Development of Pollen Allergens Specific IgE Detection in Allergic Patient through the ELISA Technique

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Pollen allergy has remained an important cause of severe allergy worldwide. While skin prick test is a gold standard for investigating allergies, however it is not practical in some patients such as children, babies, and those who have extensive dermographism or taking anti-histamines which can interfere with the interpretation of the skin prick test results. Therefore, in this project, the dot blot Enzyme-linked immunosorbent assay (ELISA) test is studied to use as an alternative detection of specific IgE in human serum in response to pollen allergens. The results are compared with the skin prick test in their effectiveness of allergy diagnosis. Five domestic pollen extracts (Bermuda grass, Careless weed, Johnson grass, Para grass and Typha) are dropped on nitrocellulose membrane and reacted with sera from 38 samples (allergic patients (n=30) and non-allergic patients (n=8)) in 6 Well Cell Culture plates for 1 hour. The correlation, sensitivity and specificity will be evaluated and compared with the skin prick test.

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