A Case of Multiple Trichilemmal Cysts

Hae-Shin Chung, M.D., Nam Ho Lee, M.D., Eung Ho Choi, M.D., Won Soo Lee, M.D., Sung Ku Ahn, M.D.

Department of Dermatology, Yonsei University Wonju College of Medicine, Wonju, Korea

A case of multiple trichilemmal cysts (TC) is presented. TC is known to be a kind of keratinous cyst with lining cells showing trichilemmal keratinization. A 63-year-old female patient presented with a 30 year duration of increasing in size and number of twenty five nodular lesions on the scalp. All twenty five TC on the scalp were totally excised and examined microscopically. However, the evidence of proliferation or malignant change like the previous case reports was not found in our case. (Ann Dermatol 9:(3) 228~230, 1997).

Key Words: Trichilemmal cyst

Trichilemmal cyst (TC) is known to be a kind of keratinous cyst with trichilemmal keratinization[1,2]. Its origin is unknown, but budding off from the external root sheath as a genetically determined structural aberration has been suggested. It is known to have a familial occurrence with an autosomal dominant inheritance[3]. These cysts occur most commonly in middle age as smooth, firm, round nodules which vary from 0.5 to 5 cm in size. Approximately 90% occur on the scalp. They are solitary in 30% and multiple in 70%[3]. Some individuals have increasing numbers of cysts with time, but it is unusual to find very large numbers of cysts and only 10% of the patients are reported to have more than ten cysts[4]. We report a case of twenty five trichilemmal cysts on the scalp of a woman with no evidence of proliferation or malignant change.

REPORT OF A CASE

A 63-year-old woman first noticed a few nodular lesions on the scalp about 30 years previously. The nodular lesions slowly but progressively increased in size and number. This patient was first seen at our clinic in August of 1996. Examination of the skin revealed about twenty five nut to egg sized cystic nodules scattered on the scalp area (Fig. 1). A family history revealed that the daughter of the patient had similar lesions on the scalp. However, the patient refused evaluation and therapy. There were no palpable lymph nodes. A complete blood cell count, serum chemistry and urine analysis were negative or within normal limits. Radiographic examination of chest PA and plain skull X-ray did not show any active disease nor bony abnormalities. The biopsy taken from one of the lesions showed a keratinous cyst with lining cells of trichilemmal keratinization (Fig. 2a). The peripheral cells of the cyst wall were basaloid and lay in a palisading fashion on the basement membrane and the luminal portion showed cells with pale pink cytoplasm (Fig.2b). The content of the tumor had homogeneous eosinophilic keratin with calcification (Fig.2c). All twenty five nodules on the scalp were totally excised and microscopic examination revealed them to be trichilemmal cysts with no evidence of proliferation or malignant change.

DISCUSSION

TC is common skin lesion comprising approximately 15% of all excised cysts[4]. They are known by different names, such as pilar cysts, trichochlamydocysts[5], and epidermoid cysts[6], and are characterized

Received March 22, 1997.
Accepted for publication May 23, 1997.
Reprint request to : Eung Ho Choi, M.D., Department of Dermatology, Yonsei University Wonju College of Medicine 162 Ilsan-dong, Wonju, Kangwondo, 220-701 Korea.

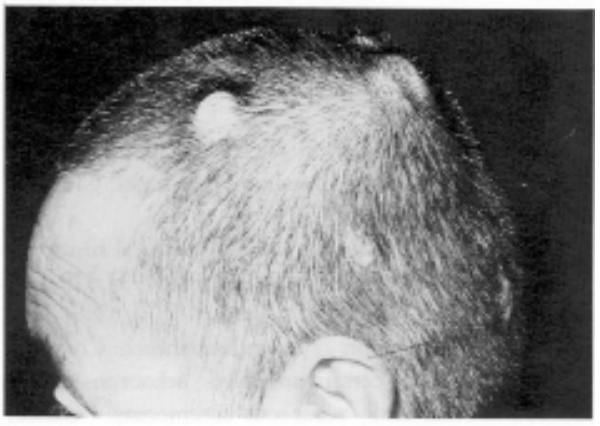
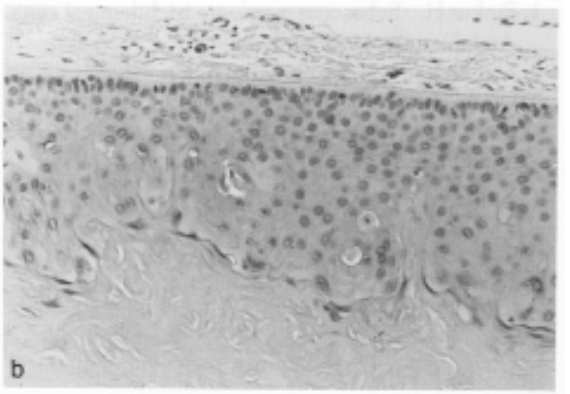


