A Robust Case of Allergic Contact Dermatitis to Propolis

Ethan Sagher
Holly Kerr
Henry W. Lim

Follow this and additional works at: https://scholarlycommons.henryford.com/merf2020caserpt
A Robust Case of Allergic Contact Dermatitis to Propolis

Ethan Sagher MD, Holly Kerr MD, and Henry Lim, MD
Department of Dermatology
Henry Ford Health System, Detroit, MI

History

• A 58-year-old woman of Native American descent with a history of Sjogren's syndrome presented to dermatology clinic for facial dermatitis and cheilitis.
• She endorsed severe pain and pruritus in the affected area.
• The rash had been present for one year and was worsening despite use of high-potency topical steroids.
• She previously had temporary improvement with a course of prednisone, followed by relapse upon tapering.
• For moisturization, she was using bear grease and lip butter.

Examination

• Around her mouth there was a well-demarcated, symmetric, erythematous and lichenified scaly plaque.
• Upper and lower mucosal lips with confluent erythema and scaling.

Course

• Given the eczematous and symmetric morphology, as well as the patient's consistent use of her beeswax-containing bear grease and lip butter, a diagnosis of allergic contact dermatitis was favored.
• Tinea incognito was also included on the differential as a less likely possibility. This was ruled out with a negative fungal culture.
• The patient was advised to stop using all personal care products on her face and was referred for patch testing.
• At patch test clinic one month later, the dermatitis and cheilitis were completely resolved.
• Patches containing 80 standard allergens (North American 80 Comprehensive Series), as well as the patient's personal products were applied to the her back.
• Per patch testing protocol, the patient returned for two subsequent visits. At the patch reads both 2 days and 7 days later, she was noted to have +1 reactions to propolis and her bear grease and lip butter.
• The patient was advised to avoid propolis-containing products.

Clinical Photographs

Figure 1: Personal erythematous, scaly and lichenified plaque

Figure 2: Erythema and scale on upper and lower mucosal lips

Figures 3-4: +1 reactions at the sites of propolis (#33) and propolis-containing personal products (#81, 83, and 84)

Figure 5: Patient's bear grease and lip butter (#83 and 84 on patch testing, respectively)

Figure 7: Complete clearance with propolis avoidance

Discussion

• Allergic contact dermatitis (ACD) is a delayed-type (type 4) hypersensitivity reaction, occurring when an individual comes into cutaneous contact with a substance he or she has been sensitized to.
• Lesions of ACD are localized to the area of contact with the allergen.
• As with other eczematous processes, morphology depends on chronicity of exposure. Acute ACD typically presents with blistering, weeping, and edema, while chronic ACD has more of a scaly and lichenified appearance.
• A comprehensive history is critical when ACD is suspected.
• Confirmation of the diagnosis and identification of a specific trigger can be done with patch testing, a three-day process where multiple potential allergens are applied to the patient's back (day zero) then evaluated at days two and seven.
• Positive reactions are graded from +1 (non-vesicular erythema) to +3 (spreading bullae).
• ACD is treated with topical or systemic corticosteroids for clearance, along with patient education and diligent avoidance once the culprit allergen is identified.
• Propolis contains beeswax and is present in many readily available creams, ointments, waxes, lipsticks, and balms due to its soft, pliable texture and pleasant aroma.
• Propolis also has been reported to have anti-inflammatory and antimicrobial properties, and is present in various cosmeceutical, naturopathic, and homeopathic products.

References