Association of Interleukin-4 and IgE Levels with LDL Oxidation in Atherosclerosis

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ABSTRACT

Background: Atherosclerosis is an inflammatory and multifactorial disease, with a high prevalence rate in Pakistan. **Objective:** To find a relation between serum IL-4 and IgE levels with oxidized LDL in atherosclerosis. **Methods:** In this observational, cross sectional study 99 male patients, between forty and sixty years of age, with a history of ischemic heart disease (IHD) and established atherosclerotic plaques on angiography were recruited. The study was completed within three years (Jan 2007 to Jan 2009). One hundred and one age and gender matched healthy subjects with no known history of IHD were also recruited. All the study participants were non-diabetics. Serum IL-4, IgE and oxidized LDL (ox-LDL) levels were measured by quantitative ELISA technique. **Results:** Serum IL-4 levels were generally undetectable or very low, but were higher in the patient group compared to the control subjects. Similarly, oxidized LDL and serum IgE levels were also increased in the patient group compared to the control, but the differences were not statistically significant. **Conclusion:** Our study could not detect any relationship between IL-4 and IgE levels with LDL oxidation in atherosclerosis.

Keywords: Atherosclerosis, IgE, Interleukin-4, LDL, Oxidized

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