Spironolactone in Resistant Hypertension

To the Editor:

The recent article by Chapman and the accompanying editorial by Goodfriend provide an evidence base for an increased use of spironolactone in patients with resistant hypertension. The usual definition of resistant hypertension states that a diuretic should have been included in the regimen of 3 or more drugs. In this Anglo-Scandinavian Cardiac Outcomes Trial subgroup it appears that less than half the subjects defined as being resistant had been exposed to diuretics and their response to spironolactone was not different. It may no longer be necessary to have prior thiazide use to define “resistant” hypertension in Caucasians patients.

Why twice as many of those receiving atenolol-diuretic with potassium regimen compared with amlodipine-perindopril regimen received spironolactone is not explained. Was there a difference in the percentage with resistant hypertension? It would be helpful if the pre- and postspironolactone treatment BP data for both amlodipine and atenolol based groups was presented separately. As spironolactone is not licensed in the UK, was there a difference between the prevalence of its use in the “Anglo” and Scandinavian populations?

An interesting finding is those with the lowest potassium or greatest potassium increase showed a greater BP response. We have previously shown, albeit in a much smaller study, a significantly greater BP reduction to spironolactone 50 mg daily in resistant hypertension in individuals with potassium of under as opposed to over 4 mmol/L.

Goodfriend offered a number of possible reasons for the remarkable hypertensive response to spironolactone. Given the preferential reduction in systolic blood pressure, it is possible an effect of spironolactone on arterial stiffness may contribute. We have previously shown, albeit in a much smaller study, a significantly greater BP reduction to spironolactone 50 mg daily in resistant hypertension in individuals with potassium of under as opposed to over 4 mmol/L.

Goodfriend also alludes to the fact that there was no pretreatment measurement of aldosterone or renin. In our study for individuals commencing spironolactone as a first line antihypertensive therapy, age and pretreatment renin and ARR were good predictors of BP reduction. However, in the setting of individuals with resistant hypertension on multiple agents, neither renin nor ARR was a predictor of the hypotensive response.

Chapman et al remark that they provide unique support for the British Hypertension Society 2004 recommendations regarding the use of spironolactone as a fourth line agent. They should be aware that the current British Hypertension Society/NICE Guidelines, issued June 2006, have removed specific mention of spironolactone from the recommendations. This may possibly reflect that spironolactone in the United Kingdom, unlike many other countries, is not licensed for the treatment of hypertension. Perhaps this study will help reinstate spironolactone to its rightful place in the management of hypertension.

Disclosures

None.

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Spironolactone in Resistant Hypertension
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