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

Guillaume Cellier, Eric Durand, Christophe Tron, Saflane El Hatimi, Alain Cribier, Helene Eltchaninoff

CHU Rouen, Charles Nicolle, Rouen, France

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 prosthesis using exclusively local anesthesia. The primary end-point combined death and re-hospitalization from 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 studied period, the mean 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, social issues in 11 (8.5%) patients, heart failure in 3 (2.3%) 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.