

# A Case of Multiple Pilosebaceous Cysts

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## Key Words

Steatocystoma multiplex · Eruptive vellus hair cysts · Multiple pilosebaceous cysts · Pilosebaceous duct

## Abstract

Multiple pilosebaceous cysts include the entities of steatocystoma multiplex and eruptive vellus hair cysts (EVHCs). Multiple pilosebaceous cysts are proposed to be one entity originating in the pilosebaceous duct, since steatocystoma multiplex and EVHCs are frequently present concomitantly and are caused by a cystic change in the same pilosebaceous duct. Here, we describe a patient with yellowish papules, 3–8 mm in diameter, on the neck and skin-colored or light-brown papules, 1–3 mm in diameter, on the neck, chest and upper abdomen. The smaller cysts were histopathologically diagnosed as EVHCs. The larger cysts had both features of EVHCs and steatocystoma multiplex. Therefore, a diagnosis of these lesions was made as multiple pilosebaceous cysts. Our case supports the proposition that multiple pilosebaceous cysts are a more appropriate diagnosis than the terms of EVHCs and steatocystoma multiplex.

## Introduction

Eruptive vellus hair cysts (EVHC) are typified by multiple, small, and discrete follicular papules with a smooth or centrally umbilicated appearance [1, 2]. They are skin-colored or yellowish papules, 1–5 mm in diameter, usually on the chest and proximal extremities. Steatocystoma multiplex (SM) is characterized by multiple smooth and rounded cystic nodules, commonly on the trunk and proximal limbs [3–5]. It varies in diameter from a few millimeters to 20 or more millimeters [3–5]. The superficial lesions are yellowish in appearance. The concomitant occurrence of EVHC and SM in a patient is not rare [3–5]. EVHC and SM share a clinical resemblance in age of onset, localization, and clinical

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appearance [5]. Ohtake et al. have proposed that both may result from a cystic change near the junction of the pilosebaceous duct, and that two diseases may represent a spectrum of the same disease process rather than separate entities [4]. They proposed the designation of multiple pilosebaceous cysts (MPSC). Here, we show a case of MPSC which obviously resembles the case reported by Ohtake et al. [4].

### Case Report

A 30-year-old man presented with a 16-year history of asymptomatic yellowish papules on the neck. His blood relations had no such papules. Physical examination revealed (i) asymptomatic firm, smooth, yellowish papules, 3–8 mm in diameter, on the neck (fig. 1a) and (ii) asymptomatic firm, smooth, skin-colored or light-brown papules, 1–3 mm in diameter, on the neck, chest and upper abdomen (fig. 1b). We considered the yellowish papules as SM and the skin-colored or light-brown papules as EVHS, and took a spindle biopsy from the neck, including a larger papule in the center and a smaller in the periphery. The wall of the smaller cyst was composed of three to five layers of squamous epithelium (fig. 2a). The larger cyst had a wall of two to three layers of squamous epithelium (fig. 2b). The smaller cyst contained many vellus hairs (fig. 2a) and the larger cyst contained some vellus hairs (fig. 2b).

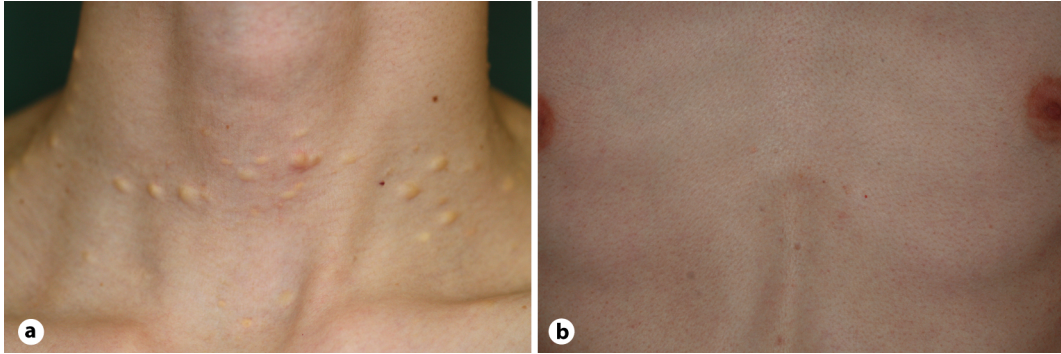
### Discussion

Typical SM consists of an empty cyst formed by a thin wall of stratified squamous epithelium [5]. Sebaceous glands or atrophic sebaceous elements are constitutively present adjacent to or within the cyst wall [5]. In the larger cyst in our patient, the size and the construction of the cyst wall were in accordance with SM, but the absence of sebaceous glands or atrophic sebaceous elements adjacent to or within the cyst wall differed from typical SM. The overlapping histopathological features of EVHS and SM have been described [6–8]. Therefore, we diagnosed the papules as MPSC.

