

Annular Lichenoid Dermatitis (of Youth): Report of a Case With Lichen Planus-Like Features

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Abstract: Annular lichenoid dermatitis of youth (ALDY), a dermatosis with peculiar clinical and pathological features, represents still a debated entity, given its similarity, among others, with mycosis fungoides. A case of ALDY in a 50-year-old male patient is reported. Clinically, the patient presented an oval scleroderma-like plaque on the right flank. Histology and immunohistochemistry showed the classic appearance described in ALDY. T-cell receptor rearrangement was absent. Interestingly, a focus consistent with lichen planus was observed. The lesion resolved with topical steroids and at a follow-up of 24 months no recurrence has been registered. The case described herein supports the hypothesis that ALDY is a reactive lichenoid dermatosis, closely related to lichen planus.

Key Words: annular lichenoid dermatitis, lichen planus, immunohistochemistry

(*Am J Dermatopathol* 2017;0:1–2)

INTRODUCTION

Annular lichenoid dermatitis of youth (ALDY), an entity described in children and young patients, is characterized by a clinical presentation mimicking usually morphea, annular erythema, vitiligo, or mycosis fungoides (MF), and by a peculiar histology to be differentiated mostly from MF and vitiligo.¹ It has been observed more recently also in adult

patients.^{2,3} A case of ALDY is presented herein, showing peculiar histologic findings, never observed till now.

CASE REPORT

A 50-year-old man presented an asymptomatic, oval plaque on the right flank since 6 months. A punch biopsy was performed and sent with a clinical diagnosis of scleroderma. Punch biopsy was routinely processed for histologic examination. Immunohistochemical stains were performed, applying a panel of antibodies against CD3, CD4, CD8, and CD20 (Ventana, CA). Polymerase chain reaction analysis for T-cell receptor rearrangement was also performed. Histologically, the typical features of ALDY were observed: basket woven slight hyperkeratosis, elongated rete ridges with basal vacuolization, and frequently squared apex, a lichenoid lymphocytic infiltrate (Fig. 1A). Interestingly, a focus characterized by hyperkeratosis, “V” shaped hypergranulosis, acanthosis, squamatization of basal layer, vacuolar changes, colloid bodies, and lichenoid inflammatory infiltrate, consistent with lichen planus, was also observed (Fig. 1B). Immunohistochemistry showed a mixture of CD4⁺ and CD8⁺ elements, with slight predominance of CD8, especially at the dermal–epidermal interface. CD20 staining was completely negative. No monoclonal rearrangement for T-cell receptor was found. Based on the clinicopathological and molecular features observed, a diagnosis of ALDY was rendered. The lesion was completely cured with local steroid and at a follow-up of 24 months no recurrence has been observed.

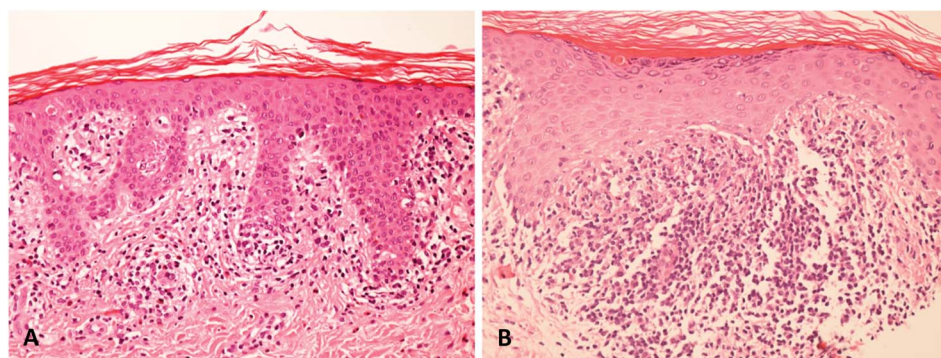


FIGURE 1. Typical histology of ALDY showing elongated rete ridges, focal vacuolar changes, and lichenoid infiltrate (×100) (A); a focus lichen planus-like in the same biopsy (×100) (B).

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The author declares no conflict of interest.

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DISCUSSION

Clinical appearance of ALDY can simulate a series of dermatoses, such as morphea, vitiligo, annular erythema, or MF, whereas histopathological differential diagnosis comprehends mostly MF and the inflammatory phase of vitiligo.^{1,2} Among the differential diagnoses, MF is the most important,

and some caveat in diagnosing ALDY is still advisable.⁴ The case herein reported represents a genuine case of ALDY, whose clinical behavior confirms the benign nature of the disease.

If pathogenesis of ALDY relies probably on an immunological process, analogously to other lichenoid dermatoses,² the causative agent is still uncertain. A recent article reported 12 cases of ALDY related to *Borrelia* from a region of Austria, well known for endemic borreliosis.⁵ Interestingly, these Austrian cases are characterized by the presence of a B-cell infiltrate, a feature never reported in cases of ALDY that was explained as an immune response to bacterial infection.⁵ On the contrary, the present case shows the classic histopathologic and immunohistochemical features described in ALDY, ie, elongation of rete ridges, focal basal vacuolization, necrosis/apoptosis of keratinocytes at the base of rete ridges, absence of fibrotic changes in the dermis, and a pure T-cell lichenoid infiltrate. The focus histologically consistent with lichen planus is a finding never described in the literature in cases of ALDY, and could represent a link between the 2 entities. It

has been suggested, indeed, that ALDY belongs to the spectrum of lichen planus,⁶ and this observation further addresses toward this hypothesis, therefore ALDY should be included bona fide in the chapter of inflammatory lichenoid dermatoses.

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