Images in Cardiology

Catheter Ablation of Right Ventricular Outflow Tract Ventricular Tachycardia

Konstantinos Vlachos, MD, Konstantinos P. Letsas, MD, Michael Efremidis, MD, Antonios Sideris, MD
Department of Cardiology, Evagelismos Hospital, Athens, Greece

A 57-year-old female with repetitive monomorphic ventricular tachycardia was referred for an electrophysiological study. ECG during sinus rhythm was normal. ECG during tachycardia revealed a left bundle branch block (LBBB) pattern with inferior axis suggestive of an outflow tract tachycardia (**Fig**. 1). Structural heart disease was excluded. Transthoracic echocardiography and coronary angiography were unremarkable. The tachycardia was easily induced by atrial pacing (**Fig**. 2). This was suggestive of cyclic adenosine monophosphate (c-AMP) triggered activity as the pathophysiological basis of the arrhythmia. Activation mapping revealed the earliest activity at the posteroseptal region of the right ventricular outflow tract. A systolic pre-potential was recorded in this area, which is rarely seen in these type of arrhythmias (**Fig**. 3).

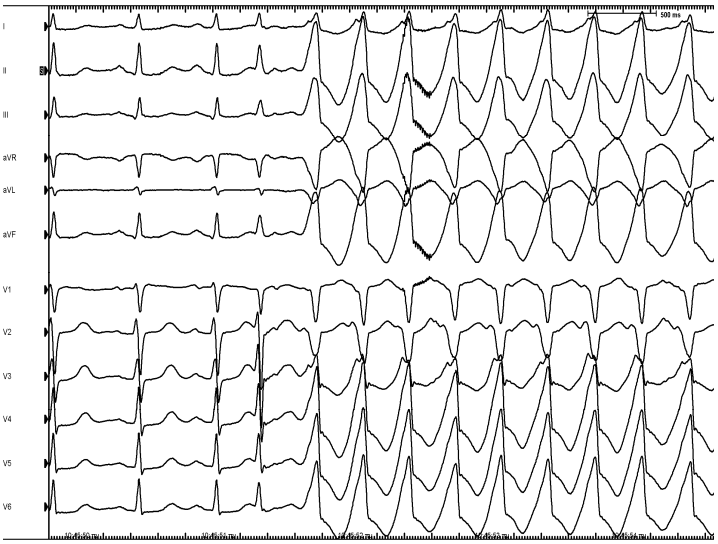

Figure 1. Spontaneous induction of the wide QRS tachycardia.

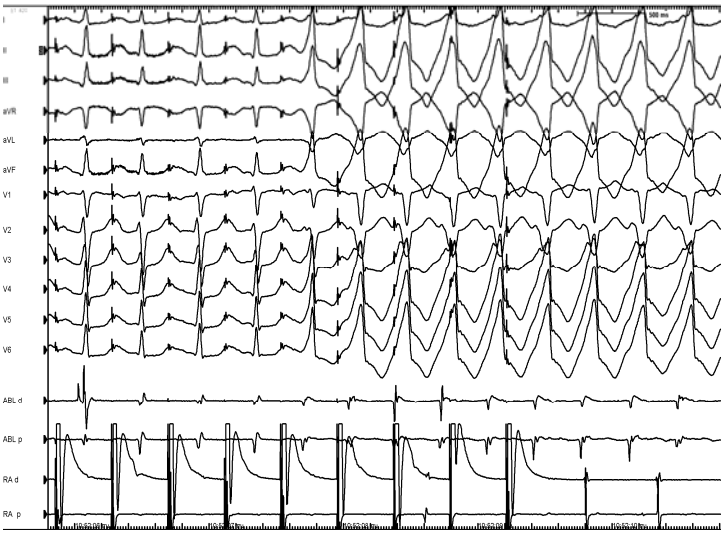

Figure 2. Atrial pacing induces the wide QRS tachycardia.

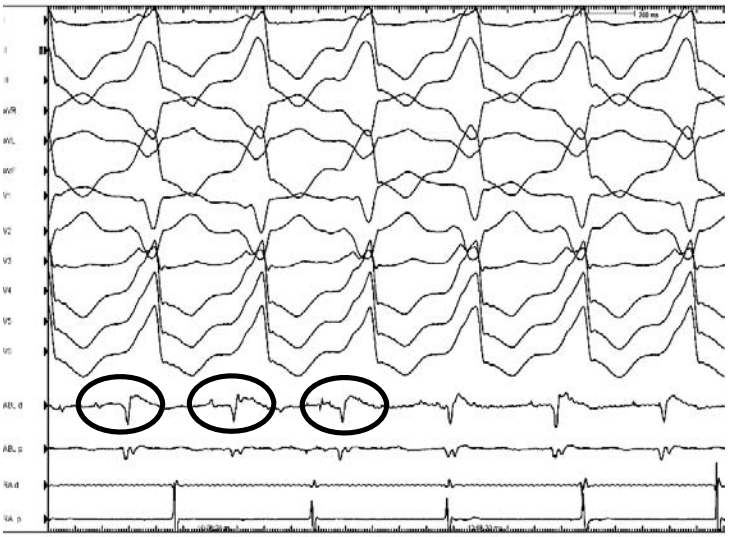

Figure 3. Activation mapping during the tachycardia revealed a systolic pre-potential (encircled) at the area of the earliest local activity.