

## Inflammation of Montgomery Glands

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Sir,

Montgomery tubercles are hyperplastic sebaceous glands visible as skin-coloured papules within the areola mammae. We report a case of inflammation in Montgomery glands in a woman.

### CASE REPORT

A 21-year-old woman suffered from relapsing inflammation of the areolar region of both breasts that had lasted for about 3 years. She complained of pain that worsened in warm weather. Multiple treatment regimes, such as different oral antibiotics, hormone contraceptives, local steroids, benzoyl peroxide, salicylic and lactic acid had already been applied by gynaecologists and dermatologists, but to no effect. There were no relevant events in her medical history; she was not currently pregnant, nor was she currently using contraceptives.

Physical examination revealed a similar aspect of the two areolae, surrounding asymptomatic nipples. There were multiple round, skin-coloured or erythematous papules of about 2–4 mm diameter without any secretion (Fig. 1). When touched, the patient indicated mild pain. No lesions were present on other regions of the skin. Physical examination revealed no other

changes and clinical chemistry parameters were within normal limits.

A biopsy was taken from an inflamed papule. Histological investigation revealed large sebaceous



Fig. 1. Multiple, round, skin-coloured or erythematous asymptomatic papules.

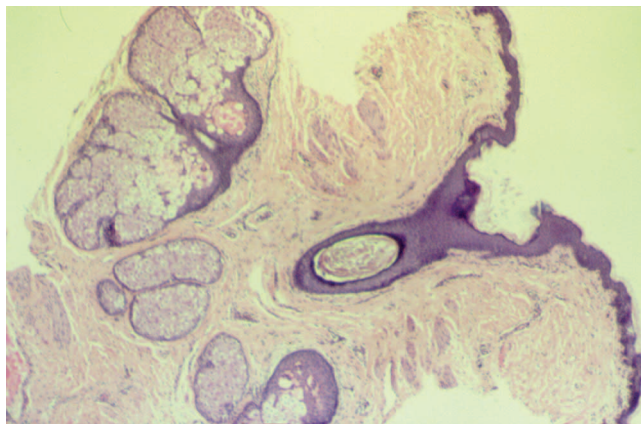


Fig. 2. Large sebaceous glands in the dermis with only minor inflammatory infiltrates.

glands in the dermis with only minor inflammatory infiltrates (Fig. 2).

## DISCUSSION

Sebaceous glands occur all over the body except on the palms and soles. They are usually connected to hair follicles forming the pilosebaceous unit. In some regions, isolated sebaceous glands without hairs are observed. These "ectopic" glands appear as yellowish-white papules of 1 mm diameter. They are called Meibomian glands on the eyelid, Tyson's glands on the prepuce or the labia minora, and Fordyce spots on the lips and buccal mucosa (3).

Another region where isolated sebaceous glands occur is the mammary areola. These glands were named after William Fetherstone H. Montgomery, an Irish obstetrician (Dublin 1779–1859). In women, they can be observed as skin-coloured papules of about 1–2 mm size. The early literature for long described these glands to be apocrine. It was hypothesized that Montgomery glands could be a link between apocrine glands and the mammary gland. Not until the early 1970s did scientific opinion conclude that the function of these glandular organs differed from apocrine secretion, although there were citations of older publications even in the 1950s that described the sebaceous differentiation of Montgomery glands (4). Physiological enlargement caused by hormonal sensitivity in pregnancy and lactation is well known (1, 5). This indicates sensitivity to endocrine factors comparable to that of the mammary gland itself.

Hormonal stimulation of Montgomery glands in times of pregnancy and lactation appears to be related to oestrogens, while in both men and women the most

important growth factor of sebaceous glands is testosterone (7). This indicates that Montgomery glands differ from sebaceous glands to a some extent.

The enlargement of Montgomery glands is different from the phenomenon of areolar sebaceous hyperplasia, which is frequently found in women. The clinical appearance is different: while hyperplastic Montgomery glands always form isolated reddish papules of equal size, the areolar sebaceous hyperplasia appears as a flat whitish patch of different size. In addition, it is suggested that men lack Montgomery glands. However, they may suffer from sebaceous gland hyperplasia (2, 3). On the other hand, the two conditions are histologically indistinguishable. In both conditions, numerous sebaceous glands are arranged around a central follicle on the areola. They closely resemble normal sebaceous glands, with a single layer of germinative cells at the periphery surrounding mature sebocytes (2).

Furthermore, it is doubtful whether the single report on the occurrence of Montgomery glands together with inherited symptoms on teeth, nails and hair really describes a syndrome at all (6).

Inflammation of Montgomery glands is a rare event (8). It is easily diagnosed by the painful redness and swelling of the glands. Usually no treatment is needed, because it resolves spontaneously within a few days. If inflammation relapses frequently, surgical intervention, such as punch biopsies of the complete Montgomery gland, would be superior to the recurrent antibiotic treatment.

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