Abstract 9 Figure 1 Kaplan Meier graph depicting freedom from MACE at 36 months

assessments (45.49 vs 47.06% $p=0.843$ for ISR and de-novo groups respectively).

FFR was the mostly commonly used physiological modality to defer revascularization across both groups (used in >75% of cases). The average FFR was 0.86 across both groups ($p=0.569$), with the average iFR being 0.93 in the ISR group vs 0.94 in the native artery group, $p=0.302$. At 36-month follow up there were no differences in freedom from MACE by Kaplan Meier estimates 84.77 vs 86.08%, log rank, $p=0.75$ for ISR and native arteries respectively (figure 1). Neither were there differences in the individual components of the composite end point: all-cause mortality (91.70 vs 90.01%, log rank $p=0.75$), TLR (92.73 vs 95.84%, log rank $p=0.35$) nor TVMI (98.45% vs 100%, log rank $p=0.1556$) for ISR and native vessels respectively.

Conclusions Deferral of revascularization in patients with moderate ISR is safe in comparison to a matched group of native vessel moderate stenosis with no differences in a composite MACE end point at 36 months between groups.

Oral abstract presentations 2

10

LEFT ATRIAL FUNCTION BY ECHOCARDIOGRAPHY IS INDEPENDENT OF DEGREE OF LEFT ATRIAL ELECTRICAL SCAR

¹R Gallen, ¹C McGorrian, ¹T Keelan, ²J Galvin, ¹J Keaney. ¹Mater Misericordiae University Hospital Dublin, Ireland; ²Heart and Vascular Centre, Cardiology Department, Mater Private Hospital, Dublin, Ireland

10.1136/heartjnl-2020-ICS.10

Introduction Assessment of left atrial function via transthoracic echocardiography (TTE) is often performed by measuring the transmitral A wave in sinus rhythm. Left atrial (LA) fibrosis plays an important role in the pathogenesis and perpetuation of Atrial Fibrillation (AF). It may be identified by bipolar voltage (BiV) mapping, which can easily be performed at the beginning of a Pulmonary Vein Isolation (PVI) procedure. The relationship between the degree of LA fibrosis, characterized with mapping, and LA function, determined by echocardiography, has not previously been elucidated.

Methods Patients were enrolled in a project to evaluate the degree of fibrosis during PVI procedures. Pre-procedure TTEs of those presenting in sinus rhythm were assessed and the transmitral A wave was measured and compared to the degree of scarring seen. The high density electroanatomic maps (HD-EAMs) created during the PVIs were analyzed using a novel VHA algorithm after the procedure. All points with voltages < 0.5 mV were defined to have electrical scar. Patients were classified into 4 quartiles based on the levels of scar seen (figure 1).

Results 39 patients were included in the evaluation. Average age was 60.6 ± 13.2 years. 32 (82.0%) of the patients were male. Mean CHADS2VASc score was 1.5. The mean percentage of scar was calculated as $19.6 \pm 15.9\%$. The average A wave was 0.62 ± 0.18 ms-1. Pearson's correlation coefficient showed no relationship between LA scar and either A wave

Abstract 10 Figure 1 Examples of patients with voltage histogram analysis quantifying scar
Panel A – Class I; Panel B – Class II; Panel C – Class III; Panel D – Class IV. All views shown are anteroposterior

Abstract 10 Figure 2 Boxplot showing A wave velocities by LA scar burden in quartiles

velocities ($r=0.26$, $p=0.11$) or E:A ratio ($r=-0.02$, $p=0.91$) (figure 2). A significant correlation between A wave velocity and CHADS2VASc was observed ($r=0.49$, $p=0.001$).

Conclusion Our study demonstrates no relationship between degree of LA scarring and reduced LA function on TTE as assessed by the A wave. It has been established that structural remodeling in AF (such as atrial dilatation) may occur independently of the electrical remodelling. A potential explanation for our findings is that the electrical scarring in AF, which results in alterations in refractory periods, precedes the negative remodeling which ultimately results in reduced atrial function. This hypothesis would need to be further evaluated in larger studies.

