

Specific immunotherapy in asthma

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The role of inhalant allergens has been clearly demonstrated in the pathogenesis of asthma. Specific immunotherapy (SIT) was introduced for the treatment of asthma in 1918 by Dr Robert A. Cooke, and its use is still controversial. The efficacy of SIT in asthma was the subject of much controversial debate some years ago, but since then, significant progress has been made, thanks to the availability of standardized allergen extracts, and interest in SIT in asthma has been renewed. However, the use of potent extracts initially resulted in a greater number of systemic reactions. Consequently, SIT is virtually excluded from the management of asthma in some countries such as the UK, although it still has considerable acceptance in many other European countries and the USA. The appropriate use of standardized extracts leads to an acceptable rate of mild systemic reactions, making SIT an effective form of treatment (1). It seems that SIT for IgE-mediated allergic diseases is gaining more importance in the treatment of carefully selected patients, even in countries where it had been abandoned as a more general method of treatment. However, despite a recent meta-analysis which clearly showed the effectiveness of SIT in asthma, recent negative or moderately effective studies have been reported. Therefore, it is important to reassess the role of SIT in asthma.

Guidelines or indications for immunotherapy with inhalant allergens have been published within the past years, particularly in a WHO position paper (2). The following points have been raised by the WHO panel.

- 1) The quality of the allergen vaccine is critical for both diagnosis and treatment. Where possible, standardized vaccines of known potency and shelf-life should be used. The most common vaccines used in clinical allergy practice are now available as standardized products or are awaiting standardization. The measurement of major

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allergens for standardisation is now a realistic and desirable goal, which should be encouraged, making it possible to administer a defined amount of allergen during SIT.

- 2) Controlled studies demonstrate that allergen immunotherapy is effective for patients with allergic rhinitis/conjunctivitis and allergic asthma. Immunotherapy is an effective treatment in the cases of many pollen species including grasses, ragweed, *Parietaria*, and mountain cedar, as well as house-dust mites. Fewer studies have found that immunotherapy is effective for patients allergic to cat, *Alternaria*, and *Cladosporium*. A meta-analysis of clinical trials of allergen immunotherapy has demonstrated that it is effective for treatment of asthma. Asthma appears to be a significant risk factor for systemic

reactions during SIT; thus, only patients with controlled asthma should receive SIT.

- 3) Most patients with allergic asthma present rhinitis or rhinoconjunctivitis. However, the indications for immunotherapy in asthma and rhinitis have been separated in some guidelines and this artificial separation has led to unresolved questions, possibly because the IgE-mediated reaction has not been considered a multiple organ involvement. Therefore, it is important to view immunotherapy as being based on allergen sensitization rather than on a particular disease manifestation. Guidelines suggest that SIT should be considered in patients with moderate to severe rhinitis uncontrolled by the usual drugs and mild asthma.

References

1. Bousquet J, Michel F-B. Specific immunotherapy in asthma: is it effective? *J Allergy Clin Immunol* 1994;**94**:11–11.
2. Bousquet J, Lockey RF, Malling H-J. WHO Position Paper. Allergen immunotherapy: therapeutic vaccines for allergic diseases. *Allergy* 1998;**53 Suppl 44**:1–42.