### 0274

**Prognostic impact of pulmonary arterial pressure in patients with aortic stenosis and preserved left ventricular ejection fraction**

Julien Magne, Cyrille Boulogne, Mathieu Deltreuil, Vincent Petitlat, Najmeddine Echahidi, Claude Casas, Patrice Virot, Marc Laskar, Dania Mohy, Victor Aboyans

**Background** The prognostic impact of pulmonary arterial pressure (PAP) remains controversial in aortic stenosis (AS) and few studies focused only on patients with preserved left ventricular ejection fraction (LVEF). We therefore aimed to investigate the impact of PAP, derived from our large catheterization database, on survival in severe AS with preserved LVEF.

**Methods and results** Between 2000 and 2010, 749 patients (74±8y, 57% of males) with preserved LVEF and severe AS without other valvular heart disease underwent cardiac catheterization, including right heart hemodynamic assessment. Pulmonary hypertension (PH) was defined as mean PAP >25mmHg.

- Systolic and mean PAP were 34.5±12 and 21.9±9mmHg, respectively. Overall, 29% (n=215) of patients had PH, and these patients were significantly older (p<0.0001), with lower LVEF (p<0.0001) and higher heart rate (p=0.016) than those without PH. In addition, they more frequently had hypertension (p<0.0001), diabetes (p=0.001), coronary artery disease (CAD, p<0.0001) and chronic pulmonary disease (p=0.043). Aortic valve replacement (AVR) was performed in 91% of patients and 30-day mortality was 4.3%, significantly higher in patients with PH (7.7 vs. 3.4%, p=0.014). In logistic regression analysis, after adjustment for age, gender, LVEF, CAD and mean transaortic pressure gradient, mean PAP was an independent predictor of increased 30-day mortality (OR=1.06, 95% CI: 1.02-1.1, p=0.004).

Overall long-term survival was significantly reduced in patients with PH as compared to those without PH (10-year survival: 41±8 vs. 61±3%, p<0.0001). In multivariate analysis, after adjustment for all cofactors, PH was an independent predictor of mortality (HR=1.15, 95% CI: 1.1-2.1, p=0.037).

**Conclusion** In patients with severe AS and preserved LVEF, PAP is an independent predictor of both 30-day and long-term mortality. In order to improve the prognosis of these patients, AVR could be considered before the occurrence of severely elevated PAP.

*The author hereby declares no conflict of interest*

### 0281

**His bundle recording during and after TAVR to predict early and late atrio-ventricular block**

Nicolas Badenco, Caroline Nguyen, Robert Frank, G. Duthoit, Carole Maupain, Françoise Hidden-Lucet, Pascal Leprince, E. Gandjbakhch, Xavier Waintraub, Jean-Philippe Collet

**Background** Early and late atrioventricular blocks (AVB) are frequent during trans-aortic valve replacement (TAVR) leading to permanent pacemaker (PPM) implantation. Whether His Bundle recording (HBR) during and after TAVR can predict AVB remains a matter of debate.

**Objective** To correlate HV interval during and after TAVR with early and late AVB occurrence.

Methods Between January 2013 and December 2014, HBR was assessed prospectively before balloon inflation (HV1), 15 minutes after (HV2), and at day 2 and 5 for Sapiens and CoreValve (HV3) in all pacemaker-free patients undergoing TAVR. PPM was implanted when permanent AVB persisted over day, or if paroxysmic AVB occurred within the first 5 days or if HV3 >80ms. Logistic regression was performed to assess if HVB could well predict early (from day 1 to day 5) or late (from day 5 to day 30) AVB occurrence.

Results 86 patients aged of 85±8.2 years old, with a Euroscore of 15.3±9.3 and of whom 50(79%) were female were recruited. Corevalve was predominantly used (59(66%)). HV1, HV2 and HV3 were 56±9ms, 70±19ms and 63±14ms respectively. In total, 29 (34%) PPM were implanted before discharge of which 18 (19.7%) for documented AV block, 8 for prolonged HV interval and 3 for sick sinus syndrome. 12 patients (13.9%) showed AVB during follow-up after discharge, all implanted for early AVB. There was no AVB recorded in PPM for prolonged HV interval, programmed with a diagnostic atrio-ventricular conduction preservation algorithm. HV1 and HV2 were not associated with early AVB occurrence (p=0.79 and p=0.34 respectively).

Prolonged HV1, HV2 or HV3 did not predict late AVB occurrence either (p=0.54, p=0.90 and p=0.91 respectively).

**Conclusion** High degree AVB is a common finding after TAVR and can occur late. Repeated HBR before and after TAVR did not show any significant predictive value for early and delayed AVB.

*The author hereby declares no conflict of interest*