A giant pilar tumour of the scalp

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CASE REPORT

An 85-year-old woman presented with a slowly growing lesion on her scalp which had been present for the last 20 years. In the last 2 years the lesion had started to grow rapidly. There was no relevant family history of a similar lesion.

On examination a 20x20 cm dome-shaped mass was seen which was multiloculated, consisting of solid and cystic areas (*Figure 1*). It was fixed to the underlying skull, the overlying skin was stretched and there were no signs of ulceration or secondary infection. There was no lymph node palpable in the neck.

Plain X-rays showed thinning of the skull possibly as a result of local compression. To facilitate excision, the lesion was decompressed intraoperatively by aspirating blood-stained fluid. Excision included the pericranium as the lesion had adhered to it (*Figure 2*). The reconstruction was performed by bilateral transposition flaps raised from the temporal regions and the donor defects were covered by a split skin graft.

Histology reported a complex cystic lesion lined by stratified squamous epithelium showing abrupt keratinization and calcification. There was no dermal invasion noticed and excision appeared complete. The histological features were consistent with a proliferative pilar tumour of the scalp. The patient was discharged home 3 days after surgery and remained recurrence free after 9 months follow up (*Figure 3*).

INTRODUCTION

This article presents a case of an 85-year-old woman with a large tumour of the scalp. Histology revealed it to be a proliferative pilar tumour – a giant version of the historical Cock's peculiar tumour.

DISCUSSION

The proliferative pilar tumour of the scalp is uncommon and has been reported infrequently in the literature. Typically it is a tumour of elderly women that arises from the outer sheath cells of the hair follicles and grows slowly over many years (Chait et al, 1985). The size attained by this giant pilar tumour is unusual and probably among the largest reported in the literature. As early as 1852 Edward Cock described a lesion referred to as 'Cock's peculiar tumour' and this is now synonymous with proliferative pilar cyst (Bunker et al, 1989). It is also known by many other names including proliferating trichilemmal cyst, trichochlamydocyst, giant hair matrix tumour and invasive hair matrix tumour (Janitz and Wiedersberg, 1980).

The proliferative variant of the pilar cyst may occur in the cyst wall damaged by trauma, infection or irritation (Bunker et al, 1989). On clinical grounds confusion has occurred when presented with a large, often ulcerated lesion of the scalp and misdiagnosing it as a squamous cell carcinoma (Shet et al, 2001). Fortunately these lesions can be differentiated from squamous cell carcinoma histologically by distinctive features of abrupt trichilemmal keratinization, loss of granular cell layer and lack of dermal invasion (Mann et al, 1982; Batman and Evans, 1986), although in the past some may have been mistaken for well-differentiated

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Figure 1. A giant proliferative pilar tumour of scalp. Clinically it was multiloculated with solid and cystic elements and was adherent to the underlying pericranium.

