notification of suspected cases are important for the effective implementation of preventive measures.

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