

Masquaring Arrhythmogenic Cardiomyopathy by Myocardial Edema

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1. Introduction

A 71-year old female patient with supraventricular and ventricular arrhythmias presented to the Medical Care Unit. Her ECG was in sinus rhythm, incomplete right bundle branch block with right precordial QRS prolongation suspicious for arrhythmogenic right ventricular cardiomyopathy. The amplitude of the inverted S wave in lead V1 was more than 2mm, in lead aVR a deep Q wave, a small R wave and in inverted T wave with an amplitude of 3mm were present. A cardiac MRI was performed with no obvious findings of arrhythmogenic right ventricular cardiomyopathy, no RV dilatation, but myocardial edema at the apex of the ventricle, apical hypokinesia, and very small pericardial effusions along the right ventricle and right atrium. A gadolinium scan revealed abnormalities at inferior site of the left ventricle. The diagnosis was subacute peri-myocarditis of the right ventricle.

Half a year later the patient presented again at the Medical Care Unit. The ECG presented again with sinus rhythm, incomplete right bundle branch block with right precordial QRS prolongation. Now the morphology of lead aVR was nearly identical but with an amplitude of inverted S wave of less than 2 mm suggesting typical appearance for the diagnosis of arrhythmogenic right ventricular cardiomyopathy as shown in (FIG 1) [1]. Now the patient was free of symptoms.

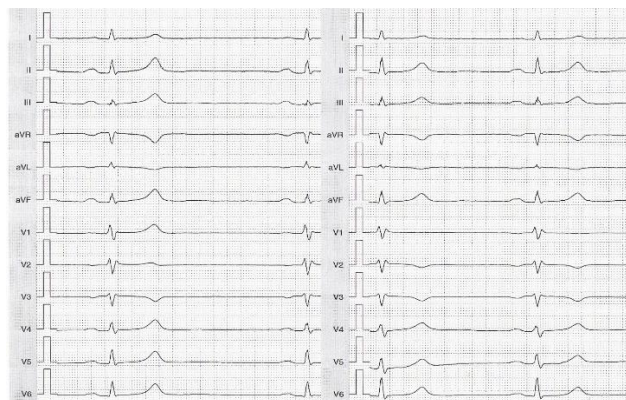


FIG. 1. Diagnosis of arrhythmogenic right ventricular cardiomyopathy.

2. Conclusions

Focal myocardial edema at the apex of the right ventricle were first described by McKenna and co-workers in 2005 [2] of a known case of arrhythmogenic right ventricular cardiomyopathy.

A possible differential diagnosis could be isolated right-sided takotsubo cardiomyopathy with the typical finding of myocardial edema. In these cases right ventricular dilatation is evident, but not in this case [3].

This report is worth to be reported as simple standard ECG reveals subtle changes expressing signs of subacute perimyocarditis (amplitude of inverted T wave more than 3mm). In the next control examination lead aVR shows typical appearance in arrhythmogenic cardiomyopathy with an amplitude of 2mm or less.

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