

# Actinic Lichen Nitidus

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*Actinic lichen nitidus is a unique photoinduced lichenoid eruption that displays histologic features of classic lichen nitidus, with some clinical similarity. It is seen most commonly in deeply pigmented patients (Fitzpatrick skin types V and VI), in photodistributed areas, and during the summer months. Sun avoidance and topical corticosteroids are the mainstay of therapy; however, seasonal recurrences are common. Actinic lichen nitidus has unique properties that differentiate it from classic lichen nitidus. Confusion exists in the literature regarding the nomenclature of this entity, and it appears to be an underrecognized disease in the United States.*

*Cutis.* 2008;81:266-268.

## Case Report

A 68-year-old black man presented in August 2005 with numerous 1-mm pruritic papules located exclusively on the dorsal aspect of his hands and bilateral extensor forearms. The patient had similar eruptions over the past 2 years that seemed to be most prominent in the spring and summer months. These prior eruptions resolved without treatment within 4 to 5 months. The patient's prior medical history was positive for hypertension and hypercholesterolemia, for which he was treated with amlodipine besylate 10 mg once daily and atorvastatin calcium 40 mg once daily, respectively. He could not recall if the initiation of either of these medications was temporally related to the onset of his eruption. The patient was retired from his job and he did participate in many outdoor activities.

Physical examination showed a healthy appearing, middle-aged man with Fitzpatrick skin type V and numerous submillimeter, discrete, pinpoint, hypopigmented papules located on the dorsal aspect of his hands and bilateral extensor

forearms (Figure 1). The lesions spared the sun-protected area of his upper extremities, as well as the remainder of his skin, nails, and oral mucosa.

The differential diagnosis of a photolichenoid drug eruption secondary to amlodipine besylate was suggested and, in cooperation with the patient's primary care physician, his antihypertensive medication was changed. The patient was given instructions to use a physical blocking sunscreen daily and to wear long sleeves when possible. In addition, triamcinolone acetonide ointment 0.1% was prescribed. By January 2006, the patient's eruption had cleared with only postinflammatory pigmentary changes evident. However, in May 2006, the patient presented again with an identical eruption, at which time a biopsy was performed.

Results from a 3-mm punch biopsy specimen from the dorsal aspect of the left hand showed compact orthokeratosis with areas of parakeratosis (Figure 2). The epidermis was mildly atrophic with hypogranulosis and vacuolar degeneration of the basal keratinocytes. Within the biopsy specimen, 2 to 3 discrete, circumscribed, lichenoid infiltrates composed of lymphocytes, histiocytes, and melanophages were noted in the superficial dermis. Thin rete ridge elongations forming a collarette were noted at the lateral borders of the infiltrates. The lymphocytes stained positive for CD3 and demonstrated the expected mixture of CD4 and CD8, favoring a reactive process. These features were consistent with lichen nitidus and, in light of the clinical presentation, actinic lichen nitidus was diagnosed.

## Comment

Actinic lichen nitidus was first described in 1978,<sup>1</sup> wherein the author referred to the sun-induced phenotype as summertime actinic lichenoid eruption. This report described 25 darkly pigmented Indian patients, all with pinpoint hypopigmented papules in sun-exposed areas.<sup>1</sup> In 1981, Isaacson et al<sup>2</sup> described a case in the United States of a black woman with both pinpoint papules and annular plaques.<sup>2</sup> These authors were the first to demonstrate the histology of the pinpoint papules to be lichen nitidus-like. They concluded that summertime actinic lichenoid

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Accepted for publication August 16, 2007.

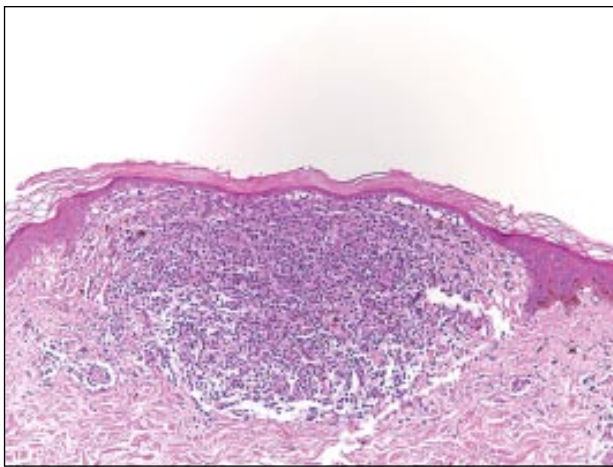
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The authors report no conflict of interest.

