Dermatology Practical & Conceptual

Cutaneous Involvement of Mantle Cell Lymphoma: Report of Two Cases with Dermatoscopic Features

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Introduction

Mantle cell lymphoma (MCL) is a rare aggressive B-cell lymphoma and represents 6% of all non-Hodgkin lymphomas. Cutaneous involvement (CI) of systemic MCL is rarely reported and is related to poor prognosis. Skin involvement in systemic lymphomas (SLs) can be challenging. Dermatoscopy may serve as a useful tool to diagnose and ameliorate the prognosis by leading early diagnosis. In this context, we present two cases of MCL with secondary CI, who presented with widespread plaques and nodules and describe their dermatoscopic features.

Case Presentations

The first patient was a 73-year-old male diagnosed with MCL in 2014. He referred to dermatology department for asymptomatic pink-red colored generalized skin lesions in August 2018 (Figure 1A). Dermatoscopic examination showed pink white structureless lesions with unfocused thick serpentine vessels (Figure 1B). Second patient was a 66-year-old female diagnosed with MCL in 2017, admitted for multiple nodular lesions developed on the trunk and extremities in January 2019 (Figure 1C). Dermatoscopic examination showed thick serpentine-branched and reticular vessels on whitish-pink violaceous background (Figure 1D). Both lesions were biopsied and showed similar features including diffuse infiltration of the mid and deeper dermis with medium-sized lymphocytes with irregular nuclei. The tumor cells were positive for CD5, CD20, CD79a, cyclin D1, and negative for CD10 (Figure 2). Both patients were diagnosed with CI of MCL. They have been treated with combined chemotherapy regimens including rituximab, unfortunately both patients were deceased due to disease dissemination (14 months and 18 months after CI, respectively).

