

Allergic contact dermatitis from myrrh, a topical herbal medicine used to promote healing

SAMI N. AL-SUWAIDAN¹, MOHAMMED OSMAN GAD EL RAB², SALEH AL-FAKHIRY³, IBRAHIM A. AL HOQAIL¹,
ABDULLAH AL-MAZIAD³ AND ABU-BAKER SHERIF¹

Departments of ¹Dermatology, ²Immunology and ³Paediatrics, College of Medicine, King Khalid University Hospital, King Saud University, PO Box 2925, Riyadh 11461, Saudi Arabia

Key words: myrrh; herbal remedies; medicaments; allergic contact dermatitis. © Munksgaard, 1998.

Myrrh is an oleo gum resin obtained from the stem of *Commiphora molmol* and possibly other species of *Commiphora* (family Bursevaceae), the bushy shrubs of which grow in Arabia and Somalia. Myrrh has been regarded as one of the treasures of the East. In folk tradition, it has been used for muscular pains and in rheumatic plasters. Called *mo yao* in China, it has been used there primarily as a wound herb and blood stimulant. The parts of the shrub used are the resin essential oils.

The resin is obtained by cutting the stems, which exude a thick yellow liquid. As it dries, it hardens to a reddish-brown solid (1). The resin has been used extensively for wounds and also for sore throats and mouth ulcers. Research suggest that it can lower blood cholesterol. The essential oil that can be distilled from the resin has been used since ancient times to heal wounds, and also in chest rubs for bronchitis and catarrhal colds (2).

Lee & Lam (3) reported myrrh as the putative allergen in bonesetter's herbs dermatitis. Another report demonstrated positive testing to myrrh in 2 Chinese herbal medicines (4).

Case Report

A 36-year-old man underwent left inguinal hernial repair in December 1996. A few days after discharge, he applied myrrh to the surgical wound to promote healing. Subsequently, erythema and itching developed over the operation site, and extended to involve the whole lower

abdomen. 3 years previously, the patient had been subjected to surgical repair of an atrial septal defect, when he had applied the same material to the surgical wound without complications.

Patch testing with the European standard series and the myrrh extract was positive to cobalt (+), colophony (+), fragrance mix (+), myrrh powder (+++) and myrrh solution (+++). The patient showed a dramatic response to topical corticosteroids, the lesions resolving completely in 2 weeks.

Discussion

The use of herbal medicines is very common in the Middle East. In the present case, the patient had applied myrrh before without complications. On repeated application, he developed a reaction, probably indicating sensitization from the 1st application.

References

1. Trease G E, Evans W C (eds). *Pharmacognosy, drugs of biological origin*, 12th edition. London: Bailliere Tindall, 1983: 468–469.
2. The Herb Society. *Complete medicinal herbal A–Z of medicinal herbs*. Dorling Kindersley Ltd, 1983: 50.
3. Lee T Y, Lam T H. Myrrh is the putative allergen in bonesetter's herbs dermatitis. *Contact Dermatitis* 1983; 29: 278.
4. Lin-Feng Li, Jie Zhao, Shi-Yin Li. Exanthematous drug eruption to Chinese herbal medicines Sanjieling capsule and Huoxuexiaoyan pill. *Contact Dermatitis* 1994; 30: 252.

The concordance of TRUE Test™ applied in reverse directions on either side of the back

A. TRATTNER AND M. DAVID

Department of Dermatology, Rabin Medical Center, Beilinson Campus, Petah Tiqva 49100, and Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

Key words: TRUE Test™; reproducibility of results; left-versus-right side comparison; anatomical site variation; patch testing technique. © Munksgaard, 1998.

