Arrhythmias

IDENTIFICATION OF PATIENTS WITH IDIOPATHIC DILATED CARDIOMYOPATHY WHO COULD BE CONSIDERED FOR EARLY ICD IMPLANTATION

Moderated Poster Contributions
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Authors: Massimo Zechin, Marco Merlo, Alberto Pivetta, Andrea Di Lenarda, Dario Gregori, Giulia Barbati, Laura Vitali Serdoz, Alessandra Buiatti, Gianfranco Sinagra, Cardiovascular Department, "Ospedali Riuniti" and University of Trieste, Trieste, Italy, Heart Failure Unit – ISMETT, Palermo, Italy

Background: the most appropriate timing for implantable cardioverter-defibrillator (ICD) implantation in Idiopathic Dilated Cardiomyopathy (DCM) is not well defined: some patients dramatically improve after medical treatment optimization, but an excessive delay for the sudden death stratification can be hazardous. Our aim was to identify patients with DCM unlikely to improve despite optimization of medical treatment, including betablockers, and therefore potentially candidates for early ICD implantation .

Methods: among 720 patients with DCM registered in the Heart Muscle Disease Registry of Trieste (Italy) from January 1st 1988 to May 31st 2011, 188 with baseline left ventricular ejection fraction (LVEF) ≤0.35 and NYHA classes II-III ("SCDHeFT criteria") were evaluated both before starting betablockers and after 6±3 months. A prognostic model for the identification, at diagnosis, of patients with DCM more likely to maintain ICD indication, or die, after 6±3 months was assessed. Thereafter, the model was prospectively validated on an external similar group.

Results: of 188 patients with baseline LVEF≤0.35 and NYHA classes II-III, 70 (37%) maintained "SCDHeFT criteria" or were died (n=13; 7%) after 6±3 months. At multivariate analysis, the presence at baseline of lower systolic blood pressure (OR for interquartile increase=0.52; 95% C.I. 0.32-0.83), LV end-diastolic volume >110 ml/m2 (OR=2.63; 95% C.I. 1.28-5.40), larger left atrial diameter (OR for interquartile increase=1.72; 95% C.I. 1.07-2.78), significant mitral regurgitation (OR=2.18; 95% C.I. 1.05-4.5), left bundle branch block (OR=2.17; C.I. 1.06-4.43) predicted the persistence of "SCDHeFT criteria" or death at second evaluation. The individual probability of maintaining ICD indication despite medical therapy was calculated and the model was validated internally and prospectively on a separate group of 20 DCM patients (AUC: 0.85, 95% C.I. 0.67-1.00).

Conclusions: in DCM many patients improve 6±3 months after diagnosis, but others still have ICD indication or die despite optimal treatment. Applying simple clinical-instrumental parameters it is possible to identify potential candidates for early ICD implantation.