

Benign Sebaceous Epithelioma with Carcinoid-like Trabecular Cell Arrangement

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ABSTRACT

A case of 75-year-old woman with sebaceous epithelioma was reported. The histological features were distinct in that it had a sinusoidal and carcinoid-like growth pattern, which has been reported in its malignant counterpart. Immunostaining for adipophilin was positive in the area with lipid-laden vacuolated cells, but the rest of tumor, which had cord-like nests, was negative. MIB index was 2%. CK5/6 and p40 were positive in the cord-like nesting areas. CK7, CK20, alpha SMA, and epithelial membrane antigen were negative in both the cord-like nesting areas and the adipose-like areas. The tumor was diagnosed as sebaceous epithelioma with a trabecular pattern. Dermatopathologists should be aware of this atypical histological pattern of benign sebaceous epithelioma.

Key words adipophilin; adipose; cord-like; sebaceous epithelioma; trabecular pattern

Sebaceous epithelioma has been described with several histological variations. We report a case of benign sebaceous epithelioma with a distinctive histological pattern of sinusoidal and carcinoid-like growth, a feature which has been reported in its malignant counterpart, sebaceous carcinoma.

PATIENT REPORT

A 75-year-old woman had a nodule on her occipital head for a few years. Physical exam showed a 4mm yellow-white nodule. The surface of the nodule appeared smooth and firm (Fig. 1a). Dermoscopy showed yellow granular structures with fine winding capillary vessels (Fig. 1b). The preliminary diagnosis was sebaceous epithelioma with a dermoscopy pattern of fine winding capillary vessels raising the possibility of sebaceous carcinoma. The nodule was excised with 0.5 mm margin under local anesthesia. Histopathology of the tumor showed intradermal massive growth of cord-like nests

composed of basaloid cells parallel to each other with interstitial septa in between, forming a trabecular pattern, with small keratocysts in the papillary to upper reticular dermis (Figs. 1c–d). There were some lipid-laden vacuolated cells within the tumor nests. Mitoses were rare (i.e.; < 1 per 10 high power fields). Immunostaining against adipophilin and epithelial membrane antigen was positive in the area with these lipid-laden vacuolated cells, but the rest of tumor did not stain (Figs. 1e and f). MIB index was 2% (Fig. 1g). CK5/6 and p40 were positive in the cord-like nested areas (Figs. 1h and i). CK7, CK20, and alpha smooth muscle actin (SMA) were negative in both the cord-like nested areas and the–vacuolated areas. We diagnosed the tumor as sebaceous epithelioma with an atypical histopathological pattern of trabecular growth.

DISCUSSION

This is the first case of sebaceous epithelioma where the entire lesion consisted of parallel cords of cells forming trabeculae. Sebaceous epithelioma typically presents as a solitary circumscribed nodule or an ill-defined plaque, often yellow in color. Histopathologically it forms a well-circumscribed nodule of irregularly-shaped cell masses in the dermis.¹ A few variant histopathological forms have been reported. The rippled pattern variation exhibits an arrangement of small, monomorphous, cigar-shaped basaloid cells in linear rows parallel to one another, but this type shows no septa between rows of the basaloid cells.² Another report described sinusoidal and carcinoid-like growth pattern in sebaceous neoplasms, some of which were diagnosed as malignant. In this report one case showed a trabecular and ribbon-like pattern, but this trabecular pattern comprised only a part of the lesion, whereas in our case the entire lesion exhibited a trabecular appearance.³ Since our case showed a MIB-1 index of 2% and there were no malignant features, we diagnosed our case as a benign sebaceous epithelioma, rather than malignant sebaceous carcinoma. Yellow granular structures seen by dermoscopy correspond to the small keratocysts in the papillary and the upper reticular dermis, which are occasionally seen in sebaceous epithelioma.⁴ Jain et al. demonstrated

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Abbreviation: SMA, smooth muscle actin

