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Bilateral Chalazia of the Lower Eyelids Associated with Pulmonary Tuberculosis

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Sir,

A chalazion is a chronic granulomatous inflammation that develops around the sebaceous glands in the eyelids (1). This disease of the eyelid is commonly encountered in the field of ophthalmology. Because dermatologists are generally not familiar with this disease, they may have some difficulties in making an accurate diagnosis. Here, we report on a case of bilateral symmetrical external chalazia associated with active pulmonary tuberculosis, the diagnosis of which was initially quite difficult.

CASE REPORT

A 61-year-old Japanese male with alcoholic liver cirrhosis presented a 3-week history of persistent swelling below each eye. Physical examination revealed bilateral, symmetrical, elastic, soft, non-tender, reddish-brown nodules immediately beneath the border of the lower epibrephalons (Fig. 1). The ocular and palpebral conjunctivae were normal, but a dimple appeared on the palpebral conjunctiva when the lower eyelid was pulled down. A skin biopsy of the left nodule revealed edema and a dense cellular infiltrate throughout the dermis. The essential feature was the formation of a confluent series of focal granulomas, consisting of epithelioid cells and multinucleated giant cells, with small neutrophilic microabscess (Fig. 2). Gram, Ziehl-Neelsen, PAS and Grocott stainings all yielded negative results, and swabs and tissue fragments obtained from the lesions failed to grow any bacteria and fungi. Although both nodules were completely surgically excised, similar lesions recurred twice at the same site and ruptured spontaneously. In the systemic check, the tuberculin skin test yielded a positive result, and culture and PCR of the patient's sputum were both positive for tuberculous bacilli. Anti-tuberculous combination therapy with isoniazid, rifampicin and ethambutol was started. After this therapy, the skin lesions of the lower eyelids disappeared, and in the subsequent year of follow-up there was no evidence of a recurrence.

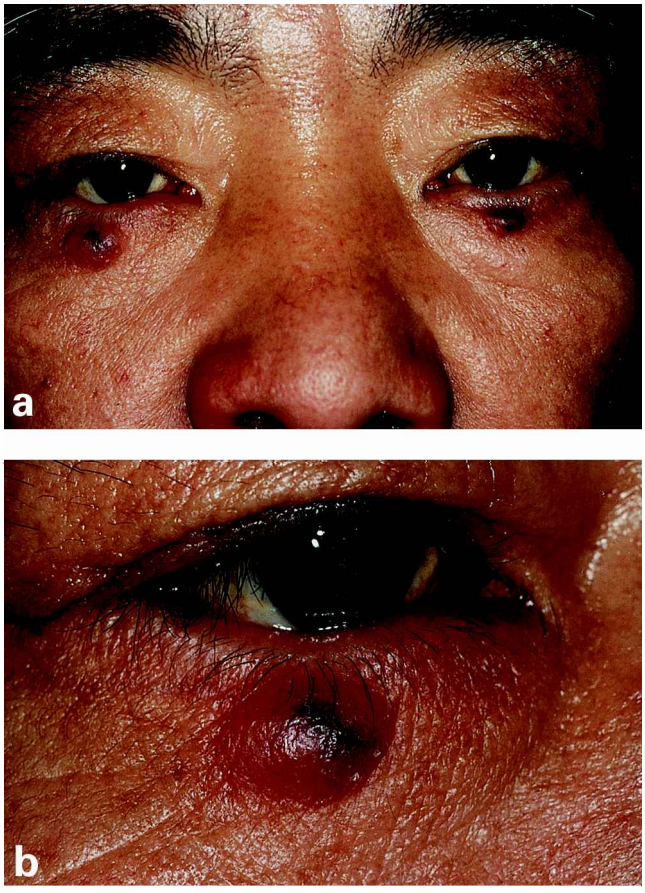

Fig. 1. Bilateral, elastic soft, reddish-brown nodules of the lower eyelids (*a*) and a close up of the right eye (*b*).