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**Figure not  
available online**

**Figure 1.** Actinic lichen nitidus. Numerous submillimeter, discrete, hypopigmented papules can be seen on the dorsal aspect of the hand and bilateral extensor forearm.



**Figure 2.** Histopathology of papule on the dorsal aspect of the left hand (H&E, original magnification  $\times 20$ ). A 3-mm punch biopsy specimen showed compact orthokeratosis with areas of parakeratosis; an attenuated epidermis with vacuolar degeneration of the basal keratinocytes; and a circumscribed infiltrate in the superficial dermis composed of lymphocytes, histiocytes, and melanophages. Subtle elongation of the rete ridges was noted at the lateral borders of the infiltrate.

eruption was the best descriptor of their patient with clinical and histologic features of both photo-induced lichen planus and lichen nitidus.<sup>2</sup> Although many authors have used the term *summertime actinic lichenoid eruption* synonymously with the term *actinic lichen planus*, in most cases of summertime actinic lichenoid eruption, patients do not have clinical or histologic evidence of lichen planus.<sup>1</sup>

Subsequently, 6 cases were reported in India of children with clinical and histologic features of lichen nitidus, located solely on the dorsal aspect of the hands and extensor forearms, with no features of actinic lichen planus.<sup>3</sup> Kanwar and Kaur<sup>3</sup> reported that because these children had distinctive findings of lichen nitidus in sun-exposed areas, *lichen nitidus actinicus* was a more descriptive and accurate

term. Moreover, another report in 1998 described 9 patients in Pakistan with pinpoint hypopigmented papules limited to sun-exposed areas.<sup>4</sup> In this series, 7 patients had only clinical features of lichen nitidus, and 8 patients were adults. This report also echoed the sentiment of others that, based on the unique clinical and histologic findings in these patients, a more descriptive term should be used than summertime actinic lichenoid eruption; the authors preferred the term *actinic lichen nitidus*.<sup>4</sup> Since then, only 1 report of 3 cases has been published.<sup>5</sup> Glorioso et al<sup>5</sup> reported 3 black patients in Louisiana with multiple 1- to 2-mm hypopigmented papules limited to sun-exposed areas, with biopsy specimens demonstrating features of classic lichen nitidus. They also adopted the term *actinic lichen nitidus*.

All of these cases of actinic lichen nitidus share some common clinical features. The disorder exclusively presents in darkly pigmented patients with a history of substantial exposure to the sun during the summer months. Actinic lichen nitidus presents in both children and adults. In addition, seasonal recurrences are common in the summer months. In contrast, classic lichen nitidus occurs almost exclusively in children; usually does not recur (and, if it does recur, it is not seasonal); and occurs in both sun-exposed and sun-protected sites, including the groin, thighs, and abdomen.<sup>6</sup> Histologically, actinic lichen nitidus and classic lichen nitidus are identical with features of focal parakeratosis; a ball-in-claw arrangement of the lichenoid infiltrate; and a mixed infiltrate composed of lymphocytes, histiocytes, and plasma cells. An atrophic epidermis with downward extension of the rete ridges at the lateral edges of the infiltrate also can be seen.<sup>7</sup>

Treatment of actinic lichen nitidus can be frustrating for the patient and physician alike. In the cases mentioned above, topical corticosteroids and sun avoidance by means of physical blocking sunscreens and protective clothing were routinely advised. Many patients had subjective improvement in pruritus and

partial diminution of the papular component. Complete remission can take months, with recurrences the following summer season being commonplace. Interestingly, one author reported one case of a mail courier who had marked improvement after transferring to an indoor occupation,<sup>5</sup> implying sun avoidance is likely more important than corticosteroids in therapy.

### Conclusion

Actinic lichen nitidus is an underrecognized variant of photoinduced lichenoid eruptions. Although the majority of reports are from countries with subtropical climates, we emphasize the presence of this entity in the United States. Our case represents only the fifth reported case of actinic lichen nitidus in the United States. Deeply pigmented patients with photodistributed pinpoint papules that arise in summer months should undergo histologic examination. Sun avoidance strategies coupled with topical corticosteroids should be implemented. In addition, we agree that the term *summertime actinic lichenoid eruption* should be abandoned for the more descriptive term *actinic lichen nitidus*.

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