A 77-year-old male patient presented with recurrent ventricular tachycardia, dizziness, and syncope. There was no history of cardiac diseases, and coronary artery disease was excluded by coronary angiography.

Twelve-lead ECG revealed epsilon-potentials (a) and inversion of T wave in the precordial leads (b, Panel A), and a sustained LBBB-type ventricular tachycardia was recorded on Holter-ECG (c) during hospital stay.

Ventricular angiography showed a dilated and deformed right ventricle (RV, Panel B).

Magnetic resonance imaging (MRI, Philips Intera, 1.5 Tesla, Eindhoven, The Netherlands) was performed showing dilation of the RV (d) with aneurysmatic ectasia of the RV lateral wall (e, Panel C), resulting in dyskinetic bulges during contraction (f). There was an abnormal structure of trabecula in the RV apex (g, Panel D). High-intensity areas indicated fatty infiltration of the RV lateral wall during T1-weighted (h, Panel E) and oedema of the RV apex during T2-weighted conventional spin-echo images (i, Panel F).

Thus, five major (a, d–f, and h) and four minor criteria (b, c, g, and i) were present, confirming the diagnosis of arrhythmogenic RV cardiomyopathy (ARVC) in this patient. Arrhythmogenic right ventricular cardiomyopathy, usually diagnosed in the adolescence, is characterized by changes in myocardial tissue structure of the RV and recurrent ventricular tachycardia that eventually may result in sudden cardiac death. However, ARVC should be considered in patients of all ages who present with recurrent ventricular tachycardia. MRI examinations have a high yield in patients in whom an ARVC is suspected since most of their findings represent major diagnostic criteria for this condition.
Panel A. Precordial leads of 12-lead ECG with low amplitude epsilon-potentials in the terminal QRS complex (black arrow) and inversion of T wave (white arrow).
Panel B. Angiography showing a dilated and deformed right ventricle (RV) in the right anterior oblique view (30°).
Panel C. Magnetic resonance imaging (MRI) short-axis cine view (TFE) revealed dilatation of the RV and an aneurysmatic ectasia of the RV wall (arrow).
Panel D. MRI four-chamber cine view (TFE) showed the abnormal structure of RV apical trabecula-like stacked plates ('Tellerstapel' phenomenon, arrows).
Panel E. Fatty infiltration (bright signal) of RV lateral wall during T1-weighted four-chamber view (arrows).
Panel F. Oedema of RV apex occurred in the T2-weighted four-chamber (arrows) view.

Conflict of interest: none declared.