CORRESPONDENCE

Clinical Environmental Medicine

by Prof. Dr. med. Caroline Herr, Prof. Dr. med. Isabelle Otterbach, Prof. Dr. med. Dennis Nowak, Prof. Dr. med. Claudia Hornberg, Prof. Dr. med. Thomas Eikmann, Prof. Dr. med. Gerhard-Andreas Wiesmüller
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Comprehensive Literature

I cannot share the view that immunological tests have no relevance in the differential diagnosis of environmental-medical patients. Diagnostic tests to demonstrate allergic reactions to environmental agents that rely on the patient's history, do, however, prevent subsequent doctor hopping and save substantial costs.

The authors note that the lymphocyte transformation test (LTT) is currently not informative enough. They cite as a supporting reference a statement from the Robert-Koch-Institute. However, if methodologically carefully applied and validated within the laboratory, the LTT confirms type IV sensitization. For many allergens, more comprehensive literature is available than for the epicutaneous test. Professor Merck of RWTH Aachen University emphasized even in 2004 that in vitro tests are an important alternative when testing for toxic and sensitizing substances (1). The LTT for pharmacological substances was included in the guideline for the diagnosis of sensitization to medical drugs issued by the German Society for Allergology and Clinical Immunology, after many positive study reports had been published (2). All the RKI did was state, correctly, that the LTT as a laboratory test cannot show the current clinical manifestation of the sensitization, but in this does not differ from the IgE-RAST or skin tests. A diagnosis of allergy is for the doctor alone to make, aided by sensitization tests. I do not understand why the LTT is recommended to confirm sensitization to substances if they are ingredients of a medical drug but not if contact with the substance has occurred in a different context. And how come the tests conducted in the same specialized laboratory can prove sensitization if they are applied by allergologists, but cannot do so when an environmental medical specialist applies them? Patients consult environmental doctors with the same idea: that their complaint is comprehensively considered and dealt with.

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In Reply:

The authors thank Dr von Baehr for his comments on the use of the lymphocyte transformation test in the practice of environmental medicine.

According to the notes of the committee for methods and quality assurance in environmental medicine at the Robert Koch-Institute (1), the use of the LTT currently has to be rated as follows:

- The unspecific LTT is suitable only for confirming severe immunological defects. Slightly impaired lymphocyte functions, which may be due to harmful environmental substances, cannot be captured owing to the lacking specificity of the "unspecific" LTT and the notable physiological range.
- The "specific" LTT indicates only prior contact to a specific allergen, but not its effect within in the organism.
- A positive finding in the "specific" LTT is no confirmation of the clinical manifestation of an allergy; a negative finding, however, does not exclude an allergic reaction. A positive finding for the "specific" LTT therefore should be evaluated only in association with clinical data.

The "specific" LTT has a confirmed position in the diagnosis of allergies to medical drugs.

- The meaningfulness of the "specific" LTT for environmental disorders is limited and has to be confirmed by studies. Since no published validations for the "specific" LTT currently exist, its clinical use cannot be advocated.

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Conflict of interest statement
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