CASE REPORT

Proliferating pilomatricoma - Case report*

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Abstract: Proliferating pilomatricoma is proliferative, rare tumor variant of pilomatricoma. It is a benign neoplasm of hair matrix that can have potentially involve local recurrence. We report the case of a 60-year-old man who presented an asymptomatic nodule on the scalp. Histological exam demonstrated a basaloid epithelium at the periphery, filled with eosinophilic cornified material containing shadow cells. The tumor was excised and there was no evidence of recurrence one year later.
Keywords: Neoplasms; Pilomatrixoma; Scalp

INTRODUCTION

Proliferating pilomatricoma (PP) is a proliferative variant of pilomatricoma, first described by Kaddu S. et al in 1997. [1,2] It is considered a benign tumor, but local recurrence may occur if excision is incomplete. Very few cases of this rare neoplasm have been reported in the world. However, to the best of our knowledge, no case had previously been described in Brazil. We report a case of PP in the scalp without evidence of local recurrence one year after surgical treatment.

CASE REPORT

A 60-year-old Caucasian male hada had a three-year history of an asymptomatic nodular mass on the right temporal region of scalp. The patient reported gradual enlargement, but that quickly increased this size in the previous two months.

Dermatological examination revealed the firm mass, red, painless mass, measuring about 7cm x 3.5 cm, near the right supra-auricular area (Figure 1). The regional lymph nodes were not enlarged.

Macroscopic examination: the tumor was well-circumscribed, nodular, dull white, surrounded by slightly compressed fibrous tissues, measuring about 6 x 3 x 2.3 cm (Figure 2).

Microscopic examination: lesion predominantly composed of a lobular proliferation of basaloid epithelium at the periphery, filled with eosinophilic cornified material and shadow cells (Figures 3, 4 and 5).

DISCUSSION

Proliferating pilomatricoma (PP) was diagnosed based on clinical and histopathological findings.

Pilomatricoma or calcifying epithelioma of Malherb (CEM), first described in 1880 by Malherb and Chenantais, represents approximately 1% of all benign skin tumors and it is the second most common cutaneous neoplasm in childhood and youth. It is a slow-growing, firm, dermal or subcutaneous neoplasm, usually measuring under 3 cm in diameter. Pilomatricomas are considered benign and rarely recur after surgical excision. [3-7] However, cases of CEM with a tendency for focal invasiveness and local recurrence have been reported and designated firstly as aggressive pilomatricomas. [1,2]

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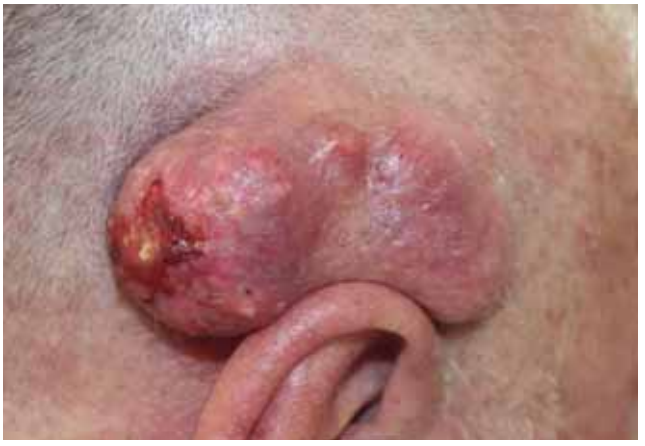

Figure 1: Firm, red, nodular mass on the right temporal region of the scalp

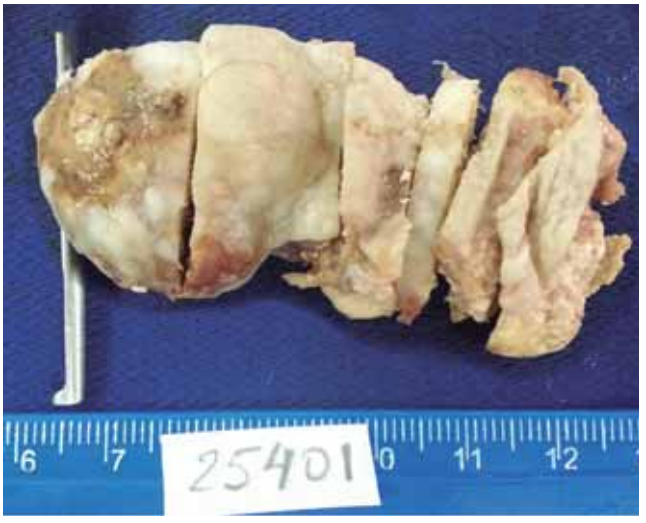

Figure 2: Macroscopic examination: well-circumscribed, nodular, dull white, surrounded by slightly compressed fibrous tissues

