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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Letter to the Editor

Red herrings in monkeypox

Dear Editor,

Since the eradication of smallpox, monkeypox became the most prominent Orthopoxvirus affecting humans, being endemic in Western and Central Africa. A rapidly emerging outbreak of monkeypox spread in Europe and in the rest of the World from May 2022, with the pathogen belonging to the West African clade, which is usually associated with milder disease compared to the Congo basin one. Most cases of the current outbreak have been diagnosed in men who have sex with men (MSM), therefore intimate contacts seem to be the prevalent route of transmission. Historically, signs and symptoms of monkeypox included a rash with several simultaneous lesions affecting multiple regions of the body, including face, arms, legs and less commonly palms, soles and genitalia. The cutaneous involvement was usually preceded by prodromal findings as fever, lymphadenopathy and flu-like symptoms.[1] Evidence from the current outbreak suggests possible atypical presentation, with rash usually involving perianal and genital areas and with only mild prodromal symptoms.[2,3] In particular, a recent paper published in your Journal by Marchese et al.[4] assessed that most of subjects attending a sexual health clinic had rash as first symptom of presentation, associated with other satellite symptoms as fever, lymphadenopathies and malaise. In these individuals, genital involvement was always associated with other systemic symptoms or usually involved also perianal region, face or oral cavity. The presentation of monkeypox as a solitary penis ulcer is therefore unusual and has never been described before.

A 29-years-old homosexual man, without anamnestic comorbidities, was admitted to our Infectious Diseases outpatient clinic for the appearance of a single, painless ulcer, with indurated borders at the level of the penis (Fig. 1A), associated with left inguinal painless lymphadenopathies. The ulcer appeared as a vesicle one week before and became gradually ulcerated. The patient denied any other symptoms or signs such as fever, headache, urethral burning, or discharge, and no other lesions or enlarged lymph nodes were found in other body regions, including oral cavity and anus. He travelled to Mykonos (Greece) one week before the appearance of the ulcer, where he had numerous unprotected sexual intercourses. The patient was tested for sexually transmitted diseases, including syphilis, HIV, Herpes Simplex 1 and 2, *Neisseria gonorrhoeae, Chlamydia trachomatis, Ureaplasma urealyticum* and *Mycoplasma genitalium*. In addition, despite of the unusual clinical picture, he was also tested for monkeypox by real-time polymerase chain reaction (RT-PCR) on a swab taken from the penis ulcer. Microbiological tests were all negative, except for Monkeypox RT-PCR. In the following days, the patient was followed-up by daily video-calls and no treatment was prescribed. No other skin or mucosal lesions occurred during follow-up; the penis ulcer gradually healed, with complete *restitutio ad integrum* in about 2 weeks (Fig. 1B).

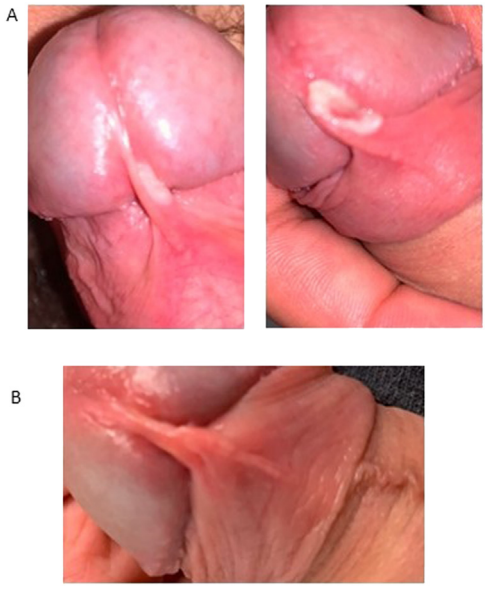

Fig. 1. Solitary ulcer of the penis due to monkeypox (Fig 1A) and its complete resolution after 2 weeks (Fig 1B).

From January to September, 22th 2022, 64,561 cases of monkeypox have been reported globally, of which 63,973 outside the African endemic regions.[4] Human-to-human transmission through intimate contacts have been identified as the most important route of transmission of this outbreak and MSM seem to be at greater risk of acquiring the infection.[2] We describe here an atypical presentation of monkeypox, presenting with an isolated, painless ulcer on the penis associated only with inguinal lymphadenopathies. There were not prodromal symptoms or other muco-cutaneous lesions at the time of presentation and during subsequent follow-up. The presence of a single, indolent ulcer of the penis usually suggests the presence of other sexually transmitted diseases, such as syphilis, venereal lymphogranuloma due to *Chlamydia trachomatis,* or chancroyd due to Haemophilus ducreyi. Consequently, the possibility of atypical presentations of monkeypox suggests that persons presenting with isolated genital ulcer, especially when referring intimate contacts, should be also tested for monkeypox, even in absence of other typical symptoms.

In conclusion, this case report underlines the importance of testing for monkeypox individuals with intimate contact with several partners in the previous 21 days and presenting with genital lesions, even in absence of other signs and symptoms.

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