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EXTRACTING VERSUS ABANDONING STERILE NON-FUNCTIONAL OR RECALLED LEADS

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Contemporary Challenges in Cardiac Implantable Device Management

Abstract Category: 6. Arrhythmias and Clinical EP: Devices

Presentation Number: 1116-257

Authors: *Shasank Rijal, Rashmee Shah, Samir Saba, University of Pittsburgh Medical Center, Pittsburgh, PA, USA, University of Utah, Salt Lake City, UT, USA***Background:** Non-functional or recalled cardiac implantable electronic device (CIED) leads can be revised with either lead extraction (LE) or lead capping (LC). Factors that influence this decision and comparative outcomes of these strategies are unclear.**Methods:** We reviewed data from our institution to identify patients who received LE (n=296) or LC (n=192) from 2006 to 2012.

We compared unanticipated device-related procedure, defined as any CIED procedure not for upgrade or battery depletion, using a proportional hazards model adjusted for differences in baseline characteristics. Secondary outcomes were procedural complications and hospitalizations.

Results: Patients who received LE were younger and more likely to have an operator with extraction experience (77% vs. 26%, $P<0.001$). Leads extracted by extractors versus non-extractors had longer dwell times (4.2 ± 3.6 years vs. 0.9 ± 1.1 years, $p<0.001$). Over a median follow-up of 3.0 (IQR 3.2) years, the adjusted risk of unanticipated device-related procedures was similar for LE versus LC (HR 0.88 (95% CI 0.55 to 1.41)). Complications, re-hospitalization rates, and mortality were also similar between the two groups (Table).**Conclusion:** Lead revision strategy is influenced by operator extraction experience and dwell time of leads. In our analysis, we found no difference in outcomes between the two strategies.

Outcomes During Follow-Up			
	Lead Extraction (N=296)	Lead Capping (N=192)	P value
Major complications	6%	3%	0.13
Minor complications	3%	3%	0.63
30-day readmission rate	9%	5%	0.13
All-cause hospitalization rate	49%	50%	0.81
cardiac hospitalization rate	30%	30%	0.91
Unanticipated CIED-related procedure	18%	15%	0.34
Death	24%	27%	0.42