Recall Rhinitis or when Nasal Symptoms Reappear Before Next Allergy Shot

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Abstract
An unexpected reaction characterized by an intermittent rhinitis shortly before the next dose of specific immunotherapy and which disappeared after the allergen injection dose, was controlled by simply shortening the conventional maintenance frequency.

ABBREVIATIONS
SIT: Specific Immunotherapy

INTRODUCTION
Specific immunotherapy (SIT) has demonstrated over the last century its efficacy and safety but many questions remain unanswered, such as appropriate maintenance frequency and duration [1].

We present a patient with allergic rhinitis in which nasal symptoms reappeared only shortly before next SIT dose was due and optimal clinical response was achieved by modifying the conventional maintenance frequency considered commonly every 4 weeks [2].

A 33 year old woman referred during the two last years, ocular, nasal and ocic itchiness, watery eyes, sneezing, runny and blocked nose, and episodes of wheezing, cough and breathlessness during spring and autumn, with poor control despite use of oral antihistamines, nasal corticosteroids and short acting beta-agonist on demand.

The patient had normal spirometry and positive skin prick test to house dust mites. Subcutaneous SIT with dust mites (Alustal Dermatophagoides pteronyssinus, Stallergenes, France) was started at weekly intervals with increasing doses until a maintenance dose of 0.8 mL was reached and then this dose was administered for each month, with good tolerance and clinical improvement during the first year. After 2 years of immunotherapy the patient referred an exacerbation of nasoocular symptoms 5 days before the next dose was administered. These symptoms were only partly controlled with her reliever medications. This was not related to higher allergen exposure. Thus, in order to gain optimal clinical control the administration interval of SIT was shortened to 3 weeks with complete disappearance of the pre-dose symptoms. After 3 maintenance doses every 3 weeks, patient went back on to monthly dose without recurrence of the above mentioned nasal symptoms.

The greatest problem encountered in trying to provide standards related to practical immunotherapy is the lack of evidence-based information. Dosing adjustments and safety procedures are based on evidence (when existing) combined with the authors long-term experience and systematic attempts to make the treatment as rational as possible, to identify risk-factors and to improve safety balancing time consumption and patient inconvenience and the risk of inducing systemic reactions [1]. Therefore it is recommended to adhere to the manufacturer’s instructions regarding the administration intervals and also regarding the possible adjustment of dosages depending on side-effects. When an allergic vaccine is administered, several clinical outcomes can be evaluated according to the ability to modify the disease (e.g. reduction of symptoms score and medications, increase in allergen challenge threshold, etc) or the development of local or systemic adverse reactions [3]. If clinical improvement is not obtained or unpleasant reactions occur during the administration, the immunotherapy is often discontinued.

In our case, after an initial enduring clinical benefit (with complete lack of nasal symptoms after 2 years of SIT), patient developed an unexpected reaction characterized by an intermittent rhinitis shortly before the next dose of SIT, which resolved after the allergen injection dose. This phenomenon disappeared as we decided to shorten the administration interval just before symptoms appeared to 21 days. Although the exact mechanism of this reaction is unclear, it seems as if our patient loses the effect of the last dose of immunotherapy and therefore, the nasal symptoms were recalled.
This “recall” rhinitis was successfully treated by shortening the interval between allergen doses. This necessarily implies administration of higher accumulated dose of allergen during total active period of SIT. It is largely unknown if shortening the interval between doses, increasing conventional maintenance doses, or both have the same clinical benefit in the management of this phenomenon.

Large-scale studies will be necessary to know the exact prevalence of this phenomenon, the influence in the outcome of SIT and the mechanisms involved.

REFERENCES