

# Allergic contact dermatitis caused by resveratrol in a cosmetic cream

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Allergic contact dermatitis due to cosmetic products is frequent. Fragrances and preservatives are the most common allergens, but every component can be responsible for contact dermatitis [1].

## Case report

A 69-year-old woman presented with a 7-months-history of recurrent face and neck dermatitis, accentuated in the folds. It was sometimes accompanied by itchy erythema on the arms. She had no previous history of eczema or atopic dermatitis. Patch testing was performed with the European baseline series, a cosmetic series with preservatives and fragrances (Chemotechnique, Vellinge, Sweden and Allergeaze®, Smartpractice, Phoenix, AZ), as well as patient's own products. Readings were performed on days (D) 2 and 4, according to the ESCD criteria. Readings were positive only to one cosmetic cream, *Liftiane serum* by SVR® (++)/+++). A few months later, patch testing was performed with the ingredients of this product, kindly provided by the manufacturer and already diluted for patch testing. Readings showed a positive reaction to resveratrol 10% paraffin (-/++), see figure 1). Her dermatitis disappeared in one week after stopping the use of this cream. The diagnosis of allergic contact dermatitis caused by resveratrol was established. The same sample of resveratrol was used for patch testing in three other patients and readings showed no reaction.

## Discussion

Resveratrol (CAS no. 501-36-0) is a natural polyphenol found in different fruits and plant sources, especially in grapes, nuts, berries and red wine. It is known for its antioxidative and anti-inflammatory properties. Besides being a reactive oxygen species scavenger, resveratrol participates in cellular protection systems in oxidative or inflammatory conditions by triggering specific signalling pathways and gene expression. Therefore, resveratrol systemic supplementation is considered as a promising co-adjuvant treatment for diseases like cardiovascular disorders, cancer and auto-immune diseases [2-4]. Topical use of resveratrol seems promising for the prevention or the treatment of skin disorders associated with oxidative stress such as skin cancer. In cosmetic creams, resveratrol is used as brightening and "anti-aging" agent [4].

Two cases of contact sensitisation to another allergen accompanied with a doubtful reaction to resveratrol are reported in the literature [5-6]. To our knowledge, this is the first case report of allergic contact dermatitis caused by resveratrol.

In conclusion, patch testing with patient's own cosmetic products is crucial in order to identify new or unusual allergens. If a positive reaction is observed, patch testing of the ingredients of the product must be performed and the manufacturers' help is therefore important.

**Figure 1:** readings at D4 for resveratrol 10% paraffin (++).



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