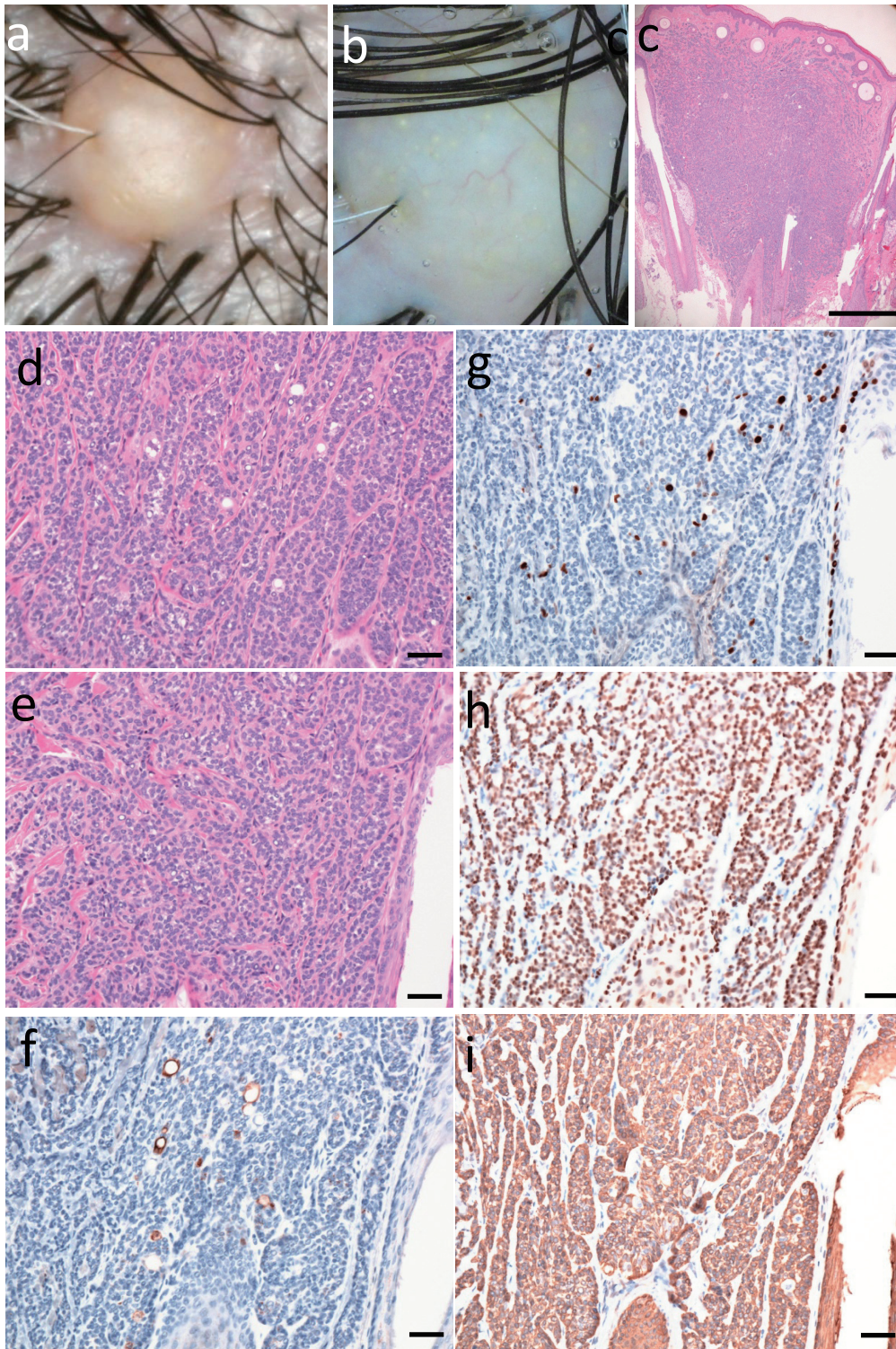


Fig. 1. Clinical appearance, dermoscopy, and histopathology of a tumor on the occipital head. (a) A yellow-white nodule of 4 mm on the occipital head. (b) Dermoscopy showed yellow granular structures with fine winding capillary vessels. (c) Nests of basaloid cells were proliferating in the dermis. (Hematoxylin and Eosin, bar = 1 mm) (d) Massive growth of cord-like nests composed of basaloid cells parallel to each other with interstitial septa in between, forming a trabecular pattern. Some cells with vacuolations were noted. (Hematoxyline and Eosin, bar = 20 μ m) (e) Immunostaining against epithelial membrane antigen was positive in vacuolated areas, but the rest of tumor with cord-like nests was not stained. (Bar = 20 μ m, same area as Fig. 1d) (f) Immunostaining against adipophilin was positive in vacuolated areas, but the rest of tumor was negative. (Bar = 20 μ m, same area as Fig. 1d) (g) Immunostaining against MIB-1, with MIB-1 index of 2%. (Bar = 20 μ m, same area as Fig. 1d) (h) Immunostaining against p40. (Bar = 20 μ m, same area as Fig. 1d) (i) Immunostaining against CK5/6. (Bar = 20 μ m, same area as Fig. 1d)

the positivity of p40 in 20 previously diagnosed cases of sebaceous carcinoma; however, positivity for p40 does not indicate that a tumor is malignant, as p40 is also expressed in the basal or germinative layer of sebaceous epithelium.⁵ We suspect that the adipophilin negative, p40 positive cells in our case represent an immature basaloid or germinative component, consistent with that seen in more typical sebaceous epitheliomas, rather than a malignant component. Our case also showed CK5/6 positivity, which may explain the unique appearance of trabeculae formation, since it is expressed in basaloid cells.

The authors declare no conflict of interest.

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