Short course specific immunotherapy for seasonal allergic rhinoconjunctivitis and its impact on quality of life

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INTRODUCTION

Conventional immunotherapy can contain long dosing regimens leading to a significant treatment and economic burden for both patients and hospitals, potentially resulting in poor adherence. Grass Modified Allergen Tyrosine Adsorbate (MATA) monophosphoryl lipid A (MPL) is a short course subcutaneous immunotherapy (SCIT) that has been reported to offer the same efficacy as conventional SCIT in a shorter treatment course. The allergens have been modified into allergoids by treatment with glutaraldehyde adsorbed onto L-tyrosine. The allergen extracts are standardised (in SU, Standardised Units) by biochemical methods and characterised, to provide a constant quality of allergen content and activity. The outcome of treatment would be an improvement in quality of life and symptoms.

METHODS

At our centre 47 patients with seasonal allergic rhinoconjunctivitis were treated with Grass MATA MPL.

It was administered prior to the pollen season as a course of four subcutaneous 1.0ml injections:

One 300SU/ml injection
One 800 SU/ml injection
Two 2000SU/ml injections.

The first three injections were administered at 1 to 2 week intervals and the fourth injection was administered 1 to 4 weeks after the third injection. Patients receive a maximum of 3 years treatment.

All patients were asked to fill in a validated Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ) prior to the start of treatment and at the start of each subsequent year of treatment. We report here on the comparison of these questionnaire results.

RESULTS

Table 1: Percentage Reduction within each Symptom Group

Symptom Group	Year 1 (%)	Year 2 (%)
Activity	32.26	17.44
Sleep	33.98	18.44
Non-Nose/Eye	32.44	13.94
Practical Problems	31.35	17.01
Nasal	33.05	13.50
Eye	36.02	15.80
Emotional	37.18	19.02

Key to Graphs :
Pretreatment
Year 1
Year 2

Statistics:
All statistics were done using a 2-tailed paired T-test.
* $p < 0.001$
# $p < 0.05$
NS None Significant

