



## GERIATRIC ASSESSMENT TOOLS AND OUTCOME PREDICTION IN TRANSCATHETER AORTIC VALVE REPLACEMENT

Moderated Poster Contributions

Valvular Heart Disease Moderated Poster Theater, Poster Hall, Hall C  
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**Background:** Aortic stenosis (AS) is a common heart valve disease in the elderly. The selection for transcatheter aortic valve replacement (TAVR) is difficult because many elderly patients have multiple co-morbidities. Current global risk scores including the STS score and the EuroSCORE may be suboptimal in predicting risks. In this project, we analyzed the results of geriatric assessments and the global risk scales as predictors of mortality as an outcome in patients undergoing TAVR for severe AS.

**Methods:** Retrospectively reviewed 148 subjects aged 70 years and older with severe AS and underwent TAVR. Risk assessments using the global risk scores and the geriatric assessments including the Katz index, Rankin score, Fried's frailty score, nutritional status, and the body mass index (BMI) were used as predictors of mortality at 1 year after TAVR.

**Results:** The STS score outperformed the EuroScore with p-values of 0.005 and 0.057 respectively. In the multigeriatric assessments, the KATZ index and the BMI were significant with p-values of 0.001 and 0.037 respectively. The mean BMI was 28.35 +/- 5.51 kg/m<sup>2</sup> for those who survived versus 25.53 +/- 6.59 kg/m<sup>2</sup> for those who expired. Several variables were also significant including age with a p-value of 0.007, heart failure with reduced ejection fraction (HFrEF) with a p-value of 0.047, peripheral vascular disease (PVD) with a p-value of 0.004, and pulmonary hypertension with a p-value of 0.042. Multivariate analysis revealed that age, peripheral vascular disease and the KATZ index were the best predictors of survival.

**Conclusions:** By implementing geriatric scales we can improve the patient selection process and risk predictions. The KATZ index, age, BMI, peripheral vascular disease, and the STS score significantly predict mortality. Obesity paradox was demonstrated as a higher BMI may be associated with a greater survival. Age alone should not be used as a predictor without assessments on functional status and co-morbidities. A larger sample size and longer period of assessment will be helpful in risk prediction models.