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E- CASE REPORT

Eosinophilic Dermatosis of Hematologic Malignancy☆

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KEYWORDS
Eosinophilic dermatosis;
Chronic lymphocytic leukemia;
Mycosis fungoides;
Tissue eosinophilia;
Insect bites

Abstract Dermatosis characterized by tissue eosinophilia arising in the context of hematologic disease is known as eosinophilic dermatosis of hematologic malignancy. The most commonly associated malignancy is chronic lymphocytic leukemia. Eosinophilic dermatosis of hematologic malignancy is a rare condition with a wide variety of clinical presentations, ranging from papules, erythematous nodules, or blisters that simulate arthropod bites, to the formation of true plaques of differing sizes. Histology reveals the presence of abundant eosinophils. We present 4 new cases seen in Hospital Arnau de Vilanova, Valencia, during the past 7 years. Three of these cases were associated with chronic lymphocytic leukemia and 1 with mycosis fungoides. It is important to recognize this dermatosis as it can indicate progression of the underlying disease, as was the case in 3 of our patients.

PALABRAS CLAVE
Dermatosis eosinofílica;
Leucemia linfática crónica;
Micosis fungoide;
Eosinofilia tisular;
Picaduras

Dermatosis eosinofílicas asociadas a procesos hematológicos

Resumen La dermatosis caracterizada por eosinofilia tisular que aparece en el contexto de un trastorno hematológico se conoce con el nombre de dermatosis eosinofílica asociada a proceso hematológico, siendo el más frecuente de todos la leucemia linfática crónica. Se trata de una entidad poco frecuente que tiene un amplio espectro morfológico, desde pápulas, nódulos eritematosos o ampollas que simulan picaduras de artrópodo hasta la formación de verdaderas placas de tamaño variable y en las que la histología se caracteriza por la presencia de abundantes eosinófilos. Presentamos 4 nuevos casos diagnosticados en nuestro hospital en los últimos 7 años, 3 de ellos asociados a una leucemia linfática crónica y un cuarto caso asociado a una micosis fungoide. La importancia de conocer esta dermatosis radica en el hecho de que puede indicar una progresión de la enfermedad de base, y así fue en 3 de nuestros pacientes.

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Introduction

We present the cases of 4 patients with hematologic neoplasms who developed lesions with clinical and histological features reminiscent of insect bites. All 4 patients were diagnosed with eosinophilic dermatosis (ED) of hematologic malignancy. In one of these patients, the underlying disease was a cutaneous T-cell lymphoma. This type of cutaneous eruption has previously been reported in patients with B-cell lymphomas, human immunodeficiency virus (HIV), congenital agammaglobulinemia, acute monocytic leukemia, and myelofibrosis.[1–6]

Case Descriptions

We carried out a retrospective study of cases of ED of hematologic malignancy diagnosed in our hospital between 2009 and 2015. The clinical characteristics of the patients are summarized in Table 1. The patients were 1 woman and 3 men, aged between 53 and 86 years. Three of them were diagnosed with chronic lymphocytic leukemia (CLL) and one with mycosis fungoides (MF) CD3+, CD4−, CD7−, and CD8−. All 4 patients were referred for consultation by the Hematology Department because they had developed cutaneous lesions. The interval between diagnosis of the blood cancer and the appearance of the dermatosis varied from 2 months to 10 years. None of the 3 patients with CLL were receiving specific treatment for their hematologic disease at the time the skin lesions appeared: in case 1 because of sepsis caused by *Klebsiella pneumoniae*, which had led to the cessation of the third cycle of chemotherapy a few months earlier; in case 2 because the disease was in a very early stage; and in case 3 because the patient was in partial remission following 2 cycles of chemotherapy. The patient with MF had been receiving treatment with bexarotene for 2 months.

