Acute and Stable Ischemic Heart Disease

THE PROGNOSTING VALUE OF COMBING NEW BIOMARKERS FOR REMOTE CARDIOVASCULAR ENDPOINTS RISK STRATIFICATION IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION

Poster Contributions
Posters Hall_Hall A
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Background: The biomarkes NT-proBNP, ST2 and Pentraxin-3 (Ptx-3) have emerged as potential powerful tools in stratifying the risk of unfavorable cardiovascular events in cardiac patients in post-MI period. Goal was to investigate the potential prognostic power of the biomarkers ST2, Ptx-3 andNT-proBNP in cardiovascular events risk stratification in 2 years FU after STEMI.

Methods: In 147 patients with STEMI (60.9±12.1) the serum concentrations of NT-proBNP, ST2 and Ptx-3 were evaluated. In a two years FU (734.2 ± 61.2 days) results were correlated with primary endpoint (cardiovascular death) and the secondary composite endpoint (MI + stroke + cardiovascular hospitalization + cardiovascular death).

Results: In 2 years after MI Ptx-3 (OR=3.1, 95% CI 1.63-5.39), NT-proBNP (OR=1.64, 95% CI 1.21-2.21) and ST2 (OR=1.000022, 95% CI 1.00-1.001) predicted mortality, and ST2 (OR=1.000012, 95% CI 1.00-1.001), NT-proBNP (OR=1.19, 95% CI 1.018-1.32) - the composite endpoint. Prominent diversion between under and over put-off points curves in all 3 biomarkers in survival Kaplan-Mayer curves but not for composite endpoint was shown (Fig., A - NT-proBNP, B - ST2 and C - Ptx-3). Combination of NT-proBNP + Ptx-3 + ST2 predicated mortality (AIC=208, BIC=214, likehood ratio 36.43, p=0.0000008) and NT-proBNP+ST2 with lesser accuracy - composite endpoint (AIC=828, BIC=838, 12.45, p=0.03).

Conclusion: Biomarkers NT-proBNP, ST2 and Ptx-3 showed prognostic value in the diagnostics of mortality in FU period after MI.