Nodular skin infiltrations – pseudolymphoma VS. lymphomatous infiltration?

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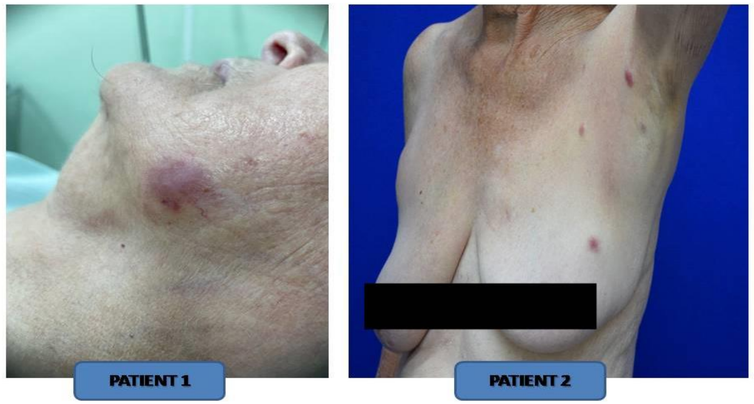
FOCUS AREA: Challenging Cases of Cutaneous Lymphomas **Abstract Number #164**

Introduction

Despite the vast knowledge already attained in the field of cutaneous lymphoproliferative disorders, definitive answers to the common inquiry still remain: How to differentiate between lymphoma and pseudolymphoma? Cutaneous pseudolymphoma consists of a heterogeneous group of benign lymphoproliferative processes involving B or T cells, reactive to various stimuli, in which the inflammatory infiltrate simulates cutaneous lymphoma. They can be idiopathic or responses to new antigens and clinically present as papules or infiltrated plaques, and even nodules that can mimic cutaneous lymphoma. The challenge lies in the differential diagnosis between these two entities, a differentiation that remains an obstacle even for the most discerning eyes and represents an assessment that impacts therapeutic decisions. This study aims to explore and compare the clinical and histopathological presentations of these entities.

Case Report



Patient 1: erythematous and infiltrated nodule located on the left mandible, in the same location where squamous cell carcinoma was previously excised.
Patient 2: multiple erythematous and infiltrated papules located on the trunk.

Case Report

We present two cases with uncertainty regarding the differential diagnosis between cutaneous lymphoma and pseudolymphoma. Patient 1, a 69-year-old woman with psoriasis, exhibited a 2x1cm nodular mandibular lesion, in the same location where squamous cell carcinoma was previously excised. Patient 2, a 77-year-old woman, presented pruritic infiltrated papules and plaques on the upper limbs and trunk. Both cases presented clinically as nodular skin infiltrations and demonstrated a diffuse lymphocytic infiltrate forming follicles with a germinal center. The first patient had positive immunohistochemistry (IHC) for CD20, CD3, CD8, with no kappa/lambda restriction and a high Ki-67 in the germinal center (>60%) and low in the diffuse part (10%), leading to its classification as pseudolymphoma. Histopathological evaluation of the second patient showed various patterns of infiltrate: follicular, interstitial and perianexial. Immunohistochemistry revealed positivity for CD10, CD20, and PAX 5, and was PD1 negative, with no kappa/lambda restriction. In the last case, the presence of heterogeneous infiltrate patterns favored lymphoma. Both patients were investigated and didn't present with systemic disease. All responded well to glucocorticoids (topical or systemic) and remain under follow-up without signs of recurrence.

Discussion

Difficulties persist in differentiating between lymphomas and pseudolymphomas, as they are clinically identical. An accurate diagnosis is crucial for effective patient management, as misdiagnosis may lead to inappropriate treatment and impose a psychological burden on patients. Primary cutaneous lymphoma typically manifests with a clonal neoplastic T or B cell infiltrate, and skin flow cytometry and molecular studies can be employed to detect clonality. To achieve proper differentiation, a panel of IHC markers is necessary, and kappa/lambda light chain restriction can assist in the process. B cell infiltration should always trigger systemic investigation, including a complete blood cell count, lactate dehydrogenase assessment, and PET CT. When dealing with cutaneous pseudolymphoma, prompt removal of detected antigens responsible for the stimulus is essential to avoid persistent antigenic stimulation and potential progression to lymphoma. Ongoing research on biomarkers will contribute to a better understanding of these entities, leading to proper treatment and follow-up for the patients.

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