Image Letter

Annular Lichenoid Dermatitis of Youth: A T-Cell Interface Dermatitis Mimicking Mycosis Fungoides

Katerina Grafanaki [1], Theocharis N. Kirtsios[2], Maria Boziou[2], Mattheos Bobos[3], Zoe Apalla[2]

1 Department of Dermatology-Venereology, School of Health Sciences, University of Patras, Patras, Greece

2 Second Dermatology Department, School of Health Sciences, Aristotle University of Thessaloniki, Thessaloniki, Greece

3 Department of Biomedical Sciences, School of Health Sciences, International Hellenic University, Alexandrian Campus, Thessaloniki, Greece

Citation: Grafanaki K, Kirtsios TN, Boziou M, Bobos M, Apalla Z. Annular Lichenoid Dermatitis of Youth: A T-Cell Interface Dermatitis Mimicking Mycosis Fungoides. *Dermatol Pract Concept*. 2026;16(2):6638. DOI: https://doi.org/10.5826/dpc.1602a6638

Accepted: August 9, 2025**; Published:** April 2026

Funding: None.

Competing interests: None.

Authorship: All authors have contributed significantly to this publication.

Corresponding author: Katerina Grafanaki MSc, MD, PhD, Department of Dermatology-Venereology, School of Health Sciences, University of Patras, Patras, Greece. ORCID: 0000-0002-6569-1928.E-mail: grafanaki@med.upatras.gr

Case Presentation

An 8-year-old patient presented with persistent asymptomatic orange-colored annular plaques distributed over the groin, axillae, and trunk, progressively evolving over four years. Dermatoscopy showed gray, red, and purple dots along with subtle white scales on a salmon-colored background. Differential diagnoses included mycosis fungoides, morphea, annular lichenoid dermatitis of youth (ALDY), and pigmented purpuric dermatosis (Majocchi type).

Histology revealed a dense, band-like superficial dermal lymphocytic infiltrate with epidermotropism, vacuolar interface changes, and scattered necrotic keratinocytes. Epidermal lymphocytes showed occasional

mild atypia with cerebriform nuclei. The dermal infiltrate included predominantly T cells, sparse histiocytes, occasional granulocytes, and focal erythrocyte extravasation.

Immunohistochemistry showed numerous CD3+ T cells in both dermis and epidermis, with a CD4/CD8 ratio of ~60/40. Rare CD20+ B cells and CD30+ cells were noted in the papillary dermis. These findings were consistent with both MF and ALDY. Given the diagnostic dilemma, genetic studies were performed, in which T cell clonality was not detected by PCR analysis of TCR-β and TCR-γ gene rearrangements.

Based on the molecular studies, diagnosis of ALDY was established. ALDY is a rare, benign dermatosis that may closely mimic early MF. Distinguishing., though not pathognomonic, histological features include localization of epidermal lymphocytes to rete ridge tips, necrotic keratinocytes replacing entire rete ridges, and absence of continuous basal alignment of lymphocytes. Polyclonality in TCR-gene rearrangements is essential towards correct diagnosis [1]. While the pathogenesis of ALDY remains unclear, it demonstrates a chronic, indolent course [2]. Clinical follow-up is warranted, whilst a second biopsy should be considered, if the lesions show any progression or atypical evolution.

Teaching Point

Clinicopathological correlation and molecular studies in distinguishing ALDY from cutaneous T-cell lymphoma is crucial, especially in pediatric patients.

References

1. Annessi G, Paradisi M, Angelo C, Perez M, Puddu P, Girolomoni G. Annular lichenoid dermatitis of youth. *J Am Acad Dermatol*. 2003;49(6):1029-1036. DOI:10.1016/s0190-9622(03)02147-9
2. Annessi G, Annessi E. Annular Lichenoid Dermatitis (of Youth). *Dermatopathology (Basel)*. 2022;9(1):23-31. Published 2022 Jan 16. DOI:10.3390/dermatopathology9010004

