# Colossal Pilomatrixoma of the Face

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## Abstract

**Educational Objective:** At the conclusion of this presentation, participants should be able to discuss the clinical presentation, treatment, and expected outcomes related to pilomatrixoma.

**Objectives:** To demonstrate a case of gigantic, recurrent pilomatrixoma of the face requiring extensive surgical management

**Study Design:** Case report with literature review

**Methods:** Patient case review and search of PubMed database using MeSH keyword pilomatrixoma.

**Results:** This is a 25 year-old white male who presented to clinic with a recurrence of a left pre-auricular mass that had previously been excised twice at other institutions. On physical exam, the mass measured 11 x 7 cm and was firm, irregular, nodular, and mobile mass in the left pre-auricular region that abutted the tragus and root of the helix. CT neck showed a large multiloculated mass with extensive calcifications and absence of significant lymphadenopathy or violation of the SMAS. FNA was read as rare atypical cells in background of enucleated squames and debris. The lesion was excised in its entirety via an elliptical incision surrounding the area of apparent skin involvement. The mass measured 10 x 7 cm immediately after excision, and histopathologic analysis showed pilomatrixoma with focal atypia and increased mitoses, favoring proliferating pilomatrixoma.

**Conclusions:** Pilomatrixoma is a rare but important tumor that should remain in the differential diagnosis of any superficial head and neck tumor, particularly in the pre-auricular region.

## Case

**Introduction**

Although it is not the most common benign neoplasim of the head and neck, pilomatrixoma can pose a significant challenge to the head and neck surgeon due to its propensity for recurrence, growth in cosmetically unfortunate areas, and sometimes less-than-obvious cytopathologic characteristics. Originating from the matrix of the hair root, pilomatrixoma typically presents within the first two decades of life as a slow-growing, firm subcutaneous nodule or mass. They are typically otherwise asymptomatic unless they become infected, ulcerated, or grow large enough to impinge on nearby structures. While most cases are less than three centimeters in greatest dimension, much larger lesions have been reported, some in excess of 10 centimeters.

We present a case of a 25 year-old white male who presented to clinic with a recurrence of a left pre-auricular mass that had previously been excised twice at other institutions.

**Methods and Materials**

Patient case review and search of PubMed database using MeSH keyword “pilomatrixoma.”

## References


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**Figure 1.** Large, disfiguring left facial mass.

**Figure 2.** Lateral view of mass demonstrates red and purple pigmentation changes of overlying skin.

**Figure 3.** CT neck w/ IV contrast showed lobulated, heterogeneously-enhancing superficial lesion with chunky internal and peripheral calcifications, extending from left temporal scalp to pre-auricular region and subcutaneous fat overlying the left parotid and masticator spaces.

**Figure 4.** Mass after excision. Again noted is a multi-lobulated structure. On palpation, there were numerous distinctly firm regions at the inferior aspect of the mass.

**Figure 5.** Calcification and ossification are noted in the pathologic specimen.

## Conclusions

While the ordinary presentation of pilomatrixoma is that of a relatively small, solitary, asymptomatic mass, a number of variations have been noted, including the proliferating variant (which is more likely to recur), multiple lesions (which can be associated with myotonic dystrophy, Gardner’s syndrome, or Turner’s syndrome) and much larger tumors (as in this case). It is important to note that, while rare, pilomatrix carcinoma should always be kept in mind, especially with larger, asymmetrical lesions that are poorly circumscribed. Close follow-up of proliferating pilomatrixoma is also important, due to its propensity for recurrence. CT or MRI can also be invaluable for evaluating these lesions and helping to narrow the differential diagnosis, if in question.

Pilomatrixoma is a rare but important tumor that should remain in the differential diagnosis of any superficial head and neck nodule or mass.