

# **Electrophysiologic characteristics, electropharmacologic responses and radiofrequency ablation in patients with decremental accessory pathway.**

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摘要

## **Abstract**

**Objectives.** This study sought to characterize the functional properties of decremental accessory atrioventricular (AV) pathways and to investigate their pharmacologic responses.

**Background.** Although decremental AV pathways associated with incessant reciprocating tachycardia have been studied extensively, information about the electrophysiologic characteristics and pharmacologic responses of anterograde and retrograde decremental AV pathways is limited.

**Methods.** Of 759 consecutive patients with accessory pathway-mediated tachyarrhythmia, 74 with decremental AV pathways were investigated (mean age  $43 \pm 18$  years). After baseline electrophysiologic study, the serial drugs adenosine, verapamil and procainamide were tested during atrial and ventricular pacing. Finally, radiofrequency catheter ablation was performed.

**Results.** Five patients had anterograde decremental conduction over the accessory pathway but had no retrograde conduction. Of the 64 patients with retrograde decremental conduction over the accessory pathway, anterograde conduction over the pathway was absent in 41 (64%), intermittent in 5 (8%) and nondecremental in 18 (28%). In the remaining five patients, anterograde and retrograde decremental conduction over the same pathway was found.

The anterograde and retrograde conduction properties and extent of decrement did not differ between anterograde and retrograde decremental pathways. Posteroseptal pathways had the highest incidences of anterograde and retrograde decremental conduction. Intravenous adenosine, procainamide and verapamil caused conduction delay or block, or both, in 10 of 10, 10 of 10 and 4 of 10 of the anterograde and 20 of 20, 20 of 20 and 8 of 20 of the retrograde decremental pathways, respectively. All patients had successful ablation of the decremental pathways without complications. During the follow-up period of  $31 \pm 19$  months, only one patient experienced recurrence.

**Conclusions.** Decremental accessory pathways usually had functionally distinct conduction characteristics in the anterograde and retrograde directions. Their pharmacologic responses suggested the heterogeneous mechanisms of decremental conduction.