Abstracts

NEXT-DAY DISCHARGE AFTER TRANSCATHETER AORTIC VALVE IMPLANTATION

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Introduction Transcatheter aortic valve implantation (TAVI) is being used increasingly in patients with severe symptomatic aortic stenosis. Few studies focused on hospital length of stay (LOS) and feasibility of next-day discharge. This study aims to evaluate the feasibility and factors associated with next-day discharge post TAVI, which can be used to help selecting suitable patients for a ‘fast-track’ TAVI admission pathway.

Methods Data from all TAVI procedures conducted at our centre from January 2014 to March 2019 were collected in our local TAVI registry, and analysed retrospectively. Patients discharged within 1 day of TAVI (early discharge group) were compared with consecutive patients discharged after 24 hours (late discharge group). Degree of frailty was assessed by the Canadian Study of Health and Aging (CSHA) frailty scale, and baseline functional status was assessed by Katz index of independence in activities of daily living.

Results Of 502 patients, 274 (54.6%) were male, mean age 83.2±7.3 years, and 87 (17.7%) patients were considered frail by CSHA frailty scale. Median Katz index was 6 (i.e. functionally independent, interquartile range [IQR] 1), and mean logistic Euroscore 17.4±10.7. Percutaneous transfemoral access was performed in 468 (95.5%), and general anaesthesia was used in 64 (14.4%) patients. Early complications before discharge were comparable to national standards: death in 11 (2.3%), MI in 1 (0.2%), PPM in 20 (4.3%), gastrointestinal bleed in 3 (0.6%), and tamponade in 5 (1.1%). Median LOS post procedure was 2 (IQR 3) days, median length of total hospital stay was 3 (IQR 5) days. Early discharge was achieved in 213 (44.7%) patients. Multivariate logistic regression analysis showed that male gender (odds ratio [OR]: 2.81, 95% confidence interval [CI]: 1.68 to 4.7; p<0.001), baseline New York Heart Associated (NYHA) class below III (OR: 2.04, 95% CI 1.19 to 3.51; p=0.01) were associated with early discharge after TAVI. Furthermore, advancing age (OR: 0.96, 95% CI 0.93 – 0.99; p=0.02), and presence of extensive ascending aorta calcification (OR: 0.38, 95% CI 0.16 – 0.88; p=0.025) were associated with less probability of early discharge (i.e. presence of these features were associated with delayed discharge).

Conclusions Next-day discharge after TAVI can be achieved in nearly half of all patients. Male younger patients with minimal symptoms at baseline (NYHA < III), without feature of ascending aorta calcification (porcelain aorta) are a potential suitable group to be considered for a ‘fast-track’ next-day TAVI discharge.

Conflict of Interest N/A