sured by cardiac catheterization in patients with severe AS without other valve disease.

Methods and results From January 2010 to December 2012, we included 85 consecutive patients with severe AS scheduled for clinically indicated cardiac catheterization study. Comprehensive transthoracic echocardiography (TTE) was performed in all patients within 24 hours of the hemodynamic study. Mean age was 75±9 years, 65% of them were male, 65%, 22% and 54% had respectively a history of hypertension, diabetes, and dyslipidemia. NYHA functional class was II in 63% of patients. By TTE, mean LV ejection fraction, max left atrial (LA) volume indexed, were respectively 60±9%, and 38±16mL/m². Mean mitral septal E/e' ratio was 18.3±5. Cardiac catheterization found 60% cases of coronary artery disease and the mean PCWP was 13.7±7mmHg. As compared to patients with low PCWP (<13mmHg), transcapillary filtration found 60% cases of coronary artery disease and the mean PCWP >13mmHg with a sensitivity of 77% and a specificity of 62% (area under the curve=0.73). Similarly, mitral annular septal E/e' ratio >12 predicted PCWP>13mmHg with a sensitivity of 90% and a specificity of 60% (area under the curve=0.73).

Conclusion In severe AS patients, maximal LA indexed volume >290/mL/m² and E/e' ratio >12, derived from TTE, appear as good markers of elevated PCWP. Further studies are needed to investigate their prognostic values.

The author hereby declares no conflict of interest

0574 Determinants and prognostic value of Galectin-3 in patients with aortic valve stenosis - the COFRASA-GENERAC study

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Background Identifying subgroups of asymptomatic patients with aortic stenosis (AS) who may benefit from early intervention is a critical challenge due to the risk of sudden death and irreversible myocardial dysfunction without preceding symptoms. In this study, we analyzed the determinants and prognostic value of Galectin-3 in a large cohort of patients with AS.

Methods We included patients with at least mild degenerative AS enrolled in the ongoing prospective clinical studies, COFRASA and GENERAC, aiming at assessing the determinants of AS occurrence and progression.

Results Between November 2006 and July 2013, 583 patients were prospectively enrolled. Severe AS was diagnosed in 312 (56%) patients among whom 220 (38%) were symptomatic. Age (p<0.0001) and reduced creatinine clearance (p<0.0001) were positively associated with Galectin-3 level.

No significant association was found between Galectin-3 and echocardiographic parameters of AS severity including aortic valve area (p=0.41), mean transvalvular gradient (p=0.27), and AS jet velocity (p=0.52). Galectin-3 did not provide diagnostic evidence of severe AS (area under the curve=0.53). Galectin-3 was not influenced by symptomatic status. Echocardiographic parameters of LV remodeling were not associated with Galectin-3 in multivariate analysis. Event-free survival analysis revealed no prognostic value of Galectin-3.

Conclusions The main determinants of Galectin-3 level were age and renal function. There was no association between Galectin-3 and symptomatic status and echocardiographic parameters associated with LV remodeling. Galectin-3 didn’t provide prognostic information on the occurrence of AS related events. These results do not support the use of Galectin-3 in the decision making process of patients with AS.

The author hereby declares no conflict of interest

0015 Left ventricular rapid pacing: a new technique to simplify BAV and TAVI procedures

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Aims The aim of this study is to demonstrate efficacy and safety of a new technique for rapid pacing during balloon aortic valvuloplasty (BAV) and Transaortic Valve Implantation (TAVI).

This study first describes the method used safely and successfully for BAV and TAVI in a fragile adult population.

Methods and results These technique consist in a left ventricular pacing through the 0.35 inch back up guidewire inserted into the left ventricle. The cathode of an external pacemaker was placed on the external end of the 0.35” wire using an alligator clamp. The anode was placed (also using an alligator clamp) on a small needle piercing the subcutaneous tissue at the site of the anesthetized groin.

The balloon or the TAVI catheter provides the necessary insulation.

We performed consecutively 100 cases of BAV and TAVI. All cases were successfully conducted with a one for one pacing (160 to 200mm). That’s how we obtain a significant blood pressure drop in all cases with a mean systolic pressure during stimulation of 45mmHg. The time procedure was 38mn for BAV and 65mn for TAVI. Only three patients underwent a venous temporary pacemaker at the end of procedure for conduction disturbances. All cases of TAVI (34) underwent a femoral venous catheter as a central catheter while the BAV population did not have a venous femoral puncture. No venous vascular complication or tamponade was observed in our population.
Conclusions This study demonstrated that the rapid pacing trough the back-up left ventricle guidewire is equivalent to right ventricular pacing in term of efficacy.

This method is safer due to the limitation of complications related to right ventricular pacing lead placement. Finally, it simplify the procedure by making it faster.

The author hereby declares no conflict of interest

0179

Transcatheter valve-in-valve implantation in patients with failed aortic bioprosthesis: immediate and medium-term outcomes of 15 procedures

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Background TAVI offers an attractive option for patients with failed bioprosthesis and high operative risk (valve-in-valve concept).

Purpose The objective of this study was to analyze outcomes of patients with failed aortic bioprosthesis undergoing transcatheter aortic valve-in-valve implantation.

