

# Would you consider pilomatricoma as a differential diagnosis?

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Sir,

A 26-year-old man presented with a pedunculated, ulcerated, reddish and partially yellowish tumor of 6.5 cm in length by 6.0 cm in width by 3.0 cm in height on his left upper arm (Fig. 1a). The tumor had gradually developed during the half-year before the patient came to us on referral. There was no past history. We performed surgical removal of the entire tumor with a 1.0-cm margin, and the lesion was found to be a histopathologically poorly demarcated tumor without a capsule. There were darkly stained basophilic cells and so-called shadow cells with missing nuclei. There was no obvious nuclear atypia, and calcium deposits were found in the lesions. Based on these findings, we made the final diagnosis of pilomatricoma.



**Figure 1:** (a) A pedunculated, ulcerated, reddish and partially yellowish tumor of 6.0 cm in length by 5.0 cm in width by 4.0 cm in height is seen on the left arm. (b) A pedunculated, non-ulcerated, reddish tumor of 5.0 cm in length by 2.5 cm in width by 0.8 cm in height is seen on the left upper neck.

In a second case, a 42-year-old man presented with a pedunculated, non-ulcerated, reddish tumor of 5.0 cm in length by 2.5 cm in width by 0.8 cm in height on the left neck (Fig. 1b). We were able to see small yellowish dots on the surface. The tumor had gradually developed during the 3 months before the patient came to us on referral. The entire tumor was excisionally removed, and the surgical specimen showed the typical features of pilomatricoma.

Pilomatricoma is a common tumor derived from hair matrix cells; it is most often diagnosed in young children but may also affect adults. The clinical presentation is characterized by a subcutaneous nodule, usually up to 1 cm in diameter, with or without high mobility and calcification within the lesion that makes it feel hard and bony. For these reason it is easily diagnosed [1]. However, once the tumor is larger than 5 cm as the Case 1 and 2, they are called 'giant pilomatricoma', and it may become very difficult to make an accurate clinical diagnosis [2,3]. To date, several cases of giant pilomatricoma have been reported [4,5].

In Case 1, we initially suspected sebaceous carcinoma, squamous cell carcinoma or dermatofibrosarcoma protuberans, because of the unusual clinical manifestations. However, we considered pilomatricoma as an initial diagnosis when we encountered the Case 2, so we were able to avoid over-treatment on Case 2.

In conclusion, we should keep giant pilomatricoma in mind as a differential diagnosis when we see pedunculated, firm reddish tumor of >5.0 cm in size, with or without ulceration. This knowledge can avoid misdiagnosis and unnecessary examination and treatment.

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## Consent

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

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