Elsevier has created a Monkeypox Information Center in response to the declared public health emergency of international concern, with free information in English on the monkeypox virus. The Monkeypox Information Center is hosted on Elsevier Connect, the company's public news and information website.

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Travel Medicine and Infectious Disease 50 (2022) 102480

Contents lists available at ScienceDirect

Travel Medicine and Infectious Disease

journal homepage: www.elsevier.com/locate/tmaid

Monkeypox: A novel pitfall in clinical dermatology

ARTICLE INFO

Keywords
Monkeypox
Molluscum contagiosum
Sexually transmitted infection
Men who have sex with men

Dear Editor,

Monkeypox (MPX) is a zoonotic infectious disease caused by *Monkeypox virus* (MPXV), a double-stranded DNA virus belonging to the *Orthopoxvirus* genus in the *Poxviridae* family (same genus as *Variola virus*, which causes smallpox). MPX is endemic in Central and West Africa, where outbreaks are regularly reported, especially in the Democratic Republic of the Congo. The rare cases reported in non-endemic countries are usually imported. In endemic countries, transmission occurs mainly from animal to human, while human-to-human transmission covers a limited percentage of cases [1,2]. By May 2022, several non-endemic countries in Europe and the U.S.A. have reported an increasing number of MPX cases. On July 2022, the World Health Organization declared MPX a public emergency of international concern [3]. In the current emerging outbreak, the majority of cases involve young men who have sex with men (MSM), none with a recent travel history to endemic areas. In most of them, the mucocutaneous rash started in the genital, anal, and oral regions, not necessarily preceded or accompanied by systemic symptoms [4]. Unilesional or paucilesional cases were often reported [5]. In a preliminary evaluation, these lesions could be mistaken for sexually transmitted diseases such as syphilis, lymphogranuloma venereum, molluscum contagiosum and *Herpes simplex virus* infection [5,6].

Herein, we report the case of a 54-year-old Italian man, identifying himself as MSM, with a 7-day history of multiple cutaneous lesions that initially appeared on the neck and beard region, followed in the subsequent days by the appearance of morphologically similar lesions in the trunk and perianal area. These lesions had previously been misdiagnosed by a private consultant dermatologist as molluscum contagiosum and treated for a few days with a 5% potassium hydroxide solution and a 1% hydrogen peroxide cream.

Immediately after applying the two topical products, the lesions enlarged and inflamed, forming giant scaly crusts, especially in the beard region.

At the visit we observed multiple, firm nodules on the beard region and the neck, many of which were covered by multi-layered yellow-brownish scaly crusts with a rupioid appearance (Fig. 1a). Physical examination also revealed a painful, tender, bilateral cervical lymphadenopathy. The patient complained of fever, malaise, throbbing pain, and a burning sensation located on the skin lesions.

Options to take into consideration in the differential diagnosis included bacterial sycosis, tinea barbae due to zoophilic dermatophytes infection, seborrheic dermatitis and pustular psoriasis with bacterial superinfection.

The presence of more frankly vesiculo-pustular umbilicated lesions on the trunk and perianal area (Fig. 1 c-d) gave us the suspicion of human MPXV infection. Therefore, we performed multiple swabs from the skin lesions and the oropharynx and all tested positive for MPXV on qualitative real-time polymerase-chain-reaction.

The patient was treated with systemic amoxicillin-clavulanic acid 2 times a day for 6 days and 2% fusidic acid ointment topically applied 3 times a day until complete resolution of the lesions.

Only minimal erythematous outcomes, with mild atrophy yet without hypertrophic or keloid scars, were observed one month after healing (Fig. 1b).

The diagnostic delay and, above all, the incorrect use of a highly corrosive substance, such as potassium hydroxide, on MPX lesions of the face has certainly caused the worsening of the clinical signs and symptoms, resulting in the need for the use of systemic and topical antibiotic therapy, to prevent infectious complications and the possibility of unsightly scars.

Dermatologists are privileged to observe MPX cases and should include MPXV in their differential diagnosis when evaluating patients with new onset papulovesicular or vesiculopustular mucocutaneous rash. However, MPX skin lesions might be difficult to distinguish from other clinically similar dermatoses, with the risk of misdiagnosis, delayed diagnosis and consequently a further spread of the infectious outbreak.

An additional non-invasive diagnostic tool that dermatologists have at their disposal is dermoscopy, already used in various non-neoplastic, inflammatory and infectious dermatoses, to integrate anamnestic findings and clinical examination. Dermoscopy can be helpful when we observe skin lesions similar to that of MPXV infection, showing a recurrent and quite specific pattern with central ulceration-crust, white peripheral halo, pink round structures and surrounding erythema [6,7].

Therefore, dermatologists seem to play a crucial role in the early diagnosis of MPXV infection and in controlling the rapidly emerging outbreak of this virus.

https://doi.org/10.1016/j.tmaid.2022.102480
Received 5 October 2022; Accepted 12 October 2022
Available online 17 October 2022

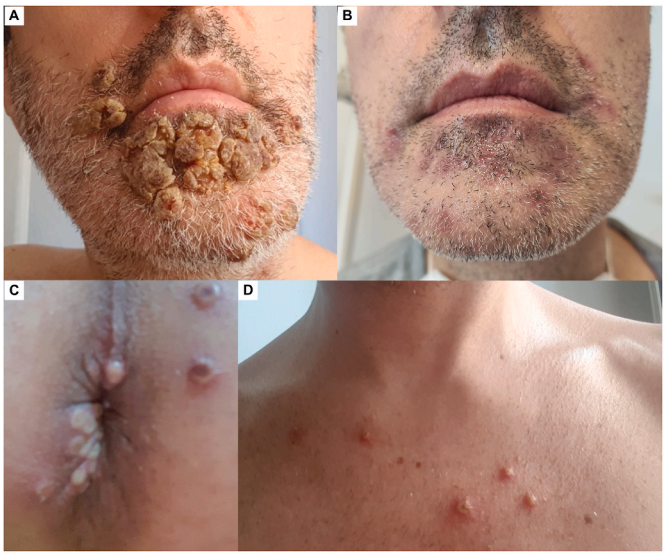

Fig. 1. (A) Multiple, firm nodules on the patient's beard region and neck, covered by multi-layered yellow-brownish scaly crusts with a rupioid appearance. (B) Outcomes of the beard region and neck lesions, with mild erythema and atrophy yet without hypertrophic or keloid scars, one month after healing. Vesiculo-pustular umbilicated lesions on the patient's perianal area (C) and trunk (D). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

Declaration of competing interest

All authors declare no conflicts of interest.

Acknowledgements

The patient in this manuscript has given written informed consent to the publication of his case details.

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