In all 4 cases, the presenting complaint was the appearance of a pruritic eruption with onset between 1 and 4 weeks earlier. Multiple palpable preauricular and cervical lymph nodes were found in Case 2 and accompanying B symptoms were observed in Case 3. The basic lesions varied: excoriated papules in Case 1 (Fig. 1A); erythematous papules in a linear pattern in case 2 (Fig. 1B); confluent papules of various sizes on the forearm in Case 3 (Fig. 2A); and poorly defined erythematous-violaceous plaques in patient 4 (Fig. 2B). The site most frequently affected was the upper limbs. In Case 1, ED developed when the patient was in hospital because of progression of her CLL. None of the patients reported any history of an insect bite.

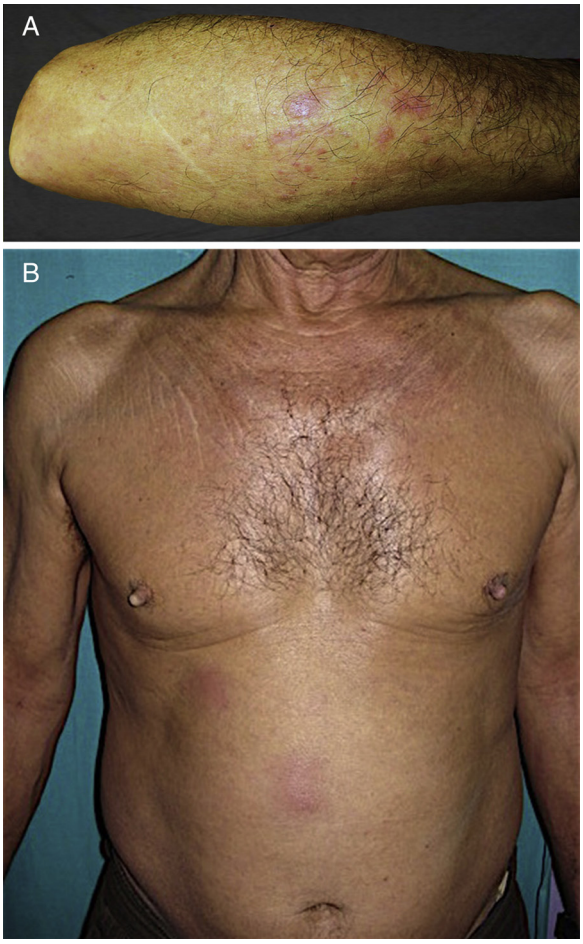

Figure 2 A, Erythematous papules of different sizes, some confluent. B, Poorly defined erythematous-violaceous plaques.

In all 4 cases, a histologic study was performed following staining with hematoxylin-eosin. Immunofluorescence was not performed since clinically the lesions were papules or plaques consistent with insect bites. In all 4 cases, histologic examination revealed a perivascular and periadnexal interstitial inflammatory infiltrate in the superficial and deep

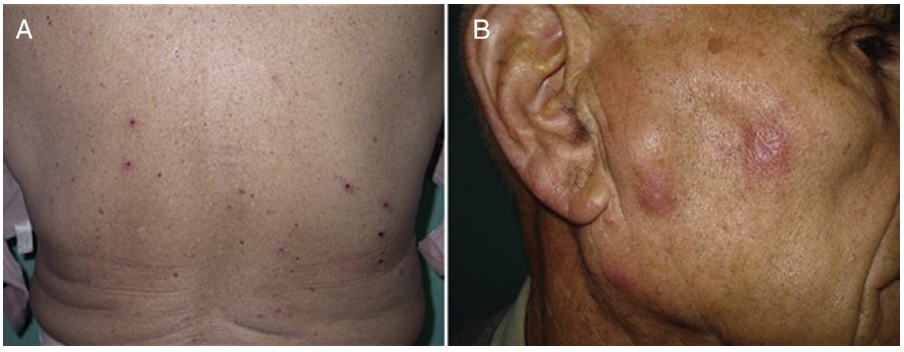

Figure 1 A, Excoriated papules on back. B, Erythematous papules in a linear pattern.