

# Linear sebaceous hyperplasia on the chest

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## Case presentations

### Case 1

A 39-year-old Japanese man presented with 6-month history of a group of papules on the chest (Figure 1A). The patient had no specific symptoms, such as itching or tenderness, but visited the clinic worried about the long duration of the lesions. Physical examination showed pinkish white, firm papules of 5 to 10 mm in diameter with sharply demarcated borders. The surface of the papules was smooth and shiny. Dermoscopic examination demonstrated aggregation of yellowish-white clods with linear vessels between or above the clods exhibiting reticular distribution as a whole (Figure 1B). Other papules also showed similar features. High dynamic range (HDR) [1,2] conversion of the dermoscopy photograph further clarified the multi-lobulated clods with a central opening (Figure 1C). Histopathological examination of the biopsied lesions established the diagnosis of sebaceous hyperplasia (SH) (Figure 1D). Based on the clinical, dermoscopic and histopathological findings, the final diagnosis was linear SH on the chest.

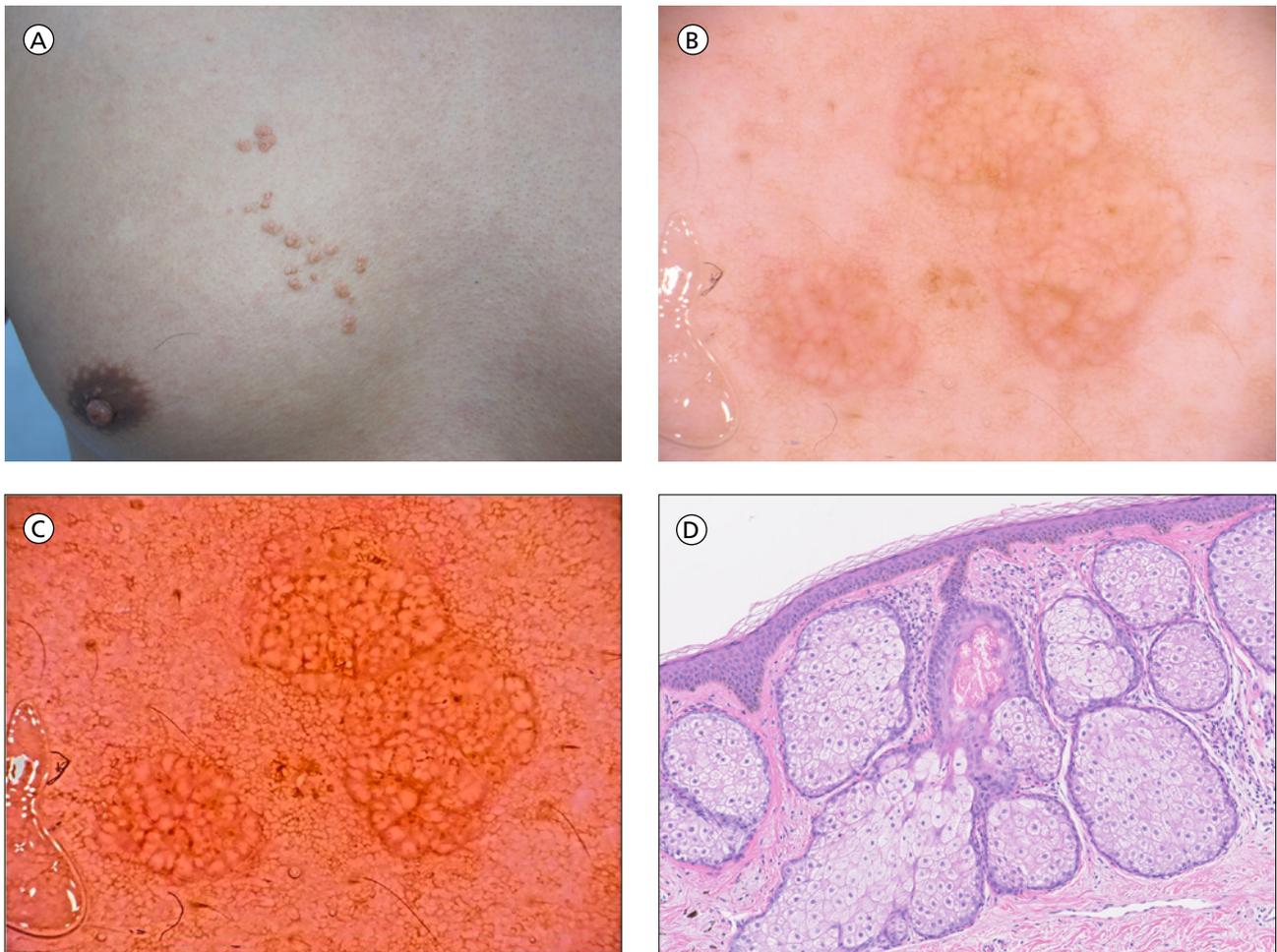
### Case 2

A 32-year-old Japanese woman presented with a 5-year history of linearly arranged papules on the upper chest (Figure

2A). The patient was asymptomatic, including itching or tenderness. Physical examination showed yellowish-white, firm papules up to 5 mm in diameter with a clear border. The surface of the papules was smooth and shiny. Dermoscopic examination demonstrated aggregation of yellowish-white clods with vague linear vessels surrounding the clods (Figure 2B). All other papules showed similar features. HDR image conversion of the dermoscopy photograph further clarified the multi-lobulated clods and the surrounding vessels (Figure 2C). Based on the clinical and dermoscopic findings, a diagnosis of linear SH on the chest was established.

