safe and efficacious to perform concomitant leadless pacemaker implantation for TAVR pts with preexisting conduction system disease and TAVR-related complete heart block.

**Objective:** To review a series of pts that underwent TAVR and leadless PPM implantation concurrently to assess pt safety, efficiency and possible benefit.

**Methods:** Patients that underwent TAVR and leadless PPM implantation during the same procedure were reviewed. Patient characteristics were assessed based on pre-existing conduction disease, age and BMI. The total procedural time and hospital LOS were reviewed to evaluate procedural efficiency.

**Results:** Between Sept 2020 and Dec 2021, 6 pts underwent TAVR and leadless PPM implantation during the same procedure. All pts prior to TAVR were identified as high risk for potential need of PPM support and consented prior to the procedure. Four of the pts had preexisting RBBB, and 2 pts had preexisting left anterior fascicular block. All pts had a normal LVEF at the time of implant. One pt underwent a Micra VR device and 5/6 pts underwent Micra AV implant for CHB noted during the procedure. The average age was 83.5 yo (+/- 6.8) with a BMI of 30.6 (+/- 6.3). The average pacing percentage at discharge was 66.8% (+/- 37.2) and the average pacing percentage at 2-week follow up in 3/6 pts was 98.1% (+/- 1.3). Three pts have not had follow up testing. The average total procedural time was 157 min (+/-40) with an average leadless PPM implant time of 53 min (+/-20). The average hospital LOS was 55 hr. There were no reported 30-day complications.

**Conclusion:** Performing TAVR and leadless PPM implantation during the same procedure may improve efficiency and reduce hospital LOS in pts requiring permanent pacing following TAVR. Further analysis of this strategy to assess pt safety, pt satisfaction and health care utilization is warranted. Collaboration between interventional cardiologists and cardiac electrophysiologists may allow for efficient care of TAVR pts with pre-existing conduction system disease.

**PO-644-06**

**NOT EVERYTHING IS AS IT SEEMS-CONCOMITANT BRUGADA SYNDROME AND CORONARY VASOSPASM CAUSING VF ARREST**

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**Background:** Sudden cardiac death (SCD) is the leading cause of death in the United States, and is most commonly associated with underlying coronary artery or other structural heart disease (SHD).

**Objective:** To describe a case of patient without overt SHD with recurrent ventricular fibrillation (VF) and 2 concomitant uncommon causes of SCD.

**Methods:** N/A

**Results:** A 49 year old healthy man with history of hypertension experienced syncope while driving. While in the ambulance, he had ventricular fibrillation requiring defibrillation. Echocardiogram and cardiac MRI were normal. Cardiac catheterization revealed non-obstructive coronary artery disease. With procainamide challenge in the EP laboratory, he had provoked Brugada syndrome (BrS) Type 1 pattern. An implantable cardioverter-defibrillator (ICD) was recommended, but patient preferred to have second opinion and therefore he was started on metoprolol and discharged with wearable defibrillator (WD). He presented to our institution ~1 week later after another syncopal episode resulting in facial lacerations. The WD did alarm and deploy dye/gel just prior to syncope and shock. He noted that over the preceding week, the WD had been alarming, causing him to repeatedly push the button to avoid shocks. Review of electrograms from the WD (panel A) revealed multiple episodes of non-sustained polymorphic VT (ns-PVMT) and VF. He was taken to the EP laboratory the same day for epicardial ablation for BrS. A small patch of abnormal voltage and electrograms (EGMs) noted in the epicardial right ventricular (RV) outflow tract region (panel B). The abnormal EGMs were eliminated with ablation. He was started on quinidine and restarted on metoprolol post procedure. A few days later, he had recurrent ns-PVMT that was preceded by dramatic ST elevation and QRS widening consistent with coronary vasospasm (panel C). Metoprolol was discontinued and verapamil was started. ICD was implanted prior to discharge. Quinidine was later discontinued and over months of follow-up he has had no further PMVT or VF.

**Conclusion:** We describe a case of recurrent VF caused by concomitant BrS and coronary artery vasospasm. A combination of catheter ablation targeting the epicardial substrate of BrS and coronary vasodilator therapy to prevent recurrent spasm was effective to prevent recurrent VF.

**PO-644-07**

**IMPLANTABLE LOOP RECORDER UTILIZATION IN PATIENTS WITH BREAST AUGMENTATION**

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**Background:** Implantable loop recorders (ILR) are subcutaneous devices that offer long-term cardiac rhythm monitoring in patients with unexplained syncope, palpitations, or cerebrovascular accident. The utilization of ILRs in numerous patient populations has been growing. Though the implant procedure is minimally invasive, patients with breast augmentation and implants provide unique challenges and safety concerns.

