

Allergic Contact Dermatitis Caused by Argan Oil

To the Editor:

Argania spinosa Skeels is a big shrub that grows spontaneously in southwestern Morocco, in arid and semiarid areas, approximately between the Atlantic city of Essaouira and Marrakech. *Argania spinosa* grows from the sea level up to approximately 1,500 m. It cannot be cultivated. Its height ranges from 2 to 10 m. It lives up to 150 to 200 years.

Argan oil is extracted from the kernels of the fruits of *A. spinosa*. It is rich in monounsaturated and saturated fatty acids, in particular, oleic and linoleic acids. It also contains γ -tocopherol, squalene, sterols, phenols, carotenes, saponins, and vitamins A and E.¹

We present 4 cases of allergic contact dermatitis caused by argan oil. The case list consists of 4 white women aged 22, 23, 48, and 74 years. A medical history for previous diseases includes concomitant allergic diseases, including atopic dermatitis; results were negative in all patients. All patients had applied a product (*Arganiae, Huile d'argan*) containing argan oil for the treatment of dryness of the face or periorcular wrinkles from 3 to 8 weeks before the occurrence of the rash. This product did not contain preservatives or fragrances.

Dermatological examinations revealed dermatitis located especially at the periorcular area and characterized by erythema and edema. All patients complained of pruritus and burning sensation. Results of laboratory examinations, including total IgE, were within reference ranges or negative in all patients.

The results of patch tests are reported in Table 1. Ten healthy volunteers, tested with argan oil "as is" and argan oil 10% pet, had negative results. All patients were treated with 0.9% NaCl compresses and oral prednisone and hydroxyzine. Complete remission was observed within 7 days. All patients healed with mild desquamation and hyperpigmentation.

To our knowledge, only 1 case of anaphylaxis, in a Moroccan man who smelled and ingested argan oil, has been reported.²

Topical argan oil was historically used in Morocco as a photoprotector, anti-inflammatory agent, especially in eczemas, and an antiviral agent, especially in chicken pox. In some western European countries, such as Italy, topical argan oil has been recently launched in the market for the treatment of chronoaging and photoaging and as a moisturizer, particularly in postmenopausal women.³ Only 1 case of allergic contact dermatitis caused by topical argan oil has been published.⁴ Palmitic and stearic acids, the saturated fatty acids of oleic and linoleic acids, are present also in olive oil, which can seldom cause allergic contact

TABLE 1. Results of Patch Tests

	48 h	96 h
SIDAPA	—	—
Cosmetic series	—	—
Eyelid eczema series	—	—
<i>Arganiae, Huile d'argan</i>	+++	+++
Argan oil "as is"	+++	+++
Argan oil 10% pet	+++	+++
Olive oil "as is"	—	—

SIDAPA indicates Società Italiana di Dermatologia Allergologica, Professionale e Ambientale.

dermatitis.⁵ Because patch tests in our patients were negative for olive oil, we can state that palmitic and stearic acids were not responsible, at least in these patients, for the allergy.

In view of the success of argan oil in some European countries, it is possible that, in the future, cases of allergic contact dermatitis will be more frequent.

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