Fig. 1. Multiple cystic nodules on the scalp.

by a wall composed of epithelial cells with no clearly visible intercellular bridges or granular cell layers. Their content consists of homogenous eosinophilic material that frequently shows foci of calcification. TC is thought to be derived from the outer root sheath of the hair follicular isthmus[1]. Leppard et al. suggest an autosomal dominant mode of inheritance of multiple TC[3]. They reported that 68% of 115 patients with TC in England had had more than two lesions and the largest number of TC in a patient was thirty one. In Korea, however, there has not been a reported case of multiple TC and patients with multiple TC seem to be rare. Trauma and inflammation may induce TC to develop into proliferating TC. A few cases of proliferating TC with confirmed metastasis have been reported[5]. In the case of multiple TC reported by



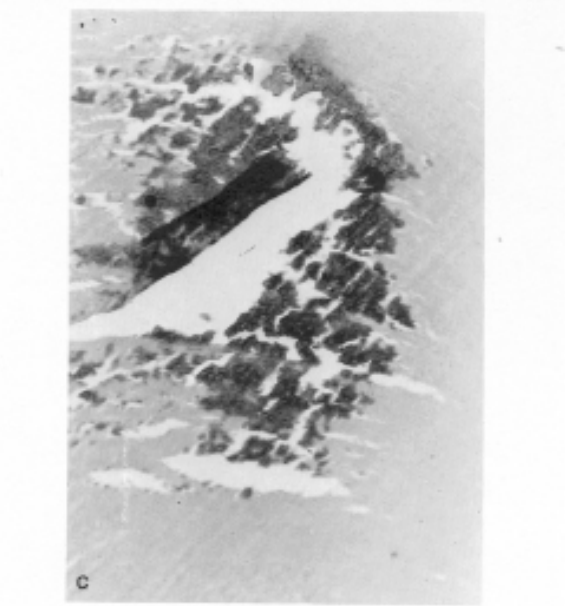


Fig. 2. Photomicrographs of multiple cysts. (Hematoxylin-eosin staining)
a. An intradermal cyst with homogenous eosinophilic contents. Note the distinct basal cell layer (× 40).
b. The cyst wall is composed of squamous epithelium and a granular cell layer is not present. The cells get larger toward the cyctic content and have abundant cytoplasm with abrupt keratinization (× 200).
c. Basophilic granular calcification of some of the cyctic content (× 400).

Segami et al.[7] TC had a tendency to develop into proliferating TC. A giant proliferating TC developed in a patient with multiple TC has been reported previously[8].

The present case is thought to be unique despite the large number of TC in the patient but no evidence of proliferating TC or malignant proliferating TC was found. However, although no abnormal growth was found in this patient, it may be important for dermatologists to observe a patient with multiple TC carefully because if any signs of abnormal growth is noticed in any TC, the lesion should be completely resected, for malignant transformation of TC may occur.

REFERENCES

1. Pinkus H. 'Sebaceous cysts' are trichilemmal cysts. Arch Dermatol 99:544-555,1969.
2. McGavran MH, Binnington B. Keratinous cysts of the skin. Identification and differentiation of pilar cysts from epidermal cysts. Arch Dermatol 94:499-508,1966.
3. Leppard BJ, Sanderson KV, Wells RS. Hereditary trichilemmal cysts. Hereditary pilar cysts. Clin Exp Dermatol 2:23-32, 1977.
4. Leppard BJ, Sanderson KV. The natural history of trichilemmal cysts. Br J Dermatol 94:379-390, 1976.
5. Holmes EJ. Tumors of lower hair sheath: Common histogenesis of certain so-called 'sebaceous cysts', acanthomas and 'sebaceous carcinomas.' Cancer 21:234-48,1968.
6. Jones EW. Proliferating epidermoid cysts. Arch Dermatol 94:11-19, 1966.
7. Segami M, Shigemi F, Tekaeda K. A case of multiple pilar cysts. Rinsho Hifuka 35:667-70,1981.
8. Stranc MF, Bennet MH, Melmed EP. Pilar tumor of the scalp developed in hereditary sebaceous cyst. Br J Plast Surg 24:82-85,1971.