A pink papule on the forehead of a young woman

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CLINICAL PRESENTATION

A 19-year-old woman presented with a history of a solitary, slow growing papule on her forehead area since one year. Physical examination revealed an apparently healthy woman with a firm, pink papule, 6 mm in diameter (Figure 1). The remainder of the physical examination revealed no abnormalities. There were no significant family and past medical histories that could assist with the diagnosis. We performed a 3 mm punch biopsy and sent the specimen for histopathology examination.

What is your diagnosis?

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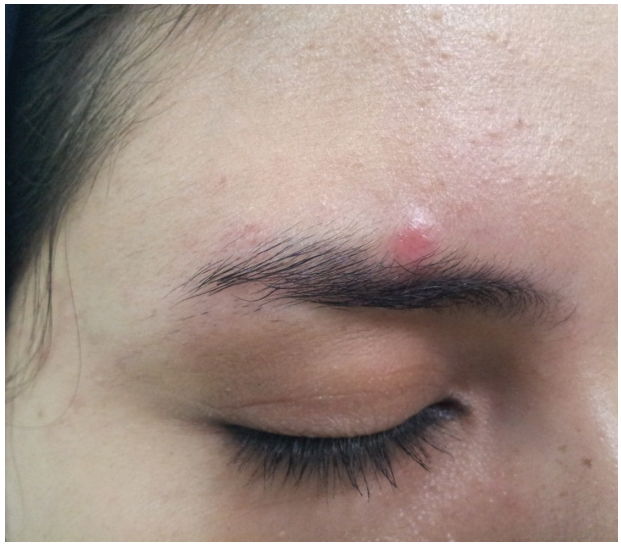

Figure 1. A healthy woman with a firm, pink papule, 6 mm in diameter.

Diagnosis

Cutaneous lymphadenoma

Microscopic Findings

Histologic examination demonstrated multiple lobules and nests within a fibrous stroma. These lobules were composed of a peripheral rim of one or more layers of small basaloid cells, surrounding a core of layer glycogen rich cells with large vesicular nuclei. There was a dense infiltrate of small lymphocytes within the lobules. No cellular atypia was observed (Figure **2a, 2.b**).

DISCUSSION

Cutaneous lymphadenoma is a rare adnexal neoplasm with a prominent lymphoid infiltrate in the epithelial islands. Less than 60 cases have been reported in the literature [1]. This neoplasm was first described in 1991 by Santa Cruze *et al*. [2] and has been reported in the literature under various names - benign lymphoepithelial tumor of the skin and adamantinoid trichoblastoma [3,4].

Cutaneous lymphadenoma usually presents as an asymptomatic, solitary, small, non-ulcerated, flesh colored papule or nodule, typically in the head and neck region. Rarely does this neoplasm occur at other sites, such as the extremities. The age range varies from 14 to 87 years (median 45 years) and males are affected more than females (about 1.5:1) [5,6].

Although the clinical appearance is not characteristic and the lesion may be misdiagnosed as a basal cell carcinoma (BCC), solitary trichoepithelioma, dermatofibroma, cyst or other adnexal neoplasm [7], its histopathological feature is characteristic. It shows a triphasic tumor composed of cell nests with palisading basaloid cells at the periphery a core of large glycogen rich cells (epithelial component), lymphoid infiltrate, and desmoplastic stroma (mesenchymal component). The tumor is unencapsulated and generally well circumscribed. Focal ductal, follicular and sebaceous differentiation, central keratinization and stromal mucinosis have been described [8].

Immunohistochemistry demonstrates positive reactivity for cytokeratin AE1/AE3, S100 protein,

