

## 51. Old Age Arrhythmogenic Right Ventricular Cardiomyopathy

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### Body

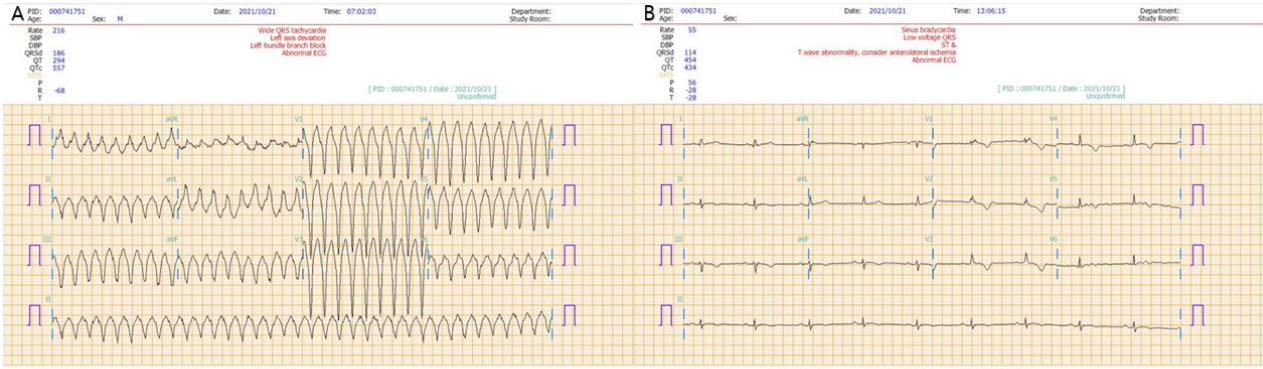
**Background:** Arrhythmogenic right ventricular cardiomyopathy (ARVC) clinically apparent in mostly 20~40 years old. Here we describe a case of old age first diagnosed ARVC at 72 years old.

**Case:** A 72-year-old male patient with only a history of diabetes, suddenly lost consciousness and collapsed during 108-fold exercise and was hospitalized through emergency room (ER). At ER visit, blood pressure was 80s, pulse 200/min was checked and ventricular tachycardia were confirmed. After cardioversion 100J, symptoms improved and he was hospitalized general ward. Electrocardiogram showed sustained ventricular tachycardia with left bundle branch blocks and superior axis pattern. Emergency coronary angiography was performed to differentiate ischemic heart disease, but there were no specific findings. Echocardiography showed ejection fraction 72%, enlarged right atrium & right ventricle chamber size and decreased right ventricle function, right ventricle lateral wall thinning and aneurysmal change was found. After improvement of ventricular tachycardia, echocardiogram showed T-wave inversion and epsilon wave at V1-V3 leads. Heart MRI showed dysynchronized RV contractions. ARVC diagnosed as it corresponds to two or more of the major ARVC diagnostic criteria. There is no curative therapy for ARVC patients, and the goal is to reduce the risk of sudden cardiac death and alleviate the symptoms of arrhythmias. As a patient who enjoys exercising on a regular basis, it should be explained that exercise restriction was necessary later, and amiodarone was used to prevent arrhythmias. There was no family history of sudden cardiac death, but in some cases it was caused by a genetic defect, so genetic testing also performed. Catheter ablation therapy or implantable cardioverter-defibrillator (ICD) insertion could be performed later.

**Discussion:** At sudden onset of ventricular tachycardia in the elderly, detailed echocardiography is needed to differentiate not only ischemic heart disease, but also diseases such as ARVC that can cause sudden cardiac death.

### Reference:

[1] John A. Jarcho, et al. Editor. Arrhythmogenic Right Ventricular Cardiomyopathy. NEJM JANUARY 5, 2017



A) Echocardiogram taken at emergency room

B) Echocardiogram taken after 100J Cardioversion

