



Fig. 1

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#### Poster n°12

### Transaortic valvular replacement prognosis according to aortic stenosis category

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**Introduction** Transcatheter aortic valve replacement (TAVR) has revolutionized the prognosis of patients with severe aortic stenosis. Four categories of aortic stenosis can be defined depending on left ventricular ejection fraction (EF), mean transvalvular gradient and stroke volume index.

**Aim** Whether aortic stenosis category influence prognosis after TAVR regarding functional improvement and mortality.

**Method** In total, 263 TAVR patients with a complete baseline echocardiography and one year follow-up, were retrospectively classified into four categories: high gradient ( $n=211$ ); low-flow, low-gradient aortic stenosis with reduced EF ( $n=21$ ); low-flow, low-gradient aortic stenosis with preserved EF ( $n=8$ ) and normal-flow, low-gradient aortic stenosis with preserved EF ( $n=23$ ).

**Results** At 12 months follow-up, 39 deaths occurred (14.8%): 25 in the high gradient group (11.8%), 9 in the low-gradient, low-flow, reduced EF group (43%), 1 in the low-gradient, low-flow, preserved EF group (12.5%), 4 in the low-gradient, normal flow group (17.4%). In a multivariate model, one-year all-cause mortality was higher in low-gradient, low-flow, reduced EF group ( $P<0.0001$ ) than in others (HR = 3.86; 95% CI 1.83–8.14;  $P=0.0004$ ). Patients with low-gradient, low-flow, reduced EF had less improvement in terms of dyspnea one month after the procedure with more patients in the NYHA 4 stage in this group ( $P=0.003$ ).

**Conclusion** A complete echocardiography is necessary to evaluate aortic stenosis, its severity and its type before TAVR. Patients with low-gradient, low-flow reduced EF had a higher mortality rate one year after TAVR and remained more symptomatic one month after the procedure.

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#### Poster n°13

### Characteristics and prognosis of patients with significant tricuspid regurgitation

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**Introduction** Severe tricuspid regurgitation (TR) usually remains asymptomatic for a long period, and the diagnosis is often delayed, at an advanced stage of right heart failure (RHF). Only a minority of patients are referred to surgery. We aim to describe the characteristics and prognosis according to aetiologies of patients with significant TR.

**Method** Two hundred and eight consecutive patients with moderate-to-severe (grade III) or severe (grade IV) TR were included from echocardiography reports between 2013 and 2017. Median follow-up was 18(6–38) months.

**Results** Patients (mean age 75 years, 46.6% males) were divided into 4 groups according to TR aetiology, group 1: primary TR (15.4%), group 2: TR secondary to left heart disease with a history of left heart valve surgery (24.5%), group 3: TR secondary to left heart disease with no history of left valvular surgery (26%) and group 4: idiopathic TR (34.1%). During follow-up, 61 patients (29%) experienced at least one decompensation of RHF requiring hospitalization. Only 11 patients (5.3%) underwent tricuspid valve surgery during follow-up with a perioperative mortality of 36%. The 4 years survival was much lower than the expected survival of age- and sex-matched individuals of the general population ( $56 \pm 4\%$  vs. 74%). After adjustment for outcome predictors, patients with idiopathic TR had a higher risk of mortality (adjusted HR = 1.83[1.05–3.21];  $P=0.034$ ) compared to other groups.

**Conclusion** Moderate-to-severe and severe TR is associated with a high-risk of hospitalization for RHF and death at 4 years and a low rate of surgery. (Fig. 1 Idiopathic TR is associated with worse outcome than other etiologies)