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**CASE REPORT**

# Ossifying Pilomatricoma Masquerading as Sebaceous Cyst "A rare entity"

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**ABSTRACT**
Pilomatrocoma is a benign skin tumor that arises from the hair follicle, typically affects the head, neck, and extremities especially in pediatric age group. It manifests during the first two decades of life. In terms of clinical presentation, it usually presents as a hard, moveable and well-defined nodule. Under a microscope, it is distinguished by the existence of shadow cells and occasionally calcification; nonetheless, widespread ossification is uncommon. Given the extremely low recurrence rate, surgical excision is the preferred course of treatment. We report a case of a 29-year-old male patient clinically diagnosed as sebaceous cyst of the right arm.

**Keywords-** calcification, ossifying pilomatricoma, Ghost cells



## INTRODUCTION

A benign skin tumor that arises from the hair follicle, pilomatricoma typically affects the head and neck and manifests itself during the first two decades of life. In terms of clinical presentation, it usually takes the form of a hard, moveable, well-defined nodule. Under a microscope, it is distinguished by the existence of shadow cells and occasionally calcification; nonetheless, widespread ossification is uncommon. Previously known as pilomatrixoma, pilomatricoma is an uncommon benign tumor of the skin appendage that often appears as a firm to hard subcutaneous swelling which is well-defined, slow-growing, and asymptomatic. Malherbe and Chenantais named the lesion as calcifying epithelioma of Malherbe when they originally described it in 1880.[3]

## CASE REPORT

A 29-year male patient presented to surgery OPD with complaints of unusual mass on right arm while taking bath 1 year back. The swelling was initially small (pea sized) which gradually increased in size. The swelling was firm-hard, flat surface, with no discharge, non-tender, freely mobile, not associated with fever and no skin discoloration. The lab investigations were within normal limits. Clinical diagnosis of sebaceous cyst was made. The swelling was excised and sent for histopathological examination. Grossly,we received a skin covered soft tissue piece measuring 1.2x1.1x0.5cm. Cut section showed whitish material. Microscopic examination shows a tumor lined by keratinized stratified squamous epithelium. The underlying dermis shows a well demarcated tumour comprising of irregular nests of basaloid cells, ghost cells (necrosed squamous cells) and foci of dystrophic calcification. In addition, extensive bone formation was also present along with multinucleated giant cells and mild chronic inflammatory cell infiltrate. Ossifying pilomatricoma, biopsy right arm was given as diagnosis.

