

A COMPARISON OF SYMPTOMS AND HEALTH OUTCOMES IN PATIENTS RECEIVING ICDs AND CRT-ICDS

Sandra B. Dunbar, RN, DSN, FAAN, Laura P. Kimble, RN, Ph.D., Kathy Parker, RN, Ph.D.FAAN, M. Chris O'Brien, RN, MPH, Jonathan Langberg, MD, Andrew Smith, MD, Bindu Viswanathan, PhD. William Weintraub, MD
Nell Hodgson Woodruff School of Nursing, Emory University
Atlanta, GA

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Background and purpose: Patients at high risk for ventricular arrhythmia may be treated with an implantable cardioverter defibrillator (ICD) with or without cardiac resynchronization therapy (CRT) depending on their level of heart failure and ECG. However little is known about the pattern of symptoms and health outcomes after device implantation for these two populations. This study compared persons with CRT-ICD (n=43) and ICD only (n=169) on symptoms of pain, daytime sleepiness, and health outcomes of depressive symptoms, anxiety and functional status over the first 3 months after implantation. **Methods :** Subjects (n=212) were 74% men, age 58 ±11 years. More ICD subjects (10%) had experienced sudden cardiac arrest (SCA) than CRT-ICD (5%) whereas CRT-ICD had higher symptoms of heart failure (88% NYHA Class III-IV) vs ICD (20%). Variables and measures were: pain (Brief Pain Inventory, BPI); daytime sleepiness (Epworth Sleepiness Scale; ESS); depressive symptoms (BDI-II); anxiety (STAI); and physical functional status (DASI) obtained at time of implant (BL) and 1 and 3 months post implant. A mixed model repeated measures ANOVA was used to compare groups across time with covariates of age, gender, NYHA, SCA, and comorbidities. **Findings:** Means (SE) and ANOVA results are reported in Table 1. CRT-ICD group had greater pain severity and daytime sleepiness at both BL and 3 months than ICD. CRT-ICD reported greater BDI-II and lower DASI scores at BL and 3 months. CRT-ICD group did show improvement in DASI over time whereas ICD returned to BL. No differences were found in STAI scores. **Discussion:** Patients receiving ICD and CRT-ICD have similar patterns of symptoms and health status at 1 month but may differ on levels of pain, daytime sleepiness, depressive symptoms and physical functional status at BL and during recovery at 3 months. Greater understanding of these symptoms and health outcomes may lead to evidence-based interventions to improve both acute care and outpatient outcomes.

Table 1. Outcomes for ICD and CRT-ICD Patients

Variable	ICD			CRT-ICD			p
	BL	1 mo.	3 mo.	BL	1 mo.	3 mo.	
BPI	10.7 (.98)	7.9 (.96)	7.0 (1.0)	14.2(1.5)	10.4(1.6)	11.3(1.8)	.005
ESS	7.08(.64)	6.73(.65)	6.39(.63)	9.14(.99)	8.35(1.0)	8.37(1.0)	.02
BDI-II	7.7 (.99)	8.49(1.0)	7.1 (.99)	11.6(1.5)	9.9(1.7)	11.1(1.5)	.01
DASI	23.8(1.8)	20.5(1.7)	23.9(1.8)	14.3(2.8)	16.8(2.8)	16.9(3.0)	.005