

Short Communication

Allergic contact cheilitis due to glyceryl monoisostearate monomyristate in a lipstick

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Case Report

After starting to use 3 kinds of lipsticks from unknown Japanese manufacturers, a 23-year-old woman had developed pruritic erythema on her lips within a few days. A positive patch test reaction was seen to 1 of the lipsticks, as is, at D3. The patient was then patch tested with 32 ingredients of this lipstick at appropriate dilutions. Only glyceryl monoisostearate monomyristate 7% pet. was positive at D3 (Table 1). Patch tests with 7%, 1% and 0.1% pet. glyceryl monoisostearate monomyristate in 6 control subjects showed no reactions at D2 or D3.

Table 1. Patch test results

		D2	D3
lipstick A	as is	—	+
lipstick B	as is	—	—
lipstick C	as is	—	—
glyceryl monoisostearate monomyristate	7% pet.	—	+
	1% pet.	—	—
	0.1% pet.	—	—
25 waxes and oils	pet.	—	—
fragrances	1% pet.	—	—
vitamin E	3% pet.	—	—
octyl methoxycinnamate	1% pet.	—	—
3 dyes	1% pet.	—	—

Discussion

Allergic contact dermatitis from lipsticks has been caused by such ingredients as lanolin (1), castor oil (2), and ricinoleic acid (3). Branched-chain fatty acid esters, such as glyceryl diisostearate and diisostearyl malate, have replaced castor oil and lanolin as major components of the base of lipsticks. These have low allergenicity (4), and only 1 case of allergic contact dermatitis due to glyceryl diisostearate and diisostearyl malate has been reported (5). Glyceryl monoisostearate monomyristate, another branched-chain fatty acid ester, is a complex of branched-chain isostearic acid, myristic acid and glycerine. Contact allergy due to glyceryl monoisostearate monomyristate has not previously been reported.

References

1. Sugai T, Higashi J. Hypersensitivity to hydrogenated lanolin. *Contact Dermatitis* 1975; 1: 146-157.
2. Andersen K E, Nielsen R. Lipstick dermatitis related to castor oil. *Contact Dermatitis* 1984; 11: 254-255.
3. Sai S. Lipstick dermatitis caused by ricinoleic acid. *Contact Dermatitis* 1983; 9: 524.
4. Hayakawa R. Cheilitis: lipsticks and tooth powder. *Hihubyousinnryo* 1999; 21: 124-126 (in Japanese).
5. Hayakawa R, Matsunaga K, Suzuki M, Arima Y, Ohkido Y. Lipstick dermatitis due to C18 aliphatic compounds. *Contact Dermatitis* 1987; 16: 215-219.