

PILOMATRIXOMA

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Clinical and histopathological features of two cases of pilomatrixoma are reported. The tumour in each case was slow-growing, asymptomatic and at the same site. Histopathology showed classical eosinophilic ghost cell, surrounded by basophilic cells, along with areas of calcification and keratinization.

Key Words: Benign calcifying epithelioma of Malherbe, Trichomatrixoma

Introduction

Pilomatrixomas are neoplasms of the hair cortical cells.¹ It is frequently a tumour of the younger age group involving the head, neck and upper extremities. The characteristic histological features of such neoplasms are the presence of two cell populations, the anucleated shadow cells and the baseloid cells which lack nuclear features of malignancy.² Calcific deposits that lack lamellations also help in establishing the definitive diagnosis of this benign neoplasm.

Case Reports

Case 1 : A 16-year-old female patient presented with a swelling over the lateral aspect of the left arm of 1 year duration. The lesion was firm, shiny, skin-coloured subcutaneous nodule, 2 cm x 2 cm in size and not adherent to the deeper structure. The base of the swelling was very firm and extended 1 cm beyond the visible margin. (Fig. 1). There was no associated pain and tenderness. The overlying skin was normal looking and adherent to the swelling. No discolouration of the surrounding skin was noted except for the central part which showed a bluish puncta. Systemic

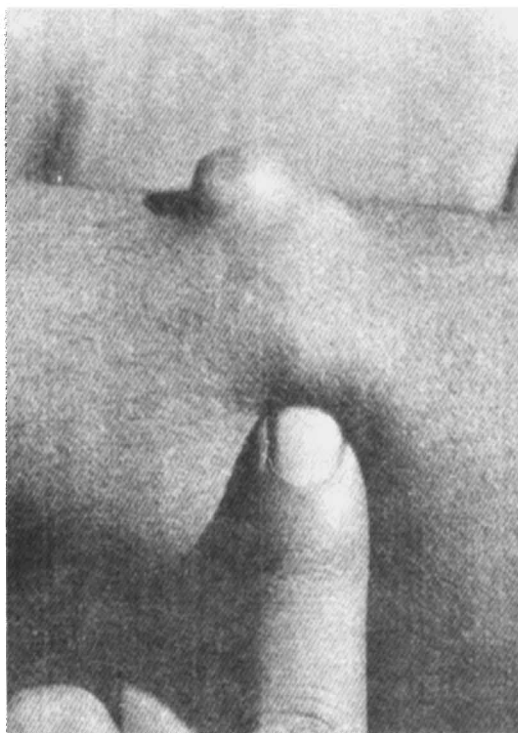


Fig. 1. Firm, shiny skin-coloured subcutaneous nodule.

examination was within normal limits. Routine laboratory investigations like blood, urine were within normal limits. There was radiological evidence of calcification within the tumour. Excision biopsy of the lesion was done.

Case 2 : A 12-year-old female patient had a swelling over the lateral aspect of the right arm for 2 years. Cutaneous examination revealed a single 2 cm x 2 cm size, shiny

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skun-coloured, firm, non-tender subcutaneous nodule not adherent to the deeper structure. Excision biopsy of the lesion was done.

The excision biopsy of nodules of the both patients showed features of pilomatrixoma. The tumour was sharply demarcated, located in the lower dermis, extending into the subcutaneous fat and surrounded by a connective tissue capsule. The tumour consisted of irregularly shaped islands of epithelioid cells consisting of two types of cells-eosinophilic ghost cells and basophilic cells in variable proportions. Eosinophilic ghost cells were seen in sheets and round to polygonal masses with pale eosinophilic cytoplasm, distinct cell borders and without nuclei in most of the cells (Fig. 2). These masses were surrounded by darkly stained basophilic cells with elongated

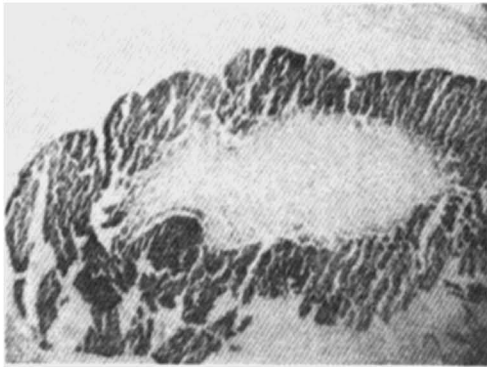


Fig. 2. Eosinophilic ghost cells surrounded by darkly stained basophilic cells (H&E x100).

basophilic nuclei and scanty eosinophilic cytoplasm and indistinct cell borders. Areas of calcification were seen in both the cases. Few areas of melanin pigment were noted.

Discussion

Calcifying epithelioma was originally described in 1880 by Malherbe and

Chenanlais as a neoplasm of sebaceous glands. Further studies by Forbis and Helwig in 1961³ have demonstrated that the cells differentiate in the direction of cortical cells of the hair follicle and the term pilomatrixoma was introduced. The female to male ratio is nearly 3:2.⁴

Most tumours involve the head and neck (52%) and the upper extremities (28.7%), the trunk and lower limbs are affected in about 20% of cases.¹ 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.⁴

Previous literature did not reveal any clinical description of associated puncta, but in both of our cases well marked bluish puncta were present. This type of puncta are commonly seen in sebaceous cysts. Because of the presence of the puncta some of the pilomatrixoma cases may clinically be misdiagnosed as sebaceous cyst.

Histopathological changes in pilomatrixoma are however so diagnostic that they are easily differentiated under microscope. Pilomatrixoma of long duration has few baseloid cells and the entire lesion may sometimes consist of shadow cells.¹ The histopathology of case 2 showed preponderance of eosinophilic shadow cells.

References

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