Abstract:

Background: The benefits of cardiac resynchronization therapy (CRT) in patients with ischemic and dilated heart failure are known. However, there is little evidence that evaluates CRT in patients with chagas cardiomyopathy (CC). Our objective was to compare the response to CRT of patients with cardiomyopathy according to their etiology.

Methods: A retrospective cohort study that included patients with heart failure taken to CRT between December 2010 and May 2018 was performed. They were categorized according to their etiology: Chagasic, ischemic and other etiologies. Clinical and echocardiographic variables were evaluated before CRT and 6 months later. Patients were considered responders to CRT when the NYHA decreased at least one functional class, the absolute value of the left ventricular ejection fraction (LVEF) increased by 5% and there were no readmissions due to cardiovascular causes.

Results: A total of 214 patients were taken to CRT (68% men, mean age 64 years), of which 85 (39.7%) had chagasic etiology, 49 (22.9%) ischemic and 80 (37.4%) other etiologies. A history of high blood pressure was found in 122 patients (57%), atrial fibrillation in 83 (39%), dyslipidemia in 58 (25%), smoking in 49 (22%), obesity in 29 (14%) diabetes mellitus in 28 (13%), and hypothyroidism in 27 (13%). Discrimination by type of cardiomyopathy is described in Table 1. 125 (58.7%) patients were classified as responders. No statistically significant differences were found between the etiology of cardiomyopathy and the response to CRT (p = 0.500). It was found that patients with chagasic heart disease had a higher rate of improvement of NYHA functional class at 6 months (p <0.001) and no significant differences were found in improvement of LVEF or readmissions at 6 months between groups (Table 2).

Conclusion: The response of patients with chagasic cardiomyopathy to CRT was not inferior compared with other etiologies. A significant improvement of NYHA was found in patients with chagasic heart disease when compared with other types of heart disease, this being considered a short-term functional improvement of the patient.