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Research Article

Confirmatory results about Spironolactone (S) Effects on AASI in Essential Hypertensive Patients: Short communication

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Abstract

In previous studies we demonstrated that spironolactone 50 mg OD, added in hypertensive patients who do not normalize pressure with enalapril 10 mg in the morning, after 3 months reduces pressure and reduces arterial stiffness.

Key words: arterial stifness; spironolactone

Introduction

The objective of the present study was to analyze if this effect lasted up to 6 months, in a larger group of hypertensive patients. ABPM allows us to obtain Ambulatory Arterial Stiffness Index (AASI) through a mathematical formula. This index correlates well with Pulse Wave Velocity (PWV) and has shown good prognostic value in both normo and hypertensive populations: high AASI values, worse CV prognosis.

Hypertensives have shown increased arterial stiffness.

Enalapril (E) 10 mg in the morning is the commonest initial treatment in Argentine. After 30 days, in resistant to E hypertensives, it is used to add a second drug. Spironolactone (S) has antifibrotic properties, and has not enough studied in hypertensives in a short term treatment. Because these fact, we analize the effect of S add to E on AASI in patients with stage 1 essential hypertension treated 6 months with OD morning doses.

Material and Methods

104 essential stage I hypertensives on E 10 mg at least 30 days were added with S: Aldo:Renine score <30, without any other concomitant pharmacological agent capable of inducing changes in arterial stiffness, All patients had ABPM daily SBP/DBP >135 and/or 85 mmHg Mean age 64.2 years (54-68), 66 were male, BMI 29.3 (25-30). We added S 50 mg/d in OD morning dose for 6 months. Two 24-hour ABPM recordings (Spacelabs 90207) were performed pre and post-S, with at least 70 valid measurements each. A paired T-Test was used for statistical analysis and P<0.05 was considered statistically significant.

Results

Adverse events were mild, 18patients suffered headaches, kalemia increased from 4.10 to 4.50 mEq/l, and creatinine from 9.10 to 9.40 mg%, 6 patients presented mild dry cough.

Conclusion: In a basal study (E treated) AASI values were high (normal values are expected < 0,40 for these age) Spironolactone added to E, 50mg OD in the morning, during 6 months, induced a significant office and ambulatory BP decrease, and tends to reduce BP variability and heart rate. AASI was reduced to 0.36, within normal values, after 6 months of treatment.

	Office BP mmHg	ABPM 24 hs mmHg	ABPM Day mmHg	ABPM Night mmHg	ABPM SD day mmHg	ABPMHR day b/min	AASI %
Basal	148/92	136/92	140/90	128/78	12.6/9.6	79.4	0.42±0.09
6 months	136/86	130/82	130/86	122/74	10.4/9.6	77.8	0.36±0.08
p<	0.03/0.04	0.01/0.02	0.05/0.05	0.05/0.04	n.s./n.s.	n.s.	0.04

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