Tumor of Follicular Infundibulum

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We report a case of a tumor of the follicular infundibulum in a 54-year-old woman who had a papule on the medial side of the right upper eyelid for four months. Histopathologic findings were characterized by proliferation of follicular infundibular epithelium in the form of a thin subepidermal plate and small hair follicles in the tumor plate.

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Tumor of the follicular infundibulum, which was first described by Mehregan and Butler in 1961,1 is a rare benign follicular differentiating tumor. It usually occurs as a solitary, flat, keratotic papule on the face; multiple papules are rarely present.2 It is characterized histologically by proliferation of the follicular infundibular epithelium in the form of a thin subepidermal plate. We present a case of a follicular infundibulum tumor.

REPORT OF A CASE

A 54-year-old woman had a papule on the medial side of the right upper eyelid for four months. Her past and family histories were non-contributory. On physical examination, a 3 mm sized, round, flesh colored, well demarcated papule was observed on the medial side of the right upper eyelid(Fig. 1). An excisional biopsy was performed.

Histopathologically, a downward proliferation of epithelial cells formed a reticulated arrangement of tumor islands and strands(Fig. 2). Some small hair follicles were seen in the tumor plate(Fig. 3). The lower border of tumor lay in a straight line. The infundibulum of hair follicle had proliferated in a cactus-like pattern (Fig. 4). A horn cyst was seen in the tumor island. The peripheral cell of the tumor showed palisading, while the centrally located cells showed a pale-staining cytoplasm(Fig. 5). There was mild to moderate mononuclear cell infiltration around the blood vessels in the upper dermis.

DISCUSSION

Clinically, tumors of the follicular infundibulum appear as a flesh colored to slightly hypopigmented elevated keratotic papule. It occurs frequently on the face as a solitary lesion.
and is usually misdiagnosed as either seborrheic keratosis or a basal cell epithelioma. Our patient had a 3mm sized, flesh colored, well demarcated papule on the right upper eyelid. Our clinical impression was a basal cell epithelioma, syringoma or seborrheic keratosis. Therefore, skin biopsy was necessary to confirm the diagnosis.

Histopathologically, it showed a plate-like subepidermal epithelial tumor, distinguished from the overlying epidermis by the light staining of its cells and the absence of pigment. The tumor consisted of 2 types of cells. Masses of prickle cells were much lighter staining than those of epidermis and containing as much PAS-positive material as outer root sheath. The periphery of the tumor was surrounded by basal cells resembling the epidermal basal cells, with no melanin granules and no PAS-positive material. Histologic evidence for the infundibular nature of this growth was gathered through the study of serial sections by demonstration of the intimate relationships between the subepidermal tumor plate and the infundibular portion of vellus hair follicles.

In hamartomas of pilosebaceous structures, inverted follicular keratosis and tumors of the follicular infundibulum have been considered to differentiate toward the infundibular portion of the hair follicles. There are, however, obvious histologic differences. The inverted follicular keratosis is a verrucous growth which projects above the surface of the skin and also grows down into the corium. Its epithelium shows a
marked tendency for focal keratinization and formation of characteristic squamous eddies. Tumor of the follicular infundibulum, on the other hand, has a downward growth with no keratinization. In our case, downward proliferation of epithelial cells, small vellus hairs in the islands and cactus-like proliferation in the infundibular portion of hair follicle were indications that this tumor showed infundibular differentiation.

REFERENCES