

A Case of Steatocystoma Simplex Involving the Scalp

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Steatocystoma is a benign adnexal tumor originating from the pilosebaceous duct junction which can be classified into two groups (steatocystoma simplex and steatocystoma multiplex). Steatocystoma simplex, which presents as a solitary lesion, is very rare. Steatocystoma simplex occurs most commonly on the face and the case reported herein involving the scalp is extremely rare. A 49-year-old man presented for evaluation and treatment of a solitary papule on the right parietal scalp which had persisted for a period of 1 year. The histopathologic examination revealed a thin-walled cyst consisting of stratified squamous epithelium with hyaline cuticle that lacked a stratum granulosum. Based on clinical and histologic findings, we diagnosed this case as steatocystoma simplex of the scalp and report this rare case. (Ann Dermatol (Seoul) 20(4) 230~232, 2008)

Key Words: Scalp, Steatocystoma simplex

INTRODUCTION

Steatocystoma simplex, first described as a distinct entity by Brownstein¹ in 1982, is an extremely rare benign adnexal tumor. The individual lesion of steatocystoma simplex is usually identical with that of steatocystoma multiplex, both clinically and histologically, but is characterized by solitary, non-hereditary growth in adulthood¹. Steatocystoma simplex occurs predominantly on the face, but the incidence of steatocystoma simplex on the scalp is extremely low. Only three cases of steatocystoma simplex on the scalp have been reported worldwide¹⁻³. We report an additional case of steatocystoma simplex which was developed on the right parietal scalp.

CASE REPORT

A 49-year-old man presented to our outpatient clinic with an asymptomatic papule on the right parietal scalp which had been present for about 1 year. The lesion had slowly enlarged a few months ago. The physical examination revealed a skin-colored, deep-seated, soft cystic mass on his right parietal scalp, 0.9 cm in diameter (Fig. 1). There



Fig. 1. A solitary, 0.9×0.9 cm skin-colored papule on the parietal scalp (arrow).

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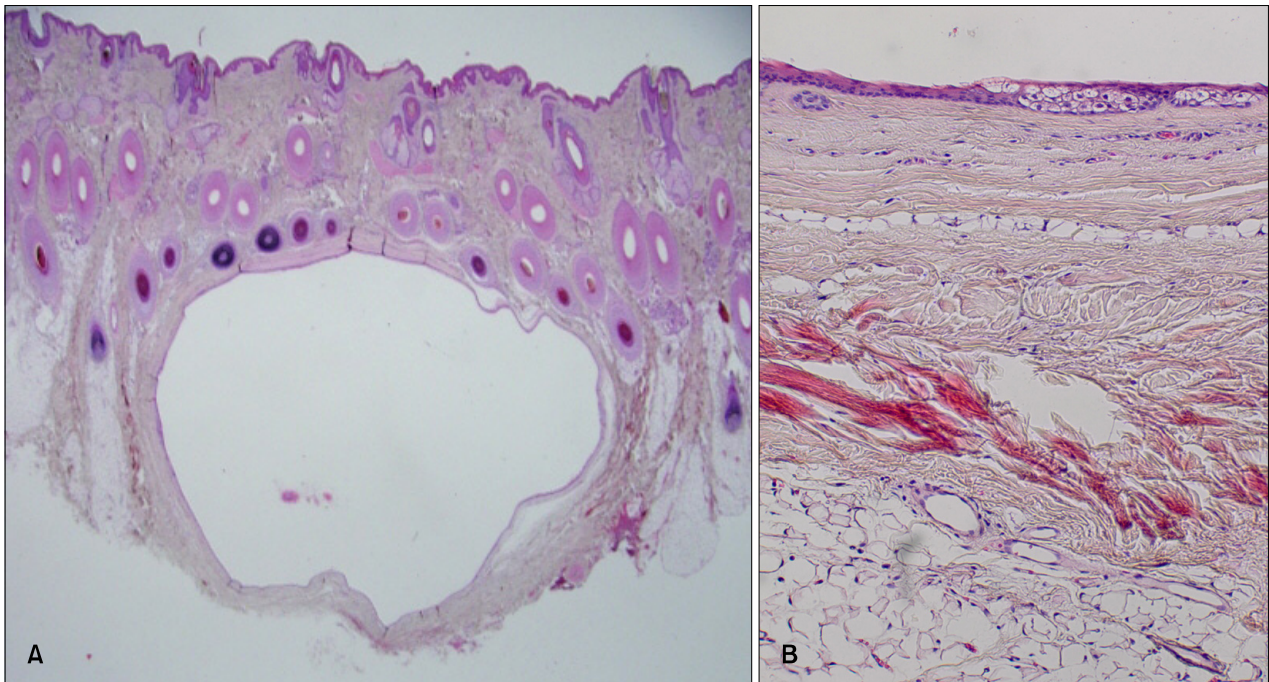


