Subcutaneous Panniculitis-Like T-cell Lymphoma Mimicking Lipodermatosclerosis

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Introduction

- Subcutaneous panniculitis-like T-cell lymphoma (SPTCL) is an uncommon form of cutaneous lymphoma involving lymphocytic invasion primarily of the subcutaneous tissue.
- The disease typically presents as one or more erythematous subcutaneous plaques of the lower extremities. Less common presentations involve ulcerative lesions and distribution on the upper extremities, trunk, and head[1,2]. Lesions may spontaneously subside and leave areas of lipoatrophy[2].
- SPTCL has a good outcome with a 5-year overall survival rate of over 80%[4]. Prevalence is equal among males and females and is seen primarily in adults, but it can affect any age[1,3]. A majority of patients experience weight loss, fever, and fatigue[3,4].
- ~20% of SPTCL cases are associated with autoimmune disease, most commonly lupus erythematous[3,4]. Hemophagocytic syndrome, an inflammatory immune syndrome, is present in ~15% of patients[3].
- Differential diagnosis includes morphea, lipodermatosclerosis, and the full spectrum of panniculitides.
- SPTCL is localized to the subcutis and rarely involves lymph nodes and can therefore be treated with systemic corticosteroids[1,4]. More severe cases that do not respond to conservative methods can be treated with systemic chemotherapy, specifically CHOP: cyclophosphamide, hydroxydaunorubicin, oncovin and prednisolone[1]. In recurrent cases with extracutaneous involvement, bone-marrow/stem-cell transplantation have been effective[1,4].

Case Description

- A 71-year-old female with a history of polymyalgia rheumatica presented to the vascular medicine clinic with long-standing bilateral proximal anterolateral calf lesions and a diagnosis of venous insufficiency, stasis dermatitis, and "lipodermatosclerosis." At the time of presentation, she reported mild pain and itch, but the persistence of the skin lesions was the most bothersome complaint. She denied new or worsening fatigue, weight loss, appetite loss, low-grade fevers, chills, and night sweats. Another process was suspected given the atypical proximal anterolateral predominance of the lesions and the lack of venous reflux on duplex ultrasound. She was therefore referred to dermatology.
- Physical examination revealed erythematous and slightly pigmented indurated plaques on the anterolateral aspects of the bilateral calves. One of the plaques of the right lower leg showed mild overlying xerosis.
- A biopsy revealed infiltration of the lower reticular dermis and subcutaneous adipose tissue with lymphohistiocytic inflammation and scattered enlarged, hyperchromatic lymphocytes with prominent CD8+ rimming of lipocytes. Findings were consistent with subcutaneous panniculitis-like T-cell lymphoma.

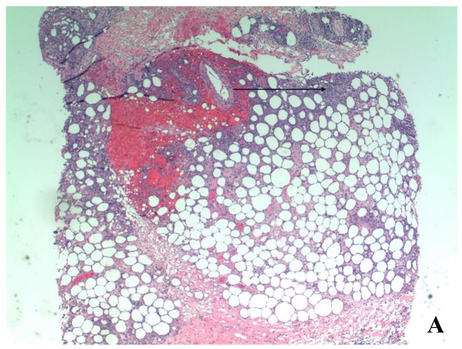

Figure 1A: H&E, original magnification 4x
Atypical T-cell invasion of the lower reticular dermis and subcutaneous tissue, with no epidermal involvement.

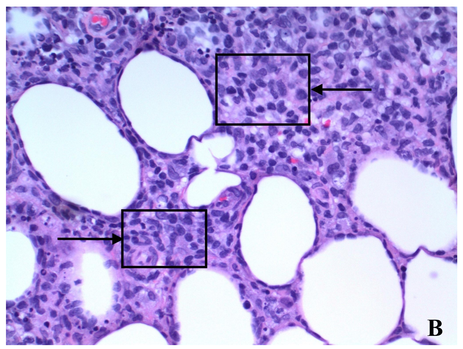

Figure 1B: H&E, original magnification 40x
The infiltrate consists of histiocytes and CD8+ hyperchromatic lymphocytes with irregular nuclear contour and prominent adipocyte rimming.

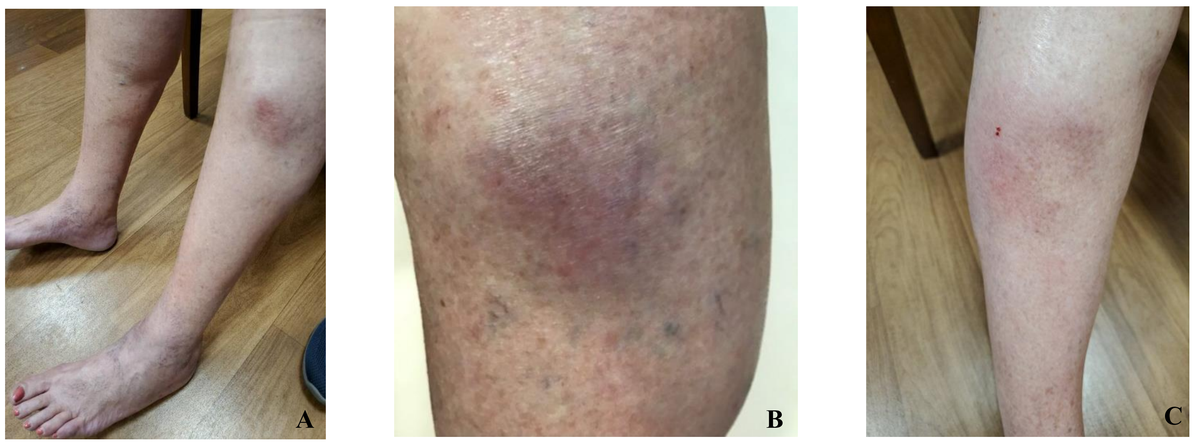

Figure 2: Cutaneous presentation of SPTCL on the left (A) and right (B, C) lower legs.

Treatment

- Initial treatment with clobetasol cream showed no improvement.
- She had previously been taking methotrexate for polymyalgia rheumatica. Since drug discontinuation, the patient observed a worsening of the lesions on her legs.
- Methotrexate has since been restarted, and the patient is being closely monitored for disease control.

Discussion

- Subcutaneous Panniculitis-Like T-cell Lymphoma is a rare form of cutaneous lymphoma. Diagnosis of SPTCL is difficult as in the early stages of disease, the presentation of erythematous plaques may mimic more common conditions.
- This report aims to discuss similar presentations of dermatologic and vascular diseases and the importance of collaborating with different specialties to analyze patient history, abnormal test results, and physical exam findings to diagnose skin abnormalities.

References

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