

A Case of Allergic Contact Dermatitis to 'Aroma Oils' in an Aroma Therapist

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Allergic contact dermatitis from aroma oils has long been recognized¹⁻⁴ and with increasing frequency^{5,6}. Contact dermatitis of the allergic type of fragrances used for aromatherapy has been reported rarely, and only in patients exposed due to their occupation⁵⁻⁷.

We report herein a case of allergic contact dermatitis to aroma oils in an aroma therapist. A 25-year-old woman, an aroma therapist, had been treated with topical steroids under the impression of contact dermatitis. She had had pruritic erythematous maculopapules on the arms extending to the hands for the previous 6 months. Patch tests showed strong reactions to aroma oils (3% fennel and 3% juniper). The skin lesions were cleared after she stopped her job. However, re-exposure to aroma oils caused eczematous lesions repeatedly at the sites previously involved.

We predict that increasing popularity of aromatherapy will lead to increasing number of patients developing allergic contact dermatitis from aroma oils. This has to be taken into consideration when testing patients with suspected contact dermatitis.

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Key Words : Allergic contact dermatitis, Aroma oils

REPORT OF A CASE

A 25-year-old woman, an aroma therapist, was referred to our hospital for further evaluation of her skin. She had been treated with topical steroids under the impression of contact dermatitis at a local clinic. She had had pruritic erythematous maculopapules on the arms extending to the hands for the previous 6 months. On visit to us, she presented with postinflammatory hyperpigmentation with some erythematous macules on both arms and hands (Fig 1). She had been handling

aroma oils as an aroma therapist for 9 months and she said her skin lesions had improved when she did not handle aroma oils. On laboratory examination, complete blood counts and total IgE levels were within normal range.

Patch testing was done with standard series, fragrance series and 3 as is (3% cypress, 3% fennel, 3% juniper). Patch tests with standard series and fragrance series were all negative. However, a strong positive reaction to 3% fennel and 3% juniper were seen at 48 hours and 96 hours (Fig 2A,B).

She was diagnosed as allergic contact dermatitis due to aroma oils (3% fennel and 3% juniper). The skin lesions were cleared after she stopped her job. However, re-exposure to aroma oils caused eczematous lesions repeatedly at the sites previously involved.

DISCUSSIONS

Aromatherapy, a form of alternative medicine,

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Fig. 1. postinflammatory hyperpigmentation with some erythematous macules on both arms and hands.

combines massage with the application of essential oils which reputedly have therapeutic effects⁶. Aromatherapy whose origins date back to about 3000 BC, when it was introduced in Mesopotamia

and Egypt, is defined as systemic or topical application of essential oils^{5,8}. As a rule, these oils are obtained by water vapour distillation of flower, leaves, fruit and other components of relevant plant^{5,8}. For topical application, essences such as massage oils, oil baths and facial dressings are used. For oral use, three to five drops are suggested at most, together with some sugar or honey. Most frequently this therapy involves use of aroma lamps; the water vapour produced distributes the essential oils as an aerosol in the air. Alternatively inhalers can be used. There are detailed rules for the application of individual preparations^{5,8}.

Allergic contact dermatitis due to fragrances used for aromatherapy has been reported rarely, and then only in patients exposed due to their occupation. Self-treatment, however, is becoming more and more popular. It can also lead to sensitization. In our case, she, an aroma therapist, used three aroma oils such as 3% cypress, 3% fennel and 3% juniper for about 9 months. She showed strong positive reaction to 3% fennel and 3% juniper. Negative reaction to 3% cypress means that positive reaction is not due to diluents.

Some decades ago, laurel oil was still a frequent contact allergen due to its use in the making of hats, which ceased in 1962. Cheilitis and stomatitis

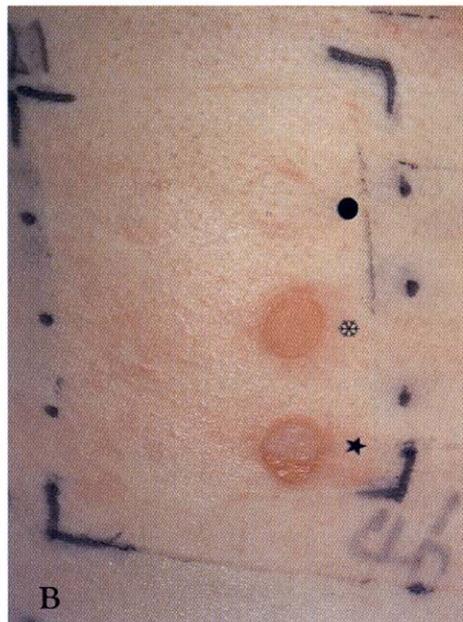


Fig. 2A,B. The strong positive reactions to 3% fennel (*) and 3% juniper (★) were seen at 48 hours and 96 hours. Negative reactions to 3% cypress (●) were also seen at 48 hours and 96 hours.

due to eating laurel leaves was also described in cooks^{5,9}. Laurel oil is a well-known component of men's perfumes and so-called medicated skin cleansers, as well as of a widely imbibed Italian liqueur.

While a moderate risk of sensitization is attributed to laurel oil in the literature, this is considered even less with jasmine and lavender oil. They are known as very rare and rare contact allergens⁵. While both are used as ingredients of cosmetics and foods, there are few reports of contact allergy in individualized cases, namely in hairdressers using shampoos containing lavender oil⁷.

Corresponding to the increasing popularity of aromatherapy, allergic contact dermatitis from aroma oils has long been recognized and with increasing frequency. This has to be taken into consideration when testing patients with suspected contact dermatitis.

REFERENCE

1. Edgar Selvaag, Jan-Qivind Holm and Per Thune: Allergic contact dermatitis in an aroma therapist with multiple sensitization to essential oils. *Contact Derm* 33: 354-355,1995.
2. Hjorth N.: Eczematous allergy to balsam, allied perfumes and flavouring agents. Copenhagen: Munksgarrd, 1961.
3. Tulipan L.: Cosmetic irritants. *Arch Derm Syph NY* 38:906-917, 1938.
4. James A P R.: Dermatitis caused by compound tincture of benzoin. *J Med Soc N J.* 27:596-599, 1930.
5. M. Schaller and H.C. Korting: Allergic airborne contact dermatitis from essential oils used in aroma therapy. *Clinical and experimental dermatol.* 20: 143-145,1995.
6. Bilslund D, Strong A.: Allergic contact dermatitis from essential oil of French marigold (*Tagetes patula*) in an aroma therapist. *Contact Derm* 23: 55-56,1990.
7. Brandao FM.: Occupational allergy to lavender oil. *Contact Derm* 15: 249-250,1986.
8. Fischer-Rizzi S.: 'Himmlische Dufte', 7. Korrigierte Auflage. Munchen; Hugendubel, 1991.
9. Price, S.: Practical Aromatherapy. How to use essential oils to restore vitality. Wellingborough: Thersons, 1983.