11

TEN-YEAR CLINICAL OUTCOMES FROM A RANDOMIZED TRIAL OF POLYMER-FREE VERSUS DURABLE POLYMER DRUG-ELUTING STENTS TEN-YEAR RESULTS OF THE INTRACORONARY STENTING AND ANGIOGRAPHIC RESULTS: TEST EFFICACY OF SIROLIMUS- AND PROBUCOL- AND ZOTAROLIMUS- ELUTING STENTS (ISAR-TEST 5) TRIAL

^{1,2}RA Byrne, ³S Kufner, ³M Ernst, ^{1,3}R Collieran, ³A Kastrati. ¹Cardiovascular Research Institute (CVRI) Dublin, Mater Private Hospital, Dublin, Ireland; ²School of Pharmacy and Biomolecular Sciences, RCSI University of Medicine and Health Sciences, Dublin, Ireland; ³Department of Cardiovascular Diseases, German Heart Centre, Munich, Germany

10.1136/heartjnl-2020-ICS.11

Background Outcome data after extended long-term follow-up of patients with coronary artery disease treated with drug-eluting stents (DES) in randomized clinical trials is scant.

Objective Performance differences between devices may be expected to emerge over time depending on whether stenting is done with polymer-free or durable polymer DES. We assessed the 10-year outcomes of patients enrolled in the ISAR-TEST 5 trial.

Methods 3002 patients were randomized to treatment with either polymer-free sirolimus- and probucol-eluting stents (PF-SES) ($n=2002$) or durable polymer zotarolimus-eluting stents (DP-ZES) ($n=1000$). The primary endpoint was the composite of cardiac death, target vessel-related myocardial infarction or target lesion revascularisation (a device-oriented composite endpoint, DOCE). Additional endpoints of interest were the

patient-oriented composite endpoint (POCE), including all-cause death, any myocardial infarction or any revascularisation, individual components of the composite endpoints, and definite or probable stent thrombosis.

Results The median age of the patients at randomization was 67.8 years. At 10-years, 63.9% of patients were alive. The rates of DOCE and POCE were high in both groups with no difference in the incidence between PF-SES and DP-ZES, (DOCE: 43.8% versus 43.0%, respectively, hazard ratio = 1.01, 95% CI, 0.89–1.14; $P=0.90$), (POCE: 66.2% versus 67.7%, respectively, hazard ratio = 0.94, 95%CI, 0.86–1.04; $P=0.22$). The rates of the individual components of the composite endpoints were comparable in both groups. The incidence of definite/probable stent thrombosis over 10 years was low and comparable in both groups (1.6% vs. 1.9%; hazard ratio = 0.85 [95% CI, 0.46–1.54], $P=0.58$).

Conclusion At 10 years there were no measurable differences in outcomes between patients treated with polymer-free versus durable polymer DES. The incidence of stent thrombosis was low and comparable in both groups. High overall adverse clinical event rates were observed during extended follow-up.

12

ELECTROCARDIOGRAPHY PREDICTORS FOR PACEMAKER INSERTION POST TAVR

D Ranganathan, B O'Sullivan, E McAuliffe, SM O' Connor, N Rady, F Fahy, P Kearney. Cork University Hospital, Cork, Ireland

10.1136/heartjnl-2020-ICS.12

Introduction The development of Transcatheter Aortic Valve Replacement (TAVR) has provided an alternative to surgical valve replacement in high-risk population. Post-procedural length of stay is one of the main cost components after TAVR and is significantly influenced by prolonged monitoring for new conduction disturbances. Occurrence of advanced conduction delays, if left untreated, can be responsible for sudden cardiac death after discharge.

Objective We aimed to determine the electrocardiographic predictors of advanced conduction disturbance that required a permanent pacemaker implantation (PPM) after TAVR.

Methods All consecutive patients who underwent TAVR between January 2016 to July 2019 were identified from by a retrospective review of TAVR database at this centre.

Results A total of 77 patients underwent TAVR within the study period and 7 patients were excluded as they had a pre-existing pacemaker/implanted cardiac defibrillator and 2 patients were excluded due to insufficient data. 36 of the patients were males (52%) with an average age of 82.1 years. The average BMI was 26.8 and 62 patients (91.1%) were symptomatic with New York Heart Association class 3 or above.

All 68 patients had self-expanding Medtronic CoreValveTM. 10 (14.7%) patients required a PPM within an average of 5.3 days for an indication of either complete heart block or intermittent complete heart block. Of the 10 patients who had a PPM inserted, 3 patients had a Right Bundle Branch Block (RBBB) at baseline. These patients were all pacing-dependent (>80% pacing when lower rate was programmed at 60 beats/min) at 6 weeks post-implantation follow-up. 4 out of 7 patients (57%) who had a non-RBBB pattern (i.e. LBBB or normal QRS complex) at baseline had an average pacing requirement of <2% at 6 weeks post implant follow-