Methods From January 2012 to January 2015, 15 patients with degenerated aortic valve bioprosthesis underwent transcatheter aortic valve-in-valve implantation in our institution. Mean patient age was 82±6 years. Mean logistic Euroscore was 36±16% and mean STS score was 16±14%. The mean follow-up was 260±316 days.

Results The failing bioprosthesis were Cryolife O’brien in 5 patients, Carpentier Edwards in 5 patients, Medtronic mosaic in 4 patients and Mitroflow in 1 patient. Bioprosthesis mode of failure was stenosis (n=6), regurgitation (n=5), or combined stenosis and regurgitation (n=4). The mean degenerative time was 11.15±6.1 years.

Implanted devices included Medtronic CoreValve (n=6) and Edwards SAPIEN (n=9). Successful implantation of a transcatheter aortic valve-in-valve with the patient leaving the catheterization laboratory alive was achieved in all patients. Adverse procedural outcomes included initial device malposition in 3 cases requiring a second valve, retroperitoneal hematoma in 1 patient, permanent pacemaker in 1 patient, Stroke in 1 patient and acute renal failure in 1 patient. The mean transvalvular gradient passed from 48.7±17.63 to 18.32±9.3mmHg in stenotic degenerated bioprosthesis. No significant aortic regurgitation was observed post-implantation. During hospitalization, 1 patient developed myocardial infarction. The mean inhospital stay was 13.4±7.7 days. During later follow-up, there was no death, no myocardial infarction and no stroke or TIA. 2 patients were hospitalized for heart failure.

Conclusion Transcatheter aortic valve-in-valve implantation seems to be feasible and safe in both stenotic and regurgitant degenerative bioprosthesis.

The author hereby declares no conflict of interest

0345

Thirty-day outcomes of transcatheter aortic valve implantation with the latest generation Edwards SAPIEN 3 prosthesis via the transilofemoral approach

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Background Few data is available concerning the latest generation Edwards SAPIEN 3 in patients with severe aortic stenosis undergoing transcatheter aortic valve implantation (TAVI).

Aims To evaluate periprocedural and 30-day clinical outcomes of TAVI using the Edwards SAPIEN 3 prosthesis via transilofemoral approach.

Methods Between September 2014 and March 2015, consecutive high-risk or non-operable patients with severe aortic stenosis had TAVI using Edwards SAPIEN 3 prosthesis in Institut Mutualiste Montsouris. Valve Academic Research Consortium endpoints were used.

Results Of 142 patients who underwent TAVI using Edwards SAPIEN prosthesis, 66 were treated with SAPIEN 3 via transfemoral access (mean age 84±7.1 years; 70% female). About 65% and 48% of patients had, respectively, severe peripheral artery diseases and calcified iliopoplaveolar arteries. Multi-detector computed tomography estimated an aortic annular diameter of 25.0±2.2mm. Mean logistic EuroSCORE was 15.8±10.8. The device success rate was 98.5%. No failure of valve deployment had occurred and no patient had more than mild paravalvular aortic regurgitation. Mean transaortic gradient decreased from 46, 0±12,33mmHg to 8,2±3,37mmHg (p<0.001), at 30 days follow up, there were no myocardial infarction. The major complications were 6%, mortality and stroke were of 3%, and the rate for a new pacemaker was 10.6.

Conclusion In our study, TAVI with Edwards SAPIEN 3 was associated with a high rate of device success and low rate of paravalvular aortic regurgitations and major bleedings.

The author hereby declares no conflict of interest

0583

Prognostic significance of longitudinal strain in asymptomatic aortic stenosis and preserved left ventricular ejection fraction – the OFRASA/GENERAC study

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Objectives It has been suggested that myocardial systolic deformation parameters may be a more sensitive marker of left ventricular (LV) systolic dysfunction than LV ejection fraction (LVEF). However, its prognostic value in patients with aortic stenosis (AS) remains debated.

Methods In an ongoing prospective cohort of asymptomatic patients with at least mild, pure, isolated AS, global longitudinal strain (GLS) was measured at baseline using 2D speckle tracking imaging, and AS related events (occurrence of symptoms, congestive heart failure and sudden death) were prospectively collected.

Results We prospectively enrolled 176 patients (mean age 72 years, 70% male). Mean aortic valve area was 1.25cm 2 and mean gradient 28.8mmHg. Overall, 88 patients had mild AS, 50 patients moderate AS and 38 patients severe AS. During a mean follow up period of 2.2 years, 38 events occurred. GLS was not correlated to pic velocity, mean gradient or aortic valve area (AVA) (all p>0.05). In univariate analysis, neither in the whole cohort (p=0.75), nor in the subgroup of moderate/severe AS, GLS was predictive of future AS related events. Results were unchanged after adjustment for AS hemodynamic severity (p=0.66 and p=0.82, respectively).

Conclusions Our data suggest that longitudinal strain assessed by 2D speckle tracking echocardiography, is not predictive of future symptomatic status in asymptomatic patients with AS and preserved LVEF. Thus, this index should not be recommended in daily practice, in order to select patients who should undergo an early aortic valve replacement.

The author hereby declares no conflict of interest