

Allergic contact dermatitis caused by argan oil in an infant

Nuria Barrientos, María Moreno de Vega and José Dominguez

Dermatology, Hospital Universitario del Henares, Avda. Marie Curie, s/n, 28822 Madrid, Spain

doi:10.1111/cod.12292

Key words: allergic contact dermatitis; argan oil; cosmetics.

Case Report

An 8-year-old girl attended a Halloween party (Fig. 1) where her face was decorated with a colour make-up pencil. On removing the make-up, she developed erythematous, scaly, itchy patches on the cheeks and perioral area. Her mother applied argan oil on the lesions for some days, which caused a worsening of the rash. The girl was treated in our department with methylprednisolone aceponate cream. Use of the argan oil was discontinued, and the eruption resolved in few days. Patch tests were performed with the European baseline series (TRUE Test[®]) and the patient's own products applied with Finn Chambers[®] on Scanpor[®] tape. The tests were read according to the guidelines of the ICDRG at D2 and D4. No reactions were seen to the True Test[®] components. A + reaction was seen to the colour pencil and +++ reaction to the argan oil (Fig. 2; both tested 'as is'). Pure argan oil was tested in the same way in 8 healthy controls, with negative results.

Discussion

In Morocco, argan oil is traditionally used for its cosmetic, medicinal and nutritional properties. During the last 5 years, argan oil has become popular and is widely available. Argan oil is prepared from the fruits of the argan tree. Unroasted kernels are saved to prepare the oil. Acylglycerols constitute 99% of argan oil. The remaining 1% is predominantly composed of fatty acids such as oleic acid and linoleic acid (1, 2). Reported benefits of the use of argan oil have been claimed for juvenile acne, chickenpox, wrinkles, dry skin, dry hair, etc. Allergic contact dermatitis caused by essential oils in cosmetics is well known. The most common allergens are ylang-ylang, lemon grass oil, jasmine absolute, and sandalwood oil (3).

Correspondence: Nuria Barrientos, Dermatology, Hospital Universitario del Henares, Avda. Marie Curie, s/n, 28822 Madrid, Spain. Tel: +34 650781874; Fax: +34 911912284. E-mail: nuriabarr@yahoo.com

Conflict of interest: The authors declare no conflict of interests.



Fig. 1. Perioral scaling patches.

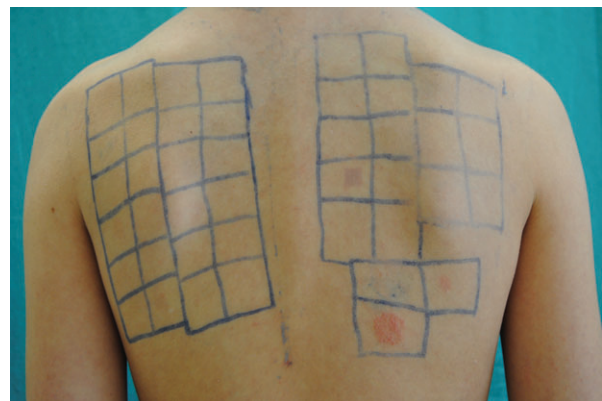


Fig. 2. Positive patch test reaction to argan oil.

The first case of allergy to argan oil was reported by Astier et al. They presented a patient with anaphylaxis caused by oral argan oil exposure (4). We present the first case of allergic contact dermatitis caused by argan oil. The patient acquired argan oil via the internet (arganberegber.com). Although the package label and the manufacturer data show a 100% argan oil composition, it has been postulated that the high price of argan oil is

likely to stimulate fraudulent attempts to sell adulterated argan oil. We were unfortunately unable to analyse the patient's own argan oil. Our patient also showed a reaction to the make-up pencil but it was weaker than the argan oil reaction. The pencil was acquired in a Chinese products shop without any ingredient label, and we were

unable to obtain further information about it from the manufacturer. This case shows the importance of testing the patient's own items.

In conclusion, sensitization to argan oil may be more common than supposed, and we encourage others to test with argan oil if this is clinically indicated.

References

- 1 Charrouf Z, Guillaume D. Argan oil: occurrence, composition and impact on human health. *Eur J Lipid Sci Technol* 2008; **110**: 632–636.
- 2 El Monfalouti H, Guillaume D, Denhez C et al. Therapeutic potential of argan oil: a review. *J Pharm Pharmacol* 2010; **62**: 1669–1675.
- 3 Lapeere H, Boone B, Verhaeghe E et al. Contact dermatitis caused by lovage (*Levisticum officinalis*) essential oil. *Contact Dermatitis* 2013; **69**: 181–182.
- 4 Astier C, El Alaoui Benchad Y, Morenet-Vautrin D A. Anaphylaxis to argan oil. *Allergy* 2010; **65**: 662–669.