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**IMPACT OF CHRONIC KIDNEY DISEASE ON LEFT- SIDED HEART  
VALVE DEFECTS**

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**Introduction.** Valvular heart diseases (VHD) are becoming a significant problem in the Polish population. According to Euro Heart Survey aortic stenosis (AS) and mitral regurgitation (MR) are most common valve diseases among adults in European Union. Coexistence of chronic kidney disease (CKD) in patients with VHD increases the risk of death and affects the further therapeutic strategy.

**Aim:** the aim of our study is to compare patients with left- sided heart valve disease with and without CKD.

**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. 1025 patients with moderate and severe heart valve defects, admitted for invasive diagnostic or treatment, were included into the study. Analysis comprised medical history, basic laboratory tests and clinical data. Statistical analysis was performed using the Kolmogorov-Smirnov, two – tailed T and ANOVA tests for comparative analysis. Non- normally distributed data were compared with the Mann–Whitney and Kruskala – Wallis. For multiple pairwise comparisons were used the Steel-Dwass-Critchlow-Fligner two – tailed test. Obtained results were presented as mean values with standard deviation or percentage values corresponding to relative frequency.

**Results.** Severe aortic valve stenosis (AVS) occurred in 28.2%, severe mitral valve insufficiency (MVI) in 20%. CKD was noted in 37.1% (N=380) patients. Among patients with mitral valve defects, CKD was noted in 37% of cases and in 15% of patients with aortic valve defects. The greatest percentage of patients were characterized by eGFR in the range 60-90ml/min/1.73m<sup>2</sup> 51.5% (N=528). Comparing patients with and without CKD, those with CKD were significantly older and characterized by lower percentage of males. Most common coexisting diseases were: coronary artery disease, arterial hypertension and atrial fibrillation. Presence of these morbidities was greater in population with CKD.

**Conclusions.** Severe AVS is starting to be the most prevalent VHD in Polish population. Visible gender differences in the predisposition to particular VHD are seen. Mitral valve defects more often than aortic valve defects coexist with CKD. Regardless of the stage, CKD is an additional factor affecting the prognosis in patients with heart defects.