



DERMATOPATHOLOGY

A COMPARATIVE IMMUNOHISTOCHEMICAL STUDY OF EPIDERMAL AND DERMAL/PERIFOLLICULAR LANGERHANS CELL CONCENTRATION IN DISCOID LUPUS ERYTHEMATOSUS AND LICHEN PLANOPILARIS: A CROSS-SECTIONAL STUDY

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Introduction: There are times where differentiation between discoid lupus erythematosus (DLE) and lichen planopilaris (LPP) becomes quite challenging clinicopathologically.

Objectives: The aim of this study was to evaluate and compare the concentration, distribution pattern and role of Langerhans cells (LCs), identified by CD1a staining in DLE and LPP.

Materials and Methods: Twenty-five specimens of skin biopsies from patients diagnosed with LPP and DLE were included. Immunohistochemistry (IHC) staining was performed against CD1a antigen to assess and compare the concentration and distribution pattern of LCs.

Results: Compared with LPP, the median number of epidermal CD1a+ cells per three high power fields was significantly lower in DLE ($p=0.003$). On the other hand, DLE cases had significantly higher mean number of dermal/perifollicular CD1a+ cells in three high power fields than LPP cases ($p=0.01$).

Conclusions: There are differences in the density and distribution pattern of LCs in LPP and DLE in the epidermis and perifollicular regions. Our findings of a statistically significant decrease in LC concentration in the epidermis of DLE cases and also in the perifollicular region of LPP, may serve as helpful clues in further characterization of these entities,





especially in equivocal cases. However, more extensive studies are required to better understand the underlying immunopathogenesis of these diseases in providing further clues to a specific diagnosis.

