Effect of frequent ventricular ectopia on progression of dilated cardiomyopathy

Vlado-Vlaho Ćubela[a], Iva Galić[b], Ante Pašalić[c]

[a]*Clinical Hospital Mostar*
[b]*School of Medicine, University of Zagreb*
[c]*Clinical Hospital Sveti Duh*

Vlado-Vlaho Ćubela 0000-0002-5664-1873, Iva Galić 0000-0001-5596-0808, Ante Pašalić 0000-0001-5989-6495

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Dilated cardiomyopathy (DCM) is the most common form of cardiomyopathy. Various conditions may result in DCM, most commonly ischemic heart disease, metabolic/infiltrative diseases and genetic disorders. There are approximately 50 different genes known that cause DCM. Most affected genes are TTN that encode titin. DCM may lead to various rhythmic disorders, especially sustained ventricular tachycardia and ventricular fibrillation. In this article we present a case of 61 years old patient with primary dilated cardiomyopathy who was addmited to our hospital due to acute heart failure. Earlier genetic analysis showed that patient has mutation for titin, protein that is responsible for passive elasticity of caridac smooth muscle cells. Due to two episodes of ventricular tachycarida the ablation was performed, after which implantable cardioverter-defibrillator (ICD) was inserted for primary prevention of further malignant ventricular tachyarrhythmias. Hemodynamic properties and poor left ventricular systolic function were corrected by using optimal medical therapy like eplerenone and sacubitril/valsartan. Patient has developed coronary heart disease and percutaneous coronary intervention was performed with stent implantation. Because of still present ventricular ectopic which lead to further myocardial dysfunction and progression of heart failure, additional ablation is needed. Dilated cardiomyopathy is important cause of heart failure and sudden cardiac death (SCD), especially in young individuals. It is of great importance to recognize and treat it adequately, and also to detect possible cause of it. Further investigetions should be done in order to improve treatment for heart failure that will enhance left ventricular systolic function.