

## Letter to the editor

# The risk of general reactions to skin prick testing (SPT)

In the June 1995 issue of *Allergy*, Novembre et al. (1) reported on two cases of anaphylaxis in connection with skin prick tests (SPT) with fresh foods and discussed the risk of SPT especially in the diagnosis of food allergy. There are several aspects of this subject.

Firstly, as indicated by Novembre et al. (1), it is important not to test individuals with ongoing allergic symptoms.

Secondly, the potency of the allergenic extract used for SPT is important for the development of general allergic reactions in sensitive patients. With standardized extracts, the optimal concentration for SPT has been proposed to be about 30 000 BU/ml (2), corresponding to about 30 µg of major allergen/ml (3). The highest concentration which can be used safely is more important. It is about 1 mg of major allergen/ml (4).

The prick-prick method (5) is the method of choice for skin prick testing with food allergens when standardized extracts with known potency and composition are not available. Some of the materials used for such testing are well defined, e.g., cow's milk, which has a relatively constant protein content and well-known ingredients, whereas others are less well defined. It is well known from clinical experience that children most sensitive to cow's milk can exhibit general reactions when skin-prick-tested with pure skimmed cow's milk. Therefore, it is recommended that one first apply a drop of cow's milk on the skin without pricking the skin and, as the next step, perform a regular prick-prick test. Similarly, when using fresh fruits and other foods with *unknown allergen content* for skin testing by the prick-prick method in patients with a history of

anaphylaxis, one should first apply the wet fruit/food on the intact skin for some minutes and then perform the prick-prick test.

Thirdly, even with a low risk of reactions, skin prick testing should be performed with both a nurse and a doctor present and with adrenaline at hand. Skin prick testing with fresh materials and extracts with unknown allergen composition and concentration should be performed only under the supervision of a specialist with knowledge of the risks and precautions involved in such testing. Thus, non-specialists should never perform skin prick tests with materials without defined potency.

Another question that is linked to this discussion is that of who should *interpret* skin prick test results. It should be considered unethical to skin-prick-test, if the ordering physician cannot correctly interpret the results so as to benefit the patient. Thus, it seems highly unethical for doctors without sufficient knowledge of the limitations of the test to order or perform such tests and try to interpret the results.

Provided the precautions mentioned are followed, there should be no risk of anaphylaxis in connection with skin prick testing.

## References

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4. Dreborg S. Skin testing. The safety of skin testing and the information obtained from using different methods and concentrations of allergen. *Allergy* 1993;47:473-5.
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