ARRITMIAS 2021

19 |20 Fev Reunião Virtual

DEFIBRILLATOR DEVICES IN CHRONIC HEART FAILURE - A RETROSPECTIVE SINGLE CENTER COHORT STUDY

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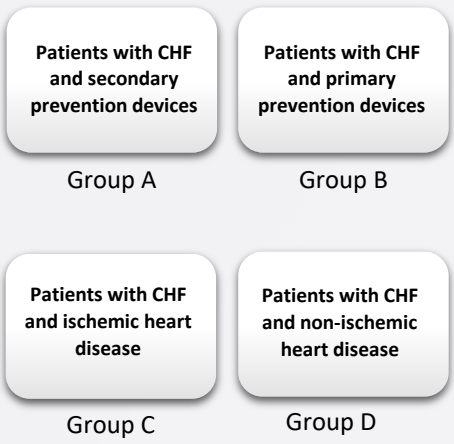
Introduction

Chronic heart failure (CHF) is a pathology with high prevalence and an important cause of morbidity and mortality, with ischemic heart disease being one of the most relevant causes.
The use of implantable devices has shown benefit in patients at risk of sudden death and in selected groups of patients with CHF.

Objectives

- Compare appropriate shock incidence by implantable cardioverter defibrillator (ICD) or cardiac resynchronization therapy device with defibrillator (CRT-D) between patients with CHF and secondary or primary prevention device (group A and B), and between patients with ischemic and non-ischemic CHF (group C and D).
  - **Primary outcome:** re-hospitalizations by CHF at five years of follow-up;
  - **Secondary outcome:** death at any time.



Methods

109 patients were enrolled in this study, with ICD or CRT-D implanted between May 2001 and October 2020 → mean follow-up 111.1 ± 94.3 months.

Results

Percentage of patients included in each group

Group **A** → 11%
Group **B** → 89%
Group **C** → 51.4%
Group **D** → 48.6%

Patients´ mean age 66.0 ± 10.0 years
Male gender – 74.3%

Incidence of appropriate shock in any time → 16.5%;
Mean 3.27 shocks per patient

The incidence was superior and significative in group A versus B (41.7% vs 13.4%, p 0.013), unlike group C versus D (17.9% vs 15.1%, p=0.69).

Primary Endpoint

Group A had a superior number of readmissions by CHF at 5 years (mean 4.5) compared with group B

Secondary Endpoint

There was no difference in mortality between group A and B (p=0.99) or group C and D (p=0.14)

Conclusions

Patients with a secondary prevention device received a greater number of appropriate shocks and therefore had a greater number of potentially fatal arrhythmic events. Albeit not being associated with a greater mortality it was associated with a greater number of hospitalizations at five years.