DOI: http://dx.doi.org/10.3315/jdcr.2012.1122

Journal of Dermatological Case Reports

PHOTOLETTER TO THE EDITOR

Proliferating pilomatricoma with no recurrence during a 3-year follow-up

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Abstract

Proliferating pilomatricoma is a proliferative variant of pilomatricoma. Although it is considered as a benign tumor, local recurrence may occur. We report a case of a 49-year-old Japanese man with 3-year history of an asymptomatic subcutaneous tumor in the nuchal area. Histological evaluation demonstrated a cystic lesion lined by a basaloid epithelium at the periphery and filled with eosinophilic cornified material containing shadow cells in upper part of the tumor, and multilobular proliferation of basaloid cells in association with small foci of shadow cells in the remaining part. Based on these findings, the diagnosis of proliferating pilomatricoma was made. No recurrence has been observed during a 3-year follow-up. (*J Dermatol Case Rep*. 2012; 6(4): 127-129)

Key words:

basaloid cells, nuchal area, pilomatricoma, pilomatrix carcinoma, shadow cells, scalp, tumor

Proliferating pilomatricoma is a proliferative variant of pilomatricoma first described by Kaddu S. *et al* in 1997.[1] As compared with classical pilomatricoma, it is histopathologically characterized by relatively symmetric tumor composed of a large, lobular proliferation of basaloid cells, showing variable nuclear atypia and mitotic figures, and focal cornified areas containing shadow cells. Although it is considered as a benign tumor, local recurrence may occur if not completely excised. We report herein a case of proliferating pilomatricoma on the nape.

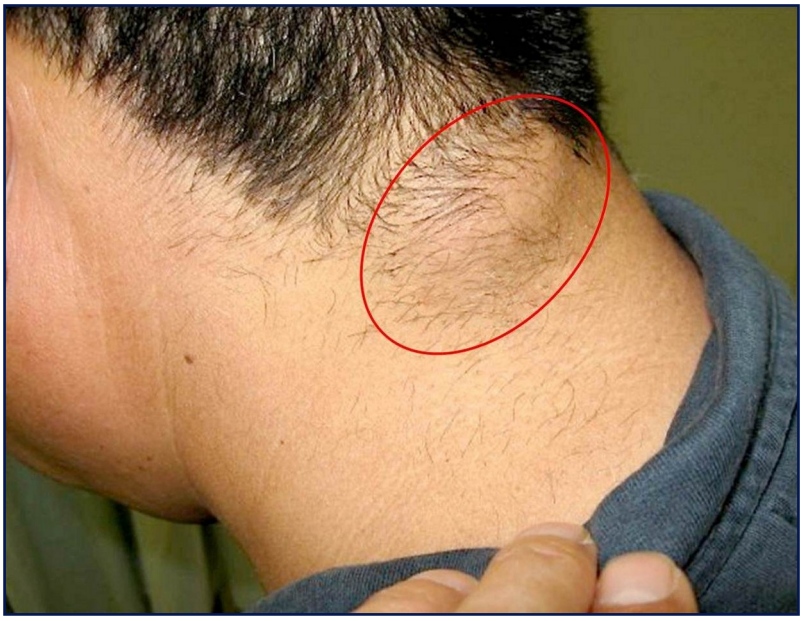

Figure 1

A nuchal subcutaneous tumor: a painless, dome-shaped, 45-mm nodule with a normal overlying epidermis.

A 49-year-old Japanese man presented with a 3-year history of an asymptomatic subcutaneous tumor in the nuchal area, which had gradually enlarged. A physical examination showed a solitary, painless, dome-shaped nodule with a normal overlying epidermis and measuring 45 mm in diameter (Fig. 1). The regional lymph nodes were not enlarged. The lesion was removed with a 3-mm margin. Histological examination revealed relatively symmetric, well-circumscribed nodule from the dermis to subcutaneous tissues, surrounded by slightly compressed fibrous tissues. The upper part of the nodule showed a cystic lesion lined by a basaloid epithelium at the periphery filled with eosinophilic cornified material containing shadow cells (Fig. 2). In middle to lower part, a multilobular proliferation of basaloid cells with mild nuclear atypia and mitotic figures in association with adjacent focal areas containing cornified material and shadow cells was observed with fibrotic stroma (Fig. 3). Tumor necrosis, perineural and lymphovascular invasion was not detected. These unique architectural features led to the diagnosis of proliferating pilomatricoma. Three years later, there was no evidence of either local recurrence or distant metastases.

Proliferating pilomatricoma was described by Kaddu *et al* in 1997[1] as a proliferative variant of pilomatircoma based on its unique histopathological features: a relatively large lesion predominantly composed of a lobular proliferation of basaloid cells exhibiting variable nuclear atypia and mitotic figures, focal areas containing eosinophilic, cornified material with shadow cells. Although this has not yet been accepted as an independent clinical form, 14 patients in 5 reports[1-5] of proliferating pilomatricoma have been described to date. There were 7 males and 8 females, ranging in age from 18 to 88 years. The lesions in the reports were solitary, dome-shaped nodules with a normal overlying epidermis measuring 1.5 to 5.5 cm in diameter, which was tended to be larger than classical pilomatricomas (0.5—1.6 cm).[1] They situated mostly on the head and neck.

