DIAGNOSTIC CHALLENGE

Wide QRS complex tachycardia

Jason Mitchell, BSc;* Gerald Lazarenko, MD†

A 45-year-old man presented to the emergency department complaining of palpitations. He had no history of chest pain, shortness of breath, presyncope, diaphoresis or calf pain. He had no known structural heart disease or risk factors for atherosclerotic heart disease. The patient denied history of excessive caffeine intake, smoking or recreational drug use. Medications included celecoxib 100 mg twice daily and sotalol 160 mg twice daily. On examination, his blood pressure was 129/65 mm Hg, his pulse was 147 beats/min, his respiration rate was 20 breaths/min and his temperature was 36.5°C. Physical examination was unremarkable. The patient's initial electrocardiogram is shown in Figure 1. The on-call cardiologist was unavailable for consultation at the time.

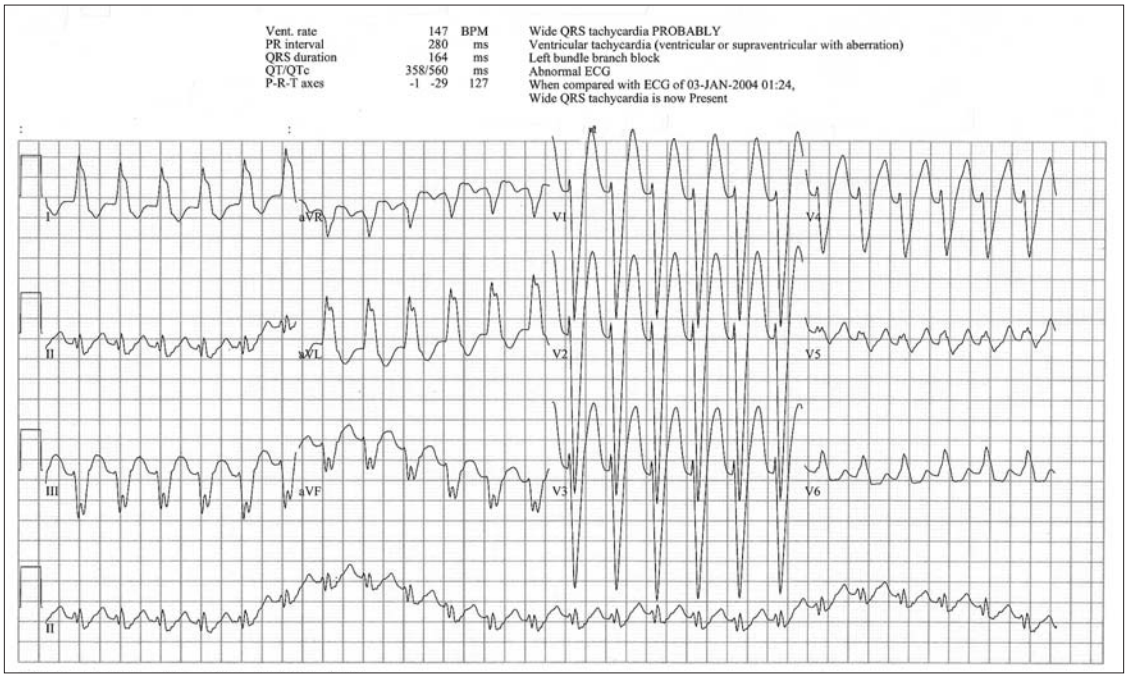

Fig. 1. Initial 12-lead electrocardiogram (ECG) of a 45-year-old man experiencing palpitations. BPM = beats per minute.

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The most likely mechanism for this patient's tachycardia and the most appropriate corresponding management are

a) supraventricular tachycardia with aberrant conduction; intravenous (IV) adenosine;
b) supraventricular tachycardia with aberrant conduction; IV verapamil;
c) ventricular tachycardia; electrical cardioversion with conscious sedation;
d) hyperkalemia; IV calcium gluconate and IV sodium bicarbonate;
e) tricyclic antidepressant overdose; IV sodium bicarbonate and activated charcoal by mouth;
f) torsades de pointes; stop sotalol, administer magnesium sulfate.

For the answer to this challenge, see page 581.

Call for Abstracts – Annual Meeting

May 14–17, 2009 • New Orleans, LA.

Deadline: Thursday, December 4, 2008

The Program Committee is accepting abstracts for review for oral and poster presentation at the 2009 Society for Academic Emergency Medicine (SAEM) Annual Meeting. Authors are invited to submit original emergency medicine research in the following categories:

- abdominal/gastrointestinal/genitourinary pathology
- administrative/health care policy
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- CV basic science
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- pediatrics
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- shock/critical care
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- trauma
- wounds/burns/orthopedics

The deadline for submission of abstracts for the Annual Meeting is Thursday, December 4, 2008 at 5:00 pm Eastern Time and will be strictly enforced. The online abstract submission form and instructions will be posted September 2, 2008. Only electronic submissions via the Society for Academic Emergency Medicine (SAEM) online abstract submission form will be accepted, and will be available on the SAEM website at www.saem.org. For further information or questions, contact SAEM at saem@saem.org or 517-485-5484 or via fax at 517-485-0801. Only reports of original research may be submitted. The data must not have been published in manuscript or abstract form or presented at a national medical scientific meeting prior to the 2009 SAEM Annual Meeting. Original abstracts presented at regional meetings in April or May 2009 will be considered. Abstracts accepted for presentation will be published in the May issue of *Academic Emergency Medicine* (AEM), the official journal of SAEM. SAEM strongly encourages authors to submit their manuscripts to AEM. AEM will notify authors of a decision regarding publication within 60 days of receipt of a manuscript.

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