Kligman (1) challenged the curious investigator to test the degree of concordance when the same strip of TRUE Test™ was applied in reverse directions on either side of the back. Though several studies have been per-

formed to evaluate the reproducibility of various patch test systems (2–5), only a few have investigated regional or intraregional variations in the response to allergens and irritants (6–11). So far, variations have been found

Table 1. Comparison of right-and-left-side TRUE TestTM results in 60 consecutive patients

Serial no.	Allergens	No. of positive test	
		left	right
1	nickel sulfate	9	10
2	wool wax alcohols	0	1
4	potassium dichromate	3	4
6	fragrance mix	1	0
8	epoxy resin	1	1
10	balsam of Peru	1	1
12	cobalt chloride	5	3
15	carba mix	2	2
17	Kathon CG	2	3
20	p-phenylenediamine	4	4
23	thimerosal	2	3
24	thiuram mix	0	1

among different sites on the skin of the forearm (8–10) and between the upper and lower parts of the back (7, 11); the latter was found to be highly significant on measurement of skin blood flow by laser Doppler flowmetry (11).

Materials and Methods

The TRUE TestTM (Pharmacia AB, Uppsala, Sweden) is a completely prepackaged system, consisting of 2 strips, each containing 12 allergens. The allergens are fixed in rows from top to bottom and uniformly incorporated in a dried gel that swells and releases the allergens when applied to the skin. 60 consecutive patients (35 women, 25 men) were included in the study. 2 sets of TRUE TestTM were used in each patient. One set was placed on the right side of the upper back in the usual direction for these tests, and the other was placed on the left side in the reverse direction.

Results

27 patients had 1 or more positive reactions to 38 allergens. 17 (63%) had concordant reactions on both sides, 3 (11%) had positive reactions on the left side only, 3 (11%) had positive reactions on the right side only, and 4 (15%) had positive reactions on both sides, but not to the same allergens. Of the 38 allergens that elicited a positive patch test reaction, 33 (87%) were on the right side and 31 (82%) on the left. The positive reactions to

each allergen are detailed in Table 1. All the concordant reactions had identical scores for intensity.

Discussion

There was no significant difference in the positive reactions to the TRUE TestTM between the right and left sides of the upper back. This indicates that the order of placement of the allergens along the strip has no effect on results for the individual patient. These findings are meaningful because the TRUE TestTM is well-standardized. The differences should be studied in the future by methods that are more sensitive than visual readings, such as laser Doppler flowmetry.

References

1. Kligman A M. A personal critique of diagnostic patch testing. *Clin Dermatol* 1996; 14: 35–40.
2. Gollhausen R, Przybolla B, Ring J. Reproducibility of patch tests. *J Am Acad Dermatol* 1989; 21: 1196–1202.
3. Lachapelle J M. A left versus right side comparative study of Epiguick patch test results in 100 consecutive patients. *Contact Dermatitis* 1989; 20: 51–56.
4. Lindelof B. A left versus right side comparative study of Finn chamber patch tests in 220 consecutive patients. *Contact Dermatitis* 1990; 22: 288–308.
5. Brasch J, Henseler T, Aberer W, Bauerle G, Frosch P J, Fuchs T, Funfstuck V, Kaiser G, Lischka G G, Pilz B, Sauer C, Schaller J, Scheuer B, Szliska C. Reproducibility of patch tests. A multicenter study of synchronous left-versus-right sided patch tests by the German Contact Dermatitis Research Group. *J Am Acad Dermatol* 1994; 31: 586–591.
6. Lindelof B. Regional variations of patch test response in nickel-sensitive patients. *Contact Dermatitis* 1992; 26: 202.
7. Magnusson B, Hersle K. Patch test methods (II) Regional variations of patch test responses. *Acta Dermatol-venereologica* 1965; 45: 257–261.
8. Lawrence C M, Howel D, Shuster S. Site variation in anthralin inflammation on forearm skin. *Br J Dermatol* 1986; 114: 609–613.
9. Van der Valk P G M, Maibach H I. Potential for irritation increases from the wrist to the cubital fossa. *Br J Dermatol* 1989; 121: 709–712.
10. Seidenari S, Di Nardo A. Cutaneous reactivity to allergens at 24-h increases from the antecubital fossa to the wrist: an echographic evaluation by means of a new image analysis system. *Contact Dermatitis* 1992; 26: 171–176.
11. Vam Strien G A, Korstajne M J. Site variations in patch test responses on the back. *Contact Dermatitis* 1994; 31: 95–96.