Conclusion: It is important to screen all possible paced morphologies from both the atrial and ventricular chambers to prevent S-ICD oversensing when concurrent devices are in situ.

AP-518-03
NO PAIN, ALL GAIN: S-ICD INSERTION WITH REGIONAL ANESTHESIA BLOCK SHOWS PERI-PROCEDURAL BENEFITS
Lauren Ashley Rousseau PAC, CCDS; Tiffany Andrade MS; Nicole Bourque BS, MS, PAC; Megan E. Brady PAC; Patrice Hoskins PA; Laura Ann Sifrig PAC; Laurel M. Taylor PA, PAC; Morgan Turner PAC and Sunil Kapur MD

Background: The subcutaneous implantable cardioverter-defibrillator (S-ICD) was FDA approved in 2009 as the first extravascular device. Because the implant procedure includes creating a pocket along the latissimus dorsi muscle, tunneling of the defibrillator lead and DFT testing, intra and post operative pain control is an important consideration.

Objective: To assess the anesthetic requirement, post-operative opiate use, hospital length of stay (LOS) and effect on DFT testing with S-ICD implantation done with a serratus anterior and subpectoral parasternal regional pain block (RPB) and systemic anesthesia versus those done with systemic anesthesia alone.

Methods: We performed a serratus anterior and subpectoral parasternal RPB on 20 patients (pts) presenting for a S-ICD implantation or generator change over the last 17 months. We monitored the pts post-operative opiate requirement, hospital LOS and shock impedance/defibrillation threshold test success.

Results: Between June 2020 and Nov 2021, a total of 52 pts underwent S-ICD implant or generator change. Of these pts, 20 underwent a RPB in conjunction with the procedure. The patients who underwent RPB were more likely to be done under monitored anesthesia than pts in the non-RPB arm (75% vs 13%). In addition, less post operative opiate use was seen in the RPB group, 40% requiring PO opiates vs 53% in the non-RPB group and 20% requiring IV opiates vs 38%, respectively. The total procedural time for both groups were similar at 2:33 (+/-3) in the RPB group and 2:25 (+/-3) in the non-RPB group. The same day discharge (SDD) success was higher in the RPB group with 40% success vs 13% in the non-RPB group. DFT testing in the RPB arm was performed on 15 pts and successful in 93%. One patient failed DFT testing which led to subsequent placement of the ICD generator more posterior. The hospital LOS on non-inpatients was similar in the RPB group and non-RPB group 0.63 days (+/-0.59) vs 0.82 days (+/-0.86).

Conclusion: Regional pain blocks used concomitantly with S-ICD implantation or generator change showed less anesthetic requirement, decreased pain and opiate requirement in the postoperative period, improved SDD success and unchanged DFT testing and impedances. This approach has shown favorable effects on patient experience while maintaining patient safety.

AP-518-04
INCIDENCE OF INAPPROPRIATE SHOCK IN PATIENTS WITH SUBCUTANEOUS IMPLANTABLE CARdioverter-DEfibrillatorS WITH CONCOMITANT CARDIAC IMPLANTABLE ELECTRONIC DEVICES: A SINGLE-CENTER COHORT STUDY
Makiko Okazaki; Takahiko Nagase MD; Kanki Inoue MD; Harumi Yamada and Kei Mabuchi MD

Background: The subcutaneous implantable cardioverter-defibrillator (S-ICD) system does not require the placement of intracardiac instrumentation. Therefore, S-ICDs avoid adverse events related to the implantation of a transvenous implantable cardioverter-defibrillator system. However, as S-ICDs do not have a pacing function, an additional implanted device is required for patients who are clinically indicated for a S-ICD and require pacing therapy. It is unclear whether the incidence of inappropriate shock is increased in patients with S-ICDs with concomitant cardiac implantable electronic devices (CIEDs).

Objective: This study aimed to compare the incidence of inappropriate shock in patients with S-ICDs with and without concomitant CIEDs.

Methods: The study cohort comprised 127 patients who underwent S-ICD implantation at our institution between February 2016 and October 2020. Patients were classified as the combined group who simultaneously received S-ICDs and other CIEDs, and the non-combined group who received only S-ICDs. Some patients changed groups during the study because they received CIEDs after S-ICD implantation. To account for these group changes, we used a time-varying Kaplan-Meier curve and Cox proportional hazards model to compare the incidence of inappropriate shock between the two groups.

Results: There were 21 patients in the combined group and 106 patients in the non-combined group at the time of S-ICD implantation. Five patients received other CIEDs after S-ICD implantation. The median follow-up period was 935 days in the combined group and 798 days in the non-combined group. The number of events was three in the combined group and 12 in the non-combined group. The incidence of inappropriate shock did not differ between the two groups (hazard ratio 1.17, 95% confidence interval 0.31-4.32, P = 0.81).

Conclusion: The incidence of inappropriate shock was slightly increased in patients with S-ICDs and other CIEDs versus those with S-ICDs alone, but this intergroup difference was not significant. This study represents our single-center experience in a small cohort. Multicenter studies with large sample sizes are needed to assess the impact of other CIEDs in combination with S-ICDs.

ABSTRACT CA-534:
Effects of Pulse Field Ablation on Ventricular Myocardium and Coronary Arteries
Saturday, April 30, 2022
3:30 PM - 4:30 PM
CA-534-01
PULSED FIELD ABLATION COMPARED TO RADIOFREQUENCY ABLATION OF LEFT VENTRICULAR MYOCARDIUM IN A SWINE INFARCT MODEL
Sung Il Im MD; Satoshi Higuchi MD and Edward P. Gerstenfeld MD, FHRS