

Severe allergic contact blepharitis from propolis

Catherine Besner Morin¹  | Yassaman Alipour Tehrany²  | Denis Sasseville¹ 

¹Division of Dermatology, McGill University Health Centre, Montreal General Hospital, Montreal, Canada

²Department of Dermatology and Venereology, Geneva University Hospital, Geneva, Switzerland

Correspondence

Dr Denis Sasseville, McGill University Health Centre, Montreal General Hospital, Room D19.102, 1650 Cedar Avenue, Montreal, QC H3G 1A4, Canada.
Email: denis.sasseville@mcgill.ca

KEYWORDS: allergic contact dermatitis, eyelid dermatitis, blepharitis, propolis, natural cosmetics, case report

CASE REPORT

A 58-year-old woman had a 1-year history of bilateral ear dermatitis, followed by blepharo-conjunctivitis 8 months later. After learning about the allergenicity of methylisothiazolinone, she stopped all cosmetics containing isothiazolinones and switched to "natural" products. Her dermatitis progressively worsened (Figure 1), and she was referred to our contact dermatitis clinic.

Patch testing was performed with the the North American Contact Dermatitis Group (NACDG) standard series (AllegEAZE, SmartPractice, Calgary, Canada) supplemented with a comprehensive cosmetics series (Chemotechnique Diagnostics, Vellinge, Sweden) and 17 personal products that the patient had previously stopped using. Readings at day (D) 2 and D4 showed only one positive reaction to propolis (+). The patient appeared slightly puzzled, but

relieved that she was not allergic to methylisothiazolinone. She was sceptical about the role of propolis in her condition but promised to check additional cosmetic and household products that she was presently using but had not brought for testing.

She contacted us by e-mail 3 weeks later stating that propolis was present in many of her products, including the newly bought natural products she had been using as a substitute for her previous cosmetics. Propolis-containing products included mascara, eyeshadow, eyebrow pencil, eyeliner, shampoos and a "therapeutic" cream for eczema. She also admitted applying a homemade cream containing beeswax and ingesting propolis. Figure 2 shows



FIGURE 1 Severe periocular dermatitis and conjunctivitis



FIGURE 2 Same patient 3 weeks after stopping propolis-containing "natural" cosmetics

regression of the dermatitis and a happier patient after removal of propolis.

DISCUSSION

Propolis (or bee glue) is a natural substance extracted from the buds of poplar or other trees, including evergreens. Its composition varies, depending on the geographical location and variety of tree.¹ A global increase in allergic contact dermatitis from propolis has been reported since 2002.^{2,3} In the period 2015 to 2016, the NACDG found a sensitization rate of 2.3%, with a combined possible-to-definite relevance of 61.2%.² Yiwen Shi et al⁴ showed frequent cross reactions between propolis, fragrances, and colophonium, a pattern not seen in our patient.

When using so-called “natural” cosmetics, patients tend to underestimate the risk of developing allergic contact dermatitis. Those sensitized to propolis must be instructed to avoid beeswax also, which is frequently contaminated with propolis. Cheilitis is a common presentation of allergy to propolis and beeswax, given their frequent presence in lip balms or lipsticks. However, outside of the occupational setting, there are few reports of eyelid dermatitis from propolis. An internet search with the words “beeswax and mascara” and “beeswax and eye cream” brought up multiple products containing the culprit allergen. Moreover, our search uncovered “do-it-yourself” recipes for cosmetic eye products with beeswax. Our case illustrates the importance of suspecting the presence of propolis in different types of cosmetics, especially if labelled “natural”.

CONFLICT OF INTEREST

D.S. receives royalties from UpToDate (Wolters Kluwer Health). The other authors declare no conflicts of interest.

ORCID

Catherine Besner Morin  <https://orcid.org/0000-0002-2872-4401>

Yassaman Alipour Tehrany  <https://orcid.org/0000-0001-9483-3238>

Denis Sasseville  <https://orcid.org/0000-0001-9104-2342>

REFERENCES

1. Walgrave SE, Warshaw EM, Glesne LA. Allergic contact dermatitis from propolis. *Dermatitis*. 2005;16(4):209-215.
2. DeKoven JG, Warshaw EM, Zug KA, et al. North American Contact Dermatitis Group patch test results: 2015-2016. *Dermatitis*. 2018;29(6):297-309.
3. de Groot AC. Propolis: a review of properties, applications, chemical composition, contact allergy, and other adverse effects. *Dermatitis*. 2013;24(6):263-282.
4. Shi Y, Nedorost S, Scheman L, et al. Propolis, colophony, and fragrance cross-reactivity and allergic contact dermatitis. *Dermatitis*. 2016;27(3):123-126.

How to cite this article: Besner Morin C, Alipour Tehrany Y, Sasseville D. Severe allergic contact blepharitis from propolis. *Contact Dermatitis*. 2020;1–2. <https://doi.org/10.1111/cod.13484>