

**STATINS USE AND LONG TERM OUTCOME POST SURGICAL AORTIC VALVE REPLACEMENT**

Poster Contributions
Poster Hall, Hall C
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Session Title: Changing the Natural History of Valve Disease With Medical Therapy
Abstract Category: 37. Valvular Heart Disease: Therapy
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Background: Statins have been shown to be beneficial after coronary artery bypass grafting. However, the association between statin use and long term outcomes after surgical bioprosthetic aortic valve replacement are conflicting.

Methods: Consecutive patients (n = 429) who underwent surgical bioprosthetic aortic valve replacement between January 2009 and December 2012 were identified. Clinical data and medications on discharge were retrospectively abstracted from medical records. Survival status was obtained from medical records and social security death index database. Patients were divided into four groups; patients not discharged on statins (n = 148), patients discharged on high (n = 47), intermediate (n = 155), and low intensity statins (n = 78). The association between statin use and 3-year all-cause mortality were assessed using cox proportional hazards model and Kaplan-Meier estimator.

Results: The 3-year mortality rate was 8.2% in patients discharged on statins versus 20.9% in patients not discharged on statins (HR 0.36, 95% CI 0.21-0.61, p<0.001). Multivariate cox regression model, adjusted for age, sex, race, beta blockers use, and other baseline characteristics, identified statin therapy (HR 0.35, 95% CI 0.20-0.60, p<0.001), younger age (HR 1.04, 95% CI 1.01-1.06, p=0.008), and beta blocker use (HR 0.34, 95% CI 0.19-0.06, p=0.002) as independent predictors of lower 3-year mortality. On assessing the relation between statin intensity and survival, patients discharged on low (HR 0.29, 95% CI 0.15-0.57, p=0.006), moderate (HR 0.51, 95% CI 0.29-0.90, p=0.021) or high intensity statins (p<0.001) had lower 3-year mortality when compared to patients who were not discharged on statins. There were no statistically significant differences between the three statin intensities in 3-year mortality.

Conclusions: The use of statins, after aortic valve replacement, was associated with improved 3-year mortality. There was no difference in mortality between different statin intensities.