

## PROLIFERATING PILAR CYST

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### Summary

A case of proliferating pilar cyst arising on the scalp of a 45 years old female is presented and the relevant literature is reviewed. It is a rare tumour of the skin and is often confused with squamous cell carcinoma.

Proliferating pilar cyst is a rare benign tumour of the skin usually occurring on the scalp of elderly females. The tumour has previously been described under different names by different workers e.g., proliferating epidermoid cyst<sup>1</sup>, giant hair matrix tumour<sup>2</sup>, pilar tumour of the scalp<sup>3</sup>, proliferating trichilemmal cyst<sup>4</sup> and giant pilar tumour of the scalp<sup>5</sup>. The term proliferating pilar cyst is suggested here to stress relationship of this tumour with the pilar cyst.

### Case Report

A 45 years old female was admitted to the hospital with four swellings on the scalp varying from 1-4 cm in diameter. These were diagnosed as sebaceous (pilar) cysts and excised.

On pathological examination, three of the swellings were cystic and were microscopically confirmed as pilar cysts (Fig. 1). The fourth mass was firm and solid measuring 4 x 3 x 2 cm. The cut surface was greyish white with areas of necrosis, calcification and cystic degeneration.

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Microscopically the tumour was well circumscribed and had a convoluted outline with connective tissue indentations. The lobules were composed of pilar type of epithelium with peripheral palisading layer of cuboidal cells and inner bulky cells which gradually merged into amorphous eosinophilic material without intervening granular cell layer of parakeratosis (Fig. 2). There was marked epithelial proliferation producing a picture of pseudocarcinomatous hyperplasia (Fig. 3). At places keratin whorls, keratohyaline granules and calcification were seen. Stroma showed mononuclear cell infiltration with giant cell reaction around areas of necrosis.

### Discussion

Proliferating pilar cyst was originally described in 1966 and was named as proliferating epidermoid cyst. At that time the term pilar cyst had not been evolved and it had become apparent that the term sebaceous cyst is a misnomer<sup>6</sup>. So the author preferred the name proliferating epidermoid cyst to avoid the impression about the origin of the tumour from sebaceous glands. Pinkus and Mehregan<sup>4</sup> suggested the term proliferating trichilemmal (pilar) cyst to indicate origin of the tumour from the outer root sheath (trichilemma) of hair shaft at the level of follicular isthmus. Synonyms of giant

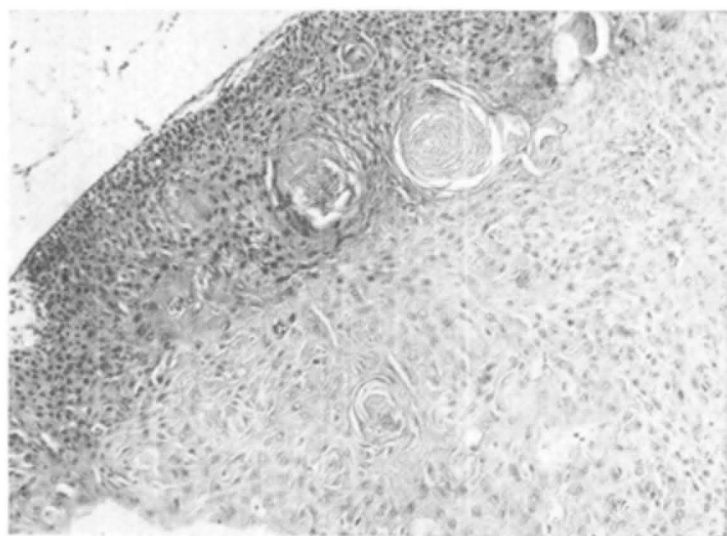


**Fig. 1** Photomicrograph of wall of the pilar cyst showing peripheral palisading layer, lack of parakeratosis and granular cell layer. H & E  $\times$  50

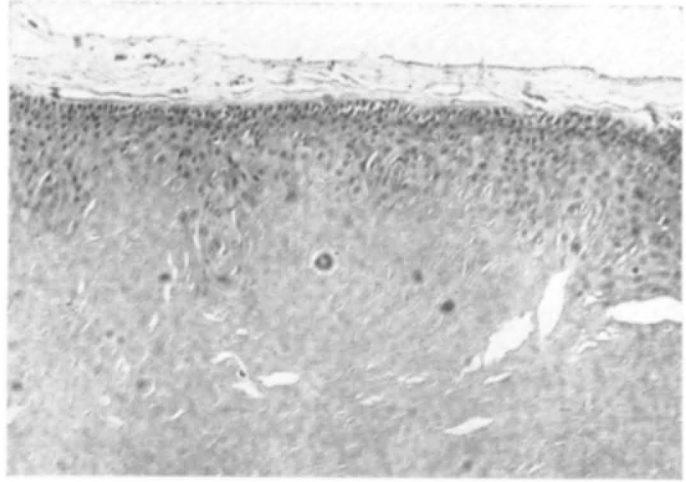
hair matrix tumour<sup>2</sup>, pilar tumour of the scalp<sup>3</sup> and giant pilar tumour of the scalp<sup>5</sup> were used to show a relationship of the tumour with the pilar epithelium.

Clinically pilar cyst resembles an epidermoid cyst but is less common,

occurs mainly on scalp and contains soft pultaceous material with rancid odour. Histologically pilar cyst can be differentiated from epidermoid cyst by the absence of granular cell layer and parakeratosis. Rather inner cell layer is seen to undergo swelling of



**Fig. 2** Photomicrograph showing pilar type of epithelium and keratinisation in proliferating pilar cyst. H & E  $\times$  50



**Fig. 3**

Photomicrograph showing extensive epithelial hyperplasia in proliferating pilar cyst.

H & E  $\times$  50

the cells which just melt away in the amorphous eosinophilic contents of the cyst. Proliferation of pilar cyst epithelium may follow rupture, infection or chemical irritation by the cyst contents. No case of proliferating cyst with purely epidermoid type of epithelium has been reported so far.

Proliferating pilar cyst has often been mistaken for well differentiated squamous cell carcinoma because of extensive epithelial proliferation and dyskeratosis but the presence of pilar type of epithelium, abrupt keratinisation without intermediary of granular cell layer or parakeratosis, lack of cellular atypia or mitotic activity indicate the benign nature of the lesion.

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