

## Allergy to *Salsola kali* in a *Salsola incanescens*-rich area: Role of extensive cross allergenicity

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### Abstract

Background: Pollens from the *Salsola* spp. are an important source of respiratory allergy in tropical countries. Our aim was to characterize the IgE binding proteins of *S. incanescens* pollen extract and study its cross-reactivity with *S. kali* pollen allergens. Methods: Prick tests with *S. kali* and *S. incanescens* pollen extracts were performed on eight respiratory allergy patients from Mashhad, Northeast Iran. The antigenic profiles and IgE-binding patterns of *S. kali* and *S. incanescens* pollen extracts were compared by SDS-PAGE and Western blotting, using individual sera from the *salsola* pollen-sensitive patients. Cross-reactivity of proteins in the two weeds was assessed by IgE-immunoblotting inhibition. Results: *S. kali* and *S. incanescens* pollen extracts showed similar IgE-binding profiles in Western blotting. The IgE binding components of 39, 40, 66 and 80 kDa were detected in both pollen extracts. Furthermore, inhibition of the immunoblots revealed extensive inhibition of IgE binding to proteins and a close relationship between these two weeds allergens. Conclusions: *S. incanescens* pollen is a potent allergen source with several IgE binding components that shows a close allergenic relationship with *S. kali*. Our results suggest that in *S. incanescens*-rich areas, *S. kali* pollen extracts could be used as a diagnostic reagent for allergic patients to *S. incanescens* pollen. © 2009 Japanese Society of Allergology.

### Reaxys Database Information

### Author keywords

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### Indexed Keywords

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