

Erythema multiforme-like allergic contact dermatitis to rosewood

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Erythema multiforme(EM)-like reaction is an uncommon noneczematous contact hypersensitivity reaction. It can be caused by laurel oil, exotic woods, and rubber gloves^{1,2}. Here we report a case of allergic contact dermatitis to Bolivian rosewood developing into bullous EM.

Case Report

A 20-year-old female presented with a 3-day history of pruritic coin-sized grouped bullae on the left palm and well-demarcated erythematous patch on the left 4th finger where she had put on a wooden ring (Figure 1A). The patient claimed that she bought a wood-ring craft kit and sandpapered the raw surface of Bolivian rosewood. 5 days after her initial visit, EM-like targetoid erythematous lesions developed on the arms (Figure 1B). Multiple vesicles and bullae were also formed.

Laboratory findings of MAST, total IgE, and HSV-1,2 PCR results were normal. Complete blood count showed neutrophil dominant(79.1%) leukocytosis(18190/ μ L). Eosinophilic cationic protein level was 156ng/mL(normal range 0~15 μ g/L). Patch test was performed with Korean standard series by Chemotechnique Diagnostics[©] and scrapings of the wooden ring. Patch test revealed a single strong positive reaction to Bolivian rosewood, the material used in her ring (Figure 2). Skin biopsy was also performed on the finger where the patient first wore the wooden ring, and contralateral arm. Both specimens showed subepidermal bullae with mixed cellular infiltration with eosinophils and spongiosis on the epidermis (Figure 1C). We diagnosed her with EM-like allergic contact dermatitis to Bolivian rosewood.

Initially, the patient was treated with 20mg/daily systemic methylprednisolone for two weeks along with topical mometasone. However, the targetoid lesions spread to the face and neck.

Next, the patient was treated with systemic cyclosporine 100mg/daily for additional two months until the lesions resolved and did not show acute spreading. After six months, the patient did not show any signs of relapse.

Discussion

EM-like contact dermatitis to tropical woods was first described in 1976³. Reported patients were carpenters who worked with Rio rosewood(*Dalbergia nigra*), Pao ferro(*Machaerium scleroxylon*), and *Eucalyptus saligna*. This rare manifestation of allergic contact hypersensitivity was again reported in 1988 when a 36-year-old woodworker developed blisters and target lesions typical of EM after having contact with Santos rosewood(Bolivian rosewood), which is identical to Pao ferro(*Machaerium scleroxylon*)⁴. Occupational contact allergy to Bolivian rosewood in woodworkers has been reported in several reports^{5,6}. EM-like contact dermatitis to rosewood often occurred to those who had exposure to wood dust while processing woods⁷. In our case, however, the patient developed skin lesions in a non-occupational environment. It can be considered that systemic EM-like contact dermatitis occurred to our patient in the process of inhaling the powder generated while sandpapering the wood, similar to that of the occupation-related cases. We hereby reported that EM-like contact dermatitis caused by rosewood can appear after wearing wood-based accessories regardless of occupation.

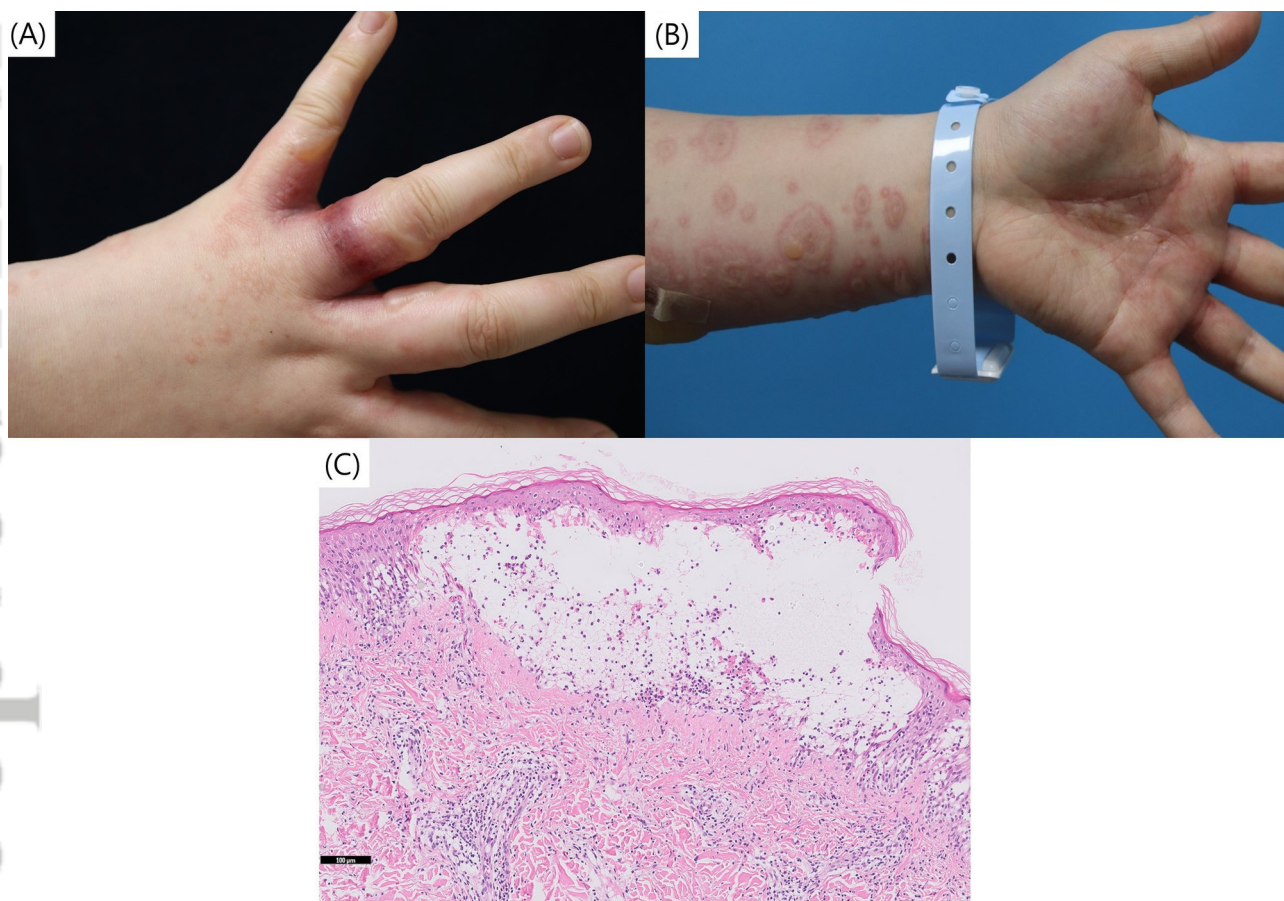
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Figure legends

Figure 1. (A) Well demarcated erythematous patch after wearing a wooden ring made of Bolivian rosewood (*Machaerium scleroxylon*) (B) Erythema multiforme(EM)-like bullous lesion developed on the arm after 5 days (C) Histopathology Finding

Figure 2. Patch test revealed positive to Bolivian rosewood



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