CAN STELLAT GANGLIONE BLOCKAGE BE AN ALTERNATIVE TREATMENT FOR REFRACTORY

VENTRICULAR ARRHYTHMIAS?

NCT number: 125-85

NCT Date: 16/09/2022

Materials and Method

In our study, USG guided left stellate ganglion blockade was applied to 10 VA and ES patients with ICD who were admitted to the Department of Cardiology at Çukurova University between 2020-2021.The 6-month results of the patients were evaluated retrospectively. Electrical storm was defined as 3 episodes of continuous VT/VF or ICD therapy for VT/VF over a 24-hour period. Demographic data, clinical and procedural outcomes of the patients were collected from electronic hospital records. Inpatient telemetry and ICD interrogation logs were reviewed for each patient. Administration of oral and intravenous (IV) anti-arrhythmic drugs (AAD) was recorded for the pre- and post-SGB periods. For our study, approval was taken by Çukurova University ethics committee on 16.09.2022 with the document number 125.

Patient Selection

Patients who applied to the Cardiology Department with the diagnosis of VA or ES and did not benefit from antiarrhythmic drug therapy were selected and evaluated by a team of 2 anesthesiologists (cardiothoracic and pain specialists) and 2 cardiologists (1 of whom is an electrophysiology specialist).

All patients received standard treatment modalities based on current American College of Cardiology/American Heart Association/Heart Rhythm Society guidelines for the management of VAs (13). These methods included combinations of therapies for reversible causes (medical treatments, metabolic injuries, myocardial ischemia) beta blockers, IV AADs, noninvasive programmed stimulation for overrate termination, and ICD programming to optimize antitachycardia pacing and minimize shocks. The number of shocks in the last 6 months of the patients who were selected for the application was checked from the ICD device. Patients with persistent VA storms despite at least 1 antiarrhythmic drug therapy with beta-blocker and catheter ablation for VT were included in the study. After the first injection, VT or VF burden and development of shock were assessed by an implantable cardioverter-defibrillator for 48 hours following the procedure.

Statistical Analysis

Data analysis was performed using SPSS (version 11.0; SPSS Inc., Chicago, IL, USA). The baseline variables and data were presented as counts (percentages) and continuous variables as mean±SD. Given the non-normal distributions and small sample size, comparisons for the ICD shock numbers per 24 hour, recurrent VES at first and 6th months were made by using exact Wilcoxon Signed Rank Tests for paired analysis pre- versus post- SGB within a patient group. P value less than 0.05 was considered as significant.