

AF in TAVR patients: double trouble means double care

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Introduction: Atrial fibrillation (AF) and aortic stenosis share multiple common risk factors and aortic valve stenosis itself is associated with higher rate of AF. Patients submitted to transcatheter aortic valve replacement (TAVR) are particularly frail and AF is associated with increased mortality, ischemic and hemorrhagic events. Thus, a thorough approach, especially in such frail population, is warranted to reduce morbi-mortality. Bearing this in mind, a risk assessment tool derived from ENVISAGE-AF trial was recently developed to stratify the mortality risk of AF patients after completion of successful TVR.

Purpose: To characterize a population of patients with AF who implanted TAVR and test a newly proposed mortality score to estimate prognosis in this population.

Methods: Single-center observational retrospective study including consecutive pts with AF who implanted TAVI from 2017 to 2021. Clinical data was collected at baseline and during follow-up. The AF mortality score groups pts in three crescent strata of severity (0-10; 11-16; >16) by summing seven variables: age, creatinine clearance, duration of AF, NYHA class, alcohol consumption, peripheral artery disease and prior major bleeding. Kaplan Meyer survival analysis was performed using SPSS statistics.

Results: For 5 years, 621 pts underwent TAVR, of which 189 (30,4%) had previously diagnosed AF. 102pts were female, mean age of 82,6±6,1 years. More than half (53%) had permanent AF, 28% paroxysmal AF and 19% persistent AF.

During a mean follow up of 953 days, 8 (4,2%) pts suffered a major hemorrhagic event, two pts had ischemic arterial events (peripheral and mesenteric) and no venous thrombotic events were observed. As anticipated, event rate was high: at 1 year follow-up, 27 were admitted for cardiovascular events (3 with acute myocardial infarction and 4 with stroke). 26 pts died after 1-year (13,7%) and 30 died during available FUP (15,8%).

The aforementioned AF mortality score was applied to our pts at baseline, before TAVR: 63%, 17.5% and 8.5% of patients were categorized as low, moderate or high risk. Patients in the high risk group (score>16) had a significantly higher rate of events during follow-up – figure1. Lower and intermediate group failed to show a clear separation in terms of risk estimation between them, which may be attributed to the paucity of events in these two groups.

Conclusion: AF and aortic stenosis are both burdensome diseases and AF increases the risk of events in TAVR population. We showed that a newly proposed score that stemmed from ENVISAGE-AF can effectively select pts at high risk of mortality, in whom close clinical surveillance should be particularly rigorous.

