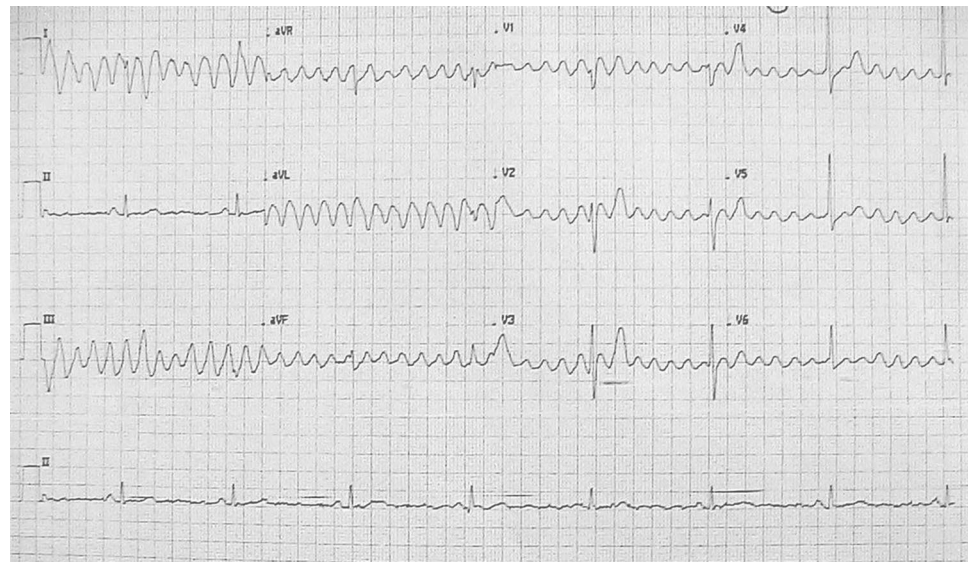


Teaching *NeuroImages*: Rest tremor mimicking ventricular tachycardia

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Figure Twelve-lead ECG demonstrating 5-Hz rest tremor artifact from Parkinson disease



Artifact obscures QRS complexes in leads I, aVL, III, and aVF, giving the appearance of ventricular tachycardia. The normal QRS complexes in the rhythm strip rules out ventricular tachycardia, which would be present in all leads.

Ventricular tachycardia is a life-threatening condition. ECG artifact caused by the 4- to 6-Hz rest tremor of Parkinson disease (PD) can mimic a wide complex ventricular tachycardia (figure). Misinterpretation of ECG artifact can have grave consequences, including cardiac catheterization, administration of antiarrhythmics, and placement of automated implantable cardioverter-defibrillators.¹ Tremor artifact is most prominent in limb leads and represents the action potentials of striated muscle. Artifact in leads I, III, and aVL in

this patient suggests left arm rest tremor. Holding the limb or placing electrodes on the chest can minimize this artifact.² Neurologists should be aware of this ECG artifact to prevent unnecessary cardiac interventions.

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Disclosure: Dr. Robottom receives research support from Chiltern International, Solvay/Abbott Pharmaceuticals, Inc., Westat, Inc., Elan Corporation, Medivation, Inc., and the University of Rochester/NINDS [subinvestigator]. Dr. Weiner has served on scientific advisory boards for Santhera Pharmaceuticals and Rexahn Pharmaceuticals, Inc.; serves on the editorial boards of *Parkinsonism and Related Disorders* and *Neurological Reviews* and as Editor of *Treatment Options in Neurology*; receives royalties from the publication of *Neurology for the Non-Neurologist* (6th edition, Kluwer/Lippincott, 2010), *Parkinson's Disease: A Complete Guide for Patients and Family* (2nd edition, Hopkins University Press, 2007), and *Handbook of Clinical Neurology Hyperkinetic Disorders* (Elsevier, 2011); has received honoraria from Santhera Pharmaceuticals and Novartis; has received research support from Novartis, Santhera Pharmaceuticals, and Boehringer Ingelheim; and has provided expert testimony and served as a subject matter expert in legal proceedings.

Neurology®

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Neurology 2010;75;2134

DOI 10.1212/WNL.0b013e318200d7e6

This information is current as of December 6, 2010

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