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**LEFT VENTRICULAR VALVE DEFECTS - EXPLORATION OF PREDICTORS IN PATIENTS WITH STABLE CORONARY ARTERY DISEASE**

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**Introduction:** According to Euro Heart Survey aortic stenosis (AS) and mitral regurgitation (MR) are most common valve diseases among adults in European Union and are mainly caused by degeneration of valve apparatus due to a passive degenerative disease or active processes involving endothelial dysfunction, lipid accumulation, an inflammatory infiltrate, and a regulated process of calcification. An active processes are principal investigations target cause it may lead to development of effective prophylactic measurements.

**Aim of the study:** The aim of our study is to assess the frequency of AS and MR among patients with stable coronary artery disease (CAD) and investigate the factors predisposing towards its' development.

**Materials and methods:** The analysis was performed retrospectively according to the data collected by the Department of Invasive Cardiology of the Medical University of Białystok. 1081 patients with stable CAD, admitted for invasive diagnostic or invasive treatment, were included into the study. Analysis comprised medical history, basic laboratory tests and clinical data. Statistical analysis was performed using Shapiro Wilk, Kołomogorow-Smirnow, chi-square, odds ratio, Student's t, Mann-Whitney U and ANOVA tests. P value  $\leq 0.05$  was considered as significant.

**Results:** In our study most cases of AS were associated with main risk factors: age, female gender and dyslipidaemia. Predominant initiators responsible for MR are: male gender, age, chronic kidney disease and hypertension. We observed higher rate of heart failure, atrial fibrillation, left ventricular hypertrophy and reduced left ventricular ejection fraction as a consequences of both valve disorders. There was no differences in the prevalence of diabetes mellitus. Patients with AS were more often treated with diuretics and less often with angiotensin converting enzyme inhibitors (ACE-I) and statins. In case of those with MR we have observed prevailing diuretics and rarer ACE-I and calcium channel blockers usage. Analysing the odds ratios of hemodynamically significant lesions we have observed that circumflex and first diagonal branch stenosis is strongly associated with the occurrence of MR.

**Conclusions:** Statins and ACE-I are known from its' pleiotropic effects and for that reason may be useful tool for decreasing prevalency of both degenerative and ischemic valve diseases. Early recognition and treatment of dyslipidemia and hypertension may be the key to prevent both coronary artery disease and valve diseases.