

## **PROINFLAMMATORY AND ANTI-INFLAMMATORY CYTOKINE PROFILE IN CORONARY HEART DISEASE: EGYPTIAN STUDY**

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**BACKGROUND/ AIMS:** Inflammation is an important mechanism in atherosclerotic plaque growth and instability. This study aimed to examine the roles of interleukin-8 (IL-8) as proinflammatory cytokine and interleukin-10 (IL-10) as anti-inflammatory cytokine in patients with coronary heart disease (CHD) and their relationship to disease severity.

**METHODS:** The study was conducted on 27 patients with CHD documented by angiography; 15 with stable and 12 with unstable angina together with 12 healthy controls. Serum levels of IL-8 and IL-10 were measured and IL-8/IL-10 ratios were determined for all subjects.

**RESULTS:** Our results revealed that patients with unstable angina had higher levels of IL-8, lower levels of IL-10 and markedly increased IL-8/IL-10 ratios compared with controls. However, there was no significant difference in IL-8 or IL-10 between patients with stable angina and controls. A significant positive correlation was found between IL-8 and C-reactive protein among patients with unstable angina.

**DISCUSSION/ CONCLUSIONS:** Higher levels of IL-8 and markedly enhanced IL-8/IL-10 ratios in patients with unstable angina suggest a significant role of this cytokine in atherosclerosis development. Thus, it may be anticipated that the use of anticytokine therapy may inhibit the inflammatory reaction in atheromatous plaques. Moreover, the significant association between lower levels of IL-10 and unstable angina suggest that IL-10 has a protective role in CHD. The assessment of IL-8 and IL-10 serum levels could identify high-risk patients and may have important prognostic value in predicting recurrence of unstable angina.

**Key words:** Atherosclerosis, Inflammation, Cytokines