

Dermscopic Findings of Recurrent Herpetic Whitlow in a Child

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Learning Points

1. Herpetic whitlow can have ambiguous presentation and is commonly misdiagnosed.
2. Dermscopic description of herpetic whitlow is characteristic and may help to avoid biopsy or serological test in children.
3. Specific diagnosis is made by PCR, can be aided by cytology.

Introduction

HSV-1 and 2 infections in children commonly present with fever and gingivostomatitis [1]. Infection of the fingers and toes, due to autoinoculation from asymptomatic salivary carriers, is known as Herpetic whitlow. Classically, it presents as deep seated, tender, non-purulent, swollen, vesico-ulcerative lesions on the finger, usually preceded by a prodrome of numbness, tingling or itching of the affected site [1]. However, atypical presentations may be often misdiagnosed. Timely diagnosis of the condition helps prevent secondary bacterial infection. We report this case to emphasize the dermscopic features of herpetic whitlow which has never been previously reported.

Case Presentation

A 10-year-old girl presented with a 4 day history of redness, swelling and blistering of 2 fingers of the left hand. Patient gave a history of similar episode 2 years back over the same location. There was no history of fever, trauma, new medication, friction over the fingertips or any contact with other infectious lesions. On examination there were tense, clear, fluid-filled vesicles arranged linearly over the palmar side of the left thumb and index finger (Figure 1). Draining lymph nodes were not palpable. There were no coexisting mucocutaneous vesiculation. A clinical diagnosis of herpetic whitlow was made.

On dermscopic evaluation, the lesions were longitudinally oriented and the primary lesions rested on a pale base with surrounding bright erythema. The primary lesions appeared as relatively pale rings circumscribed by a rim of red dots. The pale lobulated appearance is explained by the formation of intraepidermal bullae due to pathogenic ballooning degeneration of keratinocytes and acantholysis. The pallor is also partly due to the presence of vesicular fluid. The red dots



Figure 1. Clear, fluid-filled vesicles over an erythematous base arranged in a linear fashion over the thumb and index finger.

are due to erythrocyte extravasation seen histopathologically [2]. The thickness of stratum corneum over the palms and soles and the subepidermal location of the vesicle explain why dermatoglyphics are not lost (Figure 2, A and B). Tzanck smear of blister fluid showed multinucleated giant cells. Gram stain did not reveal any bacterial colonies. PCR assay was positive for HSV-1 virus, confirming the diagnosis. The patient was started on oral acyclovir 200 mg 5 times a day and patient completed a course of 5 days of therapy with complete resolution of skin lesions.

Differential diagnosis of herpetic whitlow includes bacterial infective whitlow, friction blister, suction blister, bullous impetigo, erythema multiformae, coxsackie virus infection [1]. Herpetic whitlow is a self-limiting infection and incision and drainage are not indicated, as they are done in bacterial paronychia, due to the risk of viremia and secondary bacterial infection. Treatment with antiviral decreases the duration of symptoms of viral shedding.

Conclusions

Diagnosis of herpetic infection is often made clinically. However, it resembles many other infectious and non-infectious dermatoses [1]. Our report documents the dermoscopic features of herpetic whitlow, which has never been previously reported and can aid in early diagnosis.

Consent: A written consent was taken from the guardian for using the image and other clinical information to be reported in the journal. The patient understand that their name and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

References

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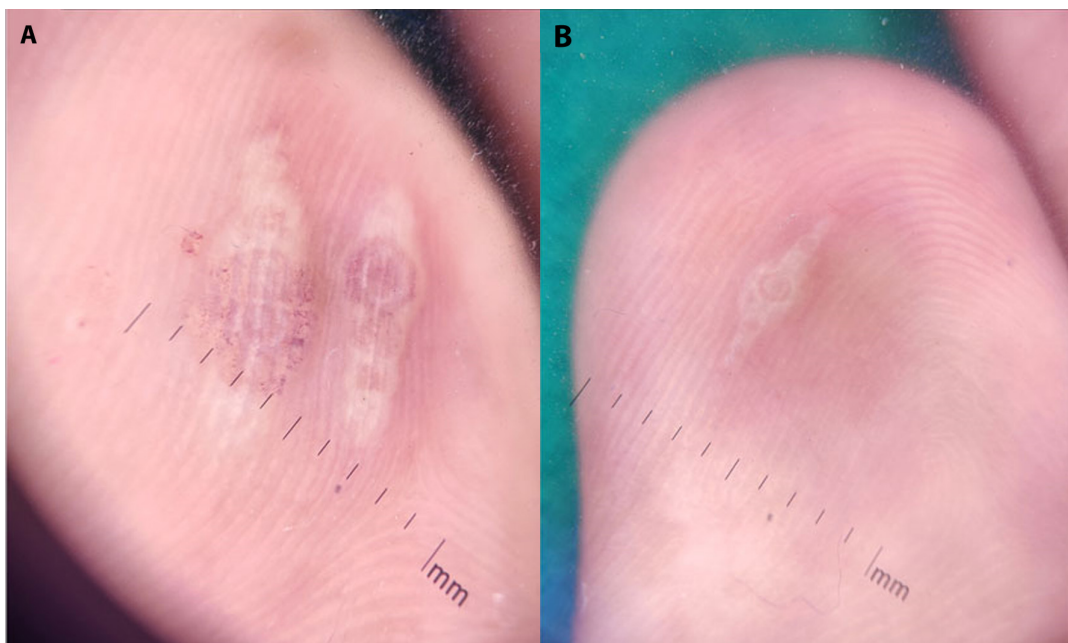


Figure 2. (A,B) Primary lesion over a pale base and surrounding erythema. Pale rings circumscribed by rim of red dots and a central red hue, with no loss of dermatoglyphics.