

Erythema multiforme-like contact dermatitis caused by herbal medicine

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Allergic contact dermatitis may sometimes present with non-eczematous morphology, such as the pigmented, lichenoid, erythema multiforme-like, pustular or sclerodermoid type.¹ Although the eliciting allergens vary, erythema multiforme-like contact dermatitis has often been linked to exotic woods.² In this article, we report two cases of erythema multiform-like contact dermatitis induced by local contact with herbal medicine.

CASE REPORT 1

A 16-year-old boy consulted with a 7-day history of sudden-onset, widespread targetoid erythema on his hip and left thigh (Figure 1A). He had started to suffer from herpes zoster 10 days previously, and had dressed the skin lesions with a mixture of *Lysimachia clethroides* Duby (Figure 1B), ethanol, and borneol, which is a traditional remedy that is widely used in Guangdong Province for the treatment of herpes zoster. He was taking no other medications, and had no drug allergy or other dermatological history. Patch testing was performed with mashed fresh *L. clethroides* Duby, ethanol, and borneol 1:5 (pet.) which yielded an extreme positive reaction to *L. clethroides*

(Figure 1C). To confirm the result as allergic, the plant was also patch tested in five volunteers, with negative results. The patient recovered with 7 days of methylprednisolone (24 mg/d) and ebastine (10 mg/d) treatment, and no recurrence was noted on follow-up at 6 months.

CASE REPORT 2

A 51-year-old man presented with a 13-day history of sudden-onset, widespread targetoid erythema on the trunk and face. After an itchy insect bite, he had used *Agastache rugosa* juice (Figure 2B) for relief. Four days later, target-like erythema lesions and blisters gradually appeared on the trunk and face (Figure 2A). No mucous membrane involvement was observed on physical examination. The patient denied using other drugs in the last year and a history of any skin changes. Patch testing was performed, and showed a strong positive reaction to mashed fresh *A. rugosa* (Figure 2C). The skin lesions improved significantly within 5 days after methylprednisolone (40 mg/d) therapy, which was tapered quickly over a period of 10 days without recurrence.



FIGURE 1 (A), Erythema multiforme-like eruption in case 1. (B), *Lysimachia clethroides* Duby. (C), Patch test result (polythene chamber, applied for 48 hours, read on day [D] 2 and D3). 1: *L. clethroides* Duby in pet. 2: Borneol (96% purity) in pet. (~1 g of borneol in 5 g of pet.). 3: *L. clethroides* Duby, borneol, and ethanol (75%) in pet. 4: *L. clethroides* Duby, borneol in pet. 5: Blank. 6: *L. clethroides* in ethanol (75%)

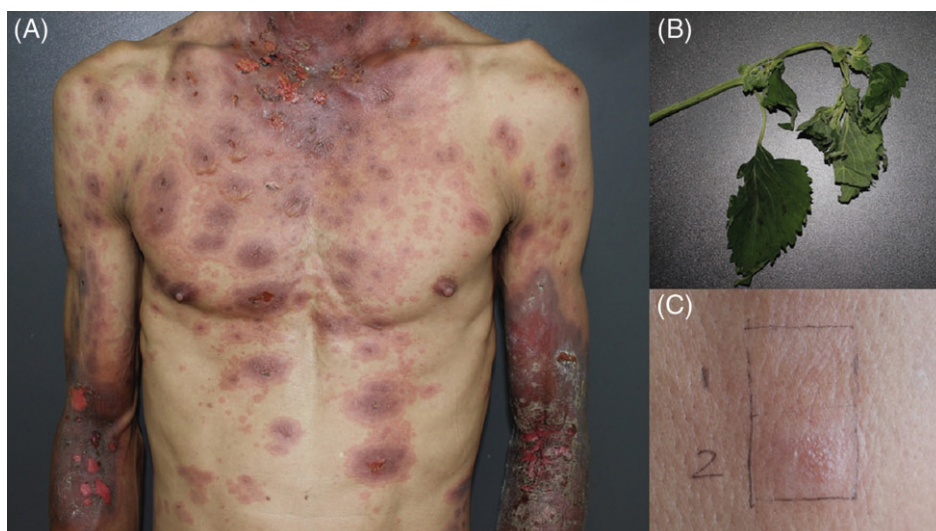


FIGURE 2 (A), Erythema multiforme-like eruption and blisters in case 2. (B), *Agastache rugosa*. (C), Patch test result (polythene chamber, applied for 48 hours, read on day [D] 2 and D3). 1: Pet. 2: *Agastache rugosa* in pet

DISCUSSION

Erythema multiforme-like contact dermatitis is a rare form of non-eczematous contact dermatitis, and may be triggered by different substances such as exotic woods, medicaments, and ethylenediamine.² Recently, erythema multiforme-like contact dermatitis has also been reported following application of propolis and turmeric essential oil.^{3,4} In this article, we have presented two cases of erythema multiforme-like contact dermatitis caused by herbal medicines.

After consulting the local doctors, we learnt that other patients using the same treatment did not suffer similar symptoms. Moreover, the patch test lesions showed a crescendo pattern after the test material was removed. Thus, we consider an allergic reaction to be very likely. However, the specific causative materials in these two plants are unknown. Previous research has shown that primin from *Primula obconica* is a strong sensitizer.⁵ *P. obconica* and *L. clethroides* Duby belong to the same family. This may offer a clue for finding the allergen of the latter species in future studies. Concerning *A. rugosa*, the anethole contained in this plant might have elicited the allergic reaction.^{6,7} However, more study is needed to further explore the underlying mechanism.

Chinese people, especially Cantonese, prefer to use traditional remedies to treat dermatological problems before consulting a dermatologist. A history of topical application of possible allergens and subsequent cutaneous eruption should raise concern in dermatologists.

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CONFLICT OF INTERESTS

The authors do not have any relevant financial interests in the findings reported in this article.

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