Acetazolamide treatment of hypokalemic periodic paralysis: prevention of attacks and improvement of persistent weakness

Abstract

Although individual attacks of hypokalemic periodic paralysis are lessened by potassium treatment, recurrence is frequently not prevented by prophylactic potassium administration. Twelve patients with hypokalemic periodic paralysis were treated with acetazolamide in a placebo-controlled trial. Whereas the majority had failed to improve with previous therapy, 10 of the 12 patients were dramatically improved by acetazolamide. This response has been maintained for periods of 16 to 43 months with minimal or no side effects. Several patients previously disabled are now asymptomatic. In addition to eliminating attacks of weakness, acetazolamide also improved interattack weakness in 8 of 10 affected patients. The mechanism of effect of acetazolamide was not discovered. Acetazolamide produced a mild metabolic acidosis but did not have a demonstrable effect on total body sodium, total body potassium, or thyroid function. Acetazolamide is the most effective treatment available for hypokalemic periodic paralysis.
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Introduction Hypokalemic periodic paralysis (HPP) is characterized by muscle weakness secondary to low serum potassium levels. It may be primary in origin or there may be secondary causes like thyrotoxic periodic paralysis, renal or suprarenal causes, or non-renal causes like gastroenteritis. Aim To study the etiology, clinical manifestations, and outcome after therapy of patients with hypokalemic paralysis. The mainstay of treatment in hypokalemic periodic paralysis is potassium replacement and acetazolamide, a carbonic anhydrase inhibitor. Hypokalemic paralysis is usually overlooked in patients with acute flaccid paralysis in the emergency room [10]. Prevention of attacks and improvement of persistent weakness. Ann Intern Med.