## Discussion

SH represents benign proliferation of the sebaceous gland and tends to appear on the forehead and temples of middle-aged or elderly people [3]. It has also been reported in the vulva, penis and areola [4]. Familial forms have also been reported [4]. To our knowledge, this is the second and the third cases of linear SH on the chest, but the SH in our cases are not on the midline of the anterior chest as described in the first report [5]. Our cases were sporadic and not familial but the distribution of the papules seems to be along the Blaschko line, suggesting that SH in our cases might have occurred as a result of mosaic mutation.



**Figure 1.** Case 1. (A) A group of papules on the chest with linear distribution pattern. (B) Dermoscopy of sebaceous gland hyperplasia. Note the aggregation of yellowish-white clods with linear vessels between or above the clods. (C) Dermoscopy of sebaceous gland hyperplasia followed by HDR image conversion. Note the multi-lobulated clods with central openings. (D) Hematoxylin and eosin staining of biopsied lesion of sebaceous gland hyperplasia: Note the multiple, mature sebaceous lobules attached to the central dilated duct in the upper dermis. Original magnification x25. [Copyright: ©2014 Sato et al.]

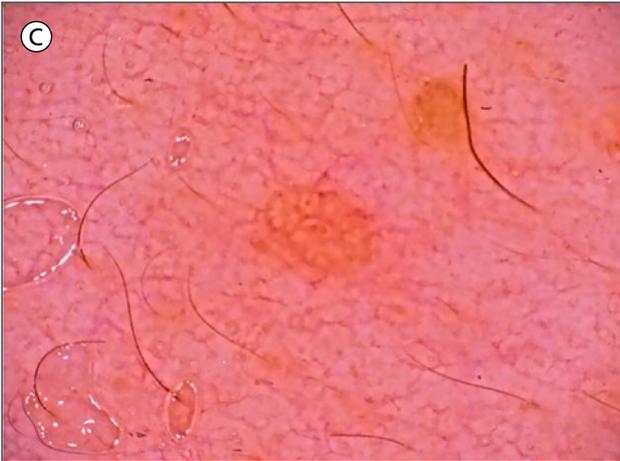
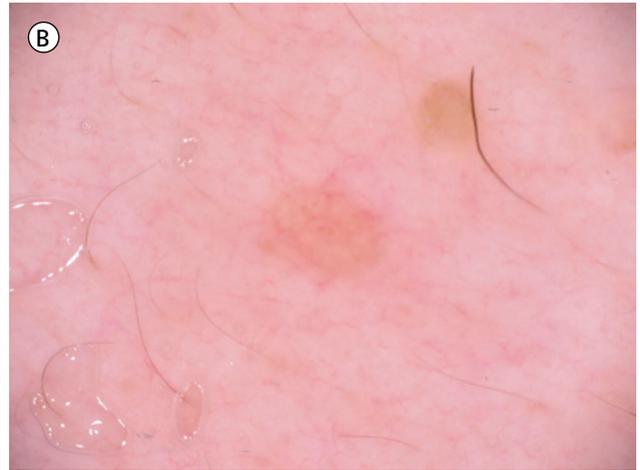
Several more variants of SH have been reported. For example, a giant form of 10 mm in diameter has been reported on the cheek [6] and four cases with a linear arrangement have been reported on the pre- and retro-auricular, neck and chin areas. Each papule in these four cases ranged from 2 to 5 mm in diameter and formed a plaque measuring up to 1.5 cm wide x 8 cm long [7]. In another case of the linear type, the papules appeared on the juxta-clavicular beaded lines. They were small in size, 0.5-1.5 mm in diameter, and exhibited a linear arrangement on the supra- or subclavicular areas [8].

The exact pathological mechanism of SH is unknown though the condition is associated with advanced age, ultraviolet irradiation and immunosuppression therapy especially cyclosporine A alone or in combination with corticosteroids [9]. SH is not directly associated with malignant disorders, although sebaceous neoplasms have been reported to be associated with internal malignancy in the setting of Muir-Torre syndrome [10].

Accurate diagnosis of SH is necessary, although no treatment is required in most cases.

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**Figure 2.** Case 2. (A) Multiple papules on the chest showing linear arrangement. (B) Dermoscopy of sebaceous gland hyperplasia. Note the aggregation of yellowish-white clods with vague linear vessels surrounding the clods. (C) Dermoscopy of sebaceous gland hyperplasia followed by HDR image conversion. Note the multi-lobulated clods with central openings and surrounding vessels. [Copyright: ©2014 Sato et al.]

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