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Prognostic Value Biological Markers of Proinflammatory Activation in Patients with Documented Coronary Artery Disease

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Background:

Traditionally, proinflammatory activation around patients with documented coronary heart disease (CHD) is consideredas an independent predictor of numerous cardiovascular events such as sudden death, atherothrombosis, newly onset heart failure (CF). However, many researchers are faced with differentand very significant restrictions when trying to estimate the intensity of pro-inflammatory activation with biological markers such as C-reactive portein (C-RP), osteopontin, and osteoprotegerin. However, a comparison of the prognostic value of concentrations of this biomarkers in patients with angiographically verified coronary artery disease has not been previously defined.

Aim:

To explore the predictive capacity of the C-RP,osteopontin, and osteoprotegerin in patients with documented coronary artery disease in the postinfarction period with a one-year follow-up.

Design and Methods:

85 patients (male and female) aged 52-66 years with angiographic documented coronary artery stenosis 50% were observed during 1 year after hospitalization due to acute coronary syndrome with ST elevation. In has been identified hard end-point included all fatal and non-fatal atherotrombotic events, new cases of both urgently angioplastic and stenting, all newly diagnostic cases of heart failure and hospitalization ration due to once.

Results:

Analysis of obtained outcomes has been shown that plasma level increase of osteopntin over 161 pg/ml and osteoprotegerin over 5302 pg/ml associates positively with 1-year mortality risk. Positive prognostic value of combination osteopontin and osteoprotegerin plasma level over cut-off points mentioned above riches up 64% prognostic sensitivity and specify are 86% and 82% respectively). At the same time, circulating C-RP level less 9.2 mg/l does not have prognostic potential for this patient's cohort during 1 year.

In conclusion, all this confirms the assumption that high concentrations of both osteopontin and osteoprotegerin may be viewed as predictors of cardiovascular risk in patients with circulatinglevels of C-RP less than 10 mg/l.