Clinical Profile of Patients with Electrical Ventricular Tachycardia/Fibrillation Storm

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Electrical storm refers to multiple occurrences of ventricular tachycardia or fibrillation occurring three or more times in a 24 hour period. We reviewed the clinical profile, risk factors and outcome of patients admitted for electrical storm at the University of Santo Tomas Hospital from June 2008 to February 2011. Ten patients, aged 30 to 72 years old were included. There were 3 cases of acquired long QT syndrome, 2 cases of congenital long QT syndrome, 1 case of ischemic and 2 cases of dilated cardiomyopathy s/p ICD implantation and 2 cases of NSTEMI. Seven of the nine patients presented with hypokalemia. Most of the patients were managed medically with antiarrhythmics, a combination of intravenous amiodarone and lidocaine. Four patients underwent temporary pacemaker insertion for overdrive pacing. One patient with NSTEMI developed the electrical storm after emergency CABG. Among the 2 patients with congenital long QT syndrome, one underwent implantation of an internal cardioverter-defibrillator (ICD) while the other one is being managed medically. Two patients with cardiomyopathy and heart failure underwent ICD implantation while the other patient with already a previous implant developed storm with multiple ICD shocks. Eight patients were discharged from the hospital improved. Two patients with electrical storm had multiple organ failure and died. In our 2 year review of electrical storm patients, the major etiologies include long QT syndrome, and ischemic cardiomyopathy with heart failure.

Keyword: electrical storm