

Letter to the Editor

Lymphocyte transformation test as a diagnostic test in allergic contact dermatitis

Dear Sir,

I read with great interest the recent report of Hagemann et al. (2), which described a patient with minoxidil-induced allergic contact dermatitis as verified by patch testing as well as by a positive antigen-specific reaction in the lymphocyte transformation test (LTT). In discussing these results, the authors and, in an editorial, the editors pointed out the usefulness of the latter test to distinguish irritant from allergic reactions (1, 2). I agree with the authors' interpretation and wish to emphasize that *in vitro* testing in allergic contact dermatitis can also be employed to detect allergic reactions to common allergens such as fragrances and can be modified using lesional T lymphocytes (3). Additional reasons for using the LTT in the diagnosis of allergic contact dermatitis relate to the fact that several antigens such as *p*-phenylenediamine and its derivatives are very strong allergens capable of sensitizing the patient by the patch-test procedure itself (4). As the potential toxicity of some contact allergens may not be known, the LTT may be useful in this situation as well (5). Finally, modifications of the LTT may improve its sensitivity for testing contact allergens. One example is the measurement of released or expressed cytokines instead of lymphocyte proliferation as the end point. This modification has proven helpful in assessing contact dermatitis to chloramphenicol and azidamphenicol (6). The relevant epitope driving the reactivity of T lymphocytes to haptens which induce allergic contact dermatitis can also be identified (6). Taken together, these results buttress the concept that the LTT is a very useful

test for contact allergy not only to nickel but also to other common allergens.

Yours sincerely,
Hans F. Merk

References

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