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Acne and allergic contact dermatitis

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Acne vulgaris (AV) is very common, topical medications, such as tretinoin (T), benzoyl peroxide (BP) and certain antibiotics (clindamycin, erythromycin) being widely prescribed for it (1-3). T and BP frequently induce irritant skin reactions, while allergic contact dermatitis (ACD) has more rarely been reported (4-6).

Patients and Methods

204 patients (43 male and 161 female; average age 19.4 years), under treatment for at least 2 months, entered our study. A special series of allergens was used for patch testing (Table 1), applied with van der Bend square chambers and read at 2 and 3 days. In the case of a positive reaction, patch tests and repeated open application tests (ROAT) were done with each component of the topical product.

Results

Results are shown in Table 1. Numerous irritant reactions to T 0.05% eth. and BP 5% gel were found. 7/204

(3.4%) patients had a positive allergic reaction: 4 to spironolactone (S), 1 to T, and 2 to BP. In all cases, this positive reaction was clinically relevant. The 7 patients were positive to both patch test and ROAT with the commercial product responsible, as is. When patch tests with components of the medicaments were performed, patients reacted to the antiacne drug only, positivity being confirmed by dilution series.

Discussion

In our study, 3.4% of the patients treated for AV experienced ACD from their topical medicaments, suggesting that it is not that uncommon. S is an antiandrogen recently introduced for acne therapy, 4 cases of ACD from which have been reported in recent months (7-9). We found 4 patients (2.0% of subjects tested) with ACD to S, therefore, at present the commonest sensitizer among topical medicaments used for AV in our area. Allergy to T (1 case) and BP (2 cases) was also found. All patients developed eczematous reactions many weeks after starting therapy. ACD from these drugs may sometimes be interpreted as irritant or as worsening of AV (10). Every patient with a cutaneous reaction to these agents should therefore be patch tested. No cases of sensitization to clindamycin or erythromycin were found, confirming the rarity of adverse cutaneous reactions to these topical antibiotics (11, 12).

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Table 1. Acne series: patch test results

Allergen		False-positive reactions		Positive reactions	
		no.	%	no.	%
clindamycin	1% gel	3	1.5	—	—
erythromycin	2% eth.	2	1.0	—	—
tretinoin	0.05% pet.	2	1.0	1	0.5
erythromycin	3% pet.	—	—	—	—
spironolactone	5% pet.	2	1.0	4	2.0
benzoyl peroxide	5% gel	31	15.2	2	1.0
tretinoin	0.05% eth.	61	30.0	1	0.5
benzoyl peroxide	2% pet.	6	2.9	2	1.0
*azelaic acid	20% pet.	3	4.8	—	—
**ammonium lactate	14% pet.	2	3.8	—	—

Tested in 204 patients except: * tested in 62 patients; ** tested in 52 patients.

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Allergic contact dermatitis from red sandalwood (*Pterocarpus santalinus*)

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Key words: *Pterocarpus santalinus*; red sandalwood; allergic contact dermatitis; herbal remedies. © Munksgaard, 1996.

Case Report

An 18-year-old woman, with post-chickenpox scars, developed itchy erythema and mild oedema over the scars on her face, following the application over them of red sandalwood (*Pterocarpus santalinus*) paste for 2 months. Patch testing with freshly prepared *P. santalinus* paste gave a positive reaction on D2, which persisted to D4, while a control with saline was negative. Her lesions subsided following the use of a mild topical corticosteroid. 10 volunteers, tested with the same paste, developed no reactions.

Comment

We concluded that the patient had developed allergic contact dermatitis from the bark of the tree *Pterocarpus santalinus*, also known as red sandalwood or raktachandana. This is ground to a paste, with water or honey, and applied topically as a popular home remedy used in southern India, especially Kerala, for post-acne and

other facial scars. To our knowledge, contact dermatitis from *P. santalinus* has not previously been reported, though it has been reported from the more traditional sandalwood, *Santalum album* (1, 2).

The active principles in *P. santalinus* are santalin A (9,10,12-tri-o-methylsantalin) and santalin B (9,10,12,4'-tetra-o-methylsantalin) (3), while those in *S. album* are α -santalol and β -santalol (4).

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