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Abstract Preview - Step 3/4

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Topic: 01 Airborne allergens

Case Report: No

Title: Aeroallergenic Profiles and Increasing Prevalence of asthma in the Middle-East

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Text: **Background:** The prevalence of asthma is on the rise globally and so in the Middle-East. A three-fold increase in prevalence of asthma within a period of 10 year has been reported in Saudi Arabia. There appear to be a great degree of IgE mediated sensitization of individuals with various aeroallergenic group dominant in the region.

Method: Internationally approved questionnaire comprising various questions was used for all prevalence studies in KSA. Different protocol including ISAAC was also used in the region. Skin Prick Test (SPT) to evaluate the IgE mediated sensitization and Monitoring of aeroallergens with Burkard Volumetric Traps were conducted at multiple sites in the region.

Results: The etiological or allergenic factors responsible for sensitization and inducing asthma and allergy in genetically predisposed and susceptible individuals are present in both outdoor and indoor environment. However, the aeroallergenic profiles vary from place to place and region to region based on surroundings and climatic conditions. In this presentation, aeroallergens data from both indoor and outdoor environment from countries in the Middle East and surroundings are presented. The data indicate the presence of a number of aeroallergen with their qualitative and quantitative variations in the region. Some allergenic species were found to be different from those prevalent in the industrialized world. For example, in Saudi Arabia, weed pollen, particularly *Amaranthus viridis, Chenopodium murale, Salsola imbricata, Atriplex nummularia, Rumex* etc. were most common outdoor allergens. As regards to indoor allergens, *Dermatophagoides pteronyssinus, Dermatophagoide farinae, Felis domesticus, Blattella germanica, Periplaneta americana, Blattella orientalis*, as well as fungal spores including *Alternaria alternata, Ulocladium atrum* and *Cladosporium sphaerospermum* were found in the region. The available data from different countries in the region are also summarized.

Conclusion: There is still a lack of information and not all countries in the region have reported data on aeroallergens. Further studies are required from countries in order to ascertain and confirm etiological factors and their prevalences. The data presented can be improved by further investigations and evaluating the clinical impact of dominating allergens. The available information can be utilized for selection of Diagnostic allergens, Immunotherapy and for the implementation of environmental control.

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