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EDITORIAL

What we know about monkeypox outbreaks at a glance

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ABSTRACT

Monkeypox is an infectious disease transmitted from animals, especially rodents, to humans and many cases occur outside Africa. From 13 May to 4 June 2022, more than 780 confirmed cases from four non-endemic areas were reported to WHO. Inter-human transmission occurs through close contact with skin lesions, respiratory droplets and infectious material.

PCR is the recommended biological reference test for skin lesions. Although vaccination provides better cross-protection, no treatment is officially recommended. Emergency virus surveillance will be implemented to identify possible cases and contain the spread of the outbreak.

Keywords: monkeypox, transmission, clinical, epidemic, handling

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INTRODUCTION

Monkeypox is a zoonosis caused by a DNA virus of the genus orthopoxvirus, which causes a smallpox-like infectious disease and has been officially eliminated from the world through several smallpox vaccination campaigns since 1980 [1, 2]. Monkeypox is an infectious disease usually transmitted to humans from animals, especially rodents, which are the mainly hosts. The first human case was identified in 1970 in the Democratic Republic of Congo, an area that has been eradicated from smallpox since 1968 [1, 2]. Today, this disease occurs sporadically in tropical forest regions of central and western Africa, with occasional cases being exported abroad [2].

Nowadays, many monkeypox infections occur outside of their usual geographic areas. From 13 May to 4 June 2022, 27 Member States in four non-endemic areas of WHO reported to WHO more than 780 confirmed cases, mainly in the United Kingdom, Belgium, Italy, Portugal, France, Spain, Germany, Sweden, Australia, Canada and the United States [3]. No deaths have been reported [3].

Currently, most of the confirmed cases have no history of travel to endemic areas, to contact with infected animals, or any special events. The disease's sudden appearance in several countries at the same time suggests that undetected transmission may have occurred over a long period of time. If the epidemic continues beyond Africa, the disease could become the largest human orthopoxvirus infection, although it is a DNA virus that, unlike RNA viruses (Sars-Cov-2 and seasonal influenza), does not mutate easily [1, 2, 4].

TRANSMISSION: HOW DID YOU GET MONKEYPOX?

In endemic areas, monkeypox is transmitted to humans through bites or direct contact with the blood, body fluids, skin, or mucous membranes of infected animals: squirrels, boiled Gambian rats, various monkeys, etc. Eating undercooked meat from infected animals is also a possible risk factor [4, 5].

Although zoonotic transmission of the disease has long been accepted in Africa, human-to-human transmission can occur through close contact with the respiratory secretions or skin lesions of an infected person, or through close contact with contaminated objects [4-6].

Human-to-human transmission of monkeypox occurs through close contact with skin lesions, respiratory droplets,

infected equipment, and even pathogens. Thus, the emerging cases are caused by infections in gay or bisexual men with genital and facial skin lesions. The nature of these lesions suggests that sexual transmission is common. Other routes of transmission include direct skin-to-skin contact with biological fluids and/or indirect contact through virus-contaminated clothing, sheets, and utensils [6, 7].

SYMPTOMS: WHAT ARE THE SYMPTOMS OF MONKEYPOX?

Monkeypox is a "skin disease" that behaves similarly to smallpox, but with milder clinical symptoms. They are characterized by:

1. The incubation period is 6 to 13 days, but can be up to 21 days [1].
2. The invasive phase is characterized by fever, swollen lymph nodes, severe headache, back pain, myalgia, and severe weakness [1]. In addition, lymphadenopathy is considered a special feature of monkeypox compared to other diseases with a similar appearance (chickenpox, measles, and smallpox).
3. Within three days of the onset of symptoms, the rash centrifuged from the initial infection site and spread to the face, extremities, genitals, and other areas. The palms of the hands and soles of the feet are affected by a scattered rash. The eruption evolves sequentially into macules, papules, vesicles, pustules, then crusts which dry to fall definitively [8, 9]. These lesions are extremely pruritic and bacterial superinfection can occur if scraping is intense.

CLINICAL COURSE: WHAT IS THE CLINICAL COURSE OF MONKEYPOX?

Monkeypox disappears naturally within 2-4 weeks. Severe cases occur in young children and immunocompromised individuals. They are also associated with viral load, health status, and the nature of complications, including bacterial over infection, bronchopneumonia, sepsis, encephalitis, digestive disorders, and ocular disorders [8, 9].

DIAGNOSIS: HOW IS MONKEYPOX INFECTION DIAGNOSED?

The PCR is the recommended biological reference test from samples of skin lesions with vesicular and pustular discharge or even dry crusts. However, WHO does not recommend serological and antigen testing [10].

TREATMENT: WHAT IS THE RECOMMENDED TREATMENT FOR MONKEYPOX?

Although vaccination against smallpox provides better cross-protection against the invasive virus, no treatment or vaccination is officially recommended. Therefore, avoiding contact with infected people or their dirt is a better way to protect you. In any case, however, emergency viral surveillance should identify possible cases, i.e. H. Anyone with a rash or direct contact with a confirmed case, including hospital settings (clothing, bedding, utensils, etc.) [1-3].

In conclusion, although monkeypox has been treated spontaneously, the world must prepare for the worst as confirmed cases continue to increase at an alarming rate. In the absence of herd immunity, new diagnostic tests, barrier measures, and new avenues of research are needed to protect at-risk groups and front-line workers.

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