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Short communication

First case report of human monkeypox in Latin America: The beginning of a new outbreak.

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ABSTRACT

On 13 May 2022, a familial cluster of two cases of monkeypox was reported in the United Kingdom (UK) by the UK Health Security Agency (UKHSA). These cases had no relation to a case imported from Nigeria that was previously reported on 7 May 2022 in the UK. In the following days, several other European Union (EU) Member States and other countries have reported cases of monkeypox not linked to travel to endemic countries. The report by the World Health Organization (WHO) until May 26, 2022, is of a total of 257 confirmed cases and 120 suspected cases, without any report of death. This outbreak involves 23 countries that are not endemic to the monkeypox virus. Latin America had no reported cases. We describe a case of imported monkeypox in Mexico City, Mexico.

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Case

A 50-year-old male patient, a resident of New York, currently receiving pre-exposure prophylaxis (PrEP) with a history of anal fistula, syphilis, human papillomavirus, gonorrhoea, chlamydia, genital herpes; presented for medical consultation on May 26, 2022, due to symptoms of lower back pain, headache, abdominal pain, myalgia, and papular lesions in the anal region for the previous six days. Forty-eight hours later, he presented a new apparition of papular lesions on his face, trunk, and arms and inguinal lymphadenopathy, fever, and hyporexia. He reported having made a trip to Amsterdam five days prior to the onset of symptoms.

Physical examination revealed normal vital signs, with the presence of 1.5 cm lymph nodes in both inguinal regions and the presence of papular lesions in the left zygomatic region, in the anterior and posterior trunk, and right arm of 1 cm. He also presented an 8-mm maculopapular lesion with a pustular border. In the anal region, two papular lesions with a pustular border of 5–10 mm were documented.

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Abbreviations: CDC, Centers for Disease Control and Prevention; EEA, European Economic Area; EU, European Union; MP, Monkeypox; PCR, Polymerase Chain Reaction; PrEP, pre-exposure prophylaxis; UK, United Kingdom; UKHSA, UK Health Security Agency; WHO, World Health Organization

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Fig. 1. Erythematous papulopustular lesions on the upper and lower extremities.



Fig. 2. Pustular erythematous lesions in the abdominal region and right upper extremity.

Conclusions

Monkeypox (MP) is a zoonotic disease known since 1970, first described in the Democratic Republic of the Congo in a 9-year-old pediatric patient. It stands out as the most important Orthopoxvirus since the eradication of smallpox in 1980. [1] This genus includes monkeypox, camelpox, cowpox, vaccinia, and variola viruses. [2] Two clades have been identified, Congo-Basin and West African, the latter being considered less virulent and associated with a lower mortality rate. [3].

The number of human monkeypox cases has been on the rise since the 1970 s, with the most dramatic increases occurring in the Democratic Republic of Congo. The median age at presentation has increased from 4 (the 1970 s) to 21 years (2010–2019). There was an overall case fatality rate of 8.7 %, with a significant difference between clades—Central African 10.6 % (95 % CI: 8.4–13.3%) vs. West African 3.6 % (95 % CI: 1.7–6.8 %). [4] Since 2003, important travel-related spread outside of Africa has occasionally resulted in outbreaks. Interactions/activities with infected animals or individuals are risk behaviors associated with acquiring monkeypox. [1,5] In 2018, only seven international cases were reported outside Africa—in the United Kingdom, Israel and Singapore. [1,5,6] The incubation period for this agent has been described as between 5 and 21 days, and the most important routes of transmission for its acquisition are through close contact, secretions, or fomites. [3] The infection is characterized by having a total duration between 14 and 21 days and having two stages: a first invasive phase, which lasts 1–3 days, where headache, low back pain, asthenia, lymphadenopathy, fever, and myalgia occur; and a second stage, the eruptive one, in which the characteristic rash begins with lesions in different primary stages: macule, papule, vesicle, pustule, and scab. The total number of lesions varies according to the type of host and its immunological

function. It has been described that a greater number of lesions occurs in children and in immunosuppressed patients. [7].

The rash has a centrifugal and cephalocaudal distribution, with the face being the first affected site. It usually affects the palms and soles in up to 75 % of cases, and mucous membranes such as the genitals, conjunctiva, and oral mucosa may also be involved. The fatality rate has been reported in the literature as around 1–10 %, however, in the pediatric population, this rate is higher, up to 15 %. [3] Therefore, immunocompromised hosts and children should be considered at risk and should be identified and treated immediately.

Treatment is mainly symptomatic and supportive. Smallpox vaccine can be considered for postexposure prophylaxis of close contacts at increased risk for severe disease, however, careful benefit/risk assessment should be performed for the exposed individual. In addition, antivirals are potential treatment options, two oral drugs, brincidofovir, and tecovirimat, have been approved for the treatment of smallpox and have demonstrated efficacy against monkeypox in animals and have been used as off-label antivirals in some people. [8,9].

Today, monkeypox must be considered among the differential diagnoses in patients with a rash of undetermined etiology (especially those with vesicular or pustular lesions) who have had recent travel to endemic areas. Some cases have been identified in communities of gay, bisexual and other men who have sex with men, and based on European Centers of Disease Control epidemiological assessment, the likelihood of monkeypox spreading in persons having multiple sexual partners in the European Economic Area (EEA) is considered high. [10] It is important to note that the risk of monkeypox is not limited to men who have sex with men.

Infection of sexual partners, both female and male, has been previously reported for vaccinia virus, another virus of the Orthopoxvirus genus, post smallpox vaccination. [11] Anyone who has close contact with someone who is infectious is at risk.

The Monkeypox outbreak shows that we will continue to face emerging diseases, and that international coordination and solidarity are essential for public health. (Figs. 1,2).

CRediT authorship contribution statement

SPC & EPB coordination, writing, conception, and design.

Elsevier Waivers team

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Consent for publication

Written informed consent for publication of clinical details was obtained from the patient. A copy of the consent form is available for review by the editor of the journal.

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Conflict of Interest

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