

## Poroid Hidradenoma

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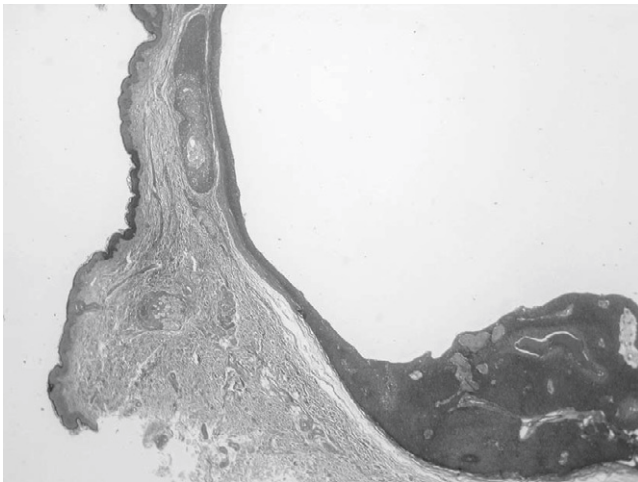
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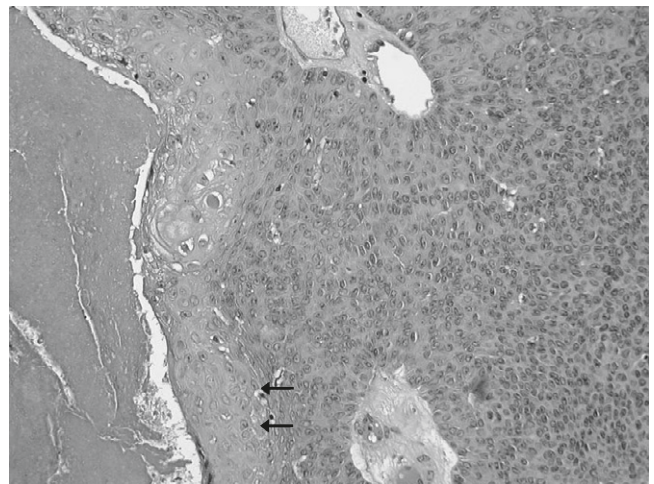
A 19-year-old woman presented with a painless skin nodule on the right submandibular facial area, which had gradually increased in size over the previous 7 months. A skin biopsy was performed under local anesthesia. Gross examination revealed a skin-colored, dome-shaped nodule measuring 1.0×0.8×0.7 cm, and its cut surface showed a well-circumscribed cyst filled with a clear yellowish fluid. Histopathology revealed a well-demarcated, solid-cystic lesion confined to the dermis (Fig. 1). There was no apparent connection to the overlying epidermis. The solid component of the cystic wall was composed of small dark-staining poroid cells and large pale-staining cuticular cells (Fig. 2). Duct-like structures and horn cysts were

surrounded by cuticular cells. Increased mitotic figures were found in the focal area (Fig. 3). There was no evidence of apocrine differentiation. These histopathological findings were consistent with poroid hidradenoma.

In 1990, Abenoza and Ackerman classified the poroma family into four groups: hidroacanthoma simplex, eccrine poroma, dermal duct tumor, and poroid hidradenoma (PH) (1). PH is an uncommon tumor, and only 36 cases have been reported in the Japanese and English medical literature (2). The ages of patients range from 17 years to 91 years, with no obvious sex difference. PH is most commonly found in the trunk, but also occurs in the extremities, scalp and face.



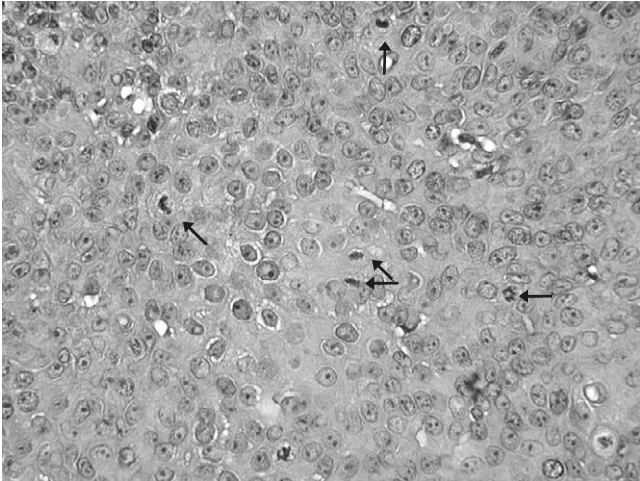
**Fig. 1** — A well-defined cyst with a small solid component confined to the dermis (hematoxylin & eosin, 20×).



**Fig. 2** — The small solid component is composed of small dark-staining poroid cells and large pale-staining cuticular cells (arrows) (hematoxylin & eosin, 200×).

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**Fig. 3 — Increased normal mitoses (arrows) in the focal area (hematoxylin & eosin, 400×).**

Tumors range from 0.5 cm to 4 cm in diameter and are skin-colored, light brown, or bluish-black. Some cases coexist with eccrine poroma, dermal duct tumor or hidroacanthoma simplex.

The differential diagnosis of PH includes dermal duct tumor, seborrheic keratosis, and epidermal cyst on histopathology. A dermal duct tumor is limited to the dermis and can have small foci of solid or cystic components, unlike the large cystic-solid component of PH. Seborrheic keratosis is an epidermal tumor with horn cysts. An epidermal cyst is lined

by large pale squamous cells with overlying keratinization.

Based on immunohistochemical surveys, Ueno and colleagues (2) found that the cuticular cells were immunoreactive to cytokeratin (CK) 8 and carcinoembryonic antigen and the poroid cells were partially immunoreactive to CK 10, suggesting that PH is closely related to the dermal eccrine ducts and eccrine secretory elements. Liu et al (3) further provided evidence of similar CK-immunohistochemical findings between PH and eccrine poroma. Therefore, PH is considered to arise from the dermal eccrine ducts and/or its secretory elements.

In conclusion, PH is an uncommon dermal tumor. It is a variant of the poromas, with the architectural features of a hidradenoma, which is a dermal tumor composed of both solid and cystic components, and the cytologic features of a poroid neoplasm with poroid cells and cuticular cells. (*Tzu Chi Med J* 2009; 21(2):181–182)

## References

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