

# Proliferating pilomatrixoma mimicking squamous cell carcinoma

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Sir

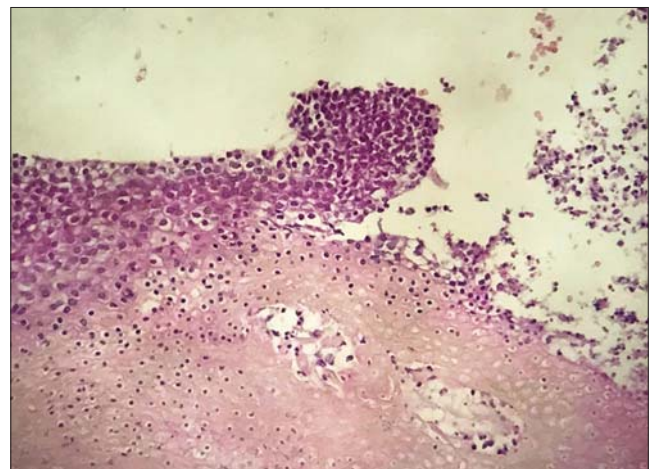
Pilomatrixoma or calcifying epithelioma of Malherbe is an adnexal benign skin tumor arising from the hair follicle matrix cells. Although pilomatrixoma is a well-recognized lesion, it is frequently misdiagnosed as other tumors. Herein we report a case of a 45-year-old-woman of retro auricular pilomatrixoma mimicking squamous cell carcinoma.

A 45-year-old woman presented with a 6-months slowly growing retro auricular tumor. She didn't report a history of trauma to the site. Dermatological examination revealed an ulcerated, lobulated and tumoral mass of 3-cm in diameter (Fig. 1). In front of this clinical presentation, we thought about many diagnoses such as squamous cell carcinoma, cutaneous metastasis, malignant pilomatricoma, and epidermal cyst. The tumor was removed with a 5-mm margin. Microscopic examination revealed hyperchromatic, pleomorphic, and basaloid cells with prominent nucleoli (Fig. 2). Centrally, it was composed of shadow cells (Fig. 3). The typical histologic pattern led to the diagnosis of proliferating pilomatricoma. Two years later, there was no evidence of either local recurrence or metastatic spread (Fig. 4).

Pilomatrixoma was first described by Malherbe Chenantais in 1880 as a benign tumor. Later, Forbis and Helwing demonstrated that the tumor arose from the hair follicle matrix cells with immunochemistry [1]. Typically, the clinical presentation is an asymptomatic,



**Figure 1:** Clinical image showing an ulcerated, lobulated and tumoral mass

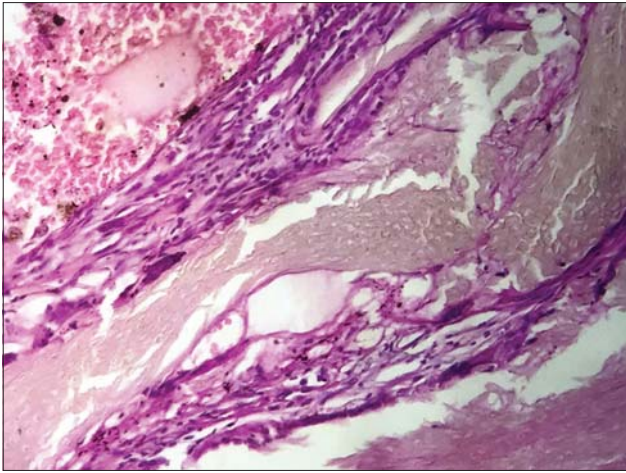


**Figure 2:** Microscopic examination revealed hyperchromatic, pleomorphic, and basaloid cells with prominent nucleoli. (HESx200).

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**Figure 3:** Microscopic examination showing central shadow cells (HESx200).



**Figure 4:** Re-examination 2 years later showing clinical remission of the disease with a significant scarring.

firm, slowly growing, and mobile nodule. The commonest location is the head and the neck area followed by the upper extremities, the trunk, and the lower extremities [2]. Proliferating pilomatricoma is a rare variant of pilomatricoma and it is characterized

by a large and ulcerated nodule [3]. Histological examination reveals a higher number of mitotic figures implying that the increased number of basaloid calls within these lesions may be a function of the proliferation rate [4]. There are no features of lymphatic or perineural involvement. It is not necessarily known that proliferating pilomatricoma is a precursor of malignant pilomatricoma. Malignancy should be suspected if there is ulceration, asymmetrical borders, and local recurrence [1]. It is characterized by large, asymmetrical, poorly circumscribed lesion of several basaloid aggregations with jagged borders and extension of matrical cells within the dermis. It may show of lymphatic or perineural invasion [5].

We herein reported a rare case of proliferating pilomatricoma mimicking a malignant tumor. The final diagnosis should be made on an excision specimen only.

### Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

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