

Abstract No. **20**

Category: **Heart Failure and Cardiomyopathies**

Title: **Benefits of Enhanced External Counterpulsation Therapy in Patients with Refractory Angina and Heart Failure, One Year Follow-up**

Primary Author: **Fernan Mendoza**

**Abstract:**

Background: Many patients with chronic ischemic heart disease have refractory angina and / or heart failure, with a limitation in the functional class and quality of life. The therapy with Enhanced External Counterpulsation (EECP) has shown benefits. The objective is to determine the benefits of this therapy.

Methods: Observational, retrospective study with analytical component, analyzing before and after the intervention. All patients underwent an initial evaluation, at six months and a year, of the functional class of angina Canadian Cardiovascular Society (CCS), dyspnea New York Heart Association (NYHA) and quality of life through the instrument Euro Qol- 5D (EQ -5D). Statistical software Stata® (Version 15, Stata Corporation, and College Station, Texas) was used to analyze the information; statistical tests were significant at a level  $p < 0.05$ .

Results: Of 217 patients treated with EECP, the average age was 67.3 years; 68,6% of the patients were men. The median ejection fraction of the left ventricle was 45%. An 82.48% had heart failure (HF) associated with angina. 51.22% of the subjects had surgical and percutaneous revascularization 48.78%. History of arterial hypertension (89.86%), diabetes mellitus (36.74%). 52.99% had presented rehospitalizations for angina or HF. They had optimal pharmacological therapy for angina and for HF (Table 1)

At the beginning of the therapy, 86.51% were in functional class II - III (NYHA) and 71.03% in functional class II - III (CCS); at six months and a year this percentage was decreased to 55.74% and 53.84% respectively for the NYHA classification and 24.46% and 26.88% for the CCS classification, this being statistically significant (Figure 1 )

With regard to the analysis of quality of life, a statistically significant improvement was found in the 5 domains.

Conclusion: The enhanced counterpulsation therapy has an impact on the functional class of angina and dyspnea in patients with refractory angina and heart failure; in addition there is improvement in the quality of life