

## Letter to the Editor

**Cheilitis caused by to mint-containing toothpastes**

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Dear Sir,

I read with interest the review article by Calapai et al. (1) on contact dermatitis caused by herbal medicines. In this review, the importance of mint, especially in cases of cheilitis caused by toothpastes, is discussed.

Recently, a 37-year-old female patient who had been suffering from cheilitis for at least 1 year attended for a consultation. The cheilitis was more pronounced in the lower lip and labial commissures. The patient denied using lipsticks, and had a past history suggestive of nickel dermatitis. Patch tests were performed with the European baseline series, a fragrance series, and peppermint oil (2% pet.), by Chemotechnique Diagnostics, Vellinge, Sweden. Additionally, we added two different toothpastes used by the patient in the last year (Colgate® Total and Oral B, both mint-flavoured) and her lip moisturizer, all three tested 'as is'. The use of toothpaste 'as is' for patch testing has been proven to be non-irritative, as shown by Lavy et al. (2). Tests were read on day (D) 2 and D4. On D4, there was a +++ reaction to nickel, and there were ++ reactions to both toothpastes and also to geraniol, but the patient's lip moisturizer gave a negative result.

Even though nickel can be a cause of lip dermatitis (3), the patient denied contact of metallic objects with her lips. She also reacted to geraniol, which was not found in the content lists of her toothpastes, but was present in her usual hand cream, without causing dermatitis. At this point, as it was clear that the cheilitis was being caused by some common but unidentified ingredient present in both toothpastes, she was strongly advised to temporarily

stop using any toothpaste; however, she did not do so, owing to concerns about the implications for her dental health. After another 2 weeks, she informed me that she had suffered from a worsening of her cheilitis on two occasions. The first reaction occurred after she had eaten a mint-flavoured candy (she could not remember the exact brand). The second reaction occurred after she had drunk a tea made of fresh mint leaves. Mint tea is common in Israel; it is called 'nana' tea, and it is based on several varieties of mint cultivars, including spearmint (*Mentha spicata*). At this point, the patient agreed to stop using toothpastes, and this resulted in complete resolution of the problem within 2 weeks. She is now using non-mint-flavoured toothpastes and is refraining from eating or drinking any mint-flavoured food, and there has been no recurrence of the cheilitis.

It is important to mention that, even though both toothpastes were declared to be mint-flavoured by the manufacturers, there was no mention in their ingredient composition of the exact mint extract used, but just the word 'aroma'. As explained in the review by Calapai et al., this case shows the difficulty of diagnosing mint allergy without using its different possible allergens. In this sense, carvone, the main allergen of spearmint, which was not available to us, would have been a better diagnostic allergen, and can sometimes be the only mint allergen reacting, as has been described before (4).

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**References**

- 1 Calapai G, Minciullo P L, Miroddi M et al. Contact dermatitis as an adverse reaction to some topically used European herbal medicinal products – Part 3: *Mentha × piperita* – *Solanum dulcamara*. *Contact Dermatitis* 2016; **74**: 131–144.
- 2 Lavy Y, Slodownik D, Trattner A, Ingber A. Toothpaste allergy as a cause of cheilitis in Israeli patients. *Dermatitis* 2009; **20**: 95–98.
- 3 Yesudian P D, Memon A. Nickel-induced angular cheilitis due to orthodontic braces. *Contact Dermatitis* 2003; **48**: 287–288.
- 4 Corazza M, Levratti A, Virgili A. Allergic contact cheilitis due to carvone in toothpastes. *Contact Dermatitis* 2002; **46**: 366–367.