Abstract: **P145**

**Prognostic markers of atrial fibrillation after stemi**

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Cardiovascular diseases are a leading cause of mortality around the world. We were especially interested in determining the most significant biological markers in patients after myocardial infarction in order to predict atrial fibrillation (AF), stroke and death.

Aim of the study was to assess the likelihood of AF developing in patients who had suffered from ST segment elevation myocardial infarction (STEMI) and had undergone primary percutaneous coronary intervention (pPCI).

Materials and design. In the period from December 2015 to November 2017, we carried out a prospective study enrolling 107 consecutive patients who had been discharged from hospital following STEMI, treated with pPCI, and were to be followed-up at outpatient clinics. Patient mean age was 69.5 ± 7.8 years, 40 (37.4%) of them being women. The patients were observed for 18 months and came to three visits (V): V1 conducted at study enrollment, V2 - after 12 months and V3 – after 18 months. The study endpoints were cases of first diagnosed AF (fdAF), cardioembolic stroke, and fatal outcomes. At all visits blood plasma was tested for the following laboratory markers: Von Willebrand factor (vWF), cystatin C, NT-proBNP and galectin-3.

Results. After the 18-month observation 19 patients (17.8%) were diagnosed with fdAF; 5 (4.7%) of them progressed to cardioembolic stroke, and 3 patients died. The median time from the onset of STEMI to fdAF was 308 days. Cox multivariate analysis showed that the risk factors for fdAF were the levels of NT-proBNP (HR: 1.05; 95% CI: 0.99-1.10; p=0.038), cystatin C (HR: 1.44; 95% CI: 0.98-2.12; p=0.043), galectin-3 (HR: 1.20; 95% CI: 1.03-1.40; p=0.022).

Conclusions. There was a highly significant relationship between NT-proBNP of = 400.0 pg/mL, cystatin ? of = 1.45 ng/mL and galectin-3 of = 25 mg/mL in patients after STEMI who underwent pPCI, and these markers might serve as predictors of fdAF.