

Primary Cutaneous Mucinous (Colloid) Carcinoma of the Ear Lobule Clinically Mimicking a Keloid – A Rare Case Report

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Abstract

Case Report

Primary cutaneous mucinous carcinoma (PCMC) is an uncommon malignant adnexal tumor derived from sweat glands, often mimicking benign conditions. We report a rare case of mucinous carcinoma arising from the ear lobule in a 42-year-old male, clinically diagnosed as a keloid. Histopathology revealed mucinous (colloid) carcinoma. This case emphasizes the importance of routine histopathological examination for all excised skin lesions, irrespective of clinical diagnosis.

Keywords: Mucinous carcinoma, ear lobule, keloid mimic, cutaneous adnexal tumor, colloid carcinoma.

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INTRODUCTION

Primary cutaneous mucinous carcinoma (PCMC) is a rare, low-grade malignant tumor arising from eccrine sweat glands, representing less than 0.1% of all cutaneous carcinomas. The tumor most commonly involves the eyelid, scalp, and face. Because of its indolent course and benign appearance, it is often mistaken for cysts, lipomas, or keloids. Presentation in the ear lobule is extremely rare.

CASE REPORT

A 42-year-old male presented with a left ear lobule swelling gradually increasing in size over 6–7 years. The lesion measured $2 \times 2 \times 1$ cm, was firm, non-tender, and slightly reddish-colored with a smooth, shiny surface (Figure 1). There was no history of trauma, piercing reaction, or prior surgery.



Figure 1: Preoperative view showing a smooth, dome-shaped swelling over the left ear lobule, clinically resembling keloid

A clinical diagnosis of keloid was made, and local excision under aseptic precautions and local anesthesia was performed (Figure 2). The excised

specimen measured approximately 2 x 1.8 x 1.2 cm, appeared solid with focal gelatinous areas (Figure 3).



Figure 2: Immediate postoperative view after excision and primary closure

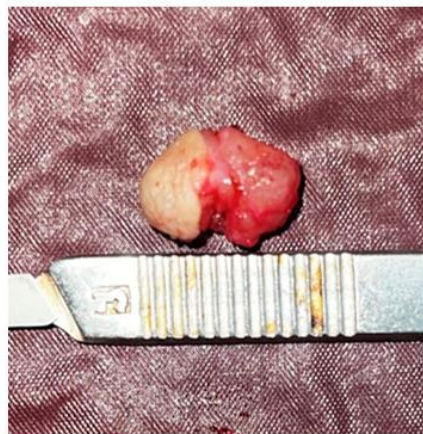


Figure 3: Excised specimen showing solid and mucinous areas (Approximately 2*1.8*1.2cm)

Histopathological examination revealed tumor nests of epithelial cells floating in pools of mucin, separated by fibrous septa. The cells had hyperchromatic nuclei and mucin-filled cytoplasm. No connection with

the overlying epidermis was identified. The findings were consistent with primary cutaneous mucinous (colloid) carcinoma (Figure 4).

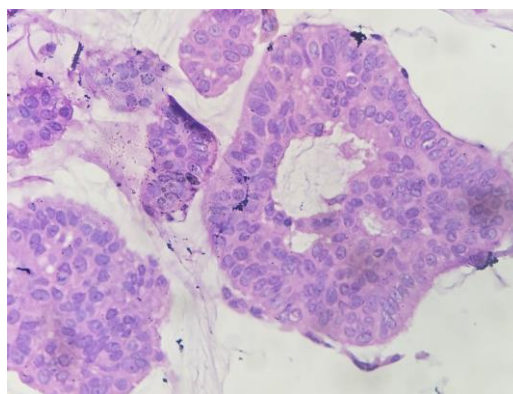


Figure 4: HPE - Tumor nests of epithelial cells floating in pools of mucin, separated by fibrous septa.

Immunohistochemistry test shows the tumor cells express CK7, GATA3, ER, PR, chromogranin (occasional cells) & SATB2 (occasional cells). They are negative for CK20, P63, CDX2 & synaptophysin.

The postoperative period was uneventful. The patient was referred for oncological evaluation and advised for wide local excision with margin clearance. A metastatic work-up (Pet scan) showed no visceral primary, confirming a primary cutaneous origin.

DISCUSSION

Primary mucinous carcinoma of the skin arises from sweat glands and behaves as a low-grade malignancy. Its benign clinical appearance often results in misdiagnosis. Histopathology is diagnostic, showing nests of tumor cells within mucin pools.

Differentiation between primary and metastatic mucinous carcinoma (commonly from breast or gastrointestinal tract) is crucial. Immunohistochemistry typically shows CK7 positive, CK20 negative, EMA positive profile, supporting a cutaneous origin.

Treatment involves wide local excision with ≥ 1 cm margin. Recurrence occurs in 30–40% of cases, while distant metastasis remains rare. Long-term follow-up is essential for early detection of recurrence.

CONCLUSION

This case underscores the importance of histopathological evaluation of all excised lesions, even those appearing clinically benign. Early detection of rare malignancies like mucinous carcinoma ensures appropriate management and excellent prognosis.

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