

SHORT COMMUNICATION

Acneiform Eruption of Monkeypox in a Pilot

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INTRODUCTION

Monkeypox outbreaks have been on the rise since May 2022, and 22,630 cases have been reported as of September 2022 in the United States.^{1,2} Human-to-human close contact and exposure to respiratory droplets have caused a rapid increase in cases, the majority stemming from men having sex with men.² After being exposed to monkeypox, a prodrome of fever, rash, and lymphadenopathy manifests in the wake of a 5-21 day incubation.³ The painful, vesiculopustular exanthem commonly starts on the face and disseminates centrifugally, affecting genitalia and palmoplantar surfaces as well.⁴ Therefore, it is imperative for dermatologists to differentiate monkeypox from other febrile infectious exanthems due to the rapidly growing incidence and fatality rate.

CASE REPORT

A 55-year-old Latin male with a past medical history of psoriasis and hypertension presented to our clinic reporting a new acneiform eruption. He complained of painful ulcers around his genitalia and lesions on the hand, chest, and back of one-week duration. Review of systems was notable for prodromal

symptoms occurring three weeks prior including fever, myalgias, sore throat, and lethargy. The patient endorsed a monogamous relationship with a single male spouse, with frequent travel for work as an air steward. Lastly, he admitted to frequent periods of substance abuse with subsequent memory impairment while traveling his various routes between Spain and Colombia.

Physical examination revealed scattered pustular, comedo-like papules on the anterior and posterior trunk as well as the dorsum of the right fifth digit. On the genitals, there were tender, punched-out ulcers in various stages of healing with white, friable rings on the margins and swollen erythema in the periphery. They appeared on the left side of the penile shaft, root, and mons pubis (**Figure 1**). The initial differential diagnosis included haemophilis chancroid, acute varicella-zoster virus, syphilis, HIV, and monkeypox. He was prescribed 1% Silvadene cream and 2g of azithromycin orally to cover both syphilis and chancroid.

Punch biopsy of the lesion showed a superficial and deep perivascular mixed inflammatory infiltrate with an overlying lichenoid inflammatory infiltrate with papillary dermal edema. The infiltrate was made up predominantly of neutrophils, admixed lymphocytes and eosinophils. The epidermis

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Figure 1. Papules, pustules, and ulcers on the torso, extremities, and genitals.

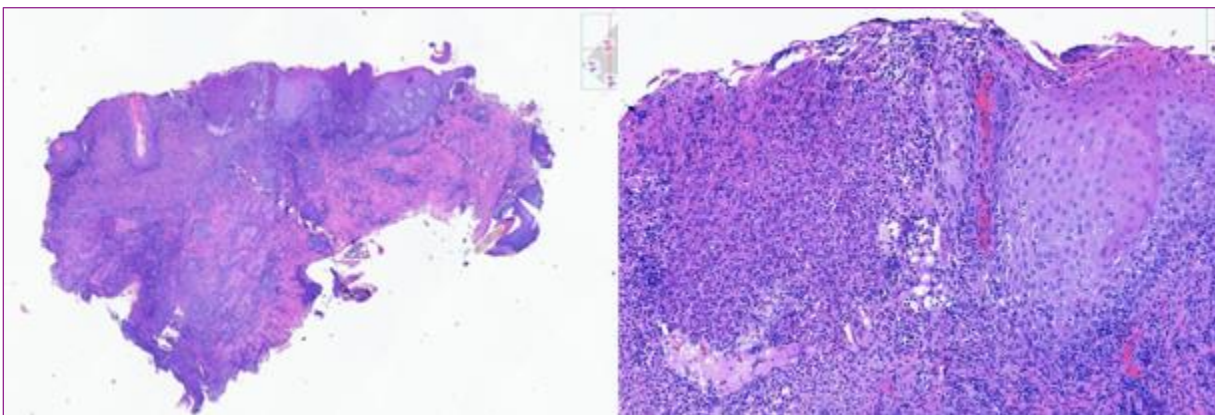


Figure 2. Histopathology of the lesion showing a superficial and deep perivascular mixed inflammatory infiltrate predominantly of neutrophils, admixed lymphocytes and eosinophils with an overlying lichenoid inflammatory infiltrate with papillary dermal edema, vesicular changes containing numerous neutrophils and surrounding spongiosis, and follicular inflammatory involvement with numerous necrotic keratinocytes on 10x (left) and 40x (right) powers on hematoxylin and eosin stain.

showed intraepidermal vesicular changes containing numerous neutrophils and surrounding spongiosis. There were areas of follicular inflammatory involvement with numerous necrotic keratinocytes (**Figure 2**).

An infectious work-up was ordered, including viral culture for monkeypox, bacterial cultures, and HIV testing. Monkeypox could not be confirmed on viral culture, as it was not sent on accepted viral transport media. However, the returned pathology description and negative results on the infectious panel, in the setting of the reported patient history, lead to a diagnosis of monkeypox. Close follow-up showed resolution of most papules and ulcers.

DISCUSSION

Monkeypox was declared a global health emergency by the World Health Organization (WHO) on July 23, 2022, due to a rapid increase in reported cases. The case fatality rate of monkeypox is 3-6%, although higher in pediatric and immunocompromised patients.⁵ The first case of monkeypox infection was reported in the Democratic Republic of the Congo in 1970, and subsequent cases were mainly reported in Africa.⁶ There are two clades of monkeypox, the West Africa clade and the Congo Basin clade. The current outbreak is from the West Africa clade, which has milder symptoms than the Congo Basin clade.⁷

The social history and the presence of lymphadenopathy in the prodromal phase can favor monkeypox infection over other viral exanthems. The week-long sequential involvement of macules, papules, vesicles, and pustules ultimately turns into crusted scabs and falls off between 7-14 days, indicating the end of the contagious period.⁴ However, serious complications such as

sepsis, bronchopneumonia, encephalitis, and ocular infections may result in fatality.⁴ Therefore, it is advised for individuals to follow the Centers for Disease Control (CDC) and state/local public health guidelines regarding prevention, isolation, and symptom monitoring.

Post-exposure prophylaxis with early smallpox vaccination (ACAM200 and JYNNEOS) has shown 85% efficacy in the prevention of monkeypox, possibly due to the long incubation period.⁸ The primary treatment of monkeypox is supportive care, however, medications including tecovirimat, cidofovir, vaccinia immune globulin, and brincidofovir have been utilized as potential treatments via Expanded Access Investigational New Drug Protocol (EA-IND).⁴

CONCLUSION

In conclusion, dermatologists should have a high suspicion of monkeypox infection in individuals with acute onset of vesiculopustular rash and lymphadenopathy who have a recent travel history, prior exposure, and intimate contacts. Early diagnosis may minimize spread, increase ease of contact tracing, and help manage expectations for disease course and symptoms.

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