



## Lab Allergy Testing: Assessing Frequency of Food and Environmental Allergens in Pakistani Population

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### Abstract

**Introduction:** Food and environmental allergies are common in childhood and adults. It has been suggested that the magnitude of an allergen specific IgE result can improve diagnostic usefulness, but this has been addressed in only a few tertiary challenge-based studies.

**Objective:** The aim of this study is to assess the frequency of food and environmental allergens in our population.

**Methods:** The study population consisted of 88 individuals (male: 47 and female: 41). The study was conducted in the clinical laboratory, department of pathology and microbiology, Aga Khan University Hospital from May 2009, till May 2010. Sera of patients positive for total IgE were tested for allergen specific IgE levels by Immulite 2000, 3gAllergyTM

**Results:** There were a total of 27 allergens tested on 88 individuals having positive total IgE. We have analyzed the data on two cutoffs of allergen specific IgE i.e. moderate (0.7-3.49 kU/L) and high (3.5-17.49 kU/L). The results suggest that in moderate reactivity the most common allergen from environmental panel was dog epithelium (46.6%), mites (33%), cockroach (17%) and from food panel was egg white (23.9%), milk (22.7%) and soybean (13.6%) but in high reactivity the commonest allergen was mites (6.8%), cockroach (4.5%), cat dander epithelium (3.4%), D. farinae (3.4%), molds (3.4%) and weeds (3.4%) from environmental panel and egg white (2.3%), peanuts (2.3%) and shrimps (2.3%) from food panel. At very high reactivity (>52.50 kU/L) most common environmental allergens seen were mites (2.3%), cat dander epithelium (1.1%) and common food allergens were shrimps (1.1%) and peanuts (1.1%).

**Conclusion:** Results generated from our study showed that there is high frequency of environmental and food allergies in our patients and total IgE levels are correlating with specific IgE levels.

### Biography

Farooq Ghani did his MBBS from Karachi followed by training in Pathology at Boston University Medical Center USA. He did his fellowship in Pathology and Laboratory Medicine in Boston plus a Ph.D. in Pathology from Boston University. He is a Diplomate American Board of Clinical Chemistry and Fellow of National Academy of Clinical Biochemistry USA. Dr. Ghani has spent most of his professional career in the United States. He has held faculty and consultant positions at Boston University Medical Center, Hartford Hospital Connecticut, New York Medical College at Westchester Medical Center New York and was Director at Bayer Healthcare in Tarrytown New York. Upon his return to Pakistan, he joined Aga Khan University in 2007. He is currently the Service Chief, Department of Pathology & Laboratory Medicine at The Aga Khan University Hospital. He has published extensively in reputable peer-reviewed journals and has many book chapters to his credit.

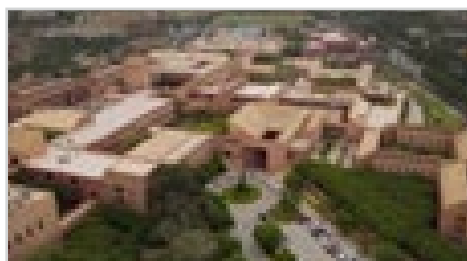
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