







CASE REPORT



Atypical presentation of sexually-transmitted monkeypox lesions

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ABSTRACT

Background: Typically, skin lesions caused by monkeypox (MPX) begin as a monomorphic exanthema with centrifugal distribution, and can be found at different sequential stages in different regions of the body. The aim of this study is to present an atypical case of MPX infection that simultaneously presented exanthema at three stages of evolution in the same location.

Methods: This is a descriptive study of a confirmed case of MPX by detection of the virus genome in clinical sample by polymerase chain reaction.

Results: We describe a 40-year-old male patient with an unusual clinical presentation. One week after having multiple risky MSM sexual intercourses, the patient developed skin eruption on the penis. During the following 10 days, he progressively developed new lesions on the same area. These lesions simultaneously showed different stages of evolution (vesicles, pustules and crust).

Conclusions: Contrary to expected clinical presentation of the disease, the patient developed lesions at different stages in the same location. Attending physicians must be aware of atypical initial presentation and evolution of the lesions, and conduct a comprehensive epidemiological survey.



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Introduction

Monkeypox (MPX) is a zoonosis caused by a virus of the orthopoxvirus family (1). On May 14, 2022, the United Kingdom Health Security Agency reported two cases with no recent history of travel to endemic areas and no contact with imported cases (2). Since then, several clusters have been reported in different countries, mainly on men who have sex with men (MSM) (3–6).

According to the literature, MPX-caused lesions typically begin to develop simultaneously and progress anywhere else along the body (7). The lesions are expected to follow four sequential stages (macular, papular, vesicular, and pustular), until they form crusts and resolve (7,8). Rash often appears in the head region and later progresses centrifugally throughout the rest of the body.

However, some recent cases have begun atypically, showing injuries in the genital and perianal regions before spreading to the extremities (9–11). The aim of this study is to present an atypical case of MPX infection that simultaneously presented rash at three stages of evolution in the same location.

Materials and methods

Here we present a descriptive study of a confirmed case of MPX. According to the national protocol published by the Ministry of Health (12), case was defined as a person with a vesicular exanthema, in any part of the body, presenting one or more classic signs or symptoms of MPX infection after ruling out other possible causes. Epidemiological criteria were considered if in the 21 days prior to the onset of symptoms the patient: had close contact with a confirmed or still under investigation case of MPX; had sexual encounters in risky environment (sauna, party, gas station, sex-cruising, etc); or had a history of travel to endemic areas of West or Central Africa. Additionally, confirmed cases must meet laboratory criteria: detection of MPX virus genome in clinical sample by polymerase chain reaction (PCR) or sequencing.

Results

A 40-year-old man, without previous conditions and not vaccinated against human smallpox virus, attended the Maspalomas Gay Pride massive event on May 11–15, 2022, where he had risky MSM sexual intercourses with 3 tourists from the UK.

A week later, on May 21, he developed inguinal lymph nodes and skin eruption on the penis, which

presented as raised lesions and a vesicle. On May 27, he visited the primary care centre and reported the appearance of new lesions in the perineum and penis, as well as generalised arthromyalgia. Given the suspicion of MPX infection, skin samples were taken for diagnostic confirmation. Based on clinical stability of the patient and the absence of severity criteria, he was asked to continue home isolation and outpatient follow-up by the primary care physician. The patient lived together with 3 relatives, a cat and a dog, although reported not having had contact with them since May 23.

Vesicular fluid sample was taken on May 26, obtaining the confirmatory result on May 30 by PCR. The patient met clinical, epidemiological and laboratory criteria, and was consequently considered a confirmed case.

Since May 27, he progressively developed new lesions on the testicles and penis. In the context of telemedicine consultation, the patient took multiple pictures to help the clinical diagnosis. These pictures were assessed by the physician, who observed that the lesions presented different stages of evolution in the same location (vesicles, pustules and crusts) (Figure 1). The patient continued with general malaise, asthenia and muscle and joint pain, showing an adequate



Figure 1. Picture taken by the patient for telemedicine consultation. The picture shows simultaneous MPX lesions at different stages in the same location: vesicle (bottom), pustule (upper left) and crust (right).

response to treatment with paracetamol and oral dexamethasone. On June 1, three new lesions appeared on the penis (two of them had infection), and two on the left calf area (first extragenital lesion), which were treated with zinc sulphate and topical mupirocin.

By June 10, the systemic symptoms had improved, but two new vesicular-stage lesions appeared on the penis. The rest of the lesions had evolved favourably to crust phase. By June 15, he was asymptomatic and had not presented any new lesions.

Discussion

The literature on monkeypox lesions describes an exanthema that is usually monomorphic with a centrifugal distribution (13,14). Given that the lesions appear in some areas and then spread to other regions of the body, cases of patients with lesions at different stages in different locations have been already published. The MPX cases described by Pittman et al. in Western and Central Africa (1981 to 1986), presented a sequential progression of the lesions in the same body region (15). More recently, Hammerschlag *et al.* presented a case with penile lesions at crust stage, papular pustules on lower limbs, and vesicular-stage lesions and crusts on the upper limbs and trunk (1)⁴. Therefore, there is some evidence that lesions can evolve sequentially in parallel, at different stages on different locations after they appear. In our case, the lesions unexpectedly developed at different stages in the same body region, presenting simultaneous vesicular, pustular and crusted lesions.

Palmore et al. indicated that clinical presentations in this epidemic have frequently been atypical, simulating other sexually transmitted diseases, and the characteristic prodromic fever of MPX has been absent or very mild (1)⁶. The same occurred in our case, who did not present febrile prodromes and began the disease with adenopathy and skin lesions.

If MPX is not immediately diagnosed, it may have a torpid course without early treatment or be transmitted to other people. Since primary care physicians are often the first healthcare professional to come in contact with the patient, it is important for them to be aware that both the initial presentation and the subsequent evolution of the lesions may be different from those described in the literature. A comprehensive epidemiological survey is highly recommended, as it would help in the diagnosis of atypical lesions (16).

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