

Wide-QRS Tachycardia in an 89-Year-Old Woman With an ICD



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An elderly woman had ventricular tachycardia, and her defibrillator failed to discharge. Intravenously administered amiodarone returned her to sinus rhythm. © 2019 Elsevier Inc. All rights reserved. (Am J Cardiol 2019;124:1804–1805)

Case Report

A 91-year-old woman with a history of coronary artery bypass surgery, ischemic cardiomyopathy, and placement of a cardioverter/defibrillator was admitted because of a syncopal episode. Her admission electrocardiogram showed ventricular tachycardia at a rate of 172 beats/min (Figure 1). A serum potassium was 2.5 mEq/L. Her defibrillator did not fire despite the rapid rate, and intravenous amiodarone was used to restore sinus rhythm (Figure 2).

The implantable automatic defibrillator was devised by Mirowski et al in 1969 and by Schuder et al in

1970.¹ It has been quite reliable and effective at sensing and terminating ventricular fibrillation and ventricular tachycardia. The sensing system of Mirowski's original defibrillator disregarded rhythms slower than 250 beats/min to avoid shocking patients with slower less ominous arrhythmias.¹ Obviously such a cut-off results in some significant arrhythmias being ignored, and a similar cut-off may have been the reason for our patient's defibrillator failing to fire. Fortunately intravenously administered amiodarone promptly returned the patient to sinus rhythm.



Figure 1. Admission ECG in an 89-year-old woman shows a wide-complex tachycardia consistent with ventricular tachycardia. ECG = electrocardiogram.

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See page 1805 for disclosure information.

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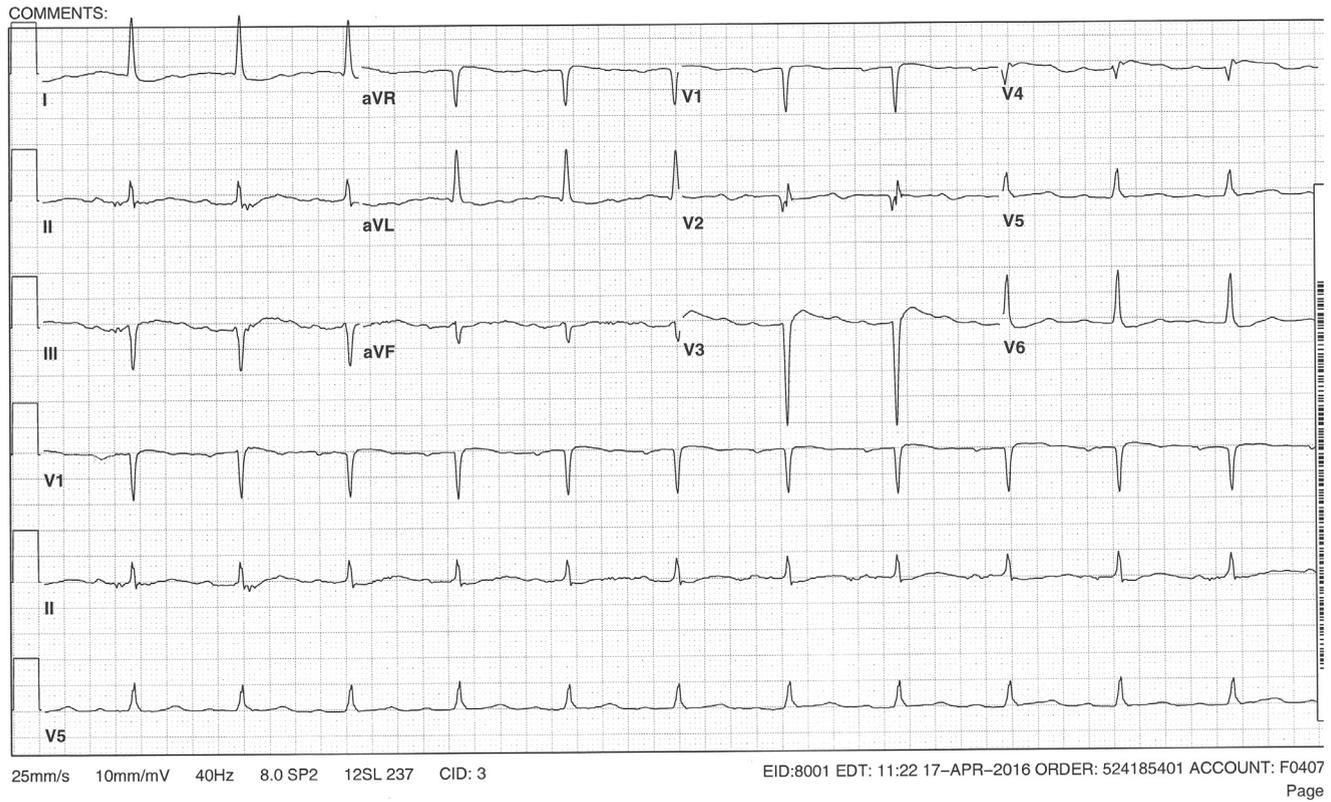


Figure 2. Electrocardiogram recorded 6 minutes after the ECG shown in Figure 1 and after the administration of amiodarone intravenously shows sinus rhythm with a long PR interval and QRS changes of an anterior myocardial infarct of indeterminate age, probably old.

Disclosures

The authors have no conflicts of interest to disclose.

1. Mirowski M, Reid PR, Mower MM, Watkins L Jr. Treatment of ventricular tachycardia and ventricular fibrillation by implantable automatic

defibrillator. In: Josephson ME, Wellens HJJ, eds. *Tachycardias: Mechanisms, Diagnosis, Treatment*. Philadelphia: Lea & Febiger; 1984:439-449.