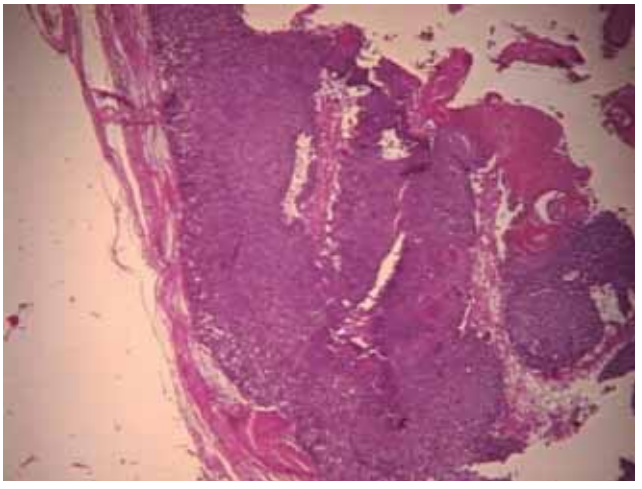

Figure 3: Lesion lined by a basaloid epithelium at the periphery, filled with eosinophilic cornified material and shadow cells (HE 200x)

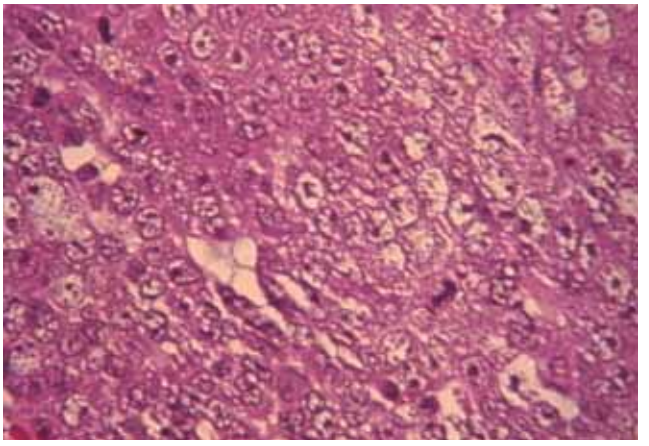

Figure 4: Lesion with area of basaloid cells with mitotic figures (HE 400x)

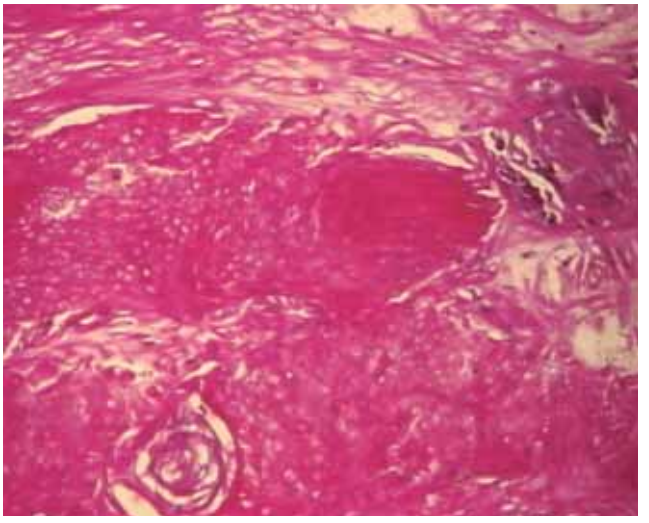

Figure 5: Detail of the cornified material and shadow cells with fibrotic stroma (HE 400x)

In 1997 Kadduet al. examined retrospectively cases of CEM and found instances of unusual, architectural, histopathologic features. On clinical examination, most patients were elderly individuals; the lesions were found to be painless, dome- shaped, solitary, painless, medium- to large-sized nodules on the head and neck regions. Histopathological evaluation revealed relatively large lesions predominantly composed of a lobular proliferations of basaloid cells, exhibiting variable nuclear atypia and mitotic figures, focal areas containing eosinophilic, cornified material, along with shadow cells. Proliferating pilomatricoma was proposed by these authors as a histopathologically distinctive subset of pilomatricoma and it was considered a proliferative variant of CEM. [1,2]

Kadduet al. considered PP a benign tumor because of a histopathological profile that implied benignancy: relative symmetry, sharp circumscription, lack

Figure 6: Patient showing no evidence of local recurrence one year after surgical treatment

of ulceration in the majority of cases, a fibrous tissue arranged compactly around the neoplasm, and lack of perineural or intravascular involvement by basaloid cells. [1]

Current incidence and prevalence is unknown due to the low number of cases reported.[1] However, Satohet al.[1] compiled the available clinical data from all previously reported cases. Although it was a small series, some aspects are nevertheless noticeable and some clinical information was highlighted: there were 7 males and 8 females (men and women are almost equally affected); patients appeared to be older than those with classical pilomatricoma (ranging from 18 to 88 years); the lesions measured 1.5 to 5.5 cm in diameter, typically larger than in classical CEM (0.5-1.6 cm); nodules situated mostly on the head and neck. Our case entailed the afore mentioned clinical aspects.

Differential diagnoses for PP include: basal-cell carcinoma, epidermal cyst, pyogenic granuloma, other neoplasms with metrical differentiation, and matrical carcinoma (pilomatrix carcinoma). [2,8-10]

Malignant transformation of CEM in to a pilomatrix carcinoma should be suspected in cases with repeated local recurrences. [5,10] Hence, theorically, PP may develop in to pilomatrix carcinoma.

The treatment of choice for PP is complete surgical lesion resection, as in the present case. [1] The lesion was removed with a 3-mm margin. Local recurrence may occur if excision is incomplete. [1,2] Our patient showed no signs of local recurrence one year after the excision (Figure 6).❑

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