

Conflict of interest

All authors declare that they have no conflict of interest and that the study has been carried out without any financial support.

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When should the skin prick tests not be performed?



To the Editor,

We read with interest the article from Babayigit Hocaoglu et al.¹ showing the onset of anaphylaxis a few minutes after performing skin prick test (SPT) with common inhalant allergens in a nine-year-old boy suffering from chronic cough and recurrent wheezing episodes.

From a general point of view we concur with the authors that SPT is a very safe procedure when inhalant allergens are used, in comparison to the use of food extracts/fresh foods. The rate of non-fatal reactions by using SPT with aeroallergens ranges between 0.02%² and 0.4%.³ We have found one anaphylactic reaction in 55,000 patients (684,306 allergens tested).⁴ Although it is not related with this case-report, we have also emphasised the risk of generalised allergic reactions to skin prick testing in poly-sensitised individuals and in those who underwent SPT using fresh foods [prick-prick-test – PPT],⁵ as mentioned before in a comment on an article of Norman G et al. describing adverse reactions and possible risk factors to skin prick testing in children.⁶

However, literature data and our clinical experience suggest that even SPT (for inhalant allergens) might induce generalised allergic reactions in some cases and children are at higher risk than adults.

We think that the main risk factor for anaphylaxis in the case-report of Babayigit Hocaoglu et al. is the asthmatic condition itself. Although the boy has been described as "asymptomatic" at the time of SPT performing because physical examination and pulmonary function tests were "normal", his recent anamnestic background should have been considered with more attention.

In the previous two months, the patient had reported two visits to an emergency unit for wheezing and cough because these symptoms were not adequately controlled by chronic therapy, if taken. In fact, the authors do not report any anti-asthma medications after the emergency visits. On the other hand, a very high degree of bronchial hyperreactivity might be present with normal physical examination and pulmonary function tests within normal limits.

Unfortunately a bronchial challenge to evaluate the degree of bronchial hyperreactivity has not been performed and, consequently, we have no information on this aspect. However, it is well known that highly reactive individuals, especially children, show a high variability of bronchial calibre in response to different triggers; a rapid and sometimes severe bronchial obstruction might be induced even in the absence of clinical and/or functional signs.⁷ Moreover, it has been shown that patients suffering from severe asthma or those with an high degree of bronchial hyperreactivity are at increasing risk of developing anaphylactic reactions in comparison to less severe asthmatics or normal individuals.^{8,9} The results of cutaneous and serological diagnostic tests (presence of large wheals with pseudopodia, high total serum IgE [310 kU/L], specific IgE levels over 90 kU/L [class 5]) showed a very high degree of allergic sensitisation to the allergens of dust mites. These findings confirm previous reports that the risk of severe respiratory symptoms is significantly higher in highly sensitised individuals.

In other words, previous episodes of respiratory symptoms requiring hospital admission, a history suggesting a high degree of allergic sensitisation, or the possibility of a poly-sensitisation should induce allergists to avoid performing in vivo tests also in the absence of respiratory symptoms.

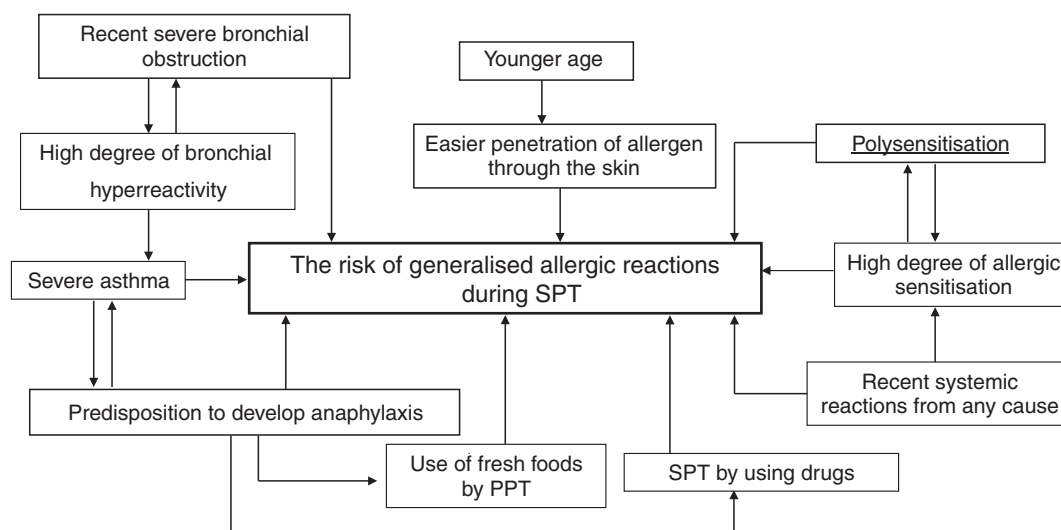


Figure 1 Suggested risk factors enhancing the risk of generalised reactions during SPT performance.

In conclusion, SPT carried out with extracts of inhalant allergens is usually a safe procedure; nevertheless allergists should be aware that some particular clinical conditions might enhance the risk of systemic reactions especially in children (Fig. 1).

Summary statement

Some clinical conditions might enhance the risk of systemic reactive events during performing skin prick tests especially in children.

Author's contribution

All authors contributed equally in the writing and revision of the manuscript.

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