PO04-36 - Reasons for Nonimplantation of Primary Prevention ICDs and Outcomes in a Population of Patients with Left Ventricular Ejection Fractions of 35% or Less

Itinerary

May 9, 2014, 9:30 - 10:30 AM | --

Participants

Kenneth C. Bilchick, MD, Neha Choubey, No Degree, Christopher P. Porterfield, MD, Rohit Malhotra, MD, Andrew E. Darby, MD, J. Michael Mangrum, MD, John P. DiMarco, MD, PhD, Pamela K. Mason, MD and John D. Ferguson, MD. University of Virginia Health System, Charlottesville, VA, University of Virginia, Charlottesville, VA, University of Virginia, Internal Medicine, Charlottesville, VA, University of Virginia Health Systems - Cardiology, Charlottesville, VA, University of Virginia Health Sciences Center, Charlottesville, VA

Disclosures

K.C. Bilchick: A - Consulting Fees/Honoraria; **1**; Biosense Webster, Inc.. **N. Choubey:** None. **C.P. Porterfield:** None. **R. Malhotra:** I - Research Grants; **1**; Boston Scientific Corp. **A.E. Darby:** A - Consulting Fees/Honoraria; **1**; Biosense Webster, Inc. **J. Mangrum:** A - Consulting Fees/Honoraria;**1**; Hansen Medical, Philips, St. Jude Medical. I - Research Grants; **1**; Boston Scientific Corp., CardioFocus, Inc., Hansen Medical, St. Jude Medical. **J.P. DiMarco:** A - Consulting Fees/Honoraria; **1**; Medtronic, Inc., Boston Scientific Corp., St. Jude Medical. **P.K. Mason:** A - Consulting Fees/Honoraria; **1**; Johnson and Johnson. I - Research Grants; **1**; Johnson and Johnson, Boston Scientific Corp., Medtronic, Inc. **J.D. Ferguson:** A - Consulting Fees/Honoraria; **1**; Biosense Webster, Inc., St. Jude Medical.

Abstract

Introduction: Implantable cardioverter defibrillators (ICDs) are indicated for many patients with a left ventricular ejection fraction (LVEF) of 35% or less. There has been interest in quality improvement programs based on screening of LV function in order to increase rates of adherence to guideline-based recommendations for implantation of ICDs for primary prevention.

Methods: We queried the echo laboratory database at a tertiary academic medical center for patients with LVEF less than or equal to 35%, then analyzed clinical data from the medical record after exclusions based on ICD guidelines. We then determined the proportion receiving ICDs, reasons ICDs were not implanted, and mortality rates.

Results: 50 (23.5%) of the 213 patients either already had an ICD in place or had one implanted over the following 3 years. In another 60 (28.2%) without ICDs, the LVEF improved to over 35% (Table). Of the remaining 110 patients, 58 (52.7%) had no documentation in the medical record that an ICD was considered even though 57% had been seen by a cardiologist. The 3-year

mortality in these 58 patients was 32.8%. Possible reasons an ICD may not have been considered in these patients include age over 75 years old in 16 patients and cancer in 11 patients. An additional 19 patients (8.9%) refused the ICD or did not follow-up after the ICD was recommended.
Conclusions: Among patients screening positive for severe LV dysfunction with LVEF less than or equal to 35% at a tertiary academic medical center, just over half of the patients either had an ICD implanted or had improvement in the LVEF to over 35%, while approximately a third of the patients without documentation of ICD consideration died over three years.

Distribution of Groups and Associated Outcomes

Group	Number (%)	3-Year Mortality
ICD Implanted Within 3 Years	50 (23.5%)	32.0%
LVEF Improved to Over 35%	60 (28.2%)	16.7%
No Documentation ICD Was Considered	58 (27.2%)	32.8%
Echo Performed During Terminal Hospitalization	11 (5.2%)	100.0%
ICD Deferred Due to Expected Survival Less Than 1 Year	11 (5.2%)	36.4%
Patient Refused ICD or Did Not Follow-up After ICD Recommended	19 (8.9%)	26.3%
ICD Deferred for Heart Transplantation	4 (1.9%)	25.0%
TOTAL	213 (100%)	31.0%