

cutis[®] Photo Quiz

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An 84-year-old woman presented with an asymptomatic, month-old, 1.4-cm lesion on the right upper extremity.

What is your diagnosis?

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The Diagnosis: Pilomatricoma



Figure 1. Clinical appearance of asymptomatic, month-old, 1.4-cm wide lesion on the right upper extremity of an 84-year-old woman (A and B).

Pilomatricomas are rare, usually benign and solitary, asymptomatic, calcifying tumors of the hair matrix cell, which mostly appear in the first and second decade of life. However, they may occur in adulthood. The most prevalent sites of pilomatricomas in children are the head and neck, but they may occur anywhere. The usual size is 0.5 to 3 cm. Malherbre and Chenantais¹ originally described the tumor as a calcifying epithelioma of the sebaceous gland. Subsequently, it was termed *pilomatrixoma*² and, finally, *pilomatricoma*.³

Clinically, the lesion may be skin colored, yellowish, purplish red or, as in this case, multicolored (Figure 1). It is domed or hemispheric, firm, and smooth surfaced. The mass is encapsulated and attached to the skin but not fixed to the underlying tissue, which is an important diagnostic sign (Figure 2). When this core is removed, an abrupt, characteristic, punched-out, craterlike depression is visible in the underlying skin. Some cases of pilomatricoma, such as the one presented, exhibit the so-

called tent sign, in which the surface of the tumor appears to be angled or has several facets (Figure 1B).⁴ In our experience, this neoplasm develops relatively quickly. The differential diagnosis for pilomatricoma may include nodular subepidermal fibroma, epidermoid cyst, sebaceous cyst, sclerosing hemangioma, osteoma, or foreign body granuloma. A high index of suspicion is advantageous in making the clinical diagnosis. An association between pilomatricoma and myotonic dystrophy has been noted.⁵ Pilomatrix carcinoma, although rare, is the malignant counterpart of pilomatricoma.⁶

The histopathology of pilomatricoma exhibits a lobular, partially cystic tumor of epithelial cells, in which 3 cell types predominate: small cells with a deep basophilic nucleus and a small amount of cytoplasm; comparatively larger cells, with a more abundant pink cytoplasm and a vesicular nucleus; and pale cornified cells whose nuclei have disappeared, yet their outlines remain visible as shadows (ghost cells).⁷ The tumor is composed of dark and

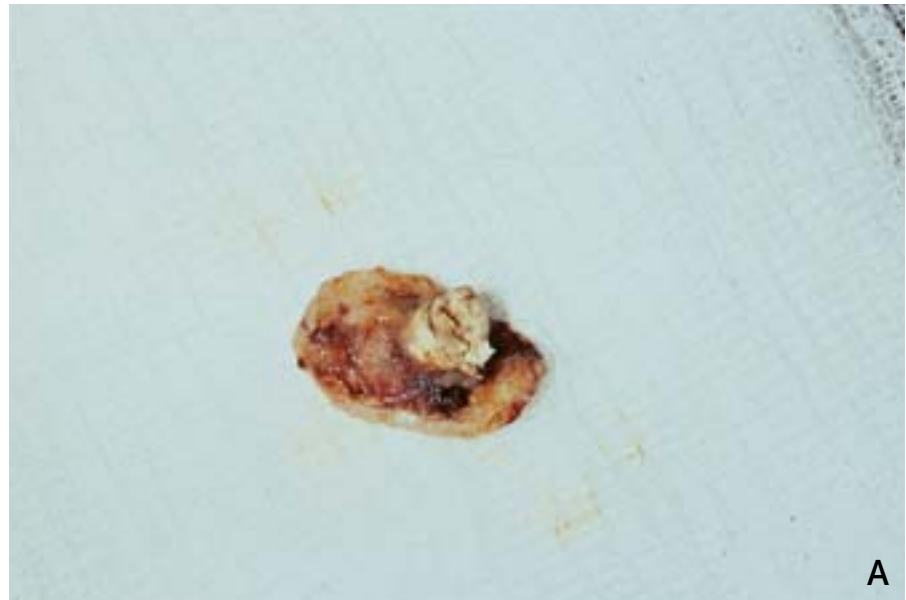


Figure 2. Macroscopic appearance (A) and side view (B) of the inverted excised lesion illustrating the characteristic and diagnostic, hard, toothlike projection, which was easily extracted from the surrounding subcutaneous tissue.

basophilic cells, calcified and ossified matter, melanin, and granulomatous stroma that contain foreign body giant cells. Both surgical excision and curettage have been utilized successfully in the treatment of pilomatricomas.

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