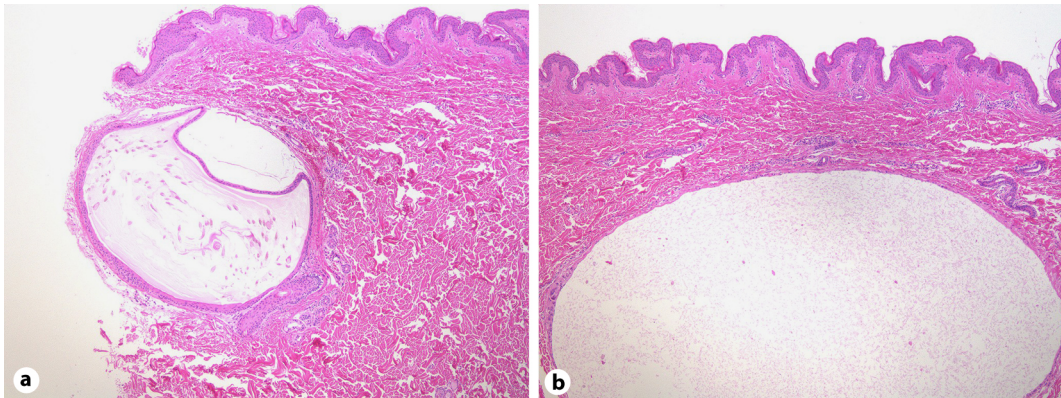
Ohtake et al. reported a male patient having many firm and smooth yellowish papules, 2–5 mm in diameter, on the neck, and several firm and smooth skin-colored or light-brown papules, 1–2 mm in diameter, on the upper abdomen [4]. Ohtake's case resembled the present case showing many papules of various sizes on the neck and several small papules on the chest and upper abdomen.

We suggest that MPSC may be a more appropriate name for a case showing multiple cysts with the overlapping histological features of EVHS and SM.

**Fig. 1.** Clinical appearance of the neck (**a**), chest and upper abdomen (**b**).



**Fig. 2.** Hematoxylin and eosin staining showed (**a**) a smaller cyst peripherally from the spindle biopsy specimen and (**b**) a larger cyst centrally. Both cysts were present in the mid-dermis. **a** The wall of the smaller cyst was composed of three to five layers of squamous epithelium. The smaller cyst contained many vellus hairs. **b** The larger cyst had a wall of two to three layers of squamous epithelium, and contained several vellus hairs (original magnification  $\times 40$ ).



## References

- 1 Esterly NB, Fretzin DF, Pinkus H: Eruptive vellus hair cysts. *Arch Dermatol* 1977;113:500–503.
- 2 Baums K, Blume-Peytavi U, Dippel E, et al: Eruptive vellus hair cysts. *Eur J Dermatol* 2000;10:487–489.
- 3 Cho S, Chang SE, Choi JH, et al: Clinical and histologic features of 64 cases of steatocystoma multiplex. *J Dermatol* 2002;29:152–156.
- 4 Ohtake N, Kubota Y, Takayama O, et al: Relationship between steatocystoma multiplex and eruptive vellus hair cysts. *J Am Acad Dermatol* 1992;26:876–878.
- 5 Yamada A, Saga K, Jimbow K: Acquired multiple pilosebaceous cysts on the face having the histopathological features of steatocystoma multiplex and eruptive vellus hair cysts. *Int J Dermatol* 2005;44:861–863.
- 6 Urbina Gonzalez F, Cristobal Gil MC, Aguilar Martinez A, et al: Eruptive vellus hair cyst with singular histologic finding. *Arch Dermatol* 1987;123:299–301.
- 7 Nogita T, Chi HI, Nakagawa H, et al: Eruptive vellus hair cysts with sebaceous glands. *Br J Dermatol* 1991;125:475–476.
- 8 Kiene P, Hauschild A, Christophers E: Eruptive vellus hair cysts and steatocystoma multiplex. Variants of one entity? *Br J Dermatol* 1996;134:365–367.