

## 4

## 2. Surface ECG displaying artifact

The surface ECG is displaying artifact. The patient has Parkinson's disease, and associated tremors are causing the artifact. As the lower ECG limb leads are connected to his wrists, the surface ECG shows consistent deflections that give the appearance of atrial flutter. Due to the patient's history of paroxysmal atrial fibrillation, a 12-lead ECG was obtained (Figure 4.2). This revealed AV sequential pacing at the lower rate limit of 60 bpm with no evidence of atrial arrhythmia. Atrial capture is seen clearly in lead II (Figure 4.2) and during atrial threshold testing with

pacing mode programmed AAI at 90 bpm (Figure 4.3). The artifact was eliminated by switching the leads to the abdomen.

Answer 1 is incorrect because the 12-lead ECG demonstrates AV sequential pacing with atrial capture; in addition moving the limb leads eliminated the artifact. Answer 3 is incorrect because noise from a TENS unit would usually result in oversensing on the atrial channel and an increase in sensed markers. Antitachycardia pacing would be delivered at faster intervals than the artifact interval shown on the surface ECG in Figure 4.1.

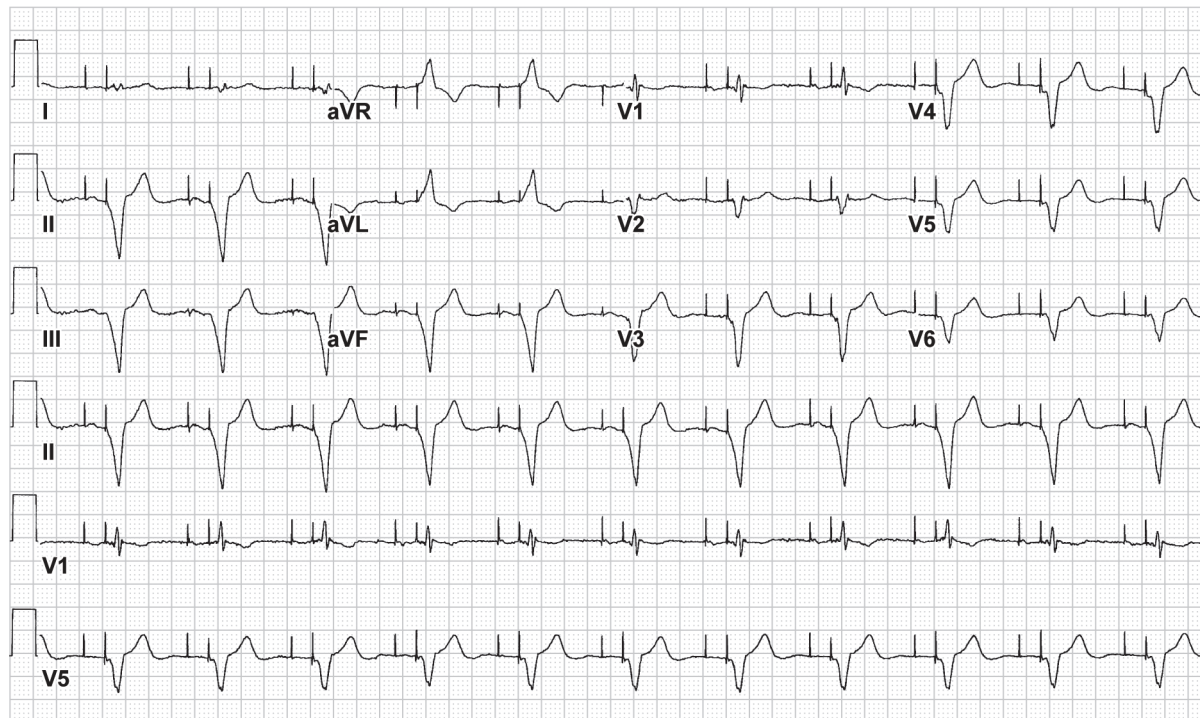


Figure 4.2 A12-lead ECG.