Abstract

The authors report a case of cutaneous pseudolymphoma in a 69-year-old Caucasian male. The clinical and histopathological characteristics are discussed, as well as approaches to diagnosis and possible treatments.

Introduction

Cutaneous pseudolymphomas are benign, reactive T- or B-cell proliferations resulting from various exogenous stimuli. Lesions show a typical morphology of violaceous papules and plaques. Although thought to be benign, current literature discusses the small risk of development into overt cutaneous lymphoma. In this case, we describe a large, persistent, isolated lesion on the thigh of a male.

Case Report

A healthy 69-year-old Caucasian male presented to the clinic with a three-week history of a large, slightly painful lesion located on the right superior thigh. The patient stated the lesion first presented after getting into a hot tub and says his wife was diagnosed and treated for hot tub folliculitis around the same time. He also reported a visit to Malaysia within the last year. He had no documented past medical history or medications and denied any associated systemic symptoms. His primary care provider had seen him on numerous occasions and prescribed him topical mupirocin multiple visits, both punch and incisional biopsies were taken, and the wound was cultured negative for fungal and bacterial organisms. Subsequently, trials of doxycycline, ciprofloxacin, and topical clobetasol ointment were attempted, with no improvement.

Biopsy results with hematoxylin and eosin (H&E) staining showed acanthosis with mild spongiosis and a predominantly perivascular and periadnexal infiltrate consisting of small lymphoid cells with mature chromatin and no overt cytologic atypia (Figures 2, 3). PAS and gram stains were negative for both fungal and bacterial organisms. There was no evidence of epidermotropism, and no Pautrier microabscesses were identified. Staining for CD3 and CD5 was diffusely positive, with few CD20-positive cells. Immunohistochemical staining to establish polyclonality was performed to rule out lymphoma. Genotypic studies showed a clonal population of T cells in the TCR gamma chain, while the beta chain assay was negative. T-cell receptor gene rearrangement studies showed no evidence of pan-T-cell antigen deletion.

After referral to oncology, it was felt this was most likely a reactive process indicative of predominantly T-cell pseudolymphoma. Treatment with periodic intralesional triamcinolone acetonide injections was initiated, which resulted in almost complete clearance of the lesion. The patient was instructed to follow up closely for monitoring and treatment.

Discussion

Cutaneous pseudolymphoma refers to a heterogeneous group of benign, reactive, T- or B-cell lymphoproliferative processes of diverse causes that simulate cutaneous lymphomas clinically and/or histologically.1 Pseudolymphoma, also termed cutaneous lymphoid hyperplasia, is a reactive process stimulated by many different antigenic factors. Although most cases are idiopathic, an association has been noted with tattoos, infections, vaccinations, inflammatory dermatoses, and arthropod bites.2 Drug-induced pseudolymphoma should be a consideration with patients taking anti-epileptics, tissue necrosis factor inhibitors, calcium channel blockers, tamoxifen, and methotrexate. Drug-induced pseudolymphoma will typically resolve with discontinuation of the offending agent.1 Cutaneous lymphoid hyperplasias are seen in both children and adults, but women are affected two to three times more often.3 Although benign in nature, some evidence suggests a portion of pseudolymphomas may progress to low-grade lymphomas due to persistent antigenic stimulation, warranting close follow-up examinations.3

Most cases will undergo spontaneous involution, but in cases resulting from known antigenic factors, withdrawal of offending agents will lead to resolution of the lesions. Treatment for persistent or idiopathic cases include topical or intralesional corticosteroids, cryosurgery, local radiation, excision, interferon-alpha, and laser ablation.1,4 A study consisting of two cases showed a good response to thalidomide.4

Immunohistochemical staining is critical in distinguishing cutaneous lymphoma from lymphoid hyperplasia. Pan-T-cell antigen deletion, most commonly CD7, and rearrangements of immunoglobulin heavy chain establishing monoclonality are the factors most helpful in diagnosing lymphoma.5,6

Conclusion

Cutaneous pseudolymphomas are benign hyperproliferations of B cells or T cells resulting from various antigenic stimuli. There is a small probability of the lesions transforming into overt lymphomas, warranting close follow-up. The lesions resemble lymphomas clinically and/or histologically, making immunohistochemical studies imperative in distinguishing the two. There are many treatment modalities for cutaneous pseudolymphomas, but withdrawal of any known stimuli, if elucidated, is the only definitive treatment. In the case of our patient, serial examinations and intralesional triamcinolone acetonide injections resulted in almost complete clearance of the lesion.
References


