

Occupational allergic contact dermatitis caused by *Eustoma exaltatum russellianum* (lisianthus)

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Eustoma exaltatum ssp. *russellianum* (Fig. 1), also known as lisianthus, is a perennial herb belonging to the gentian family. It is native to Mexico, the southern United States and the north of South America, but is now particularly popular in the cut-flower market. Lisianthus is characterized by bluish-green leaves and extremely flamboyant flowers that can be purple, blue, white, pink, or yellow. The flowers are bell-shaped and upright, and occur singly at the ends of link stalks from short branches near the top of the plant.

Case Report

A 50-year-old retail floriculturist presented with a 1-year history of itchy eczematous lesions on the hands (Fig. 2), with a faint scaling erythema on the forearms and face. The patient's work involved the culture and arranging of only one particular kind of flower: lisianthus. Moreover, his history showed that he started suffering from the rash in the year when he started working with that flower. He denied any known allergy or exposure to irritants. One month after the complete resolution of the dermatitis, he was patch tested with the Italian Society of Allergological, Occupational and Environmental Dermatology (SIDAPA) baseline series (Euromedical®, Calolziocorte, LC, Italy), sesquiterpene lactone mix, and wetted lisianthus flower, leaf, and stalk. Patch tests were applied on the back, and left occluded for 2 days, with Finn Chambers® (diameter, 8 mm; SmartPractice®, Phoenix, AZ, USA) on Scanpor® tape (Norgesplaster A/S, Vennelesla, Norway). The test readings were performed after D2 and D4. The reactions



Fig. 1. *Eustoma exaltatum* ssp. *russellianum* (lisianthus).

were classified according to ICDRG guidelines. Readings showed positive reactions (++) only to lisianthus flower (Fig. 3), leaf, and stalk. Ten healthy volunteers were patch tested with these parts of lisianthus and showed negative results.

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Fig. 2. Eczematous lesions on the hands.

Discussion

Phytocontact dermatitis is a vast and complex topic (1). Most plants are harmless with regard to skin contact, but an increasing number of adverse reactions have been reported in the literature: allergic contact dermatitis (ACD) is the most frequent, but its diagnosis is challenging, because plants may contain several sensitizing chemical compounds. Moreover, occupational ACD caused by plants is often neglected, because it is considered to be irritant dermatitis caused by wet work. We report the first case in a floriculturist of ACD caused by lisianthus, a flower that is now very popular in the cut-flower market. For this reason, we speculate that ACD caused



Fig. 3. Positive patch test reaction (++) to lisianthus flower.

by lisianthus may be under-recognized, and should be particularly considered in floriculturists or gardeners with unexplained dermatitis. Further studies are required to identify the allergen.

Reference

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