

Syncope in Primary Prevention ICD Implantation

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Background:

Syncope may be the final common symptom for a number of clinical conditions spanning from benign conditions to life threatening diseases. Accordingly, its prognosis varies widely and 1-year mortality may range from 0% in the case of vasovagal events up to 30% in the presence of heart disease.

There is limited information regarding outcomes of patients who receive device therapy for primary prevention in patients with history of syncope.

Objective:

The aim of this study is to assess the outcomes and prognosis of patients who underwent ICD implantation with indication of primary prevention and compare patients that presented with or without prior syncope.

Methods:

We reviewed the charts of 75 patients that underwent ICD implantation with the indication of primary prevention with history of syncope and compared them to a similar control group of 80 patients without prior syncope. We assessed the number of Ventricular Tachycardia (VT), Ventricular Fibrillation (VF), Shocks, anti-tachycardia pacing (ATP) and death in each group during the follow up.

Results:

Mean follow up was 30 months (no difference between groups). There was no significant gender difference. Although patients with prior syncope were slightly younger (65.0 ± 13.4 vs. 68.9 ± 11.7 $p=0.058$), had a higher EF (35.5 ± 12.6 vs. 31.4 ± 8.76 $p=0.02$), they had more episodes of VT (21.3% vs. 3.8%, $p=0.001$), VF (8% vs. 0%, $p=0.01$) and also received more electrical shocks (18.7% vs. 3.8%, $p=0.004$) and ATP (17.3% vs. 6.2%, $p=0.031$). There were no differences in inappropriate shocks (6.7% vs. 5%, $p=0.74$), in cardiovascular mortality (cumulative 5 year estimate 29.9% vs. 32.2% $p=0.97$) and any death (cumulative 5 year estimate 38.1% vs. 48.9% $p=0.18$) during the follow up.

Conclusions:

According to our data, patients that present with syncope before primary prevention ICD implantation seem to have more episodes of VT/VF, shocks and ATP's. However, no differences in mortality were observed.