Fig. 1: Change in Effect on Activity

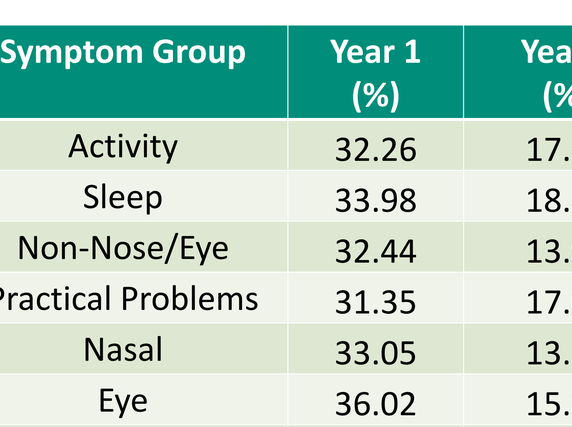


Fig. 2: Change in Effect on Sleep

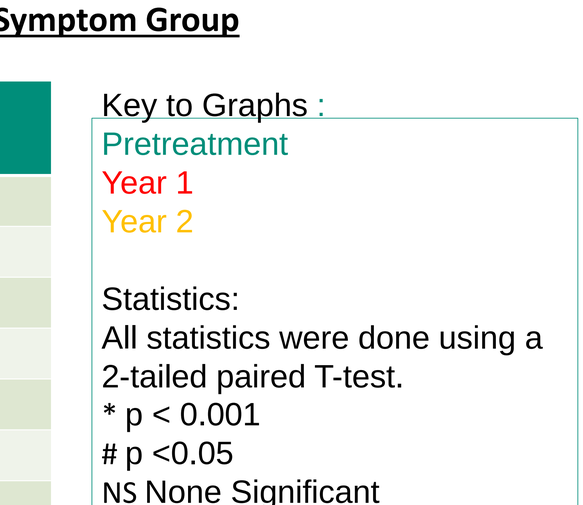


Fig. 3: Change in Effect Non-Nose/Eye Problems

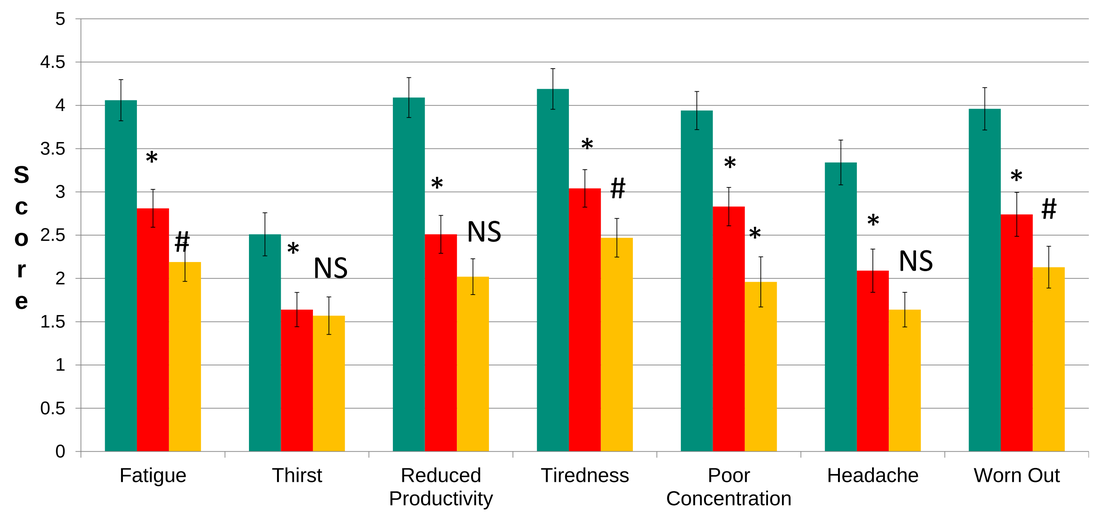


Fig. 4: Change in Effect on Nose Symptoms

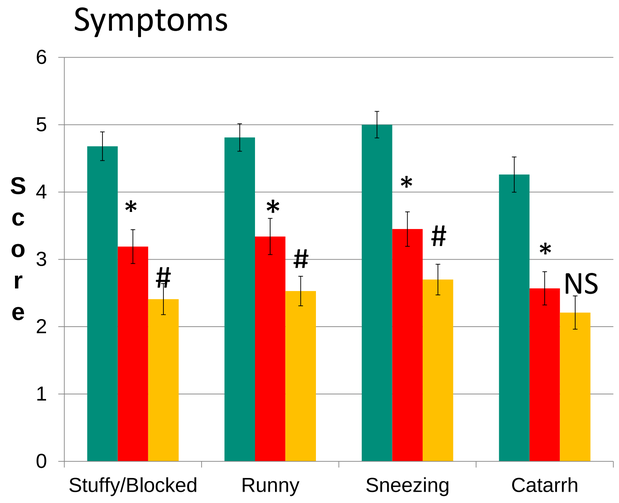


Fig.5: Change in Effect on Eye Symptoms

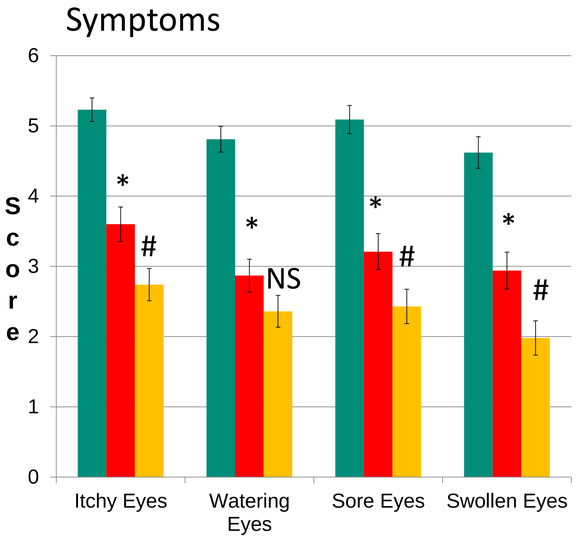


Fig. 6: Change in Effect on Practical Problems

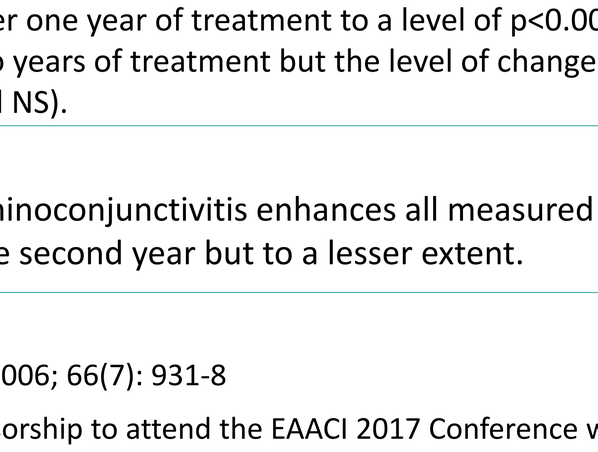
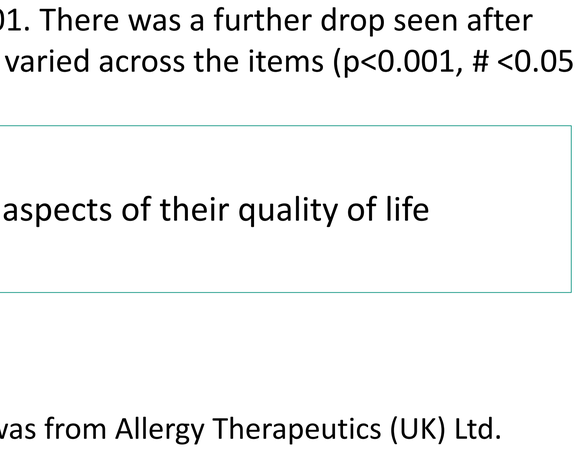


Fig.7: Change in Effect on Emotions



The largest percentage change in symptom group after 2 years was seen in Emotional symptoms (56.2%) and the least change was seen with Non-Nose/Eye problems (46.4%).

Every one of the 28 items measured showed a statistically significant drop in severity after one year of treatment to a level of $p<0.001$. There was a further drop seen after two years of treatment but the level of change varied across the items ($p<0.001$, # <0.05 and NS).

CONCLUSION

Use of a short course subcutaneous immunotherapy in patients with seasonal allergic rhinoconjunctivitis enhances all measured aspects of their quality of life significantly, even after only one year of treatment. This continues to improve during the second year but to a lesser extent.

REFERENCES

1.Ultra-Short-Course Seasonal Allergy Vaccine (Pollinex Quattro). McCormack PL, Wagstaff AJ. Drugs. 2006; 66(7): 931-8

In relation to this presentation, I declare the following, real or perceived conflicts of interest – Sponsorship to attend the EAACI 2017 Conference was from Allergy Therapeutics (UK) Ltd.