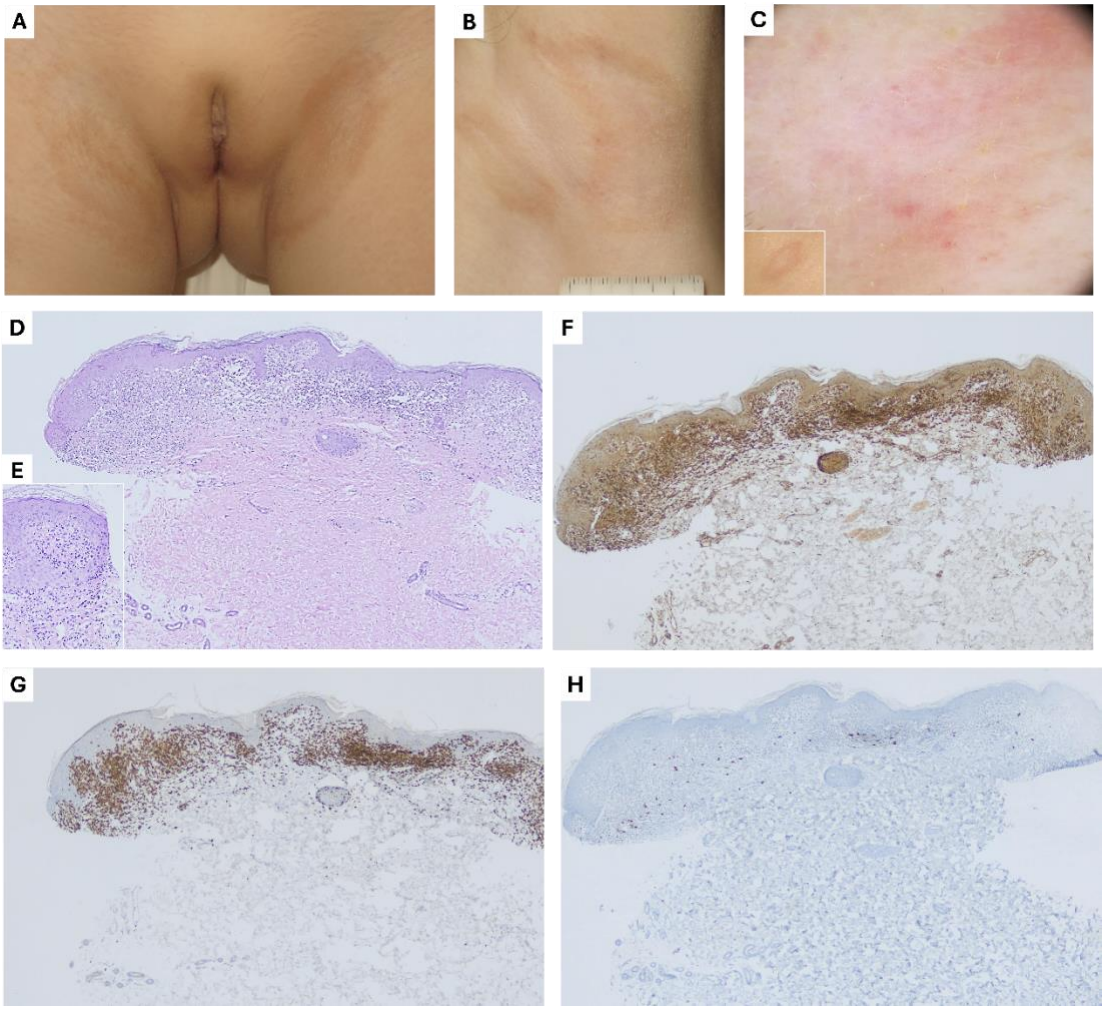

Figure1. Clinical presentation of Annular Lichenoid Dermatitis of Youth (ALDY). Orange-colored annular plaques distributed over the groin, axillae, and trunk (A, B, C inner panel). (C) Dermatoscopy showed grey, red and purple dots along with subtle white scales on a salmon-colored background. (D) Histopathology revealed a dense, band-like superficial dermal lymphocytic infiltrate, vacuolar interface changes, and scattered necrotic keratinocytes. (E) Lymphocytes in the surface epithelium showed focal follicular growth, low-grade atypia, and occasional gyriform nuclear morphology. Immunohistochemistry showed numerous (F) CD3+ and (G) CD4+ T-cells, rare (H) CD20+ B-cells.