

What Is the Tachycardia Mechanism?

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Case Presentation

A 38-year-old woman with a 10-year history of paroxysmal supraventricular tachycardia underwent an electrophysiologic procedure. Paroxysmal supraventricular tachycardia with a cycle length of 420 msec was induced by programmed stimu-

lation with a single atrial extrastimulus (Fig. 1). During the tachycardia, atrial overdrive pacing was performed at a cycle length of 410 msec (Fig. 2). Atrial overdrive pacing at a cycle length of 400 msec terminated the tachycardia (Fig. 3). What is the mechanism of this tachycardia?

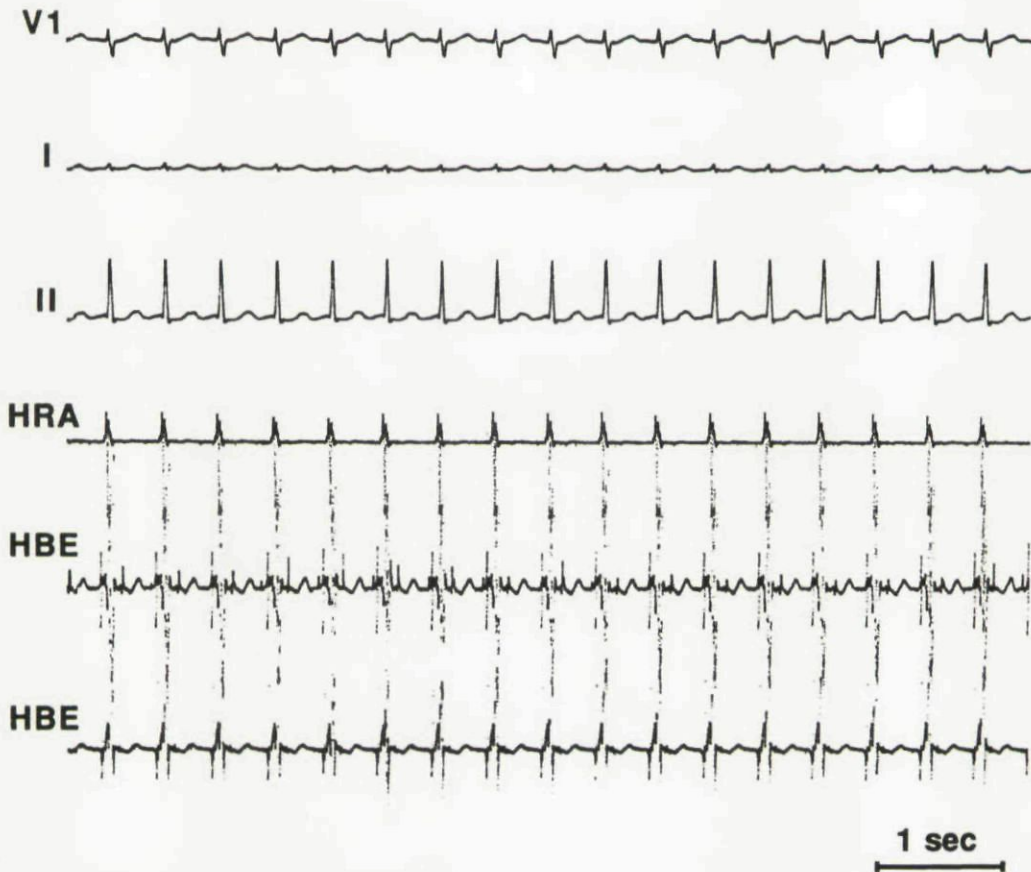


Figure 1. Narrow-QRS tachycardia that was induced by programmed atrial stimulation. The cycle length of the tachycardia is 420 msec. HBE = His-bundle electrogram; HRA = high right atrial electrogram.

