Primary Prevention Implantable Cardioverter Defibrillators: We need to do more.

Title in Spanish: Defibriladores implantables para prevención primaria: Mucho por hacer

Editorial Comment on “Patients Initially Evaluated During Cardiac Catheterization May Not be Offered an Implantable Cardioverter Defibrillator Despite Meeting Implantation Criteria” by Upadhya et al.

Riyaz Somani PhD MRCP, Adrian Baranchuk MD FACC FRCPC

Heart Rhythm Service, Kingston General Hospital, Queen’s University, Kingston, Ontario, Canada.

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There is now overwhelming evidence from multiple randomized controlled trials (RCTs) that the use of implantable cardioverter defibrillators (ICDs) improves mortality, both in patients with previously documented ventricular arrhythmias and also in patients who have not suffered malignant ventricular arrhythmias, but who have been identified to be at high risk of sudden cardiac death with persistently reduced left ventricular systolic function 1-3.

Previous reports relating to the use of ICDs in population-based cohorts have mainly been focused in the secondary prevention setting 4-5.

In this volume of Revista Iberoamericana de Arritmologia, Upadhya et al report on their findings of the rate of implantation of primary prevention ICDs in patients who were initially found to have a reduced EF (≤35%) at cardiac catheterization (subsequently confirmed at echocardiography) 9. Out of a total of 1709 patients undergoing cardiac catheterization during a two year period in their institute, a total of 87 patients met entry criteria with a left ventricular EF≤35%, who did not have an ICD in-situ already and were followed-up locally. Forty-seven of these patients were not deemed suitable for implantation of an ICD on primary prevention grounds as their left ventricular function was not within the recommended range for primary prevention therapy.
function improved or their overall prognosis was felt to be poor. Out of the remaining 40 patients, 20 underwent implantation of an ICD (50%), 6 patients declined the offer (15%) and 14 patients (35%) were not offered an ICD. The mortality in the two groups was similar with 4 deaths in the group who received an ICD (20%) and 3 unexpected deaths in the group where an ICD was not offered (21%) during a median follow-up of just over one year.

In keeping with previous reports, this study highlights the fact that a large proportion of patients who are eligible for ICD implantation on primary prevention grounds, according to International guidelines, are often overlooked for this potentially life-saving therapy. This echoes findings recently reported by Gonzalez-Zuelgaray et al from the Latin American Electrophysiology community in which the lack of adherence to International guidelines resulted in only a small minority of patients eligible for ICDs actually receiving one 10. Socio-economic factors were identified as the major determinant for patients not being offered ICDs and the need for increased awareness in all those dealing with such patients was emphasized.

At present, our ability to identify those patients at risk of ventricular arrhythmias is limited, with up to 75% of patients with primary prevention ICDs never receiving therapy from their device 8. Until simple and reliable markers emerge to help us identify those truly at risk of ventricular arrhythmias, we agree that all patients who meet eligibility criteria according to current guidelines should be identified and offered ICDs on primary prevention grounds.

References


