

# Red nodule on the face with "spontaneous" regression\*

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**Abstract:** Pseudolymphomatous folliculitis is a rare entity included among the cutaneous pseudolymphomas. A 32-year-old man, with an unremarkable medical history, presented with a two-month history of an asymptomatic solitary nodule on his left cheek. Histopathological examination demonstrated a dense nodular and diffuse dermal lymphocytic infiltrate with numerous histiocytes and dendritic cells that surrounded hypertrophic hair follicles. Pseudolymphomatous folliculitis commonly presents in the fourth decade of life, with no sex predominance, as an asymptomatic, rapidly growing and solitary red dome-shaped nodule on the face. It has a benign clinical course as the lesions usually resolve with surgical excision or regress spontaneously after incisional biopsy. Although there is no report of pseudolymphomatous folliculitis progressing into lymphoma in the literature, follow-up of these patients is recommended.

Keywords: Folliculitis; Lymphoma; Pseudolymphoma

#### INTRODUCTION

Pseudolymphomatous folliculitis (PLF) is a rare entity included among the cutaneous pseudolymphomas or cutaneous lymphoid hyperplasias. Since its description in 1986 by McNutt, less than 50 cases have been reported in the literature, most of them in Japan.<sup>1</sup>

## **CASE REPORT**

A 32-year-old man, with an unremarkable medical history, presented with a two-month history of an asymptomatic solitary nodule on his left cheek. The patient was otherwise well, without systemic symptoms, and he denied history of trauma, sun exposure or insect bite before the onset of the cutaneous disease.

Physical examination revealed a red, dome-shaped and firm nodule of 13x13 mm in size on the left cheek (Figure 1). There was no lymphadenopathy and full skin examination was unremarkable.

Laboratory studies, including a complete blood analysis with serum lactate dehydrogenase level, beta-2 microglobulin, and serum protein electrophoresis; were all normal or negative.

A 4-mm punch biopsy was taken and hematoxylin-eosin (HE) stained sections of the specimen demonstrated a dense nodular and diffuse dermal lymphocytic infiltrate, separated from the epidermis by a grenz zone, and admixed with numerous histiocytes and dendritic cells that surrounded the pilosebaceous units (Figure 2). Immunohistochemical staining revealed that the infiltrate consisted of a mixed population of CD20-positive B-cells and CD3, CD4 and CD8-positive T-cells, with abundant S100 and CD1a-positive dendritic cells surrounding hair follicles, consistent with the diagnosis of pseudolymphomatous folliculitis (Figures 3 and 4). Clonal T-cell receptor and immunoglobulin heavy chain gene rearrangements were not performed.

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#### DISCUSSION

PLF commonly presents in the fourth decade of life, with no sex predominance, as an asymptomatic, rapidly growing and solitary red dome-shaped nodule on the face, especially on the nose, cheek, eyelid or forehead.<sup>2,3</sup>

Histologically, it is characterized by a benign proliferation of mixed polyclonal cells surrounding and invading hypertrophic hair follicles. The infiltrate consists of a mixed population of B (CD20+ and CD79a +) and T (CD3+, CD4+ and CD8+) lymphocytes mixed with histiocytes and dendritic cells (S100+ and CD1a+) in varying proportions. $^{1.5}$ 

T-cell receptor and immunoglobulin heavy chain gene rearrangements have been negative in all cases tested.<sup>3,4</sup> However, as atypical lymphocytes can be observed, PLF must be differentiated from primary malignant cutaneous lymphomas by histology and molecular studies. Although there is no report of PLF progressing into lymphoma in the literature, follow-up of these patients is recommended because of the possibility of recurrence.<sup>1-5</sup>

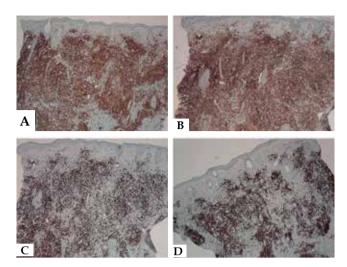


FIGURE 3: IImmunohistochemical staining. A - CD3. B - CD4. C - CD8 and D - CD20



FIGURE 1: Red, dome-shaped and firm nodule on the left cheek

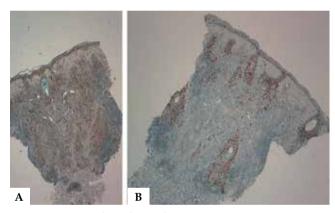
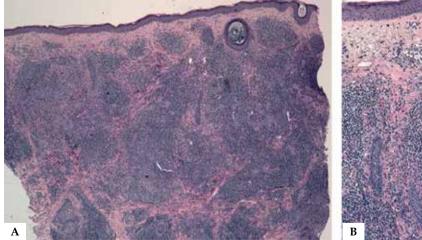


FIGURE 4: IImmunohistochemical staining. A - S100 e B - CD1a



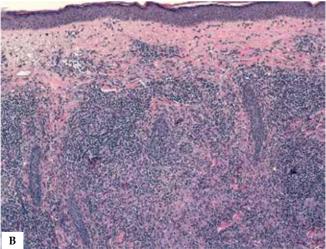


FIGURE 2: Dense nodular and diffuse dermal lymphocytic infiltrate, separated from the epidermis by a grenz zone, and admixed with numerous histiocytes and dendritic cells surrounding the pilosebaceous units. **A** - Hematoxylin-eosin, original magnification x 40. **B** - Hematoxylin-eosin, original magnification x 100

PLF has a benign clinical course as the lesions usually resolve with surgical excision or regress spontaneously after incisional biopsy. This is probably because PLF represents a delayed response to an antigen located in the follicular lumen or epithelium, and the excision or biopsy results in the removal of this antigen<sup>3</sup>. In

our case, within one month of the biopsy, a spontaneous regression of the lesion was observed.

Finally, it is important to establish a correct diagnosis to avoid overtreatment of this indolent condition.  $\square$ 

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