

Psychopathology in Patients with ICDs over Time: Results of a Retrospective Study

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Background: The effects of implantable cardioverter defibrillators (ICDs) and ICD shocks on emotional well being have previously been studied with conflicting results. It is still unclear whether ICDs causes new psychosymptomatology.

Methods: Ninety five patients with ICDs were included in this study. Hamilton depression rating scale - HRSD, Hamilton anxiety rating scale - HAM-A, Mini international neuro-psychiatric interview and Q-LES-Q18, were obtained. Furthermore, subjects were asked to describe their subjective feelings towards the ICD. Their answers ranked from 1 to 5 (1 positive, 5 "C extremely negative).

Results: Out of 95 patients, 80 (84%) were men, with an average age of 66 (± 11.5). Sixty nine (73%) with EF < 30%, and 63 (66%) had NYHA class \geq II. The average time from ICD implantation to psychological assessment was 4.4 (± 3.8) years. Twenty five (26%) patients received ICD shocks at any time since the device implantation. The number of patients with significant depression and anxiety (HAM-A \geq 6 and HAM-D \geq 13) symptomatology attributed to ICD was 5 (5.3%). The average depression/anxiety score for these 5 patients was higher in the HDRS questionnaire than the rest of the patients (18.2 ± 6.10 vs. 5.42 ± 5.35 ; $p < 0.01$), as was the average score for the HAM-A questionnaire (8.00 ± 2.83 vs. 2.36 ± 3.28 ; $p < 0.01$). Moreover, subjective feelings towards the ICD were more negative in these 5 patients compared to the rest of the patients. (4.4 ± 1.34 vs. 3.08 ± 1.21 ; $p < 0.01$). Quality of life was significantly worse in patients with this symptomatology (59.6 ± 9.07 vs. 74.76 ± 9.54 ; $p < 0.01$). Notably there was no correlation between severity of symptoms and the history of shocks or the time since implantation.

Conclusions: 5.3% of patients have both symptomatology of depression and anxiety that is attributable to ICD. It is not clear if this symptomatology is unique syndrome caused by the ICD or represents recurrent episodes of depression and anxiety in sensitive patients.