

Short Report

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Monkeypox – A new pandemic!?

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Abstract

Monkeypox is Atypical zoonotic Orthopoxvirus infection and is classified in the same viral subfamily as smallpox. Monkeypox is transmitted to humans by direct contact between humans and bush animals like rodents. In this article we are discussing the course of transmission, symptoms and sign along with treatment and prevention of the disease, what appropriate measures can be taken to overcome the new outbreak.

Keywords: Monkeypox; New outbreak; Orthopox virus.

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Introduction

Monkeypox is Atypical zoonotic Orthopoxvirus infection and is classified in the same viral subfamily as smallpox. Monkeypox is transmitted to humans by direct contact between humans and bush animals like rodents. Interhuman transmission cases which were inconsequential and in minor percentages are now on the rise. The recent outbreak of Monkeypox in the human population could be due to the close contact with contagious external lesions, blood, bodily fluids, and secretions of infective rats, squirrels, and monkeys. Moreover Eating undercooked meat of infected animals is a possible risk factor. It can spread between people through close physical contact or contact with contaminated fomites e.g. shared linens.

Clinical presentation

Clinical presentation includes an initial febrile period of 1–4 days, generalized headache, and fatigue followed by circumscribed lesions present in an eccentric distribution on the palms of the hands and soles of the feet. Lesions are synchronic in their development and in progression of the rash which advanc-

es through the stages of macule, papule, vesicle, and pustules that eventually dry up and the skin desquamates occurs 2 to 4 weeks after the rash onset. Transmission is via respiratory droplets or direct contact with infective lesions at all stages of the rash. Lymphadenopathy is seen in patients infected with Monkeypox but is not a characteristic feature of smallpox [1].

Discussion

For several decades Monkeypox has been prevalent in the area of West and Central Africa. In 1970, the first case of monkeypox was reported in humans in Congo. The WHO states that the number of endemic countries where this disease is prevalent is twelve. In recent times, however, twelve non-endemic countries have recorded new found cases of the monkeypox virus. Confirmed cases are 92 whereas 28 suspected cases of monkeypox have been reported to WHO by non-endemic states among which the United Kingdom reported the highest number of cases on 13th May 2022. Health authorities have alerted Pakistan as well but the National Institute of Health has cleared that no such case of Monkeypox has been confirmed in the country yet [2,3].

Since the outbreak, the number of cases of monkeypox infection are increasing each day worldwide. 920 laboratory-confirmed cases and 70 suspected cases of monkeypox were reported on 5th June 2022. These patients had travel links to Africa, Canada, Australia, and Europe while in some cases locations were not known [4]. Moreover, Geographical distribution in non-endemic regions was identified by the World Health Organisation which shows that the greatest number of cases in the outbreak of Monkeypox disease are reported from the WHO European Region [n=688; 88%], Region of the Americas reported (n=80; 10%), Region of Eastern Mediterranean reported (n=9; 1%) and Region of Western Pacific reported (n=3; <1%). Fluctuation in the case count is seen as more data become available daily [5].

Monkeypox is diagnosed clinically but laboratory confirmation is necessary to make a definitive diagnosis which includes PCR, ELISA, immunofluorescent antibody assay, virus isolation, and electron microscopy. Case management is based on symptoms-specific and supportive care for monkeypox as no specific medications are available to treat the disease but some live vaccines such as Vaccinia virus and JYNNEOSTM which has an efficacy of 85% and is used to prevent smallpox can be used for monkeypox as well. Also, Immunoglobulins and antiviral drugs such as tecovirimat used to treat smallpox can be used for patients who are immunocompromised and severely ill.

Implementation of appropriate measures is essential to prevent and control the outbreak of monkeypox virus infection. We should start by practicing good hand hygiene, avoiding contact with animals that carry the virus including infected or dead ones, ensuring isolation of the patient in the hospital or at home, using personal protective equipment when caring for patients, securing proper waste disposal, and providing safe and dignified burial. An early pick up of the disease results in better outcome.

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