

Preventing Atrial Fibrillation in Non-Ischemic Dilated Cardiomyopathy Through Cardiac Resynchronization Therapy Response

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Background:

The aim of this study was to determine whether cardiac resynchronization therapy (CRT) has a favorable effect on the incidence of new-onset atrial fibrillation (AF) in a homogeneous population of patients with non-ischemic idiopathic dilated cardiomyopathy and severe heart failure (HF).

Methods:

We designed a single-center prospective study and enrolled 58 patients AF naïve when received CRT. After 1 year of follow-up our population was subdivided into responders (72.4%) and non (27.6%), so to compare the incidence of AF after 1, 2 and 3 years of follow-up in these two groups.

Results:

Already after 1 year, there was a significant ($p<0.05$) difference in new-onset AF in non-responder patients respect to responders (18.2% vs 3.3%). These data were confirmed at 2 year (33.3% vs 12.2%) and 3 year (50.0% vs 15.0%) follow-up. In particular, 3 year after device implantation non-responders had an increased risk to develop new-onset AF (OR=5.67).

Conclusions:

This study analyzed long-term effects of CRT in a homogeneous population of patients with non-ischemic dilated cardiomyopathy, indicating the favorable role of this non-pharmacological therapy on the prevention of AF.