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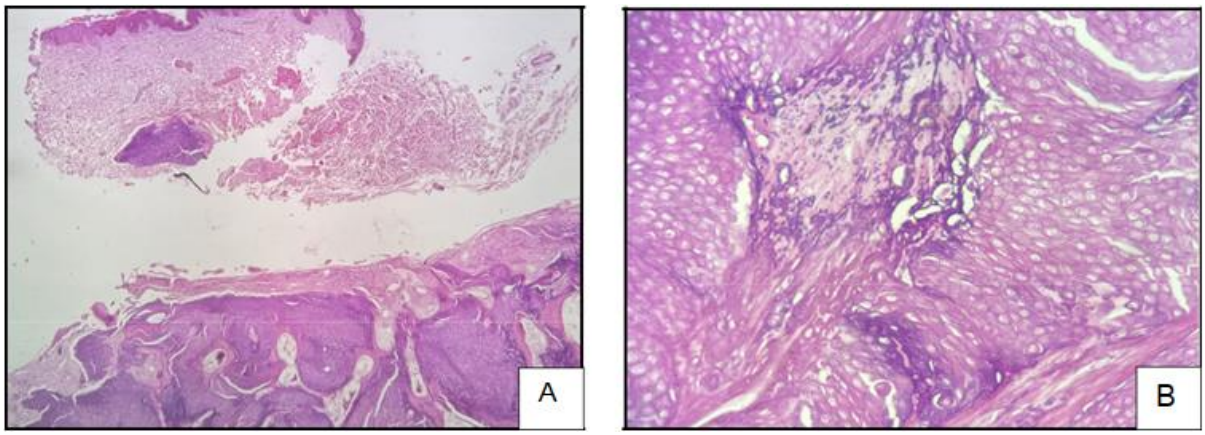
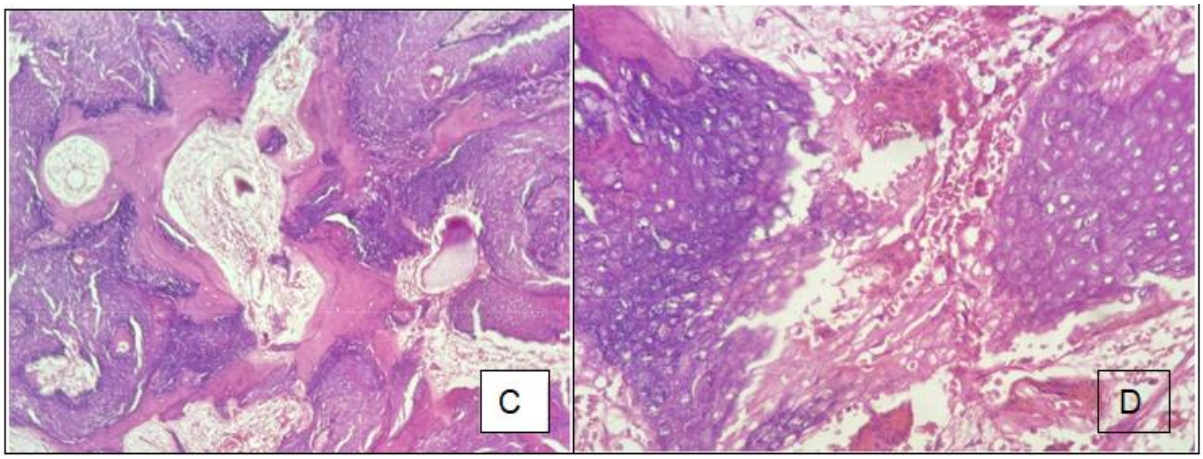



**A. Photomicrograph (200x)- shows a well circumscribed tumour lined by Keratinized stratified squamous epithelium.**
**B. Photomicrograph(400x)- Shows islands of shadow cells with foci of dystrophic calcification.**




**C. Photomicrograph (200x)- Shows extensive areas of ossification.**
**D. Photomicrograph(400x)- Shows multinucleated foreign body giant cells**

## DISCUSSION

Pilomatrixoma (calcifying epithelioma of Malherbe) is a benign skin appendageal tumor with differentiation towards hair follicle matrix cells.[1] This lesion occurs over a wide age range with two peaks: less than 20 years and over 50 years . The production of pilomatricomare is typically thought to indicate a disruption in the hair follicle cycle, which is characterized by limited pilar keratinocyte cytologic differentiation but no further development into mature hair.3 Histopathologically, pilomatricoma exhibits two main cell types: bigger pinkish shadow cells and basaloid cells, which indicate the growing section of the tumor. foreign body giant cells, calcification and infrequently ossification, may accompany this.[3] The lesion begins as an infundibular matrix cyst and ends up as a calcified and ossified nodule.[3] The lesion can rarely undergo malignant transformation into pilomatric carcinoma.[4] Calcification is a common feature, while metaplastic ossification or melanin pigmentation is rare. Ossification takes place in the stroma next to areas of shadow cells.[6] The differential diagnosis include sebaceous, trichilemmal, dermoid, and epidermoid cyst, calcified lymph node, metaplastic bone formation, foreign body granuloma, calcified hematoma, hemangioma, cutaneous osteoma, osteochondroma, trichoepithelioma, and basal cell epithelioma.[3] Complete surgical excision along with nearest margins is the treatment of choice. This helps in prevention of recurrence of the lesion. [7]

## CONCLUSION

The present case highlights the importance of considering pilomatrixoma in the clinical and pathologic differential diagnosis of dermal or subcutaneous nodules even in locations other than head and neck region. Histopathological examination and Immunohistochemistry are helpful in confirmation of diagnosis.

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