Fig. 2. (A) The cyst was located in the dermis and the cystic walls were thin and lined by stratified squamous epithelium (H&E, $\times 12.5$). (B) Large, flattened sebaceous lobules were within the cystic wall. A hyalinized inner lining and lacking stratum granulosum were seen (H&E, $\times 100$).

was no remarkable family history of similar lesions. Clinically, the lesion appeared to be a trichilemmal cyst, and was completely excised. The histological examination revealed an undulating, configured cystic mass that was empty. The cyst was located in the dermis and the cystic walls were thin and lined by stratified squamous epithelium that lacked a stratum granulosum (Fig. 2A). The cyst contained eosinophilic hyalinized cuticle in the lumen and flattened sebaceous gland lobules close to the cystic wall (Fig. 2B). There have been no signs of recurrence or development of other cysts during the 4 month follow-up.

DISCUSSION

Steatocystoma simplex is thought to originate from a nevoid malformation of the pilosebaceous duct junction and a non-heritable benign adnexal tumor⁴. Brownstein¹ first reported 30 cases of steatocystoma simplex as distinct clinical entity compared with steatocystoma multiplex as a counterpart disease in 1982.

The individual lesion of steatocystoma simplex is identical with that of steatocystoma multiplex clinically and histologically. The lesion of steatocystoma is usually asymptomatic, with a normal skin color and no inflammatory component. Steatocystoma simplex is a soft, movable intracutaneous cyst with a distinct boundary. To distinguish steatocystoma simplex from steatocystoma multiplex, it is important to make sure that the lesion is solitary and occurs in adulthood with a non-heritable pattern¹.

Steatocystoma simplex can occur on various parts of the body, but most commonly on the face and the chest. The upper limbs and axillae are also relatively common sites of occurrence. Rarely, steatocystoma simplex can occur on relatively uncommon sites, such as the back, leg, oral cavity, perineum, and scalp^{1,5,6}. Four cases of steatocystoma simplex have been reported and only one case has been reported to involve the scalp in the Korean medical literature (Table 1)^{3,4,7,8}. Steatocystoma simplex involving the scalp is extremely rare and only two cases have been reported in foreign medical journals by Brownstein¹ and Nakamura et

Table 1. The reported cases of steatocystoma simplex in the Korean medical literature

No.	Author	Sex/ Age	Site	Duration	Treatment
1	Lee et al ³	M/63	Scalp	1 year	None
2	Kim et al ⁴	M/42	Left caruncle	Several years	Excision
3	Kim et al ⁷	F/52	Nose	3 months	Excision
4	Kim and Ahn ⁸	F/22	Left orbit	Several years	Excision
5	Present case	M/49	Scalp	1 year	Excision

al². This case report on steatocystoma simplex occurring on an uncommon site, the scalp, is considered to be a very rare medical case.

On gross examination, the cyst contained oily, yellowish fluid. The histological examination revealed a cystic mass surrounded by stratified squamous epithelium with a saw-tooth appearance that lacked a stratum granulosum. In the innermost area of the cyst, a prominent, acellular, homogenous, eosinophilic, and compact horny layer was seen. Large, flattened sebaceous glands were within or near the cyst wall. If there is a hyaline cuticle in the cystic wall, it can be shown to be a steatocystoma simplex, even in the absence of sebaceous glands^{1,4}.

The differential diagnosis of steatocystoma simplex includes steatocystoma multiplex, a dermoid cyst, cystic sebaceous hyperplasia, and hidrocystoma. Steatocystoma multiplex is differentiated by multiple lesions, usually over the trunk, and inherited in an autosomal dominant pattern. A dermoid cyst, cystic sebaceous hyperplasia, and hidrocystoma are distinguished by histologic characteristics^{1,4}.

Above all, the treatment of choice is simple

excision with an intact cyst wall to reduce the risk of recurrence. Also, aspiration, cryosurgery, electrocautery, and carbon dioxide laser therapy are included as possible treatment options of steatocystoma simplex^{3,5}. There have been no reported case of recurrent steatocystoma simplex after excision⁹.

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