

B. Brugada syndrome

- Ventricular fibrillation episodes, often nocturnal

C. Catecholaminergic polymorphic VT

- Polymorphic VT or bidirectional VT

D. Short QT and early repolarization syndromes

- Ventricular fibrillation

8. Idiopathic polymorphic VT or ventricular fibrillation

- Usually triggered by recurrent premature ventricular contractions; the most common site of origin is the left posterior fascicle (right bundle branch block/left anterior fascicular block pattern)

Hemodynamic stability during the arrhythmia does not help distinguish between VT and other mechanisms of wide-complex tachycardia. A number of ECG criteria have been evaluated to distinguish supraventricular tachycardia with aberrancy from VT. The presence of ventriculoatrial (VA) dissociation is a reliable marker for VT, provided the atrial rate is slower than the ventricular rate. Sometimes, P waves can be difficult to define, and the VA relationship cannot be assessed in a patient with an ongoing atrial arrhythmia such as atrial fibrillation. A P wave following each QRS does not exclude VT because 1:1 conduction from ventricle to atrium can occur. A monophasic R wave or Rs complex in aVR or concordance from V₁ to V₆ of monophasic R or S waves is also relatively specific for VT ([Fig. 254-1](#)). A number of other QRS morphology criteria have also been described, but all have limitations and are not very reliable in patients with severe heart disease. In patients with known bundle branch block, the same QRS morphology during tachycardia as during sinus rhythm suggests supraventricular tachycardia rather than VT, but even this is not absolutely reliable. Patients with reentry involving the bundle branches of the Purkinje system can have a VT morphology that resembles their native QRS in sinus rhythm. An electrophysiologic study is sometimes required for definitive diagnosis. Occasionally, noise and movement artifacts on telemetry recordings can simulate VT. Prompt recognition can avoid unnecessary tests and interventions.