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Letter to the Editor: Stereotactic Cardiac Radiation to Control Ventricular Tachycardia and Fibrillation Storm in a Patient with Apical Hypertrophic Cardiomyopathy at Burnout Stage: Case Report

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Writing -original draft: Payus AO, Mustafa N.
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▸ See the article "Stereotactic Cardiac Radiation to Control Ventricular Tachycardia and Fibrillation Storm in a Patient with Apical Hypertrophic Cardiomyopathy at Burnout Stage: Case Report" in volume 35, number 27, e200.

We value greatly the article by Park and Choi,[1] entitled "Stereotactic Cardiac Radiation to Control Ventricular Tachycardia and Fibrillation Storm in a Patient with Apical Hypertrophic Cardiomyopathy at Burnout Stage: Case Report," which was recently published in volume 35(27): e200, July 2020. The report demonstrated a case of an elderly man with apical hypertrophic cardiomyopathy (HOCM) at burnout stage and an implantable cardioverter-defibrillator, who developed ventricular tachycardia (VT) and ventricular fibrillation (VF) storm and successfully treated with stereotactic radioablation. Firstly, we would like to congratulate the authors who have nicely described the case in detail which can be used as a reference in the management and also for reporting of other cases of apical HOCM in the future. Nevertheless, we humbly believe that more information on the patients underlying cardiac condition and other comorbidity is warranted, which was explained only briefly in the report. This is because most apical HOCM follows a benign course, but several poor prognostic factors have been identified, such as young age at diagnosis, positive family history of sudden cardiac death, and present of heart failure at New York Heart Association Class II and above.[2] Therefore, it is important to know whether the patient has any of the factors that lead him to fatal complications.[3] At any rate, we agree with the authors that stereotactic cardiac radioablation can be considered as rescue therapy in a case of apical HOCM with life-threatening VT and VF storm that is refractory to other treatment modalities, including antiarrhythmic drug therapy and radiofrequency catheter ablation.

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The Author's Response: Additional Description for Sudden Cardiac Death Risk Factors of the Apical Hypertrophic Cardiomyopathy Patient Who Underwent Stereotactic Cardiac Radiation

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The authors also agree with Dr. Payus and Dr. Mustafa's opinion that prognostic factors for the patient should be described in detail because a small number of patients with apical hypertrophic cardiomyopathy progress to a fatal clinical outcome.[1] The patient was referred to our hospital at the age of 72 years for work-up of abnormal surface electrographic findings, which was incidentally found during a health care examination in the local clinic. The patient had no prior history of syncope or family history of sudden cardiac death at the time of diagnosis. One year after diagnosis, three years prior to cardiac radioablation, the patient experienced unexplained syncope immediately followed by out-of-hospital cardiac arrest with documented ventricular tachycardia/fibrillation and a defibrillator was implanted. However, the patient did not complain of chest pain or heart failure symptoms (New York Heart Association functional class I) following diagnosis through the defibrillator implantation to the cardiac radioablation. Although the patient began to complain of mild chest discomfort and dyspnoea around the radioablation, it was not clear whether the patient's symptoms were caused by recurrent ventricular arrhythmia events, or acute/post-traumatic stress disorder, or radiation-induced mild pulmonary fibrosis. Generally, from the diagnosis to the start of radioablation, the patient's heart failure symptoms were minimal if arrhythmic events were absent, and diuretic agents were not prescribed in the outpatient clinic. We could not perform a gene study or counselling for the patient's family members due to the patient's refusal. The patient did not have other comorbid diseases. We describe additional clinical information which was not previously described in the manuscript due to word count limitations. We believe that clinicians should keep in mind the risk of sudden arrhythmic

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death in patients with apical hypertrophic cardiomyopathy at burnout stage even if they are asymptomatic due to the possibility of the presence of arrhythmogenic substrates.[2]

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