Kaddu *et al* considered proliferating pilomatricoma as a benign tumor because of histopathological silhouette that implied benignancy[1]: relative symmetry, sharp circumscription, lack of ulceration in the majority of cases, a fibrous tissue arranged compactly around the neoplasm, basaloid aggregations with smooth borders, and lack of perineural or intravascular involvement by basaloid cells. Our case almost meets the criteria mentioned above, except for the coexistence with classical pilomatricoma. Although it is unclear whether proliferating pilomatricoma is a precursor of pilomatrix carcinoma or a proliferative variant of benign classical pilomatricoma, it may recur locally if uncompletely excised or without adequate surgical margins. In addition, Sassmannshausen *et al*[6] reported a case of pilomatrix carcinoma arising from a previously excised pilomatricoma, which indicates that classical pilomatricoma has the potential to develop into pilomatrix carcinoma. Therefore, careful follow-up is strongly recommended when diagnosed with proliferating pilomatricoma.

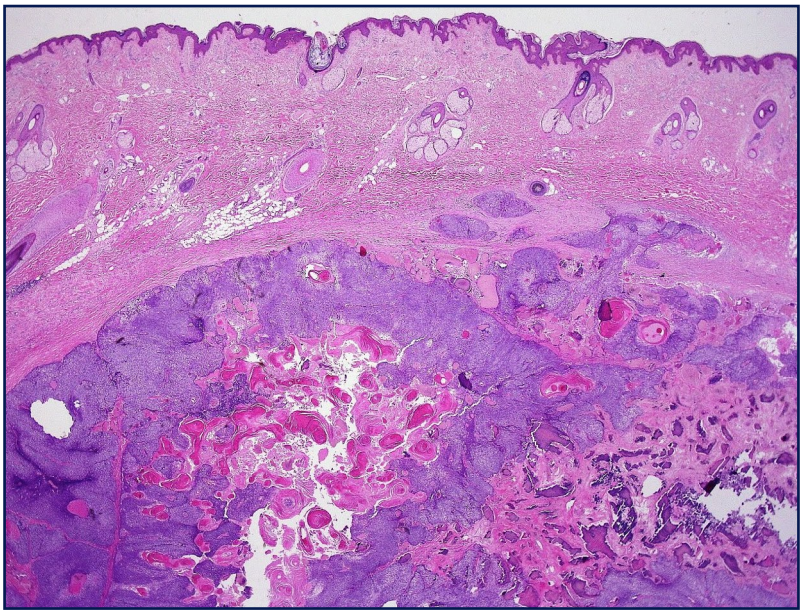

Figure 2

The upper part of the tumor showed typical findings of classical pilomatricoma: cystic lesion lined by a basaloid epithelium at the periphery filled with eosinophilic cornified material containing shadow cells.

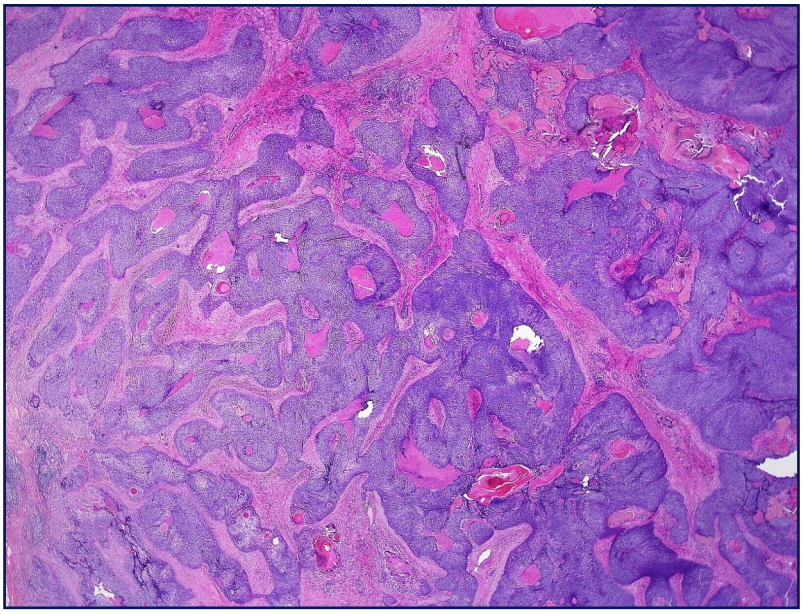

Figure 3

In middle to lower part, multiple lobular basaloid proliferation in association with adjacent focal areas containing cornified material and shadow cells with fibrotic stroma.

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