

CASE REPORT



Dermatopathic lymphadenopathy

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ABSTRACT

This case report details the clinical assessment of a 21-year-old male suffering from atopic dermatitis (AD) and asthma who was hospitalized due to bacteremia. The patient exhibited diffuse hyperpigmented lichenified plaques covering a significant portion of his body, lymphadenopathy, and severe fatigue. Further investigation led to the diagnosis of dermatopathic lymphadenopathy (DL), a reactive lymph node hyperplasia often associated with chronic cutaneous diseases. DL can mimic other serious conditions, necessitating a careful evaluation and differential diagnosis for effective treatment. This report highlights the importance of recognizing and managing DL in individuals with chronic skin conditions.

KEYWORDS

Dermatopathic lymphadenopathy; Atopic dermatitis; Asthma; Bacteremia

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Introduction

Dermatopathic lymphadenopathy (DL) is a reactive lymph node condition associated with chronic skin diseases. Careful evaluation and differential diagnosis are required for guided and successful treatment [1]. Herein, we present a case of a young male with atopic dermatitis and asthma with bacteremia, diagnosed and treated for DL.

Case Presentation

A 21-year-old male with atopic dermatitis (AD) and asthma was admitted for bacteremia. On physical exam, diffuse hyperpigmented lichenified plaques were present on his trunk, extremities, palms, and soles, covering approximately 80% of his body. Lymphadenopathy (LAD) was observed in multiple

locations, most conspicuously in the inguinal area (Figure 1A). On review of systems, the patient recounted extreme fatigue. In light of this symptom and the lymph node enlargement, needle aspiration of an inguinal node was recommended to rule out a possible malignancy or autoimmune disorder. Fine needle aspiration cytology (FNAC) revealed a benign hyperplastic lymph node with reactive follicles and pigment-laden macrophages. Scattered eosinophils were noted (Figure 1B). The patient was diagnosed with dermatopathic lymphadenopathy attributed to his underlying long-term uncontrolled severe atopic dermatitis.

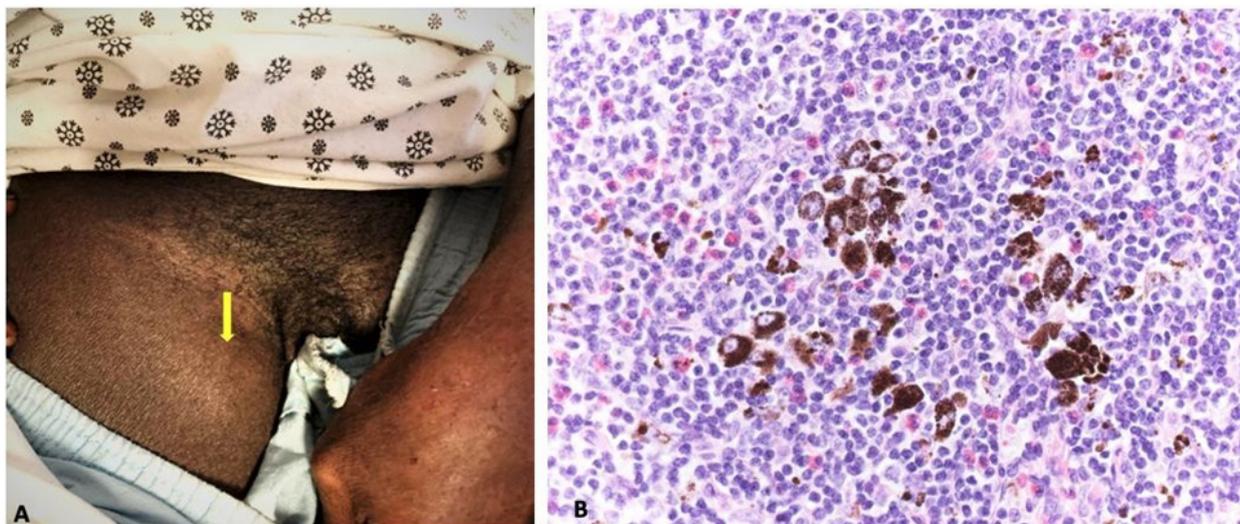


Figure 1. Dermatopathic lymphadenopathy. (A) Inguinal area of the patient with severe atopic dermatitis. Lymphadenopathy is visible (yellow arrow). (B) Needle aspiration of the inguinal lymph node. Cytology demonstrates eosinophils and pigment-laden macrophages in the enlarged lymph node parenchyma.

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Discussion

Dermatopathic lymphadenopathy (DL) is a particular type of reactive lymph node hyperplasia that occurs in the setting of chronic cutaneous disease [2]. It develops as a consequence of long-term exfoliative or eczematous skin disorders and presents with enlarged peripheral lymph nodes, most commonly in the axillary and inguinal areas [2]. Fine needle aspiration or biopsy of an enlarged node, often in an attempt to rule out other concerning etiologies, such as malignancy or autoimmune disease, establishes the diagnosis. The LAD may improve with resolution or effective treatment of the underlying dermatological condition. However, DL can occasionally be present without visible cutaneous manifestations [3].

Depending on the clinical presentation, the LN involvement of DL may be difficult to distinguish from that of mycosis fungoides/Sezary syndrome, and this diagnosis may need to be ruled out as an etiology [2]. Our patient had a severe presentation of atopic dermatitis that began at an early age. Nonetheless, because of the widespread and intractable nature of his dermatitis, we performed a biopsy of an active area on the arm that corroborated this diagnosis and displayed no evidence of cutaneous T-cell lymphoma.

Other important differentials of DL include classic Hodgkin lymphoma, toxoplasma lymphadenitis, viral lymphadenitis, and Langerhans cell histiocytosis with the consideration that the patient may have a skin disorder and concurrent unrelated process such as lymphoma or sarcoma

[2,4]. These conditions can largely be distinguished from DL histopathologically.

The histology of DL is characterized by the appearance of a benign reactive lymph node with a widened paracortical area and pale staining due to the presence of Langerhans and dendritic cells [3]. Macrophages in the parenchyma typically contain pigment deposits, usually melanin and less commonly hemosiderin [3]. Eosinophils may be present, as observed in our patient [5].

Disclosure statement

No potential conflict of interest was reported by the authors.

References

1. Hu N, Tan YL, Cheng Z, Wang YH. Dermatopathic Lymphadenitis. *Chin Med J*. 2015;128(22):3121-3122.
2. Balakrishna J, Sharabi A. Dermatopathic lymphadenitis. *PathologyOutlines.com website*. <https://www.pathologyoutlines.com/topic/lymphnodesdermatopathiclymphadenitis.html> (Accessed 24 March, 2021)
3. Bueno-Rodriguez A, Ruiz-Villaverde R, Caba-Molina M, Tercedor-Sánchez J. Dermatopathic Lymphadenopathy: Is our diagnostic approach correct? *Actas Dermosifiliogr*. 2017;109(4):361-363.
4. Hurwitt E. Dermatopathic lymphadenitis: focal granulomatous lymphadenitis associated with chronic generalized skin disorders. *J Invest Dermatol*. 1942;5(4):197-204.
5. Srinivasamurthy BC, Saha K, Senapati S, Saha A. Fine needle aspiration cytology of dermatopathic lymphadenitis in an asymptomatic female: A case report. *J Cytol*. 2016;33(1):49-51.