Dermatology Practical & Conceptual

Dermoscopic Features of Solitary Leukemia Cutis in a Patient with Chronic Lymphocytic Leukemia

Umberto Santaniello[1], Francesco Cavallo[1], Luca Conti[2], Paolo Fava[1], Simone Ribero[1], Pietro Quaglino[1]

1 Section of Dermatology, Department of Medical Sciences, University of Turin, Turin, Italy
2 Section of Pathology, Department of Oncology, A.O.U. Città della Salute e della Scienza, Turin, Italy

Citation: Santaniello U, Cavallo F, Conti L, Fava P, Ribero S, Quaglino P. Dermoscopic Features of Solitary Leukemia Cutis in a Patient with Chronic Lymphocytic Leukemia. *Dermatol Pract Concept*. 2026;16(1):6065. DOI: https://doi.org/10.5826/dpc.1601a6065

Accepted: June 2, 2025; **Published:** January 2026

Funding: None.

Competing Interests: None.

Authorship: All authors have contributed significantly to this publication.

Corresponding Author: Umberto Santaniello, MD, Section of Dermatology, Department of Medical Sciences, University of Turin, Via Cherasco 23, 10126, Turin, Italy. ORCID ID: 0009-0008-7728-6832. E-mail: umberto.santaniello@unito.it

Case Presentation

A 70-year-old female with a known history of an indolent form of chronic lymphocytic leukemia (CLL) presented to our clinic with a new asymptomatic firm pink-reddish papular lesion with poorly defined margin on her right forearm (Figure 1A). The lesion measured approximately 5 mm in diameter, and the surrounding skin showed signs of chronic photodamage. Dermoscopic examination revealed a polymorphic vascular pattern, characterized by linear and irregular vessels on a pinkish-orange structureless background (Figure 1B). A skin biopsy was performed. Histopathological examination revealed a dense dermal infiltrate of monomorphic lymphoid cells arranged in coarse nodules around vessels and adnexal structures. The infiltrate was composed predominantly of small- to-medium-sized lymphoid cells with scant pale cytoplasm, round to slightly irregular nuclei, dispersed chromatin, and inconspicuous nucleoli (Figures 1C–D). Immunohistochemically, the lymphoid cells were positive for CD20, CD23 (Figure 1E), CD43, LEF1, and BCL2 and weakly positive for CD5. They were negative for BCL6, CD10, MNDA, Cyclin D1, CD30, and IgM. A diagnosis of a cutaneous localization of CLL was made.

Teaching Point

Leukemia cutis (LC) is an uncommon cutaneous manifestation of leukemia, often associated with advanced disease and poorer prognosis. Its clinical presentation is highly variable, frequently mimicking different benign or malignant skin neoplasm, making diagnosis challenging. Papulo-nodular achromic lesion is a common clinical presentation of LC [1]. While dermoscopic findings in LC are variable and not fully specific, features such as polymorphic vessels on a pinkish-orange background, as observed in this case, may raise suspicion for LC in the appropriate clinical context, prompting timely biopsy and diagnosis [2].

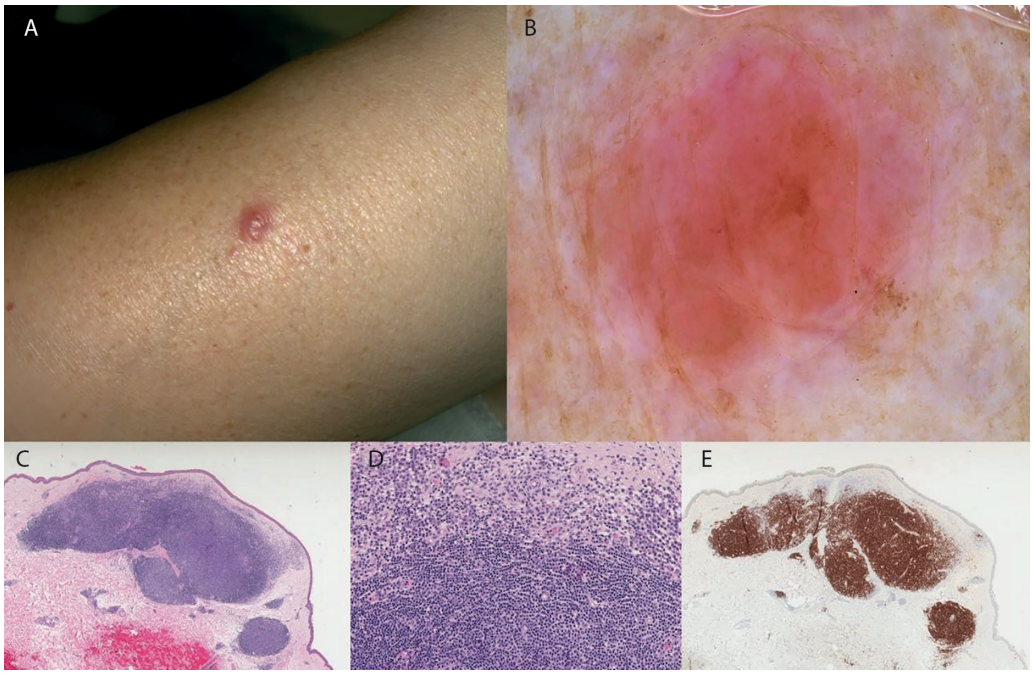

Figure 1. (A, B) Clinical presentation and non-polarized dermoscopy of leukemia cutis; (C) Morphological features showing a dense dermal infiltrate of monomorphic lymphoid cells (hematoxylin-eosin, magnification 25x); (D) Higher magnification of a nodule (hematoxylin-eosin, magnification 200x); (E) CD23 positive nodal infiltrate of CLL (CD23 immunostaining, magnification 25x).

References

1. Robak E, Braun M, Robak T. Leukemia Cutis-The Current View on Pathogenesis, Diagnosis, and Treatment. *Cancers (Basel)*. 15,22 5393. 13 Nov. 2023, DOI:10.3390/cancers15225393. PMID: 38001655.
2. Sławińska M, Sokołowska-Wojdyło M, Biernat W, Zaryczańska A, Nowicki RJ, Sobjanek M. Dermoscopic Features of Leukemia Cutis-Case Series. *Indian J Dermatol*. 2021;66(2):187-190. DOI: 10.4103/ijd.IJD_534_19. PMID: 34188276.