

POSTER SYMPOSIUM – P8

Sensitisation to Aero/Food Allergens and Association with Allergic Diseases in Brunei in 2015/2016

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OBJECTIVES

The aims of the study were to identify the demographic pattern of allergy patients, determine the spectrum of allergen sensitisation, determine association between different allergen sensitisations with allergic diseases, determine the association between total IgE and specific IgE, and visualize the pattern of specific IgE titre across different allergic diseases.

MATERIALS AND METHODS

This retrospective cohort study includes all patients who were subjected to blood specific IgE testing from January 2015 to December 2016 in the Department of Laboratory Services, RIPAS hospital, Brunei Darussalam. Data collected includes the specific IgE titre, total IgE titre, demographics and patient histories.

RESULTS

A total of 223 patients were recorded with 170 patients sensitized to one or more allergen. Levels of house dust mite sensitisation were the highest in this population (n=113). The most prevalent aeroallergen was *Dermatophagoides pteronyssinus* (d1; n=98 positive results), followed by *Dermatophagoides farinae* (d2; n=88) and *Blomia tropicalis*, (d201; n=62). Shrimp (f24; n=68) was the most common food allergen, followed by peanut (f13; n=47) and egg white (f1; n=43). There was a strong significant correlation between atopic dermatitis and top 5 allergens (d1 *D. Pteronyssinus*, $P<0.001$; d2 *D. farina*, $P<0.001$; d201 *B. tropicalis*, $P=0.001$; f13 peanut, $P<0.001$; and f24 shrimp, $P=0.001$). Total IgE has a very strong significant correlation with specific IgE ($P<0.001$).

CONCLUSIONS

There was a dominance in sensitisation to house dust/storage mite allergens in Brunei coinciding with the regional trend. Atopic dermatitis was the only allergic disease significantly associated with sensitisation to any of 5 the most common allergens.

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