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Chronic Gallate Cheilitis With Drug and Dietary Involvement

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Allergy to industrial antioxidants has long been considered uncommon, especially to gallates. Only 74 cases of contact allergy to gallates have been reported in the last literature review published in 2017 [1]. Since then, some recent studies suggest that these allergens are not so rare [2].

1 | Case Report

We report the case of a 68-year-old woman having chronic cheilitis evolving for 10 years. Her history was marked by migraines and dyslipidaemia treated by propranolol and Inegy [simvastatin/ezetimibe] (Organon Heist BV, Heist-op-den-Berg, Belgium) respectively for more than 10 years. Clinical examination showed eczema on the lips. She had daily lip itching. We performed patch testing with the European baseline series and cosmetic series from Laboratoire Destaing. The reading was obtained according to the International Contact Dermatitis Research Group criteria. The occlusion time was 48 h according to the European Society of Contact Dermatitis guidelines. The haptens were applied on the back using Finn Chambers. Positive results were found for gallate mix 1% (+) and propyl gallate 1% (+++) at D3 and D12 and for dodecyl gallate 0.25% (+++) and octyl gallate 0.25% (+++) at D12 only (Figure 2). After 1 month of avoiding cosmetics on the face, a partial regression of the cheilitis was noted. We carried out additional assessment due to persistent symptoms (Figure 1). Inegy is a lipid-lowering therapy containing propyl gallate as an excipient. We performed

patch testing with Inegy 30% petrolatum and a negative control. The patch test was found positive for Inegy (+) at D7 (Figure 2). Treatment with Inegy combining ezetimibe 10 mg/simvastatin 40 mg was replaced by ezetimibe 10 mg and simvastatin 40 mg separately. These uncombined tablets do not contain propyl gallate. We also advised the patient to stop consuming industrial food products and foods containing vegetable oils, as she did every day. Following this advice, the patient no longer had cheilitis. She had no symptoms at the clinical visit 3 months later. We concluded that the patient had chronic gallate cheilitis with drug and dietary involvement.

**FIGURE 1** | Chronic cheilitis.

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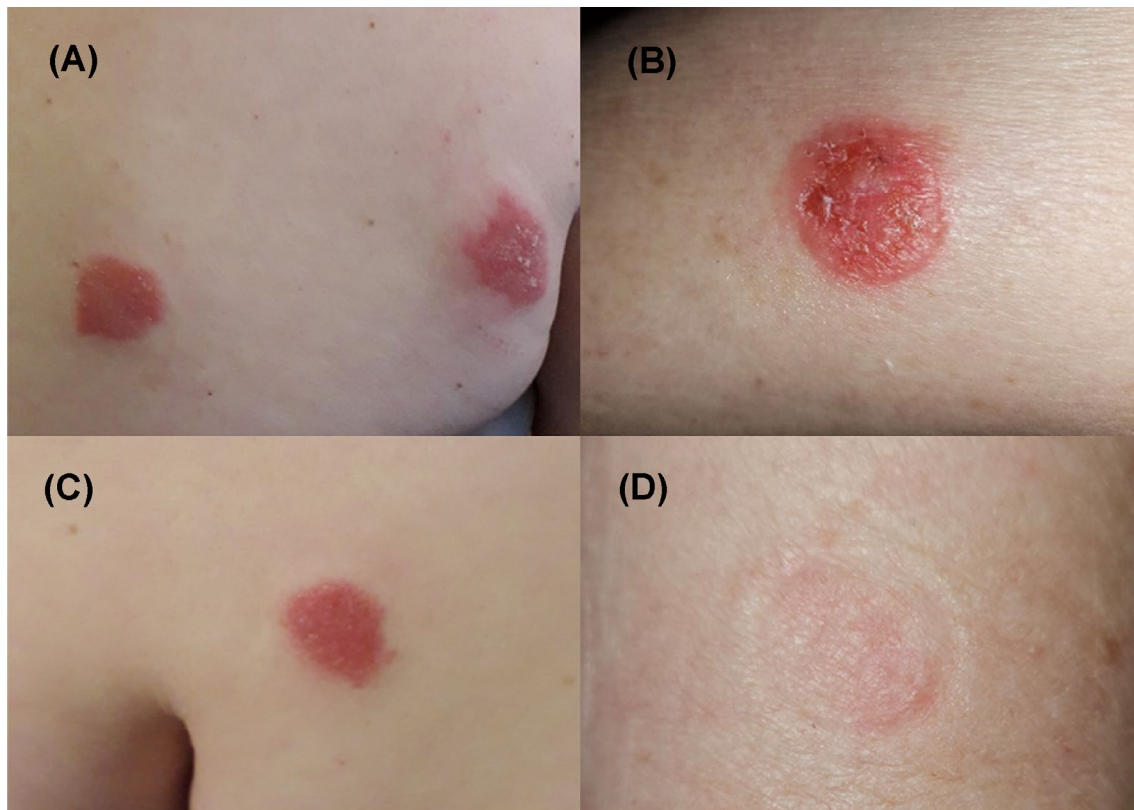


FIGURE 2 | Patch test reading. Dodecyl gallate +++ (right) and gallate mix +++ (left) at D12 (A). Propyl gallate +++ at D12 (B). Octyl gallate +++ at D12 (C). Inegy + at D7 (D).

2 | Discussion

In order to treat chronic or recurrent cheilitis, it is important to eliminate an allergy to gallates. This case confirms that patch-test reading at 48 h or 72 h is insufficient to diagnose a sensitization to these molecules, as previously described [3]. We therefore recommend an additional reading between D7 and D15. The treatment is based not only on avoiding cosmetics containing gallates, but also on avoiding medications and foods containing them. The patient's cheilitis worsened when Locapred 0.1% cream [desonide] (Pierre Fabre medicament production, Gien, France) containing propyl gallate was applied on her mouth. It improved after stopping Inegy and following a diet without industrial food products and vegetable oils. Dietary regulation seems to be necessary for healing, as low doses of propyl gallate can be found in olive oil, and also pasta sauce, chewing gum, or peanut butter [4].

Author Contributions

Juliette Caron: writing – original draft, conceptualization, writing – review and editing, validation. **Florence Libon:** writing – review and editing. **Christine Delebarre-Sauvage:** supervision, validation.

Conflicts of Interest

The authors declare no conflicts of interest.

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