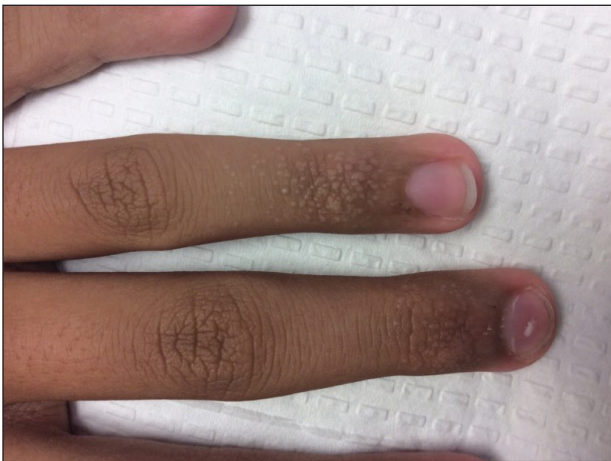


Acral Flesh-Colored Papules on the Fingers

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A 13-year-old otherwise healthy adolescent boy presented to the dermatology clinic for a rash on the bilateral dorsal hands of approximately 1 year's duration. The rash was asymptomatic with no pain or pruritus reported. Physical examination revealed a well-nourished adolescent boy in no acute distress with 1- to 2-mm flesh-colored papules clustered on the bilateral dorsal fingers.

WHAT'S THE DIAGNOSIS?

- a. acral persistent papular mucinosis
- b. dyshidrotic eczema
- c. lichen nitidus
- d. molluscum contagiosum
- e. verruca plana

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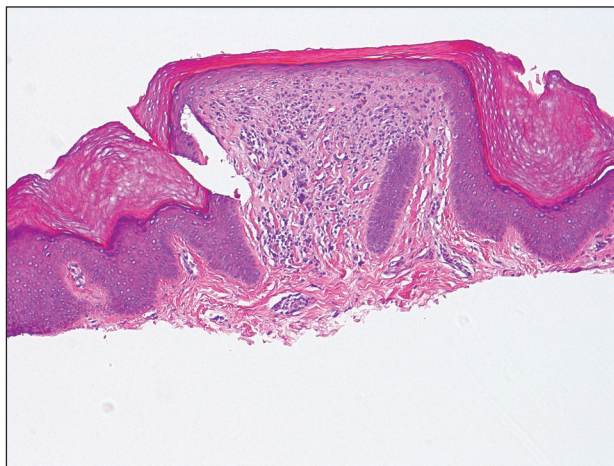
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THE DIAGNOSIS: Lichen Nitidus

Our patient represents a case of lichen nitidus (LN) that was diagnosed through clinicopathologic correlation, with the pathology results showing a lymphohistiocytic infiltrate in the papillary dermis enclosed by acanthotic rete ridges on either side. Lichen nitidus was first described by Pinkus in 1901 as a variant of lichen planus.¹ It is a rare chronic inflammatory disease that is most prevalent in children and adolescents.² Clinically, the lesions appear as 1- to 2-mm, shiny, flesh-colored papules with central umbilication.³ Typically, lesions are localized and discrete; however, vesicular, hemorrhagic, perforating, spinous follicular, linear, generalized, and actinic variants all have been reported in the literature. Lichen nitidus has a predilection for the lower abdomen, medial thighs, penis, forearms, ventral wrists, and hands.⁴ Cases of LN have been reported on the palms, soles, nails, and mucosa, presenting a diagnostic challenge.⁵ The pathogenesis of LN is unknown, and all races and sexes are affected equally.⁶

Histopathologically, LN has distinct findings including a well-circumscribed lymphohistiocytic infiltrate in the papillary dermis embraced by elongated and acanthotic rete ridges.² These histopathologic characteristics were seen in our patient's biopsy specimen (Figure) and have been described as the ball-and-claw configuration. Lichen nitidus may be pruritic but typically is asymptomatic.⁷ It often spontaneously regresses within months to years without any treatment⁷; however, successful outcomes have been seen with topical steroids, UVA/UVB phototherapy, and retinoids.² Our patient was treated with topical steroids.



Biopsy of lichen nitidus revealed mild papillomatosis with hyperkeratosis associated with well-circumscribed collections of lymphocytes, histiocytes, and pigment-laden histiocytes in the papillary dermis (H&E, original magnification $\times 40$).

The differential diagnosis for LN includes verruca plana, dyshidrotic eczema, acral persistent papular mucinosis (APPM), and molluscum contagiosum. Verruca plana can occur as 1- to 5-mm, grouped, flesh-colored papules on the face, neck, dorsal hands, wrists, or knees.⁸ Most commonly, verruca plana occurs due to human papillomavirus type 3 and less commonly human papillomavirus types 10, 27, and 41. Verruca plana is easily differentiated from LN on pathology with findings of epidermal hyperkeratosis, irregular acanthosis, and koilocytic changes.⁸

Dyshidrotic eczema is a pruritic vesicular rash that is classically distributed symmetrically on the palmar aspects of the hands and lateral fingers.⁹ Histopathology of the lesions reveals spongiosis with an epidermal lymphocytic infiltrate. Exacerbating factors include exposure to allergens, stress, fungal infections, and genetic predisposition.⁹

Acral persistent papular mucinosis can present as multiple, 2- to 5-mm, flesh-colored papules on the dorsal aspects of the hands.¹⁰ However, the demographic is different from LN, as APPM most commonly affects middle-aged females versus adolescents. Lesions of APPM may multiply or spontaneously remit over time. Acral persistent papular mucinosis generally is asymptomatic but can be treated with cryotherapy, topical corticosteroids, electrodesiccation, or CO₂ lasers for cosmetic purposes. Acral persistent papular mucinosis can be easily distinguished from LN on histology, as it will show areas of focal, well-circumscribed mucin in the papillary dermis and a spared Grenz zone.¹⁰

Molluscum contagiosum is a common viral skin infection caused by the poxvirus that affects children and adults.¹¹ The skin lesions appear as 2- to 4-mm, dome-shaped, flesh-colored papules with central umbilication on the limbs, trunk, or face. Clinicians may choose to monitor lesions of molluscum contagiosum, as it is a self-limited condition, or it may be treated with cryotherapy, salicylic acid, imiquimod, curettage, laser, or cimetidine.¹¹ On histology, epidermal budlike proliferations can be appreciated in the dermis, and characteristic large, eosinophilic, intracytoplasmic inclusion or molluscum bodies are found in the epidermis.¹²

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