Učestale električne oluje u mladića s implantiranim kardioverter-defibrilatorom – prikaz slučaja

Frequent electrical storms in a young man with implanted cardioverter defibrillator – a case report

Petra Bulić*,
Krešimir Milas,
Franka Zuban,
Branka Morić-Pauletić,
Branimir Jurišić,
Nediljko Jukić,
Daglas Dodić

Opća bolnica Pula, Pula,
Hrvatska
Pula General Hospital, Pula,
Croatia

KLJUČNE RIJEČI: kardioverter-defibrilator, električne oluje, ventrikularna tahikardija.

KEYWORDS: Cardioverter defibrillator, electrical storm, ventricular tachycardia.

CITATION: Cardiol Croat. 2014;9(9-10):358.

***ADDRESS FOR CORRESPONDENCE:** Opća bolnica Pula, Zagrebačka 30, HR-52100 Pula, Croatia.

Phone: +385-91-577-9118 / E-mail: petra.bulic@yahoo.com

Broj bolesnika s ugrađenim kardioverter defibrilatorom je u sve većem porastu zbog njihove dokazane efikasnosti u redukciji mortaliteta u specifičnih srčanih bolesti. Zbog toga je u kliničkom radu sve veća mogućnost susreta s bolesnikom nakon električnog šoka i električne oluje te se postavlja pitanje njegove evaluacije i liječenja.

Prikazujemo slučaj 21-godišnjeg mladića kojemu je u šesnaestoj godini ugrađen kardioverter-defibrilator zbog polimorfni ventrikularnih tahikardija koje su se očitovale recidivirajućim kardiogenim sinkopama u naporu. Osnovna srčana bolest nije sa sigurnošću utvrđena, no prema revidiranim kriterijima najvjerojatnije se radi o aritmogenoj displaziji/kardiomiopatiji desnog ventrikla. Nakon ugradnje kardioverter-defibrilatora klinički tijek bolesnika bio je obilježen učestalim palpitacijama s isporučivanjem električnog šoka i do deset puta dnevno što je rezultiralo čestim dolascima u hitnu službu i velikim brojem (21) hospitalizacija. Nakon dvije godine zbog iscrpljenja baterije kardioverter-defibrilator je zamijenjen i reprogramiran. Usprkos tome pacijent i dalje ima učestale atake ventrikularne tahikardije i učestalo uključivanje kardiovertera. Zbog izrazite boli koju je osjećao pri električnom šoku, razvio je pri palpitacijama patološki strah od sljedećeg udara te je počeo učestalo koristiti magnete u svrhu blokiranja isporuke električnog šoka. Jednom prilikom je kao magnet upotrijebio zvučnik i s njime se prezentirao u hitnu službu. Postavlja se pitanje daljnjih terapijskih mogućnosti kao što su novi antiaritmici, ponovno genetičko i elektrofiziološko ispitivanje s eventualnom ablacijom, ponovno reprogramiranje uređaja, blokada ganglion strelatuma i u krajnjoj liniji transplantacija srca. Posebni naglasak zaslužuje psihološki distres koji se javlja nakon električnog šoka.

The number of patients with implanted cardioverter defibrillators has been growing for their efficiency proved in reducing mortality in patients with specific heart diseases. Therefore, the possibility to encounter a patient after an electrical shock or electrical storm is more likely in clinical work, so the question now is its evaluation and treatment.

We present a case of a 21-year-old man whom at the age of 16 a cardioverter defibrillator was implanted due to polymorphic ventricular tachycardia which was manifested in recurrent cardiogenic syncope in effort. The basic heart disease was not established with certainty, however, according to revised criteria, it is most probably an arrhythmogenic dysplasia /cardiomyopathy of the right ventricle. Once the cardioverter defibrillator had been implanted, the clinical course of the patient was marked with frequent palpitations at delivering electrical shocks up to ten times a day, which resulted in frequent coming to emergency room and great number (21) of hospitalizations. Two years later, due to depleted battery, the cardioverter defibrillator was replaced and reprogrammed. Nevertheless, the patient still had frequent attacks of ventricular tachycardia and frequent cardioverter tripping. For a severe pain the patient felt at the electrical shock, a pathological fear has developed from the following attack at palpitations, and he began frequently using magnets to block electrical shock deliveries. In one occasion he used a loudspeaker as a magnet and came to emergency room with it. The question now is further therapeutic options, such as antiarrhythmic drugs, repeated genetic and electrophysiological testing with possible ablation, ganglion stellatum block, device reprogramming, and finally, heart transplant. Special emphasis is put on psychological distress which appears after an electrical shock.

LITERATURE

1. Braunschweig F, Boriani G, Bauer A, et al. Management of patients receiving implantable cardiac defibrillator shocks: recommendations for acute and long-term patient management. *Europace*. 2010;12(12):1673-90.
2. Jacob S, Panaich SS, Maheshwari R, Haddad JW, Padanilam BJ, John SK. Clinical application of magnets on cardiac rhythm management devices. *Europace*. 2011;13(12):1222-30.
3. Sears SF, Sears JR, Conti JB. Understanding implantable cardioverter defibrillator shocks and storms: medical and psychosocial considerations for research and clinical care. *Clin. Cardiol*. 2003;26:107-11.

RECEIVED:
September 22, 2014