17. INTERVENTIONAL TREATMENT IN ELDERLY PATIENTS WITH SEVERE AORTIC VALVE STENOSIS AND CORONARY ARTERY DISEASE.

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Introduction. Aortic stenosis (AS) is a valvular heart disease commonly found in the elderly patients and frequently is associated with coronary artery disease (CAD), sharing multiple risk factors and common pathophysiological mechanisms, such as age, smoking, hypertension, and hyperlipidemia. The prevalence of CAD in patients with severe AS is between 15% and 80% and the impact of coronary involvement on postprocedural outcomes is controversial and incompletely studied.

Aim of study. This study aims to compare clinical and hemodynamic outcomes, as well as the rate of major adverse cardiovascular and cerebrovascular events (MACCE) in patients undergoing TAVI with PCI (patients with AS and CAD) versus isolated TAVI (patients with AS).

Methods and materials. A retrospective study was performed that included 41 patients older than 70 years with a diagnosis of severe aortic valve stenosis and CAD. Patients were divided into two groups: 32 patients without significant coronary lesions and 9 patients with significant multivessel lesions and Syntax Score <22. In these patients, we aimed to assess the valvular pressure gradient, and aortic valve peak velocity, pre-procedural, post-procedural, 30 days and 1 year post-TAVI. To assess the postprocedural results, the rate of major adverse cardiovascular events (MACCE) is recorded, represented by: cardiovascular mortality, cerebrovascular accident, acute myocardial infarction or myocardial revascularization, readmission due to heart failure.

Results. After analyzing the data, it was determined that in group I the proportion of men was 21.87%, compared to 22.2% in group no. II, and the average age was 78.15 ± 4.61 vs 75.66 ± 5.02, p<0,09. The mean values of the maximum transaortic pressure gradient were 93.11 mmHg ± 21.55 in group 1 and 103.07 mmHg ± 20.19, respectively, p<0,156; the mean transaortic pressure gradient 57.52 mmHg ± 15.25 vs 63.98 ± 15.0, p<0,156, and the mean value of the peak velocity through the aortic valve was 4.78 m/s ± 0.56 in group I and 5.05 m/s ± 0.54 in the second group, p<0,142. After the procedure, the average pressure gradient decreased impressively, the average value being 12.59 ± 5.62 mmHg vs 14.78 ± 8.73 mmHg, p< 0.338. The peak velocity of the jet through the aortic valve is 2.36 ± 0.50 m/s vs 2.53 ± 0.83 m/s, p< 0.361. In this study, one case of death associated with the procedure, which represents 3.12%, and 2 cases of stroke, which constituted 6.25%, were documented in group I. At the same time, in both groups 2 cases of readmission due to heart failure were reported.

Conclusion. In patients with severe AS and complex CAD, TAVI + PCI was not associated with a higher rate of MACCE after a 12-month follow-up compared with patients with severe AS without CAD and approached by TAVI, probably due to the small study group and short follow-up period. Performing PCI before TAVI in patients with a Syntax score <22 appears to be safe, with no differences in echocardiographic parameters or MACCE compared to the group of patients without coronary lesions. **Keywords**. Aortic stenosis, transcatheter aortic valve implantation, coronary artery disease.