

Recurrent contact cheilitis because of glyceryl isostearate, diisostearyl maleate, oleyl alcohol, and Lithol Rubine BCA in lipsticks

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Key words: diisostearyl maleate; glyceryl isostearate; lipstick; Lithol Rubine BCA; oleyl alcohol.

Case Report

A 28-year-old woman presented with a several year history of persistent itchy and scaly erythema on the lips, which appeared after using five different kinds of lipsticks, A–E. Because we suspected contact dermatitis to ingredients of these lipsticks, we patch tested her with the lipsticks A–E (as is) and the ingredients of lipsticks D and E provided by the manufacturers. The patient showed positive reactions to all lipsticks and oleyl alcohol (10% pet.), diisostearyl maleate (40% pet.), glyceryl isostearate (1% pet.), and Lithol Rubine BCA (Pigment Red 57, Red 202; CAS 5281-04-91) (1% pet.) (Table 1). These concentrations were the same as those in lipsticks D and E. Three normal controls showed negative reactions to these ingredients. Our patient stopped using these lipsticks, now only occasionally using lip cream free from these allergens and she is now symptom free.

Discussion

The case reported here shows contact allergy to four constituents of lipsticks, diisostearyl maleate, glyceryl isostearate, oleyl alcohol, and Lithol Rubine BCA, which have been reported as allergens in contact cheilitis caused by lipsticks (1–4). Our patient's multifactorial hypersensitivity caused repeated contact cheilitis from the lipsticks. Because

Table 1. Patch test results (lipsticks A–E and ingredients of lipsticks D and E)

Materials	Conc., veh.	D2	D3
Lipstick A	'as is'	+	++
Lipstick B	'as is'	+	++
Lipstick C	'as is'	+	+
Lipstick D	'as is'	+	++
Lipstick E	'as is'	+	+
Oleyl alcohol	10% pet.	+?	+
Glyceryl isostearate	1% pet.	+?	+
Diisostearyl maleate	40% pet.	—	+
Lithol Rubine BCA	1% pet.	—	+
Other ingredients of D and E		—	—

the ingredients of only two lipsticks used by the patient could be patch tested, the presence of other causative allergens in the lipsticks cannot be ruled out. However, her cheilitis disappeared by avoiding those four allergens. Cross-reactivity between diisostearyl maleate and glyceryl isostearate, which contain a common chemical structure, has been reported (1). Exposure to different allergens during the episodes of recurrent cheilitis may have been responsible for the polysensitization, and this may have been avoided by early evaluation and initial allergen avoidance.

References

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