103. PREPROCEDURAL ATRIAL FIBRILLATION AS A PREDICTOR OF MAJOR CARDIOVASCULAR EVENTS AFTER TRANSCATHETER AORTIC VALVE IMPLANTATION

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Introduction. Atrial fibrillation is common among patients with severe aortic stenosis undergoing transcatheter aortic valve implantation (TAVI) and may influence postprocedural prognosis. However, its impact on postinterventional major adverse cardiovascular events (MACE) remains controversial.

Aim of study. To evaluate the association between preprocedural atrial fibrillation and the risk of MACE after TAVI, assessed peri-procedurally and at 1, 6, and 12 months.

Methods and materials. An analytical observational study was conducted in 135 patients treated with TAVI, stratified according to the presence of preprocedural atrial fibrillation: with atrial fibrillation (n=41) and without atrial fibrillation (n=94). MACE (all-cause mortality, stroke or transient ischemic attack, and acute myocardial infarction) and the extended composite endpoint (MACE plus cardiovascular rehospitalization and the need for permanent pacemaker implantation) were analysed peri-procedurally and at 1, 6, and 12 months by comparing event rates between groups and estimating odds ratios.

Results. Preprocedural atrial fibrillation was present in 41 patients (30.4%). During the periprocedural period, MACE rates were similar between groups (1/41 (2.4%) vs 2/94 (2.1%); OR=1.15; p=1.00), while extended MACE showed a numerically higher rate in the atrial fibrillation group (6/41 (14.6%) vs 9/94 (9.6%); OR=1.62; p=0.387). At 1 month, MACE was rare, with one event observed in the atrial fibrillation group (1/38 (2.6%) vs 0/87 (0.0%); OR=7; p=0.304), while extended MACE remained numerically higher in the same group (7/38 (18.4%) vs 10/87 (11.5%); OR=1.738; p=0.394). At 6 months, MACE events were sporadic (0/30 (0.0%) vs 1/77 (1.3%); OR=0.836; p=1.00), and extended MACE did not differ significantly between groups (1/30 (3.3%) vs 8/77 (10.4%); OR=0.297; p=0.439). At 12 months, atrial fibrillation was associated with an increased rate of MACE (3/26 (11.5%) vs 0/61 (0.0%); OR=18.319; p=0.024) and extended MACE (8/26 (30.8%) vs 5/61 (8.2%); OR=4.977; p=0.017). In the overall 12-month analysis, MACE occurred in 5/41 (12.2%) patients with atrial fibrillation compared with 3/94 (3.2%) without atrial fibrillation (OR=4.212; p=0.055), while extended MACE occurred in 16/41 (39.0%) versus 25/94 (26.6%) (OR=1.766; p=0.159).

Conclusions. Preprocedural atrial fibrillation does not significantly influence early post-TAVI prognosis but is associated with a higher risk of adverse events at 12 months, particularly for the composite MACE endpoint. These findings suggest a predominantly late prognostic impact of atrial fibrillation in this population.

Keywords. TAVI, MACE, atrial fibrillation.

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