Abstract: P1786

Prognosis of patients with chronic coronary artery disease undergoing to percutaneous coronary intervention (5 years follow-up)

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Aim: to evaluate the prognosis of patients with chronic ischemic heart disease, who underwent percutaneous coronary interventions (PCI) and were only on optimal medical therapy (OMT).

Methods: measurement of the fractional flow reserve (FFR) was performed for 432 patients. According to the measurement results, all patients were randomized in 2 groups (1:2): Group I (n=168) – included patients, who had a FFR <0.8 and were followed by PCI; Group II (n=264) – included patients with FFR >0.8 - received OMT and were under monitoring for to 5 years. Inclusion criteria: stable angina II-III FK, post-MI, silent myocardial ischemia. Concomitant diseases: diabetes mellitus (19.2%), multifocal atherosclerosis (21%), hypertension (27%), post-MI (24%), PCI in previously (15%). According to angiography, 44% had a one-vessel disease, 35% had two-vessel diseases, and 21% had a three-vessel disease. Primary endpoints: MACE (death, MI, repeated interventions). Observation periods: 6, 12, 24, 36, 48, 60 months. Long-term results were evaluated by repeated coronary angiography and measurement of FFR.

Results: during 6 and 12 months there were not a single case of MACE in both groups. By the 18th month, 7% of cases conversion from the OMT to the PCI group on the basis of FFR measurements was recorded. By the 24th and 36th months in the OMT, PCI group was performed in 12 and 21% of patients, respectively. By the 48th and 60th month, the number of such patients was 24 and 31%, respectively. Among the total number of performed PCI in Group II, 20% of them were due to unstable angina. Thus, over the entire observation period, 149 patients from group II (56%) had PCI performed. The frequency of MACE in group I to 36 months was 2.4%, and in group II - 18%, respectively (p <0.001). By the end of the observation period, the frequency of MACE in groups I and II was 4.2 and 31%, respectively (p <0.001). Multifactor analysis showed that with SYNTAX score> 28, multifocal atherosclerosis, diabetes mellitus, MACE was significantly more frequent and there was a need to perform PCI in the long-term period.

Conclusions: the prognosis of patients with chronic coronary artery disease undergoing percutaneous coronary intervention, performed using measurement of FFR, is significantly better than in patients who were only on optimal medical therapy.