Reel syndrome: An atypical cause for inappropriate shocks in a patient with automated implantable cardioverter defibrillator (AICD)

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The case study begins with a 71-year-old woman with a history of heart failure with reduced ejection fraction AICD placement in 2015, presented in February 2017 with the complaint of AICD shocks following an episode of vomiting. She denied any chest pain, shortness of breath, palpitation or dizziness. EKG on admission showed ectopic atrial rhythm with premature ventricular contractions in bigeminy and left axis deviation. On examination of the cardiovascular system, there was a normal S1 heart sound with a loud A2. There was no jugular venous distention on the neck or pitting edema on the legs. Laboratory studies showed no elevation of cardiac enzymes. Evaluation with chest X-ray showed right ventricular lead had migrated to the right atrium and the defibrillator generator was flipped with leads coiled around it in transverse axis. AICD interrogation was performed which revealed inappropriate shocks were due to atrial fibrillation with rapid ventricular rate and loss of capture of the right ventricular lead. The diagnosis of Reel syndrome was made, and electrophysiologist was consulted for replacement of the AICD. Reel syndrome is a variant of Twiddler's syndrome which is a rare complication of pacemaker implantation. Reel syndrome is the rotation of the generator on its transverse axis which causes no damage to the leads. The leads will be coiled around the generator and retracted. Reel syndrome is usually observed within months from the placement of the generator. Contributing factors are female gender, obesity, large pocket, an older patient, dementia, and deep brain stimulation.

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