DISCUSSION

Chalazion is a granulomatous response to liberated fat from the sebaceous glands of the eyelids. The lesion usually ruptures through the conjunctiva (internal chalazia). In rare instances, focal inflammation around the involved gland causes pointing of the lesion through the skin anteriorly, where it eventually spontaneously drains (external chalazia) (2). Although lipid globules discharged from the sebaceous glands were not evident in the biopsy specimen, the clinical and histopathological

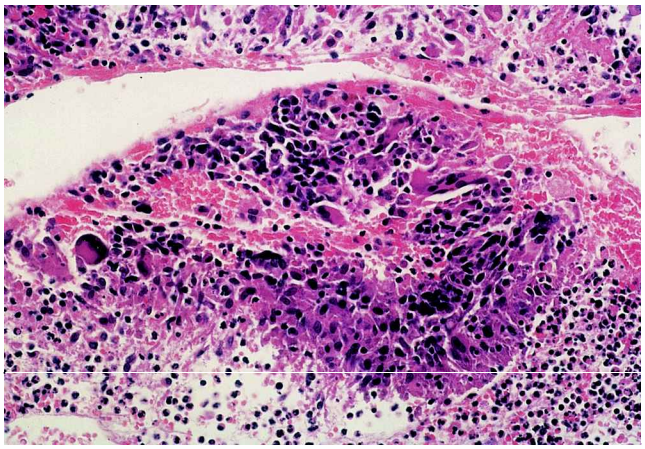

Fig. 2. Biopsy specimen showing epithelioid cell granulomas with multinucleated giant cells and neutrophilic infiltration in the dermis.

features of the present case are consistent with bilateral external chalazia. Pyogenic granuloma can be excluded because of the lack of capillary proliferation and the clinical features. Many dermatologists are not aware that chalazia, a very common ophthalmologic disease, can rupture anteriorly to produce cutaneous nodules of the eyelids. In the present case, when first confronted with the clinicopathological findings, we considered only dermatological diseases such as sporotrichosis. Since the histology of the lesion showed epithelioid cell granuloma, and active pulmonary tuberculosis was revealed, we tentatively diagnosed the present case as scrofuloderma. Retrospectively, a dimple on the palpebral conjunctiva was an indication that the lesion had adhered to the palpebral conjunctiva.

The reasons for anti-tuberculous combination chemotherapy being effective against the chalazion in the present case are probably because, first, the antibacterial activity of anti-tuberculous agents (probably rifampicin) (3) was effective as an adjunctive therapy for decreasing the local bacterial flora. Secondly, the chalazion was healed by spontaneous drainage, and anti-tuberculous agents were coincidentally introduced at the time of cure.

It is known that patients with rosacea exhibit a high incidence of chalazion formation (1). In our case, the patient suffered from alcoholic liver cirrhosis and diffuse telangiectasia was observed on the face, suggesting that the patient had rosacea.

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Topical Tacrolimus (FK506): Treatment Failure in Four Cases of Alopecia Universalis

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Sir,

Alopecia areata is believed to be a T-cell-mediated autoimmune disease in which a mononuclear cell infiltrate develops in and around anagen hair follicles and causes circumscribed hair loss (1). Alopecia universialis and alopecia totalis are severe forms of alopecia areata. A wide range of treatments has been tried in alopecia universalis, but none is consistent in its efficacy.

Tacrolimus is the prototype of a class of topical immuno-suppressive agents with a great potential in the treatment of inflammatory skin diseases, primarily atopic dermatitis (2). Tacrolimus acts by inhibiting calcineurin, resulting in suppression of T-cell activation and inhibition of inflammatory cytokine release (2).

Recently, a number of reports have been published on the excellent effects of topical tacrolimus in experimental bald animal models, such as mice, rats, and hamsters. On the basis of those results, we tried topical tacrolimus on 4 patients with alopecia universalis.

PATIENTS AND METHODS

Four patients (2 females and 2 males, aged 17 to 27 years) diagnosed with alopecia universalis agreed to participate in a therapeutic trial of topical tacrolimus. The average duration of disease was 4.5 years (range 1–8 years) and the average period of treatment given prior to this study was 15.8 months (range 6–21 months). Previously, all 4 patients had received diphencyprone sensitizer, systemic and topical corticosteroids, and methylprednisolone pulse therapy, but all of the treatments were found to be ineffective. All treatments were stopped 3 months before this study.

Topical tacrolimus was used as a 0.1% solution or a 0.1% ointment (commercially available formulation Protopic® was unavailable in Korea at the time of the study). FK 506 (Prograf, Fujisawa Pharmaceutical Company, Osaka, Japan) in powder form was made into a 0.1% solution by dissolving 0.1 g in 56 ml ethanol