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A Case of Hybrid Epidermoid and Apocrine Cysts of Scalp

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Dear Editor:

Hybrid cyst is a cystic lesion that consists of the combination of two or more distinctive components of the pilosebaceous unit. The original idea of the hybrid cyst suggested by McGavran and Binnington[1] was a combination of infundibular and trichilemmal cysts. Later, the concept of the hybrid cyst has been changed to integrate any of the two pilosebaceous unit[2].

Hybrid epidermoid and apocrine cyst is a rare subtype of hybrid cyst. A 64-year-old male presented with a skin colored nodule on scalp (Fig. 1A). The lesion developed after trauma 10 years ago and had been grown slowly. Excision biopsy revealed multiple dermal cysts filled with keratinous material (Fig. 1B). At high magnification, the cystic wall is lined in part by keratinizing squamous epithelium showing a well-developed granular cell layer admixed with apocrine epithelium with decapitation secretion (Fig. 2A). Some part of cyst wall was positive on pan-cytokeratin staining, which implies secretory apocrine gland (Fig. 2B). On CEA staining, transitional zone between keratinizing squamous epithelium and apocrine epithelium was observed (Fig. 2C). Based on these findings, he was diagnosed with hybrid cysts, combined epidermoid and apocrine cysts.

There were some possible explanations of the pathophysiology of combined epidermoid and apocrine cysts. It has been postulated that these cysts are developed at the junction of keratinizing squamous epithelium and glandular portion[3]. Others include squamous metaplasia of apocrine hidrocystoma

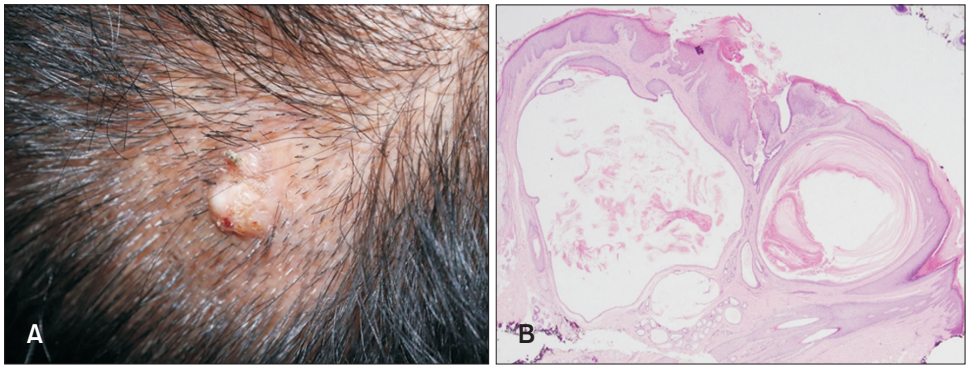

Fig. 1. (A) The patient presented with solitary hyperkeratotic nodule on scalp. (B) Multiple dermal cysts filled with keratinous material (H&E, ×1.2). We received the patient's consent form about publishing all photographic materials.

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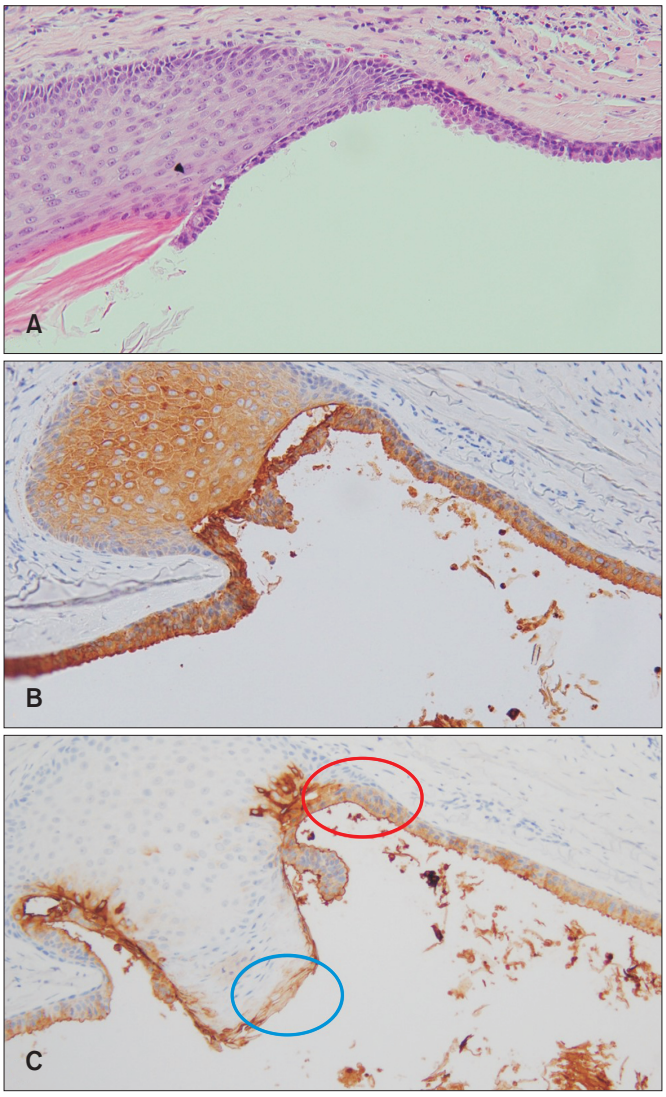

Fig. 2. (A) The cystic wall is lined in part by keratinizing squamous epithelium showing a well-developed granular cell layer admixed with apocrine epithelium with decapitation secretion (H&E, ×200). (B) The cystic wall was positive on pan-cytokeratin staining (Cytokeratin stain, ×200). (C) Apocrine epithelium (red circle) and transitional zone between squamous epithelium and apocrine epithelium (blue circle) were observed on CEA staining (CEA, ×200).

or collision tumor of apocrine hidrocystoma and epidermal inclusion cyst[3]. In our case, the abrupt transition from a stratified squamous epithelium to an apocrine bilayer may support the fusion of the cyst caused by trauma rather than squamous metaplasia.

Apocrine glands are found predominantly in the anogenital and axillary regions, but also located in the eyelid (Moll's gland), the areola. In English literatures, there were 12 reported cases hybrid epidermoid and apocrine cysts. Lesions have been described on the nipple, eyelid, lip and chest (n=7, n=3, n=1, n=1, respectively)[4,5]. These locations are related to the distribution of apocrine gland. However, none of them were on the scalp. Herein, we report hybrid epidermoid and apocrine cyst on scalp which has not been reported yet.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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