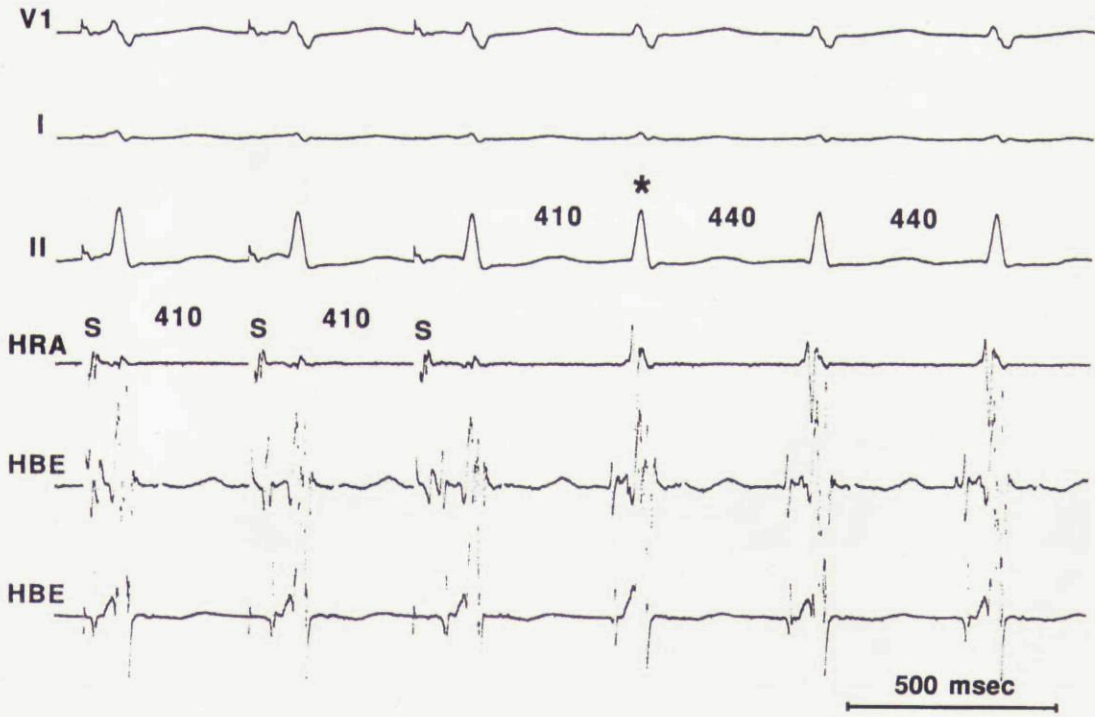


Figure 2. The last three stimuli (S) of a train of ten stimuli introduced in the high right atrium at a cycle length of 410 msec during the tachycardia. The tachycardia cycle length at this time was 440 msec. The numbers above lead II and the HRA recording refer to cycle lengths, in msec. Abbreviations as in Figure 1.

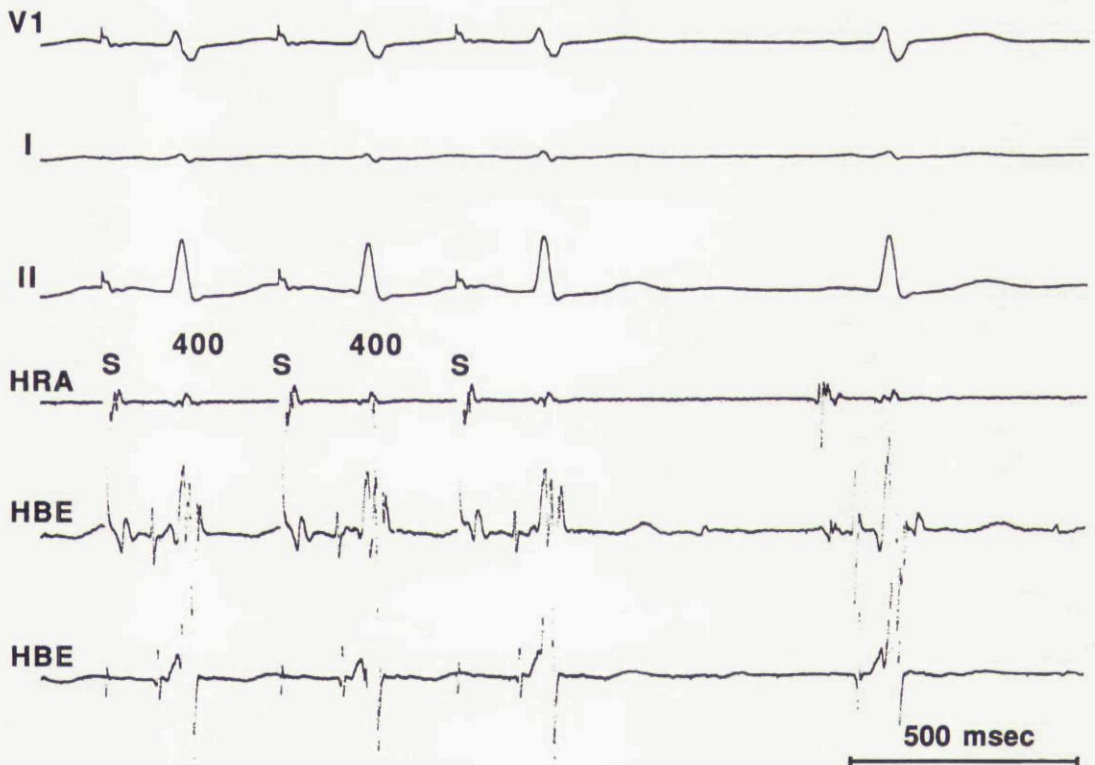


Figure 3. The last three stimuli (S) of a train of ten stimuli introduced in the high right atrium at a cycle length of 400 msec during the tachycardia. Pacing at this cycle length reproducibly terminated the tachycardia. Abbreviations as in Figure 1.

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