days later with elevated device thresholds (4.5V at 0.4ms) concerning for micro-dislodgement. Given ongoing relative contraindications to a transvenous system and long-term infection risk with planned renal transplant, he underwent implant of a second Micra AV device. Multiple deployments on the septum away from the initial device had poor thresholds. Ultimately, the second device was placed very close but slightly more basal to the initial device with excellent parameters. Soon after, there was consistent noise from device-device interaction with numerous V oversensing events on the new device suggesting a mechanical interaction (initial device in non-pacing mode). To avoid this interaction, the initial device was successfully extracted by snaring the retrieval knob (25mm Gooseneck snare, Mach-1 multipurpose catheter to angle snare septal, medium curve Agilis sheath). The patient tolerated the complex case well with excellent new device function over 9 months of follow-up.

Conclusion: Device-device interference may be a significant limitation to multiple leadless pacemaker device implantations and an important consideration in peri-procedural planning for initial device as well as subsequent implants.

**PO-633-05**

**MEDIAN STERNOTOMY BEFORE OR AFTER SUBCUTANEOUS ICD IMPLANTATION DOES NOT DAMAGE LEAD OR RESULT IN OVERSENSING**

Alan M. Sugrue MBChB; Gustavo S. Guandalini MD; Matthew Craig Hyman MD; Rajat Deo MD; Pasquale Santangelo MD, PhD; Saman Nazarian MD, PhD; FHRs; Jeffrey Arkles MA, MD; Michael P. Riley MD, PhD; Robert D. Schaller DO, FHRs; Andrew E. Epstein MD, FHRs; Sanjay Dixit MD, FHRs; David J. Callans MD, FHRs, CCDS; Francis E. Marchlinski MD, FHRs and David S. Frankel MD, FHRs

**Background:** Implantable cardioverter defibrillators (ICDs) reduce mortality among those at high risk of sudden cardiac death. Subcutaneous ICDs (S-ICDs) are an attractive alternative to transvenous ICDs among those not requiring pacing. However, the risk of damage to the S-ICD electrode during sternotomy and of oversensing due to interaction with sternal wires has not been defined.

**Objective:** To determine the risk of S-ICD electrode damage, as well as oversensing of electrical noise due to interactions between the S-ICD electrode and sternal wires.

**Methods:** Retrospective study of all patients implanted with a S-ICD between 2010 and 2021 at a single academic medical center. All S-ICDs were implanted under fluoroscopy. The electronic medical record of each S-ICD recipient was searched to identify those undergoing a median sternotomy before or after S-ICD implantation. Adverse events were sought, including damage to the S-ICD electrode, change in lead impedance, oversensing of electrical noise and failure to terminate spontaneous ventricular arrhythmias.

**Results:** Among 392 patients who underwent S-ICD implantation, 41 had undergone sternotomy before S-ICD implantation and 6 underwent sternotomy after S-ICD implantation. The majority (79%) were men. Mean age was 48 ± 15 years, BMI 29 ± 7 and LVEF 40 ± 20%. Primary prevention was the indication in 74%, and 36% had ischemic cardiomyopathy. The median time between sternotomy and S-ICD implantation was 59 months (range 1-531). The median time between S-ICD implantation and sternotomy was 14 months (range 4-28). DFT testing was successful in all patients that underwent testing (n=37), with mean shock impedance 67 ± 20 ohms; 1 patient required shock polarity reversal. Among those undergoing sternotomy after S-ICD implant, no lead fractures or major changes in impedance occurred. There were no inappropriate shocks among the entire cohort of 47 patients due to electrical noise artifact or ineffective shocks for spontaneous arrhythmias. Six patients received inappropriate shocks due to T wave oversensing.

**Conclusion:** Patients with pre-existing S-ICDs can safely undergo sternotomy without high risk of lead damage. In addition, the risk of interaction between the S-ICD electrode and sternal wires appears low.

**PO-633-06**

**SAFETY AND EFFICACY OF TRANSVENOUS LEAD EXTRACTION IN PATIENTS WITH VERY LONG LEAD DWELL TIME**

Satish K. Misra MD; KAMALA SWAYAMPALKA PhD; Tricia Coons RCES; Magdalena Lesiczka RCES; Claire Cerbie BSN; John W. Holshouser; Jeko Madjarov and Rohit Mehta MD, FHRS

**Background:** Tranvenous lead extraction (TLE) is an important component of lead management in patients with cardiac devices. Lead dwell time has been associated with increased procedural complexity and is often associated with a perception of increased risk. There is, however, limited data on the safety and outcomes of TLE in patients with leads of very long dwell times.

**Objective:** Describe safety and outcomes of TLE in patients with leads with a very long (≥ 20 years) dwell time.

**Methods:** Patients undergoing TLE between 2013 - 2021 with at least one targeted lead with 20 years or more dwell time were identified from a single center prospective registry. Patient characteristics, outcomes, and 30-day major adverse events were collected. Clinical success of TLE was defined as the removal of all targeted leads and all lead material from the vascular space with less than 4 cm lead fragment residual that does not negatively impact either the patient or procedural goals. Lead-level analysis was summarized as number (percentage) for categorical variables and as mean ± standard deviation for continuous variables. Major adverse events related to TLE