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## Epsilon wave on insertable loop recorder in ARVD suspected by repeated myocarditis

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A 20-year-old boy had repeated episodes of precordial chest pain and palpitations. The troponin T increased to 0.8 µg/l (normal <0.6 µg/l) suggesting an episode of acute myocarditis. ECG and echocardiography remained within normal limits. Two years later, he had another episode of chest pain. His troponin was 2 µg/l. Negative T waves in V1 - V5. LVEF dropped to 55% with signs of anteroseptal and apical hypokinesia. CMR showed late enhancement in the sub-epicardial and mediomural layers. Two years later, he experienced a new episode with a near syncopal episode during soccer game. Negative T waves in leads V1 and in V2. Signal Averaging ECG was positive for both 25 and 40 Hz. His troponin T (HS) was 487 ng/l (normal <50 ng/l) suggesting a severe episode of myocarditis. Contrast angiography confirmed the diagnosis of ARVD. He was positive for PKP2. Electro physiological study induced VT only after isoproterenol administration. An AICD was recommended but was refused despite the finding from an insertable loop recorder that showed three spontaneous asymptomatic short lasting episodes of VT up to 260 bpm. The loop recorder showed also before the start and after the end of VT a clear fragmented potential of small amplitude (approximately 30 microvolts) immediately following the ventricular Electro Grams (EGM) complex of 0.4 mv. This is the first case in whom an Epsilon wave not visible on surface ECG is reported with an insertable loop recorder located under the skin in close proximity to the RV. It is also the first confirmation of ARVD detected after repeated episodes of myocarditis (Lopez-Ayala HR 2015).

### Biography

Guy Hugues Fontaine has made 15 original contributions at the inception of cardiac pacemakers in the mid-60s. He has published more than 900 scientific papers including 201 book chapters. He is included in the Profiles in Cardiology (W Hurst 2003) book of the 216 individuals who have made a significant contribution to the study of cardiovascular diseases since the 14<sup>th</sup> century. He has been included in the book "500 Greatest Geniuses of the 21<sup>st</sup> Century" of the American Biographical Institute (ABI 2005). He was the reviewer of 17 journals both in Clinical and Basic Science. He served during 5 years as a Member of the Editorial Board of Circulation. He has been invited to give 11 master lectures of 90 minutes each during three weeks in the top universities of China (2014).

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