**Objective:** To identify a favorable and safe implant technique for implantable loop recorder insertions in patients with breast implants.
Methods: We identified all loop recorders implanted from December 2020 to November 2021. We then filtered the patients by sex and obtained the site of implant and resulting R-wave.

Results: Of a total of 118 ILR implants, 4/70 were identified as women with breast implants. 1/4 patients received an ILR in the parasternal position (A) at the 4th intercoastal space resulting in a sensed R-wave of 0.4mV. The remaining patients underwent mapping of surface EGMs to guide ILR placement in the horizontal ILR position (B) resulting in an average R-wave from 0.28mV. There were no acute complications reported, however R waves in the 0.2-0.48 mV range were substantially lower than average R waves in the non breast implant population (0.5mV).

Conclusion: Mapping of surface electrograms during ILR procedures in patients with breast implants may provide a safe way to prevent complications and obtain adequate electrograms. Uniform strategies to optimize ILR implantation in patients with breast implants remain a work in progress.

PO-644-08
VIRTUAL ATRIAL FIBRILLATION PATIENT EDUCATION LED BY ALLIED PROFESSIONALS IS PREFERRED BY PATIENTS AND LEADS TO HIGH PARTICIPATION RATES AND IMPROVED VIRTUAL CARE ACCEPTANCE
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Background: Patient education programs are an integral component of care and there is an emerging role for virtual programs led by Allied Professionals to accommodate social distancing restrictions.

Objective: To assess the utilization, acceptance, and benefits of virtual learning for atrial fibrillation patients as well as its impact on virtual care.

Methods: A comprehensive 3-hour virtual symposium on Atrial Fibrillation (AF) via an online video platform was offered to patients and their family members. The program was sponsored by an academic teaching hospital free to patients and was promoted through social media. A total of 314 participants registered and 199 (63%) of registrants participated.

Results: A sample of results from a follow-up survey is shown (Figure 1 and 2). Most respondents were 65 years old (42.4%); Female (71.2%), Caucasian (79.6%), completed graduate school (44.8%) and lived 50+ miles away (61%). Minority populations were under-represented relative to the local population demographics (Black 5%, Hispanic 1.7%). Compared to our prior in person Atrial Fibrillation patient symposium programs, the cost was significantly less - $55/patient for in-person vs. $20/patient for virtual. The majority of respondents (54.5%) indicated that program participation increased the likelihood of participating in a virtual visit.

Conclusion: Virtual learning for Atrial Fibrillation can be successfully offered, with a high enrollment rate and participation at a fraction of the cost of an in-person program. Attendees preferred virtual over in person education. This program influences future acceptance of virtual care. Inclusion of at-risk populations may address potential health inequity and requires further study.

POSTER PO-645:
Posters: Basic Science at Pod 2
Saturday, April 30, 2022
10:00 AM - 12:00 PM

PO-645-01
SUBTHRESHOLD DELAYED AFTERDEPOLARIZATIONS MEDIATED BY REDUCED TISSUE COUPLING PROVIDE AN IMPORTANT SUBSTRATE FOR UNIDIRECTIONAL BLOCK AND ARRHYTHMOGENESIS IN THE INFARCT BORDER ZONE
Fernando Otaviano Campos PhD; Yohannes C. Shiferaw PhD; John Whitaker BCH, BM, PhD; Mark D. O’Neill MBChB, FHRS; Reza Razavi MD; Gernot Plank PhD and Martin J. Bishop PhD

Background: Delayed afterdepolarizations (DADs) caused by spontaneous calcium release (SCR) events have been implicated in arrhythmia formation in the border zone (BZ) of infarcted hearts. DADs may inactivate sodium channels forming a substrate for unidirectional conduction block. The role played by infarct anatomy and altered intracellular coupling in facilitating this phenomenon is not well understood.

Objective: To use computational modelling to investigate the role of anatomical properties of the infarct BZ in creating a substrate for DAD-mediated arrhythmias.

Methods: Detailed post-infarct MRI-derived ventricular porcine data was used to build a computational model. A phenomenological model was used to simulate SCRs in the BZ. Arrhythmia susceptibility was quantified by pacing the model followed by a pause, to see whether DADs would occur, and an extra S2 beat with different coupling intervals (CIs). Tissue