prognostic evaluation of patients benefiting from a trans aortic valve replacement according to the type of aortic stenosis

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Introduction: Aortic Stenosis (AS) is a common condition in patients over 75 years. Latest ESC recommendations differentiate 4 types of AS according to: Indexed Stroke Volume (SVi), mean gradient and left ventricular ejection fraction (LVEF). The aim of our study is to evaluate prognosis of patients who have had a transcatheter aortic valve replacement (TAVR), in terms of mortality, according to the 4 types of AS.

Methods: This study compares prognosis of 620 patients who had TAVR between January 1, 2015 and December 31, 2018. Patients were classified into 4 groups according to AS type: high gradient; low gradient, low flow, low LVEF; low gradient, low flow, normal LVEF; low gradient, normal flow.

Results: 69 patients (11.1%) died within 12 months of the procedure: 49 in the high gradient group (9.4%); 13 in the low gradient, low flow, low LVEF group (47.1%); 1 in the low gradient, low flow, normal LVEF group (5%); 6 in the low gradient, normal flow, normal LVEF group (18.2%). All-cause mortality at one year follow-up is higher in low-gradient, low-flow, altered LVEF group ($p = 0.0004$) than in other groups. Patients in this group were significantly more often admitted for heart failure than patients in high-gradient group ($p = 0.009$).

Conclusion: A complete echocardiography evaluation is needed to evaluate AS, its severity and type. Patients in the low gradient, low flow, low LVEF group have an independent risk of mortality at 12 months higher than other groups and are more hospitalized than patients in the high gradient group.