

11527**Very acute benefits on physical performance in elderly patients who undergone TAVI**

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Introduction: Transcatheter aortic valve implantation (TAVI) emerged as a safe and efficient procedure in patients with high or prohibitive surgical risk or in older patients. The prevalence of severe aortic stenosis is growing up, given de aging of population. These patients are much often frailty and experience low levels of physical activity and functional capacity as a result of their aortic valve disease and comorbidities. When untreated severe aortic stenosis has a poor prognosis so it is of utmost importance to restore the normal hemodynamic condition and consequently to improve functional capacity.

Aim: To assess the acute benefits (in 1 moth) of TAVI on functional capacity and physical performance.

Methods: Single center prospective study of patients submitted to TAVI between April 2021 and September 2021. Patients were evaluated at baseline (before TAVI) and one month after the procedure. To assess physical activity and functional capacity it was used the International Physical Activity Questionnaire (IPAQ) and the short physical performance battery (SPPB) which is a group of measures that combines the results of the gait speed (two timed trials of a 4-m walk – fastest recorded), chair stand (time to raise for a chair 5 times) and balance tests (ability to stand for 10 seconds with feet in 3 different positions). Additionally, patients were submitted to handgrip strength test. Paired sample t-test and Wilcoxon test were used to statistical analysis.

Results: We included 20 patients, with a mean age of $85 \pm 5,86$ years, 40% (8) male. 19 patients undergone TAVI due severe native aortic stenosis and 1 due to bioprosthetic aortic valve dysfunction. The vascular access site was transfemoral in 19 patients and transapical in 1 patient.

No patient had vigorous physical activity either before or after TAVI, but the daily sitting time was lower after the procedure (mean time: 634 versus 570 minutes), however not statistically significant. Regarding the results of SPPB patients experience improvements in balance ($p=0,035$) and chair stand (time to raise for a chair 5 times: 19,04 versus 17,05 seconds), $p=0,01$.

Patients tended to be faster in 4m velocity test, however with no statistical difference (8,49 versus 6,6 seconds). No statistical differences were also observed in handgrip strength test.

Conclusion: In an elderly population, TAVI appears to have an early and beneficial effect (in 1 moth) on some domains oh physical activity and functional capacity.