

Allergen-specific immunotherapy in the management of allergic rhinitis

Authors' affiliations:

H.-J. Malling, Copenhagen, Denmark

Allergen-specific immunotherapy and allergen reduction are the only interventions in allergic diseases with the potential to reduce symptoms in the long term. The clinical value of specific immunotherapy in the treatment of allergic diseases has been questioned for the last 20 years in spite of substantial documentation of efficacy (1–3). In the evaluation of the relative advantages of immunotherapy compared to exclusively pharmacologic treatment of allergic diseases, several aspects such as the magnitude of efficacy (short term and long term), practical applicability, side-effects, and costs and durations are important factors.

Clinical efficacy of immunotherapy in rhinitis

The documentation of the clinical efficacy of immunotherapy in rhinitis has recently been reviewed on the basis of 43 double-blind, placebo-controlled (DBPC) studies since 1980 (3). A minimal clinically relevant efficacy was defined; i.e., symptom/medication scores diminished by $\geq 30\%$ in the actively treated. Most immunotherapy studies investigated the efficacy of pollen allergies. These include 13 studies investigating ragweed allergy (nine showing efficacy). Fifteen studies investigated grass-pollen allergy, of which 14 proved efficacy. Nine studies investigated allergens of the following other pollens: mountain cedar, *Parietaria*, *Cupressus*, *Cocos*, and mixtures; efficacy was shown in six. The efficacy of house-dust-mite immunotherapy is based on five studies (three showing efficacy). In mould allergies, efficacy was documented in one study investigating *Alternaria*. In animal dander, no study in patients with exclusively rhinitis symptoms has been done.

In the 43 DBPC rhinitis immunotherapy studies, no efficacy was documented in 10 studies, low efficacy in 13

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studies, moderate efficacy in 14 studies, and high efficacy in six studies. The mean clinical improvement was a 45% reduction in symptom/medication scores compared with placebo. The best results were obtained in grass-pollen immunotherapy. In ragweed allergy, the effect was fairly well documented, although the magnitude of efficacy was modest. The clinical efficacy with other pollens, house-dust mite, animal dander, and moulds was insufficiently documented. Most of the studies documenting efficacy have been done in adult patients (75%). Only eight studies have involved children, and the evidence of a beneficial effect of immunotherapy in this age group is limited.

Indication for immunotherapy

When we define the indications for immunotherapy in inhalant allergies, the realization that the allergen-IgE reactions result in multiorgan disease might be advantageous, many patients showing symptoms of the eyes, nose,

and lungs (2). Some patients mainly have symptoms in one organ (this does not, however, indicate that they do not have inflammation in other parts of the airways). Consequently, all symptoms should be taken into consideration when deciding the most appropriate treatment. Before one offers immunotherapy, several aspects have to be taken into consideration:

- 1) the severity and duration of symptoms
- 2) the requirement for and the effect of drugs
- 3) the risk incurred by the treatment and by the disease
- 4) psychological factors
- 5) the patient's preference for alleviating symptoms (drugs) or trying to interfere with the pathophysiological background of the disease (specific treatment) (1).

In conclusion, immunotherapy in rhinitis has shown a high degree of clinical efficacy, a low frequency of side-effects (compared with asthmatics), and a potential for long-term preventive capacity.

References

1. Malling H-J, Weeke B. EAACI Immunotherapy Position Paper. *Allergy* 1993;**48 Suppl 14**:9-45.
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.
3. Malling H-J. Immunotherapy as an effective tool in allergy treatment. *Allergy* 1998;**53**:461-472.