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Prevalence of Hyperkalemia in Adult Patients Taking Spironolactone and Angiotensin Converting Enzyme Inhibitors or Angiotensin Receptor Blockers

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Abstract

Background: Hyperkalemia is common when spironolactone and angiotensin converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs) are combined.

Objective: To determine the prevalence and risk factors of hyperkalemia in adult patients taking spironolactone and ACEIs or ARBs.

Material and Method: A retrospective descriptive study was conducted. Adult patients taking spironolactone and ACEIs or ARBs who visited the outpatient department of Siriraj Hospital between January and December 2009 were included. Exclusion criteria were chronic kidney disease patients who had undergone dialysis and patients with hyperkalemia from other causes. The authors defined hyperkalemia as serum potassium of more than 5.0 mmol/L.

Results: Five hundred thirty four patients were included during the study period. The prevalence of hyperkalemia was 11.2% (60 patients). The risk factors of hyperkalemia were chronic kidney disease (OR 2.47, 95% CI 1.07-5.70), initial serum potassium level >4.0 mmol/L (OR 2.65, 95% CI 1.44-4.88), and dosing of spironolactone more than 25 mg per day (OR 2.42, 95% CI 1.23-4.74).

Conclusion: The prevalence of hyperkalemia in adult patients taking spironolactone and ACEIs or ARBs is 11.2%. Risk of hyperkalemia is chronic kidney disease, high serum potassium, and high spironolactone use.

Keywords: Spironolactone, Angiotensin-converting enzyme inhibitors, Angiotensin receptor blockers, Hyperkalemia, Drug interaction

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