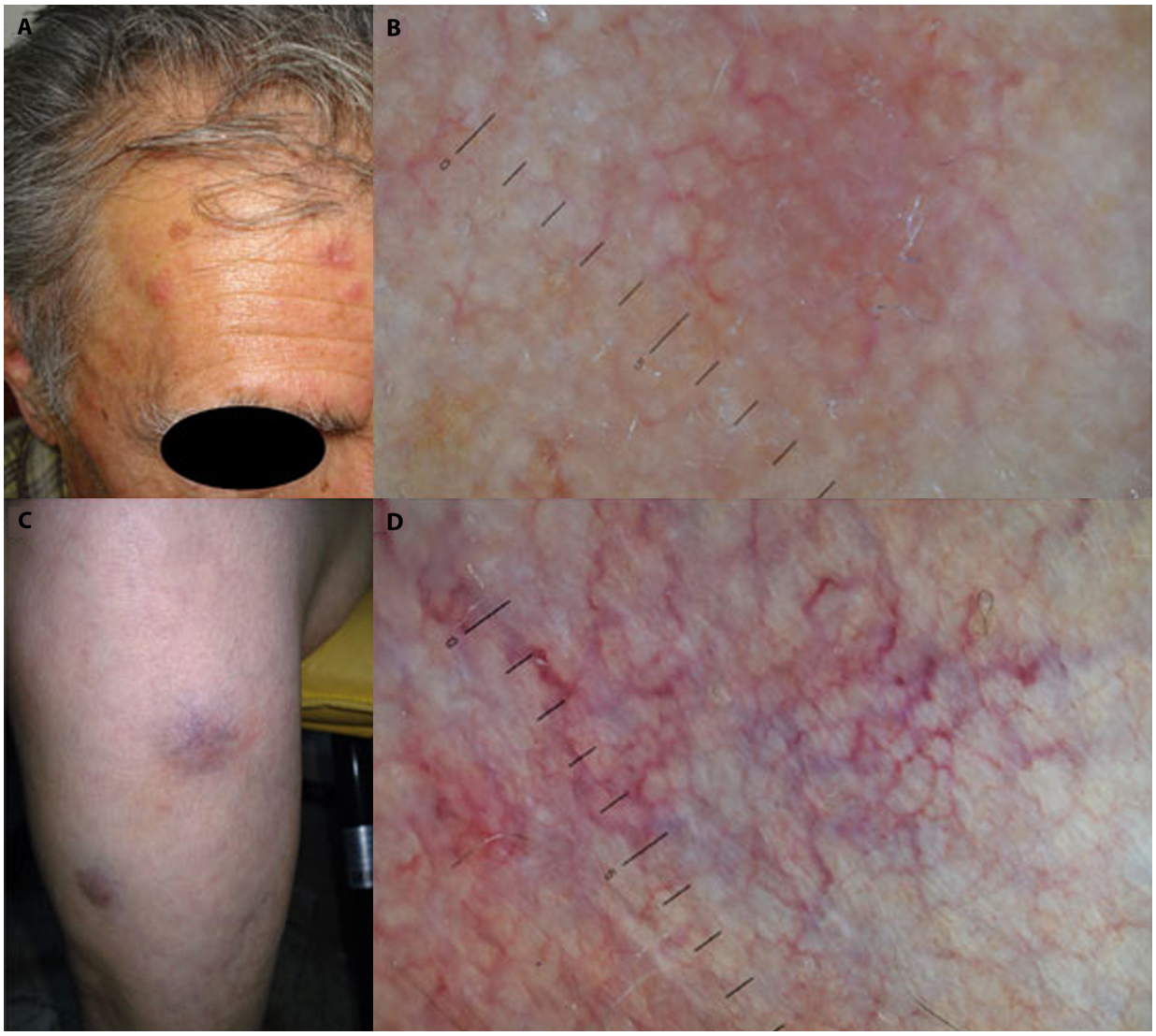

Figure 1. (A,B) Clinical and dermatoscopic pictures of case 1. (A) Multiple erythematous indurated papules and plaques on the forehead. (B) The dermatoscopic image shows pink and white structureless lesions with unfocused thick short serpentine vessels. (C,D) Clinical and dermatoscopic photos of case 2. (C) Multiple, purple-colored nodular lesions on the right anterior leg. (D) the dermatoscopic image shows thick vessels, branched, and reticular vessels on purple, pink and white background.

Discussion

MCL originates from primarily lymph nodes and extra-nodal organs (bone marrow, spleen, gastrointestinal tract). Skin involvement portends a poor prognosis and is seen in 2% of the cases. Previously, 24 cases of secondary CI of MCL have been reported.

The value of dermatoscopic examination in cutaneous lymphomas (CL) have been proposed in previously published studies. A recent systematic review regarding dermatoscopic findings in primary CLs showed that dermatoscopy assisted skin biopsies ensure early diagnosis based on the findings such as salmon-colored background, fine short/linear irregular serpentine vessels, scale, and white areas/circles [1]. Regarding the dermatoscopic features of secondary CI of SLs, only 1 case of MCL has been reported and showed multiple chaotically distributed short linear vessels with multiple red dots within hair follicles on a whitish background. As the lesion progressed, wider telangiectatic vessels on a reddish background were observed, and the lesions regressed under treatment [2]. We observed pink and white structureless lesions with unfocused thick short serpentine vessels in flat lesions, as lesions became nodular as in our second patient, the vessel calibers increased, branched and reticular vessels were observed on purple-pink, white background which is hypothetically due to increased tumor volume and expansion of the dermis by malignant infiltrate.

Conclusions

Skin involvement in MCL suggests poor prognosis. Though, dermatoscopic features are not specific to CI of SLs, they can raise suspicion to biopsy these lesions in earliest stages.

