Feasibility and safety of early discharge after transfemoral transcatheter valve implantation with balloon-expandable prosthesis: a prospective study

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Introduction There is currently no consensus on the duration of hospitalization required after transfemoral transcatheter valve implantation (TF-TAVI).

We recently reported, retrospectively, that early discharge (within 3 days) was feasible in 31% and safe without any death and a low rate of re-hospitalization at 30 days. We therefore aimed to confirm the feasibility and safety of early discharge after TF-TAVI in a prospective study.

Methods After implementation of an early discharge pathway in our center in January 2014, we included prospectively, between January 2014 and January 2015, 130 consecutive patients scheduled for TF-TAVI with Edwards prostheses using exclusively local anesthesia. The primary end-point combined death and re-hospitalization at discharge to 30-day follow-up; the proportion of early discharge (within 3 days) and the cause of "non-early" discharge were also assessed.

Results During the study period, the median length of stay was 4.0±2.7 days and 76 (58.6%) patients were discharged early within 3 days including 55 (42.3%) patients discharged within 2 days after the procedure. The main causes of non-early discharge were conduction abnormalities in 33 (25%) patients, major vascular complications in 18 (13.8%) patients, and acute kidney injury in 2 (1.5%) patients. Finally, between discharge and 30-day follow-up, there was no death and only 5 (6.5%) patients required re-hospitalization.

Conclusions Early discharge is feasible in slightly over 50% of cases in selected patients scheduled for TF-TAVI using a balloon-expandable and local anesthesia, and is associated with no death and a very low rate of readmission at 30 days. The two main causes of non-early discharge are occurrence of new conduction disturbances and major vascular complications.

The author hereby declares no conflict of interest

A phenotypic study of ARHGAP24 mitral valve prolapse suggests a genetic origin for fibro elastic deficiency

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