

no other drug or food allergy. Initially, we carried out a double-blind oral challenge test with captopril 5 mg, which reproduced the lesions the patient had previously experienced.

Patch testing was then performed with captopril, other ACE inhibitors and a standard series (TRUE Test™, Pharmacia). Pure and commercial captopril (Capoten™, Bristol-Myers Squibb), as well as commercial enalapril (Baripril™, Lesvi) and benazepril (Cibacen™, Ciba), were all tested at 10% pet. Positive reactions were obtained to both pure and commercial captopril at 2 days, the others tests being negative. The same tests were negative in 5 controls, as well as in another patient with an adverse cutaneous reaction to captopril.

Following the negative test results to enalapril and benazepril, we performed a double-blind oral challenge test with Baripril™ and Cibacen™. These drugs elicited no reaction.

Comment

There have been few reports of cutaneous or systemic reactions to ACE inhibitors (1) with positive patch tests, and then only to captopril. It has been suggested that a positive patch test indicates the need for total drug withdrawal, rather than the dose reduction that may otherwise improve adverse reactions to ACE inhibitors (2).

Captopril has a sulfhydryl (SH) group in its structure,

which is considered to be the chief cause of positive patch test reactions (3, 4). Our patient, however, did not react to the SH-group-containing mercaptobenzothiazole in the standard series. The negative patch tests, as well as oral tolerance, of other ACE inhibitors lead us to believe that there is no cross-reactivity among these compounds (5, 6).

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Pseudoinoculum barbae: beard-induced contact dermatitis

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Key words: irritant contact dermatitis; beard; hair; dermatographism; children; mechanical; physical. © Munksgaard, 1998.

Case Reports

Case no. 1

A 20-month-old girl presented with intermittent lesions on the face, mainly on the cheeks. Her mother described them as clusters of bright red dots that appeared suddenly, but lasted no longer than 1–2 h. They had been appearing 1× or 2× a week over a 3-month period. There were no allergies or current medications.

Physical examination revealed a cluster of erythematous, slightly raised papules on the right cheek. The cluster was 1 cm in diameter and consisted of approximately 12, 1-mm papules (Fig. 1). A yellowish papule consistent with juvenile xanthogranuloma was noted on the upper back. Dermatographism was demonstrated.

Case no. 2

The 4-month-old sister of the 1st patient presented with a similar history. Physical examination revealed a lesion on the infant's left cheek very similar to the sibling's. Dermatographism was also demonstrated.

Discussion

The pattern of the lesions suggested an artefactual dermatitis. The lesions usually appeared after the father had



Fig. 1. Clusters of papules on the cheek.

been playing with and cuddling the children. The father did not use any personal care products other than soap on the face. He shaved with an electric razor. The father's face displayed a prominent beard stubble, and the pattern of the lesions resembled the spatial distribution of the stubble.

3 main mechanical irritants were involved: the sharp ends of the beard stubble and physical pressure and abrasion from the stubble. Sharp tips can be created on hairs as a result of shaving or cutting. These sharp points can penetrate the skin and have been implicated in the etiology of other conditions, such as pseudofolliculitis barbae (1) and barber's sinus (2).

The appearance and transience of the lesions suggested a component of dermatographism. Although the lesions in these 2 cases are not linear, as in classical dermatographism, the punctate pattern of the lesions corresponds to the distribution of the source of the eliciting pressure, the beard stubble. Dermatographism is also known as urticaria factitia (3), as is also suggested

by the lesions in these 2 cases. Clustered lesions appear in follicular dermatographism and in cholinergic or heat urticaria (3–5). The similarity of these stubble-induced lesions to the mark created by a tine test or inoculation suggested the name "pseudoinoculum barbae".

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The seasonal influence on patch test reactions is significant in Israel

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There are several reports of the suppressive effect of sunlight, UVA, UVB and PUVA on the induction and elicitation of allergic contact dermatitis (1–4). The closer to the equator, the smaller the difference between summer and winter UV radiation (5). Previous studies on the influence of season on patch test reactions are conflicting (Table 1). The difference in UV radiation between winter and summer in Israel is large (Table 2).

Patients and Methods

We studied 1019 patients (488 male (47.9%) and 531 female (52.1%)) patch tested with European standard

series (Chemotechnique Diagnostics, Sweden), according to ICDRG guidelines (11). We analysed the seasonal variations in patch test reactions between summer (June–August), winter (December–February) and transitional seasons (March–May, September–November). The data also included correlations as to age and sex, and specific allergens. The following statistical methods were used: computerized SAS analysis, χ^2 test and Spearman correlation coefficient test.

Table 1. Studies on the influence of season on patch test reactions

Ref.	Country	Latitude	Seasonal variation
(6)	Denmark	56°	no
(7)	Sweden	56°	yes
(8)	Belgium	48°	no
(5)	Sweden	56°	yes
(9)	Greece	38°	no
(10)	Austria	46°–49°	no

Table 2. Average daily and monthly UV dose/h on horizontal flat surface – MED – in central Israel, latitude 32°

Month	Daily dose	Monthly dose
January	4.0	123
February	4.9	142
March	9.9	308
April	10.4	312
May	13.3	412
June	15.8	474
July	17.4	539
August	14.9	461
September	11.5	345
October	8.1	250
November	4.5	135
December	4.1	126