



# A facial nodular orf infection in an HIV positive patient: Report of a case

*HIV pozitif hastada yüzde nodüler orf enfeksiyonu: Olgu sunumu*

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## To Editor,

Orf infection in humans is most commonly characterized by a solitary, nodular lesion affecting the fingers or hands<sup>1-4</sup>. Involvement of the face has rarely been reported. We report a huge orf lesion on the face of a young male.

A 32-year-old human immunodeficiency virus (HIV)-positive man presented with a rapidly growing, painless nodule on his right cheek, characterized by oozing and bleeding. He had first noticed the lesion approximately 2 weeks ago. There was no history of trauma, burn, pre-existing skin lesion, or topical application at the site of the lesion. He had no fever, chills, or systemic symptoms. He was working as a shepherd. Four years ago, he was diagnosed with HIV while being treated at an inpatient clinic due to the sudden onset of severe psoriasis and widespread Molluscum contagiosum lesions. Dermatological examination revealed a noticeably raised red nodule about 3x2 cm in size on the right cheek (Figure 1 a, b.) No palpable lymphadenopathy was detected, and systemic examination revealed no abnormalities. Routine hematological and biochemical tests were within normal

ranges. He had been receiving HIV treatment (tenofovir, disoproxil, emtricitabine, and dolutegravir) for approximately two years, and his HIV- ribonucleic acid was negative and his CD4+ T lymphocyte count was 600/mm<sup>3</sup>.

The histopathologic examination revealed focal irregular acanthosis, vascular proliferation, diffuse polymorphonuclear leukocyte infiltration, edema, abscess formation, and rupture of follicle epithelium in the dermis (Figure 1c, d). We only used 10% povidone iodine-containing local antiseptic twice daily for two weeks. Significant improvement was observed on the 10<sup>th</sup> day and regressed during the following 6 weeks without scarring.

Ecthyma contagiosum (Orf) is an uncommon, benign, self-limiting infection resulting from the cutaneous inoculation of a parapoxvirus in humans. This resistant virus may be transmitted to humans either by direct contact with infected animals or through objects or, less commonly through contaminated meat<sup>1-4</sup>. In our country, the orf disease is generally transmitted during sheep slaughter at the feast of sacrifice<sup>2</sup>. Orf typically affects the hands and fingers, with

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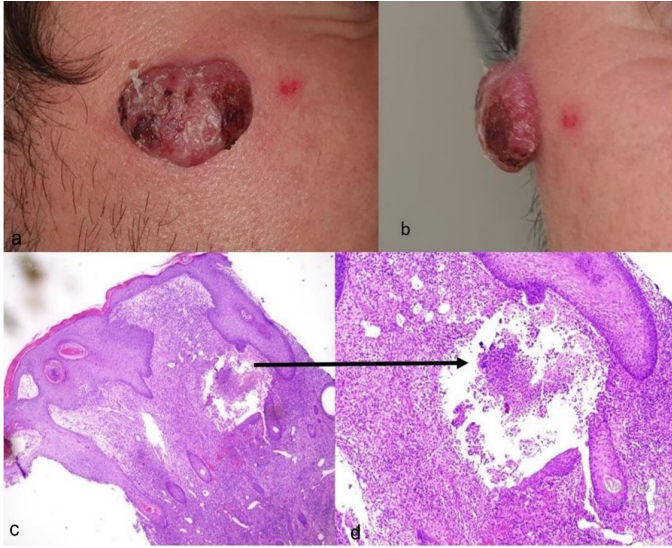
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**Figure 1.** a, b. Oozy and bloody nodule on the right cheek, c. Focal irregular acanthosis, crust in epidermis and capillary vessel proliferation, diffuse polymorph leukocyte infiltration in dermis (HEX40), d. edema, abscess formation, rupture in follicle epithelium in dermis (HEX100).

HE: Hematoxylin and Eosin

facial lesions being a much less common presentation<sup>3</sup>. Giant orf on the nose has been reported in a few cases, one of which was a 14-month-old baby<sup>3,5</sup>. Orf virus causes pyogenic granuloma(PG)-like lesions, which are characterized histopathologically by massive capillary proliferation and dilation<sup>6</sup>.

People with significant T-cell dysfunction may develop atypical lesions, such as giant orf and/or have an unusual course of illness. Our patient might have had a giant lesion since HIV+ patients have a high risk of endothelial dysfunction<sup>1,7</sup>.

Since the diagnosis of human Orf is largely clinical, physicians must be aware of the typical lesion progression to avoid diagnostic errors or inappropriate interventions. As Orf lesions resolve in about four to six weeks without scarring, biopsy should generally be avoided. If the clinical diagnosis is unclear, confirmation may be obtained through viral culture and electron microscopic examination of lesion aspirates. If these opportunities are not available, a biopsy should be taken.

The actual incidence of orf in Türkiye is unclear, as it is not a reportable disease. Physicians should maintain a high index of suspicion for orf when evaluating localized skin lesions in patients with relevant animal exposure.

Differential diagnosis of orf includes other infectious diseases, PG, and keratoacanthoma<sup>1,3</sup>. Multiple orf lesions, especially developing on burn scars, are misdiagnosed as eruptive or generalized PG in the literature. When viral cytopathic effects are observed in histopathological examination in PG-like lesions, orf should be considered<sup>6</sup>.

In healthy patients, a conservative approach should be applied, as most cases spontaneously resolve within 6-8 weeks. Local antiseptics may be used to prevent secondary bacterial infections<sup>8</sup>. We also used povidone-iodine-containing local antiseptic. Significant improvement was observed on the 10<sup>th</sup> day. However, treatment options for giant or multiple orf lesions in immunocompromised individuals include cryotherapy, topical imiquimod, intralesional cidofovir, and intralesional interferon alfa injections<sup>1,3</sup>.

### Ethics

**Informed Consent:** Informed consent was obtained from the patient for the publication of his images and medical information.

### Footnotes

### Authorship Contributions

Concept: S.A., Design: S.A., Data Collection or Processing: B.E., C.S., Analysis or Interpretation: S.A., B.E., Writing: S.A.

**Conflict of Interest:** No conflict of interest was declared by the authors.

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