

Correlations of SYNTAX-II Score and NT-IGFBP-4 with Endothelial Function and Inflammatory Response in Patients with Coronary Heart Disease

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ABSTRACT This study aimed to investigate the correlations of the synergy between percutaneous coronary intervention (PCI) with TAXUS and Cardiac Surgery (SYNTAX)-II score and N-terminal insulin-like growth factor binding protein 4 (NT-IGFBP-4) with endothelial function and inflammatory response in patients with coronary heart disease (CHD). Clinical data and laboratory parameters were collected, including total cholesterol (TC), endothelin-1 (ET-1), nitric oxide (NO), C-reactive protein (CRP), total plaque volume, serum NT-IGFBP-4 levels, and the SYNTAX-II score. Multivariate analysis showed that TC, ET-1, CRP, total plaque volume, serum NT-IGFBP-4, and the SYNTAX-II score were independent risk factors for cardiovascular adverse events in patients with CHD, whereas NO was identified as a protective factor ($P < 0.05$). Correlation analysis demonstrated that the SYNTAX-II score and NT-IGFBP-4 levels were positively associated with inflammatory response and negatively associated with endothelial function. These findings indicate that the SYNTAX-II score and serum NT-IGFBP-4 are closely correlated with endothelial dysfunction and inflammation in patients with CHD.