

Occupational contact dermatitis from *Senecio barbertonicus* “Himalaya”

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KEYWORDS: Asteraceae, Compositae, occupational, patch test, *Senecio*

Succulents are popular low-maintenance pot plants. Some succulents, such as African milkbush (*Euphorbia hermentiana*) and *Agave americana*, may cause irritant skin reactions, but allergic contact dermatitis is rarely reported.¹⁻³

CASE REPORT

A 56-year old female gardener was referred on suspicion of work-related dermatitis from a succulent Compositae plant. Her past medical history included contact sensitization to *Primula obconica*, when she was a gardener apprentice, and rubber and nitrile gloves when she later worked as a home help.



FIGURE 1 *Senecio barbertonicus* “Himalaya”

She had worked in the greenhouse, where *Senecio barbertonicus* “Himalaya” plants (Figure 1) were grown, for 6 months, but only handled them briefly when she helped to pack the plants. Recently, she made cuttings from large “Himalaya” plants and, after 3 days, she developed an itchy, urticarial dermatitis of primarily hands and forearms. Treatment with systemic corticosteroids cleared dermatitis in 2 weeks.

Patch testing with the baseline series, including sesquiterpene lactone mix (SL) 0.1% pet. and parthenolide 0.1% pet., constituents of fragrance mix I, thiuram mix, and carba mix as well as leaf and stem of

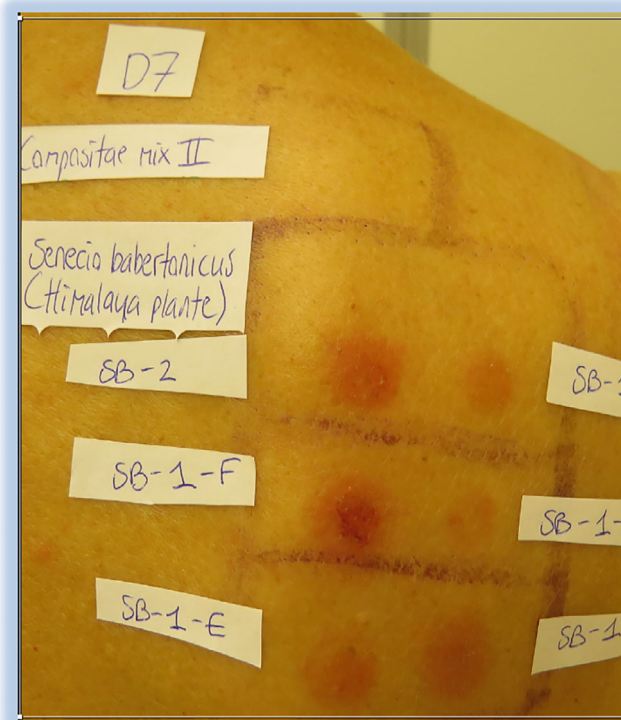


FIGURE 2 Patch test reactions to 6 fractions (10% ethanol) of an extract of *Senecio barbertonicus* “Himalaya” on D7

a “Himalaya” plant and her nitrile gloves showed 3+ reactions to primin and the “Himalaya” plant (wetted with water and ethanol) and 1+ reactions to fragrance mix I and tetramethylthiuram monosulfide. When the leaf was patch tested in duplicate with water and ethanol in 6 controls, 4 showed doubtful positive reactions on Day (D) 3, whereas all were negative on D7. This suggested an irritant potential.

As the patient's reactions seemed to be allergic, she was patch tested more than 1 year later with 6 fractions of an extract of the “Himalaya” plant: she had 2+ reactions to 4 and 1+ reactions to 2 fractions on D7 (Figure 2). There was no reaction to Compositae mix II 5% pet. Further search for an allergen was abandoned as the fractions seemed to contain irritants as well.

Prick test with standard inhalant allergens and latex was negative.

DISCUSSION

Senecio barbertonicus Klatt, succulent bush *Senecio*, is native to South Africa and belongs to the tribe Senecioneae of the Compositae (Asteraceae) plant family. The genus *Senecio* comprises some of the weeds that are most poisonous to grazing livestock such as ragwort (*Jacobaea vulgaris*) because of their content of pyrrolizidine alkaloids.⁴ Dermatitis from ragwort has been reported previously and more recently in an agricultural worker, but patch testing was not performed.^{5,6} Possible allergens of *Senecio* include sesquiterpenoids, especially eremophilanolides, flavonoids, and coumarins.⁷ The SLs of the baseline series do not comprise eremophilanolides and the plants used for ether extracts of the Compositae mix do not belong to this genus. Thus, the negative patch test reactions do not rule out sensitization to SLs, and the patient's strong reactions compared to those of the controls suggest sensitization, although some irritancy is also evident.

ACKNOWLEDGMENT

We thank the patient for her participation.

CONFLICT OF INTERESTS

The authors declare no conflicts of interest.

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How to cite this article: Paulsen E, E. Andersen K, P. Christensen L. Occupational contact dermatitis from *Senecio barbertonicus* “Himalaya”. *Contact Dermatitis*. 2022;87(2):197-198. doi:10.1111/cod.14122