# Nevus Comedonicus on the Right Cheek

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ABSTRACT. Case report of a 22-year-old lady with comedo-like lesion of the right cheek is presented here. The lesion was removed surgically and diagnosed nevus comedonicus by histopathological study. Localized nevus comedonicus of the cheek is rare and not many cases have been reported.

Key words: Nevus comedonicus - Cheek

About 60 cases of nevus comedonicus have been reported in Japan till now. However, the incidence of the localized lesion occurring on the face is very rare. We here present one such case of nevus comedonicus on the right cheek.

#### REPORT OF THE CASE

The patient, a 22-year-old lady, consulted our hospital for the comedo-like lesion on her right cheek that had been present since birth. There was no past and family history of similar skin disease.



Fig. 1. Localized comedo-like lesion on the right cheek.

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The lesion occasionally developed comedo-like pus and redness with slight pain during her childhood. It gradually increased in size and got pigmented as the patient grew.

Physical examination showed a localized lesion, measuring 2.0 cm × 2.3 cm

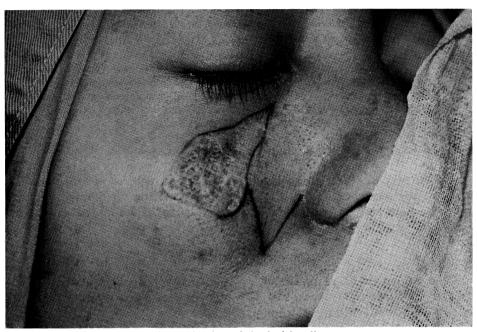


Fig. 2. Design of the incision line.

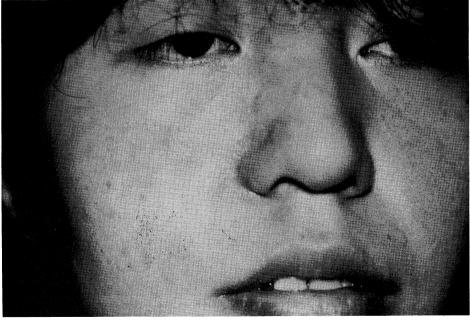


Fig. 3. A year postoperatively.

on her right cheek (Fig. 1). The lesion was pigmented, confluent, raised and imparted a raisins-crater-like surface to the skin. There was no clinical evidence of infection at the time of examination.

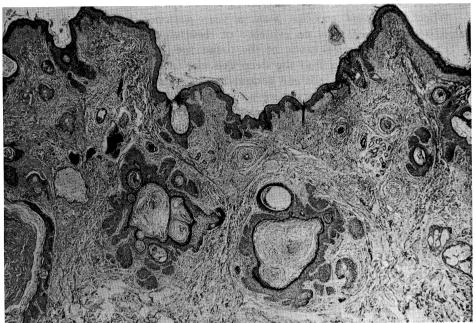


Fig. 4. Histopathology of comedone showing multiple invaginations of the epidermis (hematoxylin-eosin, ×40).



Fig. 5. Plugging of follicular orifices with dense laminated keratin (hematoxylin-eosin,  $\times 100$ ).

Laboratory data, including routine blood chemistry, hemograms and urinalysis, were within normal limits.

The lesion was easily removed surgically under local anesthesia and the skin defect was covered with naso-labial flap (Fig. 2).

When the patient was last seen, a year postoperatively, the lesion had healed well and there was no evidence of recurrence (Fig. 3).

The histopathological study of the tissue specimen showed the epidermis occasionally invaginating into the deep reticular dermis (Fig. 4). Occasional solid cords of epithelial cells and keratin-filled cysts could be seen in the pilosebaceous apparatus but there were no hair shafts or sebaceous glands (Fig. 5). There was no significant inflammatory infiltration.

### COMMENT

Nevus comedonicus was first described by Kofmann<sup>1)</sup> in 1895, and its histogenesis has been extensively discussed, but not well understood and may not be the same in all cases.

Nevus comedonicus may resemble a developmental defect in the hair follicle in which the follicle is rudimentary, with an abnormal pilosebaceous apparatus.<sup>2)</sup>

In our histopathological study, the epidermis was invaginated with dilated orifice containing lamellated thin keratin plugs protruding below the surface.

The invaginated epidermis was often thin and dilated, forming cysts resembling the typical histopathological characterizations as reported.<sup>2-4)</sup>

There are also some reports of histological changes of epidermolytic hyperkeratosis.<sup>5)</sup>

Nevus comedonicus occurs at birth or in early childhood (until 10 years of age: 59%).

Male to female ratio is 33:23 in Japan, and there is no known familial tendency.

Usually, the clinical presentation is of the diffuse, linear type nevus comedonicus (83% of 47 cases), while the localized type is relatively rare.

The regional distribution of nevus comedonicus in Japan till 1982 is shown in Table 1.

It is commonly unilateral affecting the neck, trunk and the lower limbs. The unique features of our patient are localized skin lesion, and its presence on the cheek.

The occurrence on palms and soles is also uncommon.<sup>2,5-7)</sup>

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	cases	%		cases	%
Head	8	7	Abdomen	5	4. 5
Neck	11	10	Buttock	11	10
Face	5	4. 5	Inguinal	2	2
Chest	21	19	Genitalia	2	2
Axilla	6	6	Upper extremity	13	12
Back	12	11	Lower extremity	13	12

TABLE 1. The regional distribution of nevus comedonicus.

The lesions are usually asymptomatic and the patients seek attention mainly for cosmetic reasons, but occasionally the condition is complicated by episodes of recurrent cyst formation and secondary infection.<sup>3)</sup>

#### REFERENCES

- 1) Kofmann, S.: Ein Fall von seltener Lokalisation und Verbreitung von Comedonen. Arch. Dermatol. Syphilol. 32: 177-178, 1895
- Cripps, D.J. and Bertram, J.R.: Nevus comedonicus bilateralis et verruciformis. J. Cutan. Pathol. 3: 273-281, 1976
- 3) Beck, M.H. and Dave, V.K.: Extensive nevus comedonicus. Arch. Dermatol. 116: 1048-1050, 1980
- 4) Giam, Y.C., Ong, B.H. and Rajan, V.S.: Naevus comedonicus in homozygous twins. Dermatologica 162: 249-253, 1981
- Barsky, S., Doyle, J.A. and Winkelmann, R.K.: Nevus comedonicus with epidermolytic hyperkeratosis. Arch. Dermatol. 117: 86-88, 1981
- Leppard, B.J.: Trichilemmal cysts arising in an extensive comedo naevus. Br. J. Dermatol. 96: 545-548, 1977
- 7) Marsden, R.A., Fleming, K. and Dawber, R.P.R.D.: Comedo naevus of the palm—a sweat duct naevus? Br. J. Dermatol. 101: 717-722, 1979