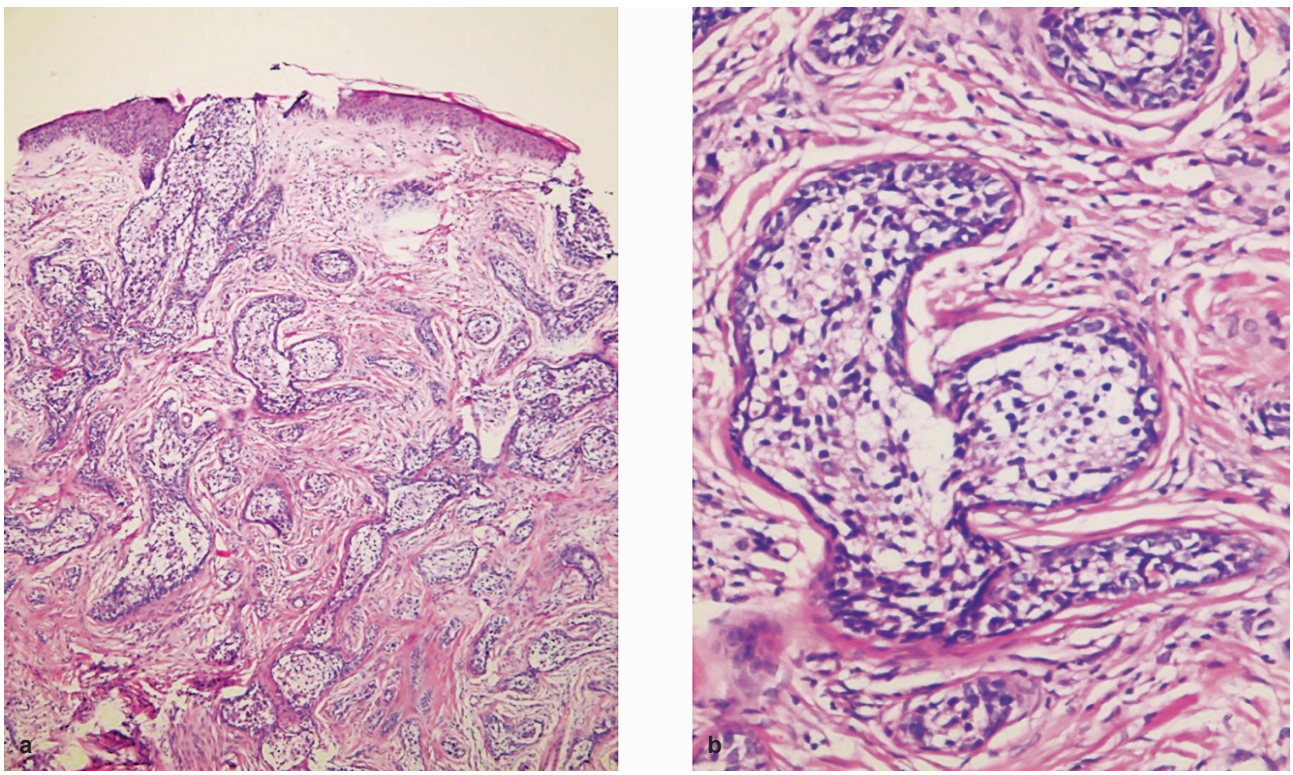

Figure 2. An intradermal nodule with focal epidermal connection composed of basaloid cell islands with peripheral palisading and infiltrating lymphocytes surrounded by fibrotic stroma without retraction artefact. (**2.a.** H&E, 100×. **2.b.** H&E, 400×)

and CD34 [2,7]. However, some authors believe the morphologic features of cutaneous lymphadenoma are distinctive enough to allow accurate diagnosis on routine hematoxylin-eosin stain without use of immunohistochemistry [1].

The histological differential diagnosis includes clear cell BCC, clear cell syringoma, trichoepithelioma, and malignant lymphoepithelial-like carcinoma, but a lymphoid cell infiltrate within the tumor lobules differentiates cutaneous lymphadenoma [9].

Controversy still exists about the histogenesis of this tumor. Santa Cruz *et al*. have originally suggested that this lesion is associated with pilosebaceous differentiation, while others considered that it represents an unusual variant of BCC or trichoepithelioma [2]. More recently, cutaneous lymphadenoma is thought to be a variant of trichoblastoma. The latest WHO classification of tumors considers it to be an adamantinoid trichoblastoma [5]. Defective lymphocyte-epithelial interaction or an exuberant host response to the tumor cells is probably a reason for lymphocytic infiltrate in this tumor [10,11].

Although cutaneous lymphadenoma appears to be benign and simple surgical exicion is recommended, there are some reports of several cases managed by mohs micrographic surgery [12]. No case of recurrence or metastasis following complete excision has been reported [1].

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