



Predisposing factors of adverse events in subcutaneous allergen immunotherapy - results from a long-term observation

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Background

While Subcutaneous immunotherapy's (SCIT) safety has been proven in several studies, the occurrence of side effects (SE) remains a concern in daily clinical practice, as understanding of their risk factors and avoidance strategies remains limited.

Aims

To assess the incidence and risk factors of early and late side effects in patients undergoing SCIT.

Methods

We conducted a 2 year- long observation of 1309 SCIT patients in our outpatient clinic. We recorded detailed information for each administration and screened subjects for immediate and late reactions. We compiled the records with medical histories in a database, which we then analyzed statistically.

Results

Of 1302 patients, 86 experienced at least one episode of early side effects within the first 30 minutes and 680 reported adverse reactions within 24 hours of administration. While most incidents were local, several patients experienced systemic events (175 and 55 patients with WHO grade 1 and 2 reactions, respectively). Statistical analysis revealed several aspects, which affected the occurrence of adverse reactions. The most significant risk factors included the brand and composition of allergen extract, diagnosed allergic diseases and daily medications used. Local side effects did not appear predictive of future systemic reactions and both types of events had distinct risk factors.

Conclusions

Side effects are an unavoidable part of subcutaneous allergen therapy, but the data from our study shows some patients are at an increased risk of experiencing them. Multifactorial analysis revealed several modifiable risk factors, which could be considered during therapy. The relationship between occurrence of adverse reactions and treatment's results might warrant further research into the subject.

In relation to this presentation, authors declare that there are no conflicts of interest.