METHODS: Observational study of 63 Australian patients (≥5 years) prescribed 5-grass pollen SLIT tablet for SAR. Primary objective (patient treatment satisfaction) was met in a large majority. A pre-specified subgroup analysis assessed the impact of poly-sensitization to subtropical grass pollen upon AR symptom intensity following AIT during three consecutive pollen seasons.

RESULTS: Ryegrass pollen was the most common grass pollen sensitization (n = 59; 93.7%) and where relevant allergy history was documented, ryegrass pollen allergy was near universal (n = 55/56; 98.2%). 74.6% (n = 47) were ‘poly-sensitized’ to subtropical and temperate grass pollen. From the first pollen season, both groups showed considerable symptom score improvements (total rhinoconjunctivitis symptom score [TRSS 0-24] vs baseline*), sustained during the second and third pollen season (reaching 70-85% improvement; p < 0.01). During the first pollen season, symptom scores were lower in those poly-sensitized vs those mono-sensitized (P = 0.0297; Hodges-Lehmann Estimator analysis). Symptom scores in those mono-sensitized improved further over time, minimizing differences between groups. Symptom score improvements in those poly-sensitized were not affected by geographical location (above vs below 37°S) and expected level of exposure to subtropical grass pollen.

CONCLUSION: 5-grass pollen SLIT is effective in SAR patients from the first pollen season, irrespective of poly-sensitization status to subtropical grass pollen.

Key Points

- Assessing how a patient’s poly-sensitization status should influence AIT treatment selection remains a key challenge: more studies are required to clarify how poly-sensitization status impacts on AIT effectiveness.
- Temperate grass (e.g. ryegrass) pollen is a major driver of seasonal allergic rhinitis (SAR) and asthma risks, including thunderstorm asthma. Patients in this high-risk population are frequently poly-sensitized to subtropical grass pollen. Whether this affects their response to temperate grass pollen allergen immunotherapy (AIT) is unknown.
- This study establishes that 5-grass pollen SLIT is effective in SAR patients with temperate grass (ryegrass) pollen allergy, irrespective of their poly-sensitization status to subtropical grass pollen.