PILOMATRIXOMA (CALCIFYING EPITHELIOMA OF MALHERBE)
(Report of seven cases)

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Clinical and histopathological features of seven cases of pilomatrixoma are reported. The tumour in each case was slow-growing and asymptomatic. They were located on the scalp, face, neck or upper arm in different cases. Histopathology showed classical eosinophilic ghost cells, surrounded by basophilic cells, along with areas of calcification and keratinization.

Key words : Pilomatrixoma, Epithelioma, Calcifying.

Pilomatrixoma is an infrequent tumour of the skin adnexa. It was originally described as calcifying epithelioma by Malherbe and Chenantais.[1] Seldam et al[2] defined it as a benign tumour of the hair follicle. There have been some reports of pilomatrixoma in the Indian literature.[3-7] We are presenting the data on 7 cases of pilomatrixoma seen by us.

Case Reports

The seven cases of pilomatrixoma were seen during a period of 16 years between 1967 and 1983. All the cases were received from the department of Surgery. These seven cases constituted 10.52% of all the skin adnexal tumours and 60% of the hair follicle tumours. The tumour was seen mainly in adults. The average age of the subjects was 25 years with an age range of 16 to 50 years. Five cases were females and two males. All the lesions were located on the upper part of the body, involving two cases each on scalp, neck and left arm, and one case on left eyebrow. The duration of tumour ranged from 6 months to 5 years. Clinically, they were diagnosed as lipofibroma in 3 cases and sebaceous cyst, dermoid cyst, papilloma and tubercular lymphadenitis in one case each. The tumour was located just beneath the skin, it was freely mobile, non-tender and non-ulcerative.

Grossly, the tumours were circumscribed and partially encapsulated. The size varied from 1.5×2 cm to 2.5×2 cm. They were firm to woody-hard in consistancy. Cut surface was greyish white with chalky areas of calcification in some cases, giving a gritty sensation on cutting.

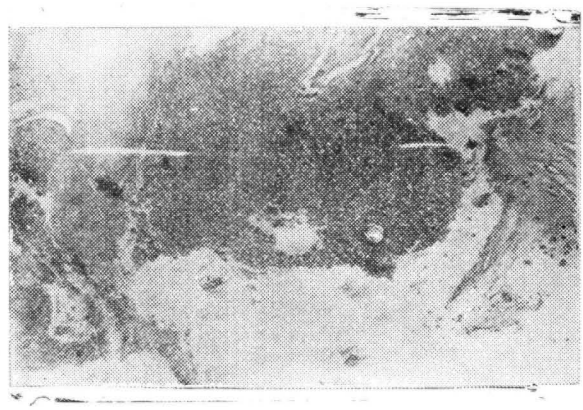

Fig. 1. Eosinophilic ghost cells with central area of keratinization (H & E stain × 100).

Histopathologically, each tumour was composed of eosinophilic ghost cells and basophilic cells in a variable proportion. However, eosinophilic ghost cells were predominant in all the cases. Eosinophilic ghost cells were seen in sheets and round to polygonal masses with pale eosinophilic cytoplasm, distinct cell borders

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and without nuclei in most of the cells or pyknotic nuclei in the centre of the cells (Fig. 1). These masses were surrounded by darkly stained basophilic cells with elongated basophilic nuclei and scanty eosinophilic cytoplasm and indistinct

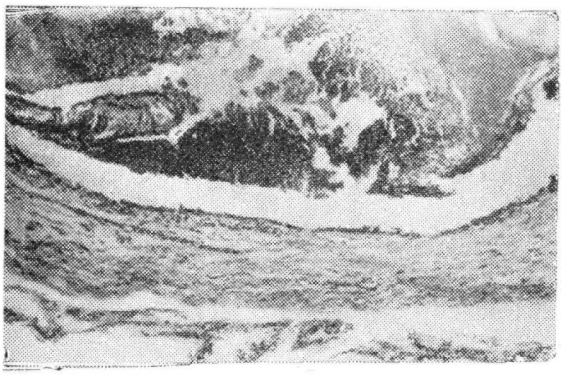

Fig. 2. Eosinophilic ghost cells surrounded by darkly stained basophilic cells (H & E stain × 100).

cell borders (Fig. 2). Areas of calcification were seen in all the cases, as also areas of keratinization particularly in the centre of the eosinophilic ghost cells (Fig. 3). Hair shaft, melanin pigment in the areas of ossification were not

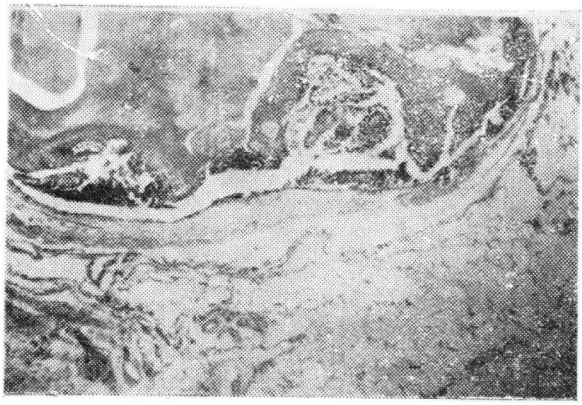

Fig. 3. Areas of calcification and bone formation amongst eosinophilic ghost cells (H & E stain × 100).

discernible in any of the cases. Stroma showed mild to moderate, mixed inflammatory infiltrate comprising mainly of lymphocytes, plasma cells, macrophages and foreign body giant cells (Fig. 4).

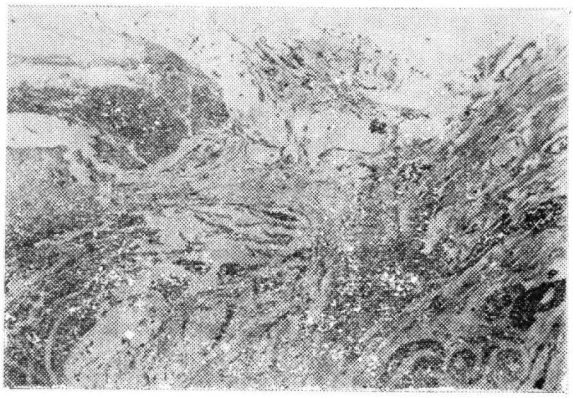

Fig. 4. Multinucleated foreign body giant cells and a few mononuclear cells in the stroma (H & E stain × 100).

Comments

Pilomatrixoma is a rare tumour. The face and upper extremities are the most common sites. The tumour may arise at any age, but about 40% of the tumours arise before the age of 10 years and about 60% are seen in the first two decades.[8] Our patients were older. Interestingly, none of the cases was clinically diagnosed as pilomatrixoma.

The term pilomatrixoma as suggested by Forbis and Helwig appears more relevant as it indicates the histogenesis of the lesion. The basophilic cells represent hair matrix cells, and ghost cell immature hair cortex cells. Areas of keratinization observed within the aggregates of basophilic cells represent hair shafts. Thomas and Kothare[5] suggested that the lesion is a malformation of the hair matrix cells.

References

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