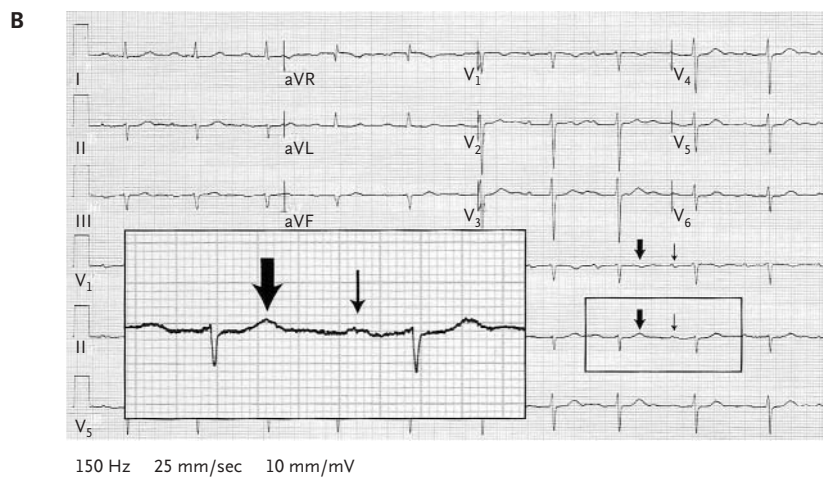
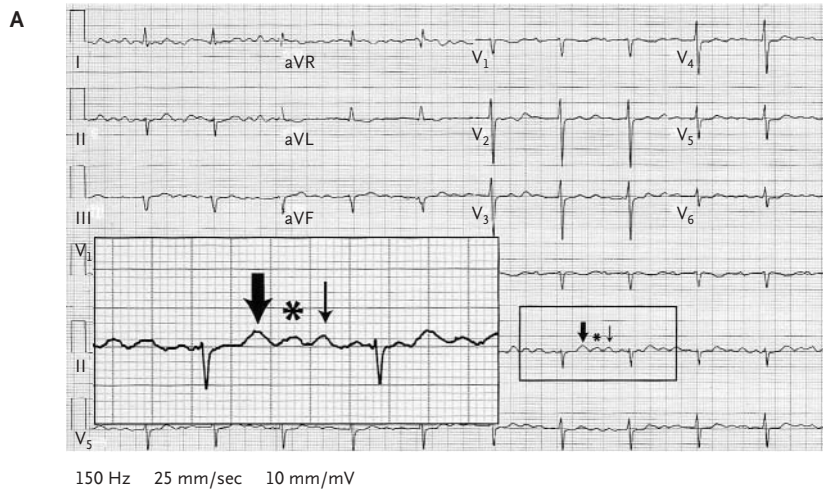


IMAGES IN CLINICAL MEDICINE

“T-U-P” Syndrome, or Pseudoatrial Flutter



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A 77-YEAR-OLD MAN WITH A REMOTE HISTORY OF ATRIAL FIBRILLATION PRESENTED TO THE EMERGENCY department reporting fatigue and weakness. The patient said he had not made any recent changes in his diet and that he did not have nausea, vomiting, or diarrhea. He also said he had no palpitations or sensations of a rapid heart rate. He was not taking any atrioventricular nodal blocking agents. An electrocardiogram was obtained, and an atrial flutter with a conduction ratio of 4:1 was diagnosed (Panel A). Laboratory values were remarkable only for a serum potassium level of 2.8 mmol per liter. One month before this visit, the patient had begun to receive 25 mg of hydrochlorothiazide daily for hypertension. After the electrocardiogram was obtained, potassium supplementation was prescribed, and treatment with the diuretic medication was discontinued. Repeated electrocardiography demonstrated sinus rhythm (Panel B). The pseudoatrial flutter, or “T-U-P” syndrome, as seen in Panel A, with small T waves (large arrow), followed by U waves (asterisk), followed by P waves (small arrow), with first-degree atrioventricular block, was attributed to the presence of hypokalemia as a result of the hydrochlorothiazide therapy. In Panel B, the T waves (large arrow) and P waves (small arrow) are shown.

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