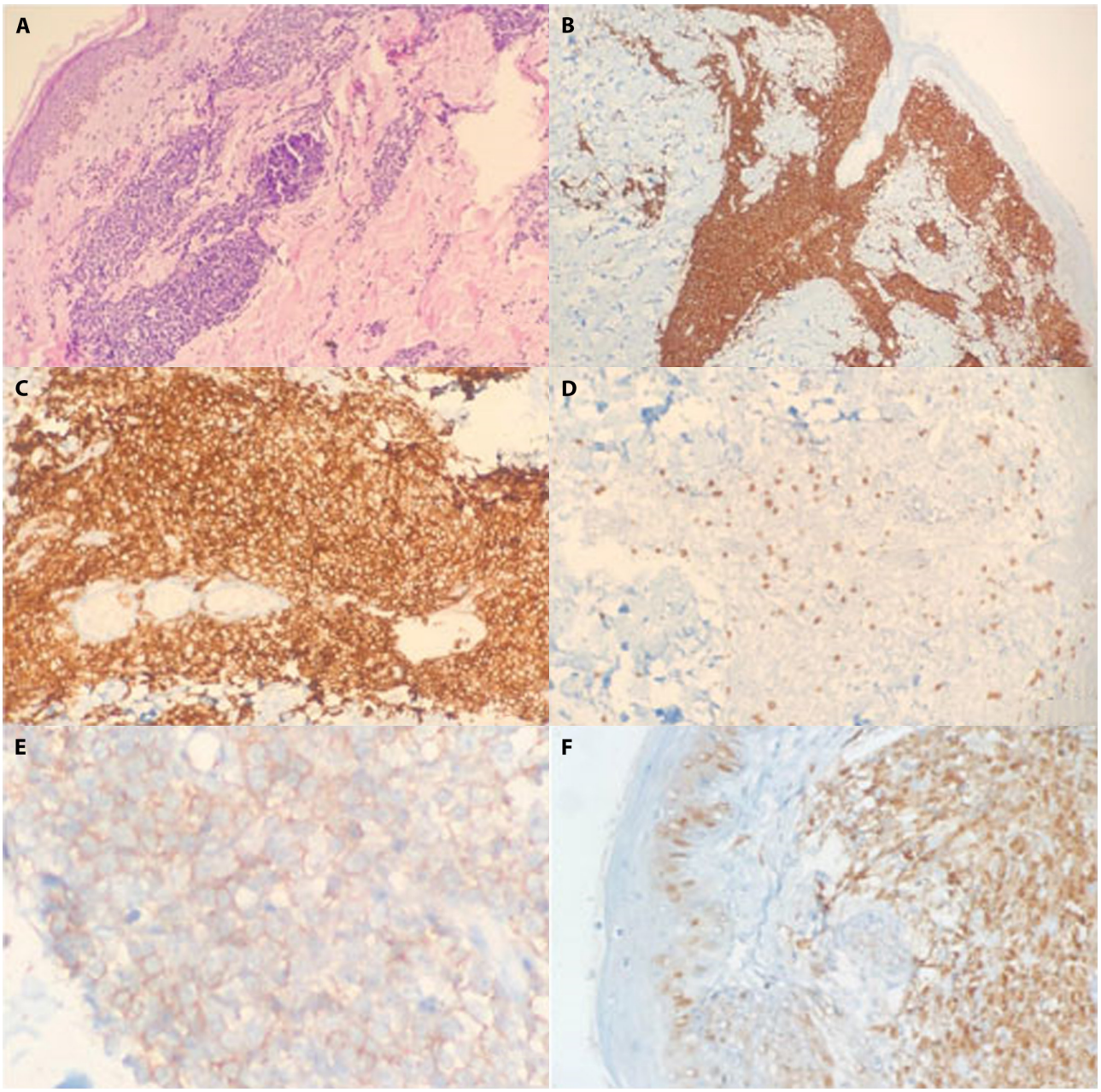

Figure 2. Histological and immunohistochemical findings of the papules from case 2. (A) Diffuse proliferation of small atypical lymphoid cells with fine chromatin (H&Ex10). The subcutaneous atypical lymphoid cells were expressing strong CD20 (b) and CD5 (c) , pale IgD(d). (E,F) The cells were specifically negative for CD3 (e) and positive for cyclin D (f).

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