

## LETTER TO THE EDITOR

## Perifollicular elastolysis with atopic dermatitis

Dear Editor,

Perifollicular elastolysis, first described by Varadi and Saqueton, is a relatively rare disorder.<sup>1</sup> We herein report a case of perifollicular elastolysis in atopic dermatitis (AD).

A 45-year-old Japanese woman with AD had been treated in our department for 20 years. She is a junior high school teacher and avoids sun exposure. Her serum levels of total immunoglobulin E were high, ranging 15 000–21 500 U/mL, and the eosinophil count and serum levels of lactate dehydrogenase and thymus and activation regulated chemokine were also high, at 300/ $\mu$ L, 295 U/L and 3200 pg/mL, respectively. Although she had used topical corticosteroid ointments and 0.1% tacrolimus ointment as well as antihistamine agents, her skin symptoms and pruritus had not been well controlled.

In January 2012, she noticed yellowish-white papules on her face and neck. Physical examination revealed rice grain-sized yellowish-white papules on the forehead, cheeks and neck (Fig. 1a). A small number of papules were also seen on the upper part of the trunk. Most papules corresponded to hair follicles. She had had no past history of acne vulgaris or varicella.

Histological study of her papule revealed acanthosis, perivascular mononuclear cell infiltrations and dilation of capillary vessels suggesting that the change was due to AD (Fig. 1b). Weigert's stain demonstrated diminished elastic fibers around

hair follicles (Fig. 1c). No calcification or fragmentation of elastic fibers was seen. Based on the above findings, we diagnosed her as having perifollicular elastolysis. Because she refused surgical and liquid nitrogen treatment, she has been under observation. Some papules spontaneously resolved.

Perifollicular elastolysis is a disease characterized by small, yellowish-white, hypopigmented, follicular papules on the face and/or upper trunk.<sup>1,2</sup> The papule may protrude or herniate. Some authors have suggested the term “papular acne scars” for the disorder due to its strong association with acne vulgaris.<sup>3</sup> Histological characteristics of perifollicular elastolysis include a lack of elastic fibers around perifollicular and sebaceous units.

The differential diagnosis of perifollicular elastolysis includes post-acne scars, varicella, white fibrous papulosis of the neck (WFPN), pseudoxanthoma elasticum-like papillary dermal elastolysis, milium and atrophoderma vermiculatum. In the present case, the patient's history excluded post-acne scars and varicella. The most likely disorder to consider was WFPN, which is characterized by discrete and firm papules localized to the neck of elderly people.<sup>4</sup> Our patient was in her 40s when the disease started, and the lesions were distributed not only on the neck but also the face. Pseudoxanthoma elasticum-like papillary dermal elastolysis consists of soft, coalescent, yellowish-white papules mainly on the lateral neck and superclavicular regions.<sup>5</sup> Milium is composed of small cysts surrounded by horny epithelium. Atrophoderma vermiculatum is usually preceded by keratotic lesions with follicular destruction and perifollicular lymphocytic infiltration histologically.

In the present case, long-term application of topical corticosteroid ointments might have induced folliculitis leading to inflammation and perifollicular elastolysis. In most patients, however, folliculitis induced by corticosteroid ointment does not evolve into this condition. Certain factors in host reaction to folliculitis may be responsible for the disease.

Because the disease is cosmetically problematic, we should carefully observe patients with AD to diagnose it as early as possible.

**CONFLICT OF INTEREST:** None.

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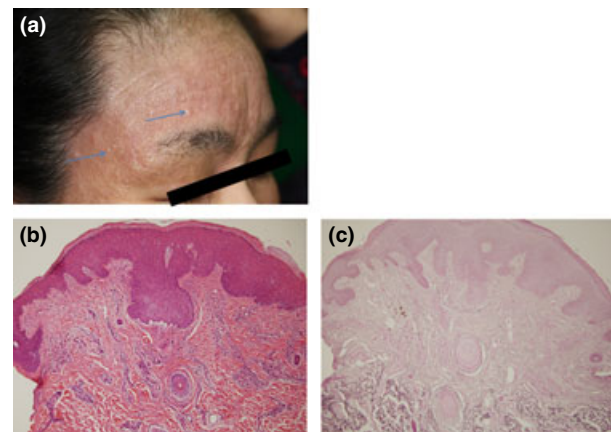


**Figure 1.** (a) Physical examination revealed rice grain-sized yellowish-white papules on the forehead. Most papules corresponded to hair follicles. (b) Acanthosis, perivascular mononuclear cell infiltrations and dilation of capillary vessels suggesting that the change is due to atopic dermatitis (hematoxylin–eosin, original magnification  $\times 100$ ). (c) Absence of elastic fibers around hair follicle (Weigert's staining,  $\times 100$ ).

## REFERENCES

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