

Solitary Subungual Orf

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Orf—ecthyma contagiosum—is an endemic cutaneous disease caused by parapoxvirus that is transmitted via direct contact with contagious animals. The lesions are located frequently on the hands and fingers. Subungual presentation of orf is very rare. We report a case of solitary subungual orf. Suspicious subungual nodular lesions may be cases of orf, especially in endemic areas. Orf disease should be considered in the differential diagnosis of subungual nodular lesions to avoid unnecessary surgical interventions. (*J Hand Surg Am.* 2022;47(2):194.e1-e3. Copyright © 2022 by the American Society for Surgery of the Hand. All rights reserved.)

Key words Orf, parapoxvirus, subungual orf.



PARAPOXVIRUS IS AN ENDEMIC virus that causes a condition colloquially known as orf in humans.¹ Orf is transmitted via direct contact with contagious animals and is recognized as an occupational disease.² The lesions are located frequently on the hands and fingers. Parapoxvirus is also 1 of the causes of acute viral paronychia.³ However, subungual presentation of orf is very rare. To the best of our knowledge, subungual orf has been previously reported in only 1 case, a patient with disseminated orf disease.¹ We report a case of solitary subungual orf.

CASE REPORT

A 40-year-old, otherwise healthy, man presented with a painful and bleeding mass on the nail bed in

his right thumb for 3 weeks. Before seeking a dermatology appointment, he used amoxicillin/clavulanic acid on his own, assuming a bacterial infection, but the lesion was unresponsive. There was a history of contact with sheep 1 week before the symptoms began. The systems review and laboratory tests were normal. The physical examination revealed a 1-cm-diameter hyperkeratotic nodule extending from the distal part of the nail bed to the pulp of the right thumb. It had a hemorrhagic appearance in its lateral regions (Fig. 1A). A bleeding, friable, livid-colored nodule with a lobulated appearance in the nail bed was observed when the hyperkeratotic tissue was removed (Fig. 1B, C). Lymphadenopathy was not detected. The differential diagnosis included orf disease, pyogenic granuloma, verruca vulgaris, and amelanotic malignant melanoma. A shave biopsy was performed, and on histopathological examination, irregular hyperkeratosis in the epidermis and marked increase in vascularity without any viral inclusion bodies in the dermis was observed (Fig. 2). The lesion resolved spontaneously in 3 weeks without any treatment or any scarring (Fig. 3).

DISCUSSION

A history of direct contact with infected animals and the typical clinical course are usually sufficient to diagnose orf disease. Following an incubation period

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FIGURE 1: Dermatological examination. **A** A 1-cm hyperkeratotic nodule extends from the distal part of the nail bed to the thumb pulp of the right hand and hemorrhagic appearance in its lateral regions. **B, C** Hyperkeratotic tissue was removed, revealing a bleeding, friable, livid-colored nodule with a lobulated appearance on the nail bed.

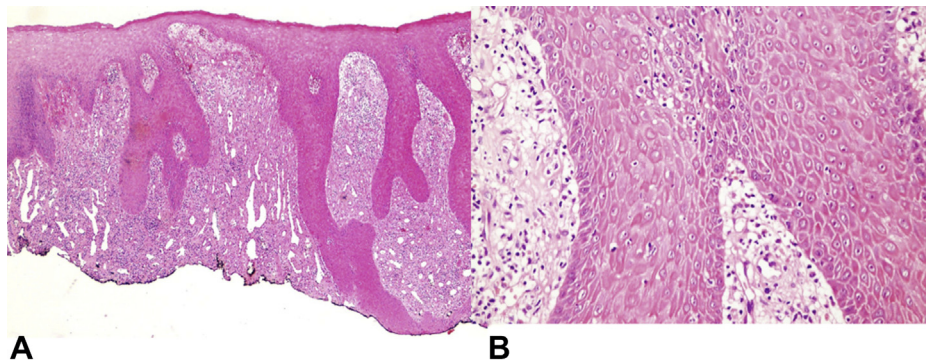


FIGURE 2: Histopathological examination. **A, B** Irregular hyperkeratosis in the epidermis and marked increase on vascularity without any viral inclusion bodies in the dermis.



FIGURE 3: Healed lesion.

of 2 to 6 days, the infection evolves through 6 clinical stages: maculopapular, targetoid, acute (weeping nodule), regenerative dry, papillomatous, and

regression with a dry crust.⁴ In our case, the time of appearance of the lesions was compatible with the incubation period of orf. With respect to the differential diagnosis, the characteristic histopathology observed was suggestive, but not pathognomonic, for orf disease. We observed no viral inclusion bodies in the histopathological examination, which are usually observed during the third week of the disease. Inclusion bodies may be seen in early-stage lesions, in the first 2 weeks, but may not be seen in advanced-stage lesions.²

Subungual tumors are a diverse group of benign and malignant pathologies. Subungual exostoses, extraskeletal chondroma, osteochondroma, onychomatricoma, melanoma, squamous cell carcinoma, glomus tumor, pyogenic granuloma, hemangioma, and basal cell carcinoma are the most common subungual tumors.⁵ Subungual presentation of orf is very rare and has been reported in only 1 patient, who had disseminated orf.¹ When lesions are multiple, it is easier to diagnose orf, especially in the presence of a typical contact history; however, the diagnosis is

more difficult with solitary subungual lesions as in our case.

The lesion usually resolves spontaneously in 6 to 8 weeks without any specific treatment. Surgical interventions may cause exacerbation of the initial lesion.² Therefore, it should be kept in mind that suspicious subungual nodular lesions may be orf, especially in endemic areas. Awareness of unusual clinical presentations of this disease is important for avoiding unnecessary surgical interventions.

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