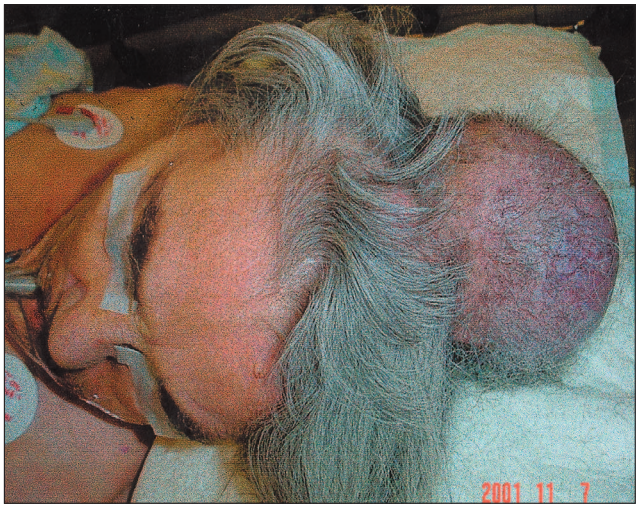
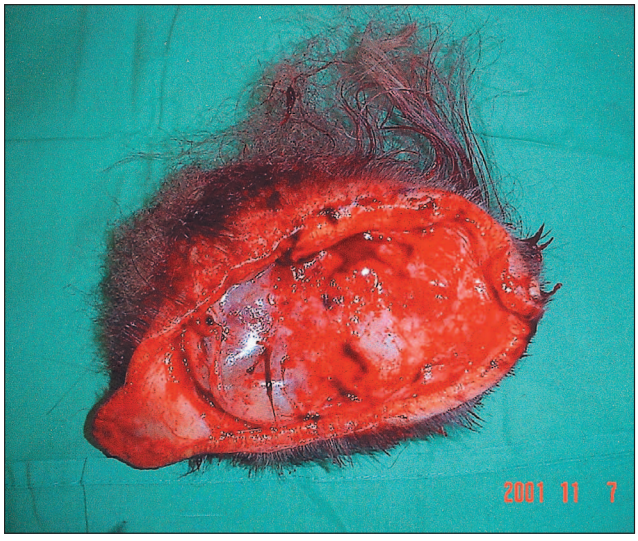


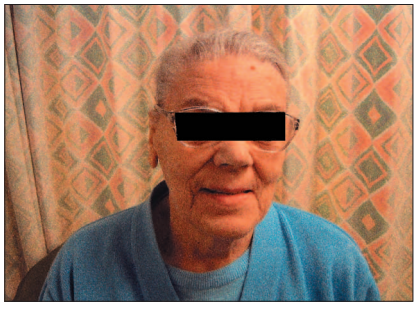
Figure 2. Excision specimen: a 20x20 cm dome-shaped mass showing the glistening pericranium on the undersurface.



squamous cell carcinoma (Stranc et al, 1971; Janitz and Wiedersberg, 1980).

In this case, for the last 20 years the patient had been reluctant to have surgery performed because of her hospital phobia until she was persuaded by her relatives because of the large size of the lesion. Neither infection nor ulceration could account for its recent increase in size and malignant transformation was excluded on histological grounds. Local invasion with spread to lymph nodes has been reported (Amaral et al, 1984; Batman and Evans, 1986).

Figure 3. The result of reconstruction 3 months postoperatively. The patient has an acceptable cosmetic result and remains recurrence free after 9 months of follow up.



CONCLUSION

The giant proliferative pilar tumour is a genuine neoplasm of the hair follicle that is occasionally capable of malignant behaviour. Although uncommon, one must not forget to consider it in the differential diagnosis of a scalp tumour. HM

Amaral ALMP, Nascimento AG, Goellner JR (1984) Proliferating pilar (trichilemmal) cyst. Report of two cases, one with carcinomatous transformation and one with distant metastases. *Arch Pathol Lab Med* **108:** 808–10

Batman PA, Evans HJR (1986) Metastasising pilar tumour of scalp. *J Clin Pathol* **39:** 757–60

Bunker CB, Smith NP, Russell RCG, Dowd PM (1989) Cock's peculiar tumour. *Clin Exp Dermatol* **14:** 237–9

Chait GE, Shemen LJ, Robbins KT (1985) Pilar tumor of the scalp. *Otolaryngol Head Neck Surg* **93:** 116–9

Janitz J, Wiedersberg H (1980) Trichilemmal pilar tumours. *Cancer* **45:** 1594–7

Mann B, Salm R, Azzopardi JG (1982) Pilar tumour: A distinctive type of trichilemmoma. *Diagn Histopathol* **5:** 157–67

Shet T, Rege J, Naik L (2001) Cytodiagnosis of simple and proliferating trichilemmal cysts. *Acta Cytol* **45:** 582–8

Stranc MF, Bennett MH, Melmed EP (1971) Pilar tumour of the scalp developing in hereditary sebaceous cysts. *Br J Plast Surg* **24:** 82–5