

## Ablation of Premature Ventricular Contraction with the Help of a Notch

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A 43-year-old male patient presented with a complaint of palpitation. Electrocardiography revealed premature ventricular contraction (PVC) that appeared to be originating from the left ventricular outflow tract. Tall positive R waves were observed in leads II, III, and aVF, and the R transition was observed at V2 in precordial leads. A notch was realized on the downward deflection of QS, which was only at lead V1. (Figure 1) This finding indicates that the region between the right and left coronary commissures is the origin of VPS.

### Keywords

Myocardial Contraction; Catheter Ablation; Ventricular Function

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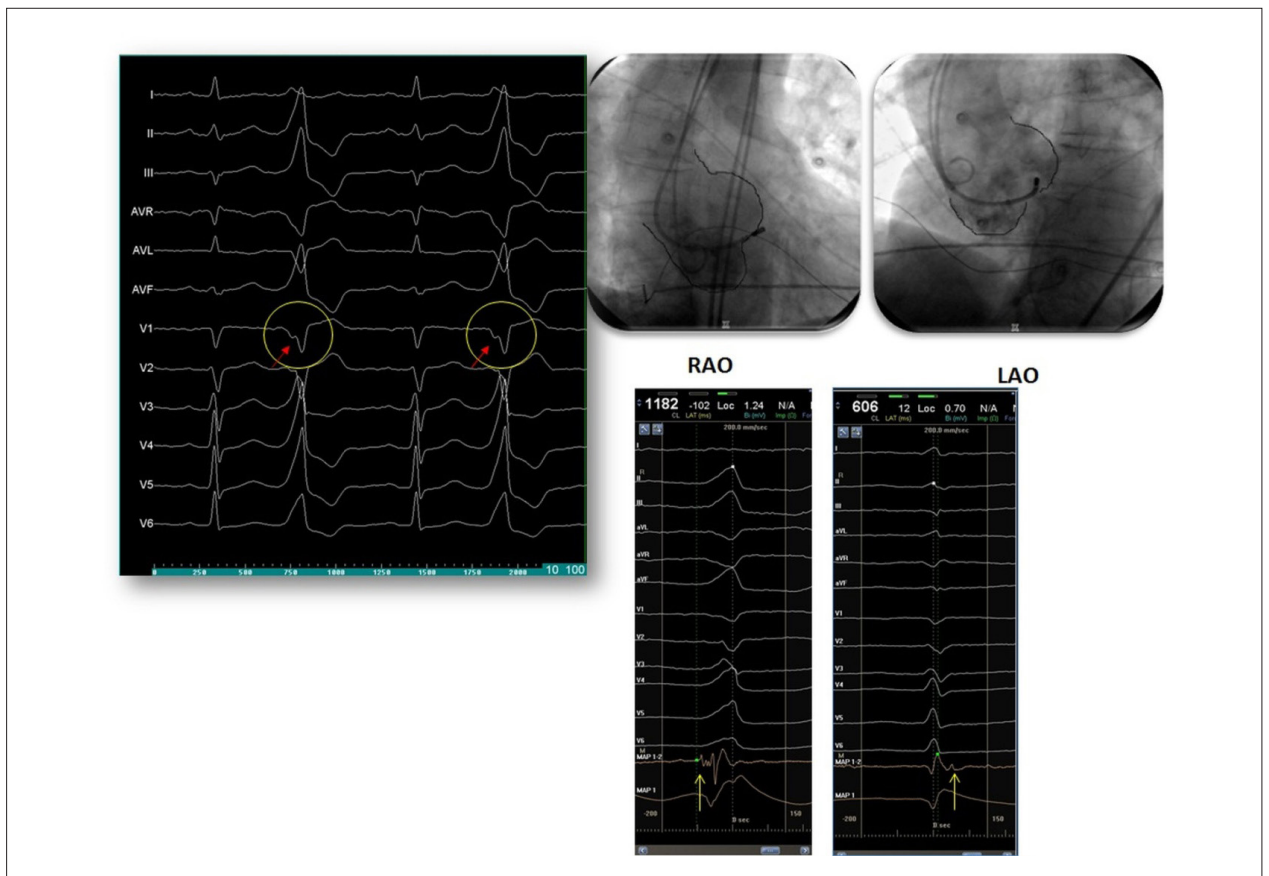
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In addition, 24-h Holter monitoring revealed 32000 PVCs. Therefore, an electrophysiology study was planned. During the procedure, the catheter was moved between the right coronary and left coronary commissures, and the ablation catheter was placed at the ventricular side of the commissures where the earliest signal recorded was at 40 ms. At this site, pacing produced 12/12 morphology with PVC. In addition, at this site, we demonstrated a deflection prior to the intracardiac ventricular electrogram of PVCs corresponding to the notch. This deflection was after the intracardiac ventricular electrogram during sinus beats (Figure 1). Ablation was performed at 20 watt 45 degrees, and it terminated all PVCs at this site.

PVCs can be very disturbing in some patients, and medical treatment may be tried. Long-term impacts of PVC may be deleterious for systolic ventricular function. Ablation of culprit source of PVC is an effective treatment and may improve systolic function of the left ventricle. Our patient was on a long-term medical treatment that failed to terminate PVCs. We preferred ablation for treatment. In this case, we would like to mention that ECG is an important, simple, cheap, and widely available tool that can be used for localization.



**Figure 1** - Left panel: Surface Electrocardiography. Right panel: Fluoroscopic images of the ablation site and intracardiac electrograms demonstrating a deflection during sinus beat and premature ventricular beat corresponding to a notch in the electrocardiography.