

## Atypical Clinical Presentation of a Patient with Monkeypox

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### Abstract

#### *Presentation*

The Monkeypox virus is spreading in the European continent. A 36-year-old Irish man presented with a cellulitis lesion on the nose, spreading to the cheeks and upper lip. Atypical clinical features of the evolving outbreak are posing a community and healthcare risk to its management.

#### *Diagnosis*

Real-time PCR assay of the lesion swab revealed Monkeypox virus. The biochemical and hematological blood indices were normal, except for C-Reactive Protein was higher than normal.

#### *Treatment*

The patient was put on 750 mg intravenous Acyclovir, 15mg/kg twice a day of Vancomycin and 2g/day Ceftriaxone infusion.

#### *Discussion*

Cellulitis lesions are an atypical clinical feature of Monkeypox virus infection. Its management, using antibiotics and antiviral drugs, treated the infection and confined the spread of the virus around the patient's nose.

### Introduction

On July 23, 2022 the Director of the World Health Organization (WHO) declared the evolving Monkeypox outbreak a Public Health Emergency of International Concern<sup>1</sup>. The human Monkeypox virus, a member of the genus Orthopoxvirus, is currently emerging in non-endemic geographical regions<sup>2</sup>. It is spreading across many European countries<sup>3</sup>. This report records a Monkeypox case got infected in France and travelled back to his home country, Ireland. The atypical clinical presentation is the confinements of infection to the patient's face in the form of a large cellulitis lesion distinct from small-pox-like pustules spreading all over the body<sup>4</sup>.

## Case Report

A 36-year-old Irish male attended in June 2022 to the Emergency Department (ED) of the University Hospital Limerick in general good health. He presented with a cellulitis lesion on the nose (Fig. 1) that was spreading to the cheeks and upper lip with redness of the face. He was anxious and complained of poor sleep, night sweats and fever. The patient reported that he was away in France, where he developed papule with ulcer on nose and denied any perianal lesions. He had no known drug allergies reported. Upon clinical examination, he was vitally stable; his body temperature was 36°C, and his cardiorespiratory and abdominal examinations were unremarkable. The cellulitis lesion was warm to the touch, and papular rash on the arms along with three perianal small vesicles were noted without signs of bacterial infection. The biochemical and hematological blood indices were normal except for C-Reactive Protein (CPR), which was 19 mg/L. Swabs for Monkeypox and Herpes Simplex Virus (HSV-2) were sent along with blood and serum samples for Human Immunodeficiency Virus (HIV), Syphilis serology, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), as well as *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. He was put on Cefixime 400 mg/day and Flucloxacillin 1g four times a day and discharged home for self-isolation.

The next day, the patient returned to the ED because of the spreading cellulitis over his face and the deterioration of his general condition. The patient was then transferred to the Infectious Diseases Unit for further clinical investigations. Swabs results were positive for Monkeypox and Orthopox viruses, while the serum sample was negative for HIV, HBV antigen, and HCV antibodies but positive for Syphilis antibodies (*Treponema pallidum* particle agglutination (TPPA) 1/1280; rapid plasma reagin (RPR) negative). Swabs were also positive for HSV-2 but negative for *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. All blood indices for kidney and liver function tests were normal. CPR was still higher than the normal range at 10 mg/L.

The patient was isolated in the Isolation Unit and put on 750 mg intravenous Acyclovir as per the positive result of HSV-2, Vancomycin with a loading dose 25 mg/kg followed by 15 mg/kg and 2 g/day Ceftriaxone infusion. Previous patient's treatments were put on hold and replaced by Vancomycin as the first line of defense against bacterial skin infection, cellulitis. While Ceftriaxone is specifically effective against staphylococci or streptococci skin infections. On the fourth day, the patient developed left orbital swelling. A consulting team of dermatologist, ophthalmologist and otolaryngologist reviewed the case. The ophthalmologist requested a computed tomography scan of the eye, which confirmed orbital cellulitis. However, the consulting team recommended no interventions.

On the twelfth day, the nose scar had fallen, leaving a necrotic ulcer with a hemorrhagic crust. The patient was discharged upon finishing all recommended antibiotics and all nasal lesion scabs have fallen, and a fresh layer of skin has formed underneath. He continues follow-up in Infectious Diseases as well as in the Dermatology outpatient clinics.

## Discussion

Several atypical features characterize the evolving outbreak, including a shorter incubation period<sup>5</sup> and localized rash and lesions in genital and perianal sites<sup>6</sup>. The clinical presentation of this case of Monkeypox is characterized by cellulitis on the nose and spreading to other parts of the face, including preorbital tissue. However, the clinical hallmark feature of Monkeypox is the vesicular-pustular rash<sup>6</sup>. Cellulitis or sepsis has been a characteristic of bacterial wound invasion. In this case, both cellulitis and orbital swelling were secondary infections previously reported to be in 19% and 4% of the cases respectively<sup>7</sup>. As such, clinical management of the facial skin lesion using antibiotics and antiviral drugs treated the infection and confined the spread of the virus around the patient's nose. It is recommended by the WHO that screening and triage be performed for all persons who present at the health system with a rash, fever, or lymphadenopathy to identify individuals that have suspected or confirmed Monkeypox<sup>8</sup>.

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## Declarations of Conflict of Interest:

None declared.

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*Fig. 1:* Patient's lesion.

Cellulitis lesion on the nose of the patient diagnosed with Monkeypox virus disease.