tural atrial remodeling in NTP-H-rats. Aftymrix microarray analysis revealed differential regulation of LA gene expression in NTP-H and IH. This was associated with significantly prolonged inducible AF-duration in rats with chronically applied NTP-H (p=0.02 vs. CTR; NTP-H: 11.65 seconds; CTR: 0.98 seconds) but not with IH (p=0.31 vs. CTR; IH: 1.28 seconds).

Conclusion: In the long term, chronically applied NTP-H, but not IH, increases blood pressure and results in left ventricular diastolic dysfunction and the development of an atrial arrhythmogenic substrate, characterized by increased interstitial fibrosis formation, atrial myocardial hypertrophy and AF-vulnerability.

BEST POSTERS IN AORTIC VALVE DISEASE

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Longitudinal cardiac magnetic resonance assessment in patients with aortic stenosis

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Background: Progressive aortic stenosis (AS) is characterized by the development of left ventricular (LV) hypertrophy and myocardial fibrosis. Both diffuse and focal myocardial fibrosis can be assessed using cardiac magnetic resonance (CMR) although longitudinal studies are lacking.

Purpose: To assess the natural history of myocardial fibrosis in patients with AS and remodeling following aortic valve replacement (AVR).

Methods: 63 patients with aortic stenosis were followed up for 2 years with serial CMR and echocardiography. 28 patients (age 63±13, 68% male, 14% mild, 36% moderate, 50% severe AS) did not undergo intervention (natural history cohort). 35 patients (age 67±8, 73% male, all severe AS) underwent AVR within the first year (AVR cohort). Focal myocardial scarring was assessed using late gadolinium enhancement (LGE) and the burden of diffuse myocardial fibrosis was assessed using T1 mapping and the indexed extracellular volume (iECV; LV end-diastolic volume multiplied by extracellular volume fraction indexed to body surface area). Annualised change was calculated for all measures.

Results: In the natural history cohort, left ventricular mass index (LVMi) increased over time (6±1%, P<0.0001) and was accompanied by an increase in the burden of diffuse fibrosis as measured using the indexed extracellular volume (iECV; 7±2%, P<0.0001). Focal myocardial scarring (mid-wall LGE) was observed in nine patients (32%). Absolute LGE mass increased by 3.8±0.8g (P<0.0001) mirrored by a reduction in diffuse fibrosis (iECV, -9±2%, P<0.0001) and was accompanied by an increase in the burden of diffuse fibrosis (iECV, 7±2%, P<0.0001). No difference in mortality between patient with and without CAD was notified. In addition, mortality was similar whether patients had 0, 1, 2 or 3 vessels affected by a significant stenosis (figure 1A). However, left anterior descending (LAD) coronary was associate with a higher mortality at 3 years (p=0.004) (figure 1B).

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Impact of Coronary Artery Disease in Patients Undergoing Transcatheter aortic Valve Replacement: Inside The FRANCE-2 Registry

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Background: Coronary artery disease (CAD) is common in patients undergoing Transcatheter aortic valve Replacement (TAVR). However, the impact of revascularization before TAVR on short and long term prognosis remains unclear.

Objective: To assess the natural history of myocardial fibrosis in patients with AS and remodeling following aortic valve replacement (AVR).

Methods: The FRANCE-2 registry prospectively included all TAVRs performed in France. In this population, the 3 years outcomes were compared between patients with CAD and patients without.

Results: A total of 4,201 patients were enrolled between January 2010 and January 2012 in 34 centers. After exclusion of patients with history of coronary artery bypass, 3,452 patients were included in the present analysis. Median follow-up was 3.8 years and vital status was available for 97.2% of patients at 3 years. Overall, 1,255 patients had CAD (defined by at least one coronary stenosis >50%) before the procedure and 2,197 without. Patients with CAD were older (83.4 vs. 82.6; p=0.003) as compared to patients without CAD and there was more male (53.0% vs. 40.2%; p<0.0001). At 1 month (p=0.62) and at 3 years (p<0.09), no difference in mortality between patient with and without CAD was notified. In addition, mortality was similar whether patients had 0, 1, 2 or 3 vessels affected by a significant stenosis (figure 1A). However, left anterior descending (LAD) coronary was associate with a higher mortality at 3 years (p=0.004) (figure 1B).

Conclusion: Short and long term mortality of patients with significant CAD undergoing TAVR was similar as patients without CAD. These data does not support systematic revascularization in patients with CAD before TAVR, except for LAD.

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Tricuspid but not mitral regurgitation determines mortality after TAVR in patients with less than significant mitral regurgitation

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Aims: Most patients undergoing transcatheter aortic valve replacement (TAVR) present concomitant mitral regurgitation (MR) of moderate (2+) or lower degree. In addition, the impact of tricuspid regurgitation (TR) in this scenario remains unexplored. We sought to analyze first, the clinical impact of mild/mild-to-moderate vs. mild/mild-to-moderate MR and its variation following TAVR; and second, the impact of concomitant TR in TAVR patients with MR<2+

Methods: Between August 2007 and January 2015, 1110 consecutive patients

Conclusions: Short and long term mortality of patients with significant CAD undergoing TAVR was similar as patients without CAD. These data does not support systematic revascularization in patients with CAD before TAVR, except for LAD.