


July 2007

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"Allergic contact dermatitis from tea tree oil" (2007). *Department of Family & Community Medicine Faculty Papers*. Paper 12.

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## Allergic Contact Dermatitis From Tea Tree Oil

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The sudden appearance of a pruritic confluent erythematous rash on the anterior neck and upper back prompted a 30-year-old woman to seek medical attention. She had recently started applying 5% tea tree oil to the area to treat chronic, recurrent tinea versicolor. An herbal specialist had recommended this therapy.



Allergic contact dermatitis has been reported in about 5% of those who use tea tree oil.<sup>1-3</sup> The cutaneous reactions range from a mild contact dermatitis to a severe blistering rash. Patients with a history of allergy to benzoin should not use tea tree oil because of cross- reactions.<sup>2</sup> There is one report of severe subepidermal blistering in a patient with linear IgA disease who had contact with tea tree oil.<sup>2</sup>

Tea tree oil is distilled from the leaves of *Melaleuca alternifolia*, an Australian tree. It is traditionally known for its antiseptic properties, although few published randomized, controlled trials support this use. In one clinical trial, a 4-week course of 5% tea tree oil shampoo was found to be better than placebo in clearing seborrheic dermatitis of the scalp, generally caused by *Malassezia furfur*.<sup>4</sup> Results of another study of patients with tinea versicolor caused by the same species suggested that tea tree oil may serve as a reasonable alternative to traditional antifungal agents.<sup>5</sup> It currently has a grade C recommendation for the treatment of tinea pedis, seborrheic dermatitis, onychomycosis, genital herpes, methicillin-resistant *Staphylococcus aureus* infection, gingivitis, and candidal infections.<sup>6</sup>

Tea tree oil has gained popularity as a topical antibiotic and antifungal agent. Thus, physicians need to be aware of the potential allergic reactions to tea tree oil and advise patients to discontinue use at the first signs of sensitivity.

This patient was told to apply hydrocortisone 1% cream to reduce the inflammation and pruritus and use cool compresses as needed. The rash completely resolved within a week after the tea tree oil was discontinued.

### REFERENCES:

1. van der Valk PG, de Groot AC, Bruynzeel DP, et al. Allergic contact eczema due to "tea tree" oil. *Ned Tijdschr Geneeskd* [in Dutch]. 1994;138:823-825.

2. Mozelsio NB, Harris KE, McGrath KG, Grammer LC. Immediate systemic hypersensitivity reaction associated with topical application of Australian tea tree oil. *Allergy Asthma Proc.* 2003;24:73-75.
3. Rakel D. *Integrative Medicine*. Philadelphia: WB Saunders; 2003:499.
4. Knight TE, Hausen BM. *Melaleuca* oil (tea tree oil) dermatitis. *J Am Acad Dermatol.* 1994;30:423-427.
5. Hammer KA, Carson CF, Riley TV. In vitro activities of ketoconazole, econazole, miconazole, and *Melaleuca alternifolia* (tea tree) oil against *Malassezia* species. *Antimicrob Agents Chemother.* 2000;44:467-469.
6. National Institutes of Health. Tea tree oil (*Melaleuca alternifolia* [Maiden & Betche] Cheel). MedlinePlus Web site. Available at: <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-teatreeoil.html>. Accessed June 13, 2007.

This article was published in *The Consultant* 47(8):781, July 2007. Copyright by CMP Healthcare Media, LLC. The published version is available at <http://www.consultantlive.com/showArticle.jhtml?articleID=201000174>