Abstract: P3855

Incidence, risk factors and impact of readmission for heart failure after successful transcatheter aortic valve replacement

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On behalf: ACTION study group

Topic(s):
Aortic Valve Intervention

Citation:

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ACTION study group

Background: Incidence and correlates of readmission for heart failure in all-comers, after successful transcatheter aortic valve replacement (TAVR) remain unclear.

Objective: We sought to evaluate the incidence, risk factors and clinical impact of readmission for HF after successful TAVR in an unselected patient population.

Methods: All patients who underwent successful TAVR in two high-volume French tertiary centers from February 2010 to December 2016 were prospectively included and followed-up for one year. Cox multivariate model was used to assess risk factors of readmission for heart failure, evaluated a time-updated covariate and mortality.

Results: A total of 1139 patients (mean age 82.4±7.7 years, 52.2% male) were included. Readmission for heart failure occurred in 99 (8.7%) patients. Risk factors of readmission for HF were chronic pulmonary disease (adjHR 1.8; 95% CI [1.2 – 2.8], p=0.008), chronic kidney disease (adjHR 1.7; 95% CI [1.1 – 2.6], p=0.01), diabetes mellitus (adjHR 1.7; 95% CI [1.1 – 2.5], p=0.01), prior atrial fibrillation (adjHR 1.6; 95% CI [1.1 – 2.4], p=0.02) and post-TAVR left ventricular ejection fraction (LVEF) =35% (adjHR 2.1 95%CI 1.2 – 3.7, p=0.009). Readmission for HF was strongly associated with mortality (Figure) along with increased STS score (adjHR 1.07 95%CI 1.03-1.12, p=0.002), prior atrial fibrillation (adjHR 2.13 95%CI 1.53-2.96, p<0.001) and shock during the index hospitalization (adjHR 2.68 95%CI 1.48-4.87, p=0.001).

Conclusion: Readmission for heart failure occurs in one out of ten patients after successful TAVR and is strong risk factor of mortality. Comorbidities and post-TAVR LVEF=35% are the main correlates of readmission for heart failure.
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