Clinical profile of hypertensive subjects not controlled with a combination of 2 antihypertensive drugs

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Purpose: Combination therapy is able to produce a more intense BP reduction; therefore leading to a better treatment adherence and BP control. However, still a significant proportion of hypertensives remain with values above the goal. The current study aimed to evaluate the clinical profile of hypertensive subjects treated with a combination of 2 antihypertensive drugs whose blood pressure remained above 140/90 mmHg.

Patients and Methods: This is an observational, cross-sectional study in a cohort of 816 hypertensive patients attended in primary care centres or referral units. Inclusion criteria were: diagnosis of essential hypertension and treatment with a 2 antihypertensive drug combination (either in a fixed-dose schedule or as a free combination) whose blood pressure remained above or equal 140 and/or 90 mmHg at the time of the visit.

Results: Mean age (SD) was 64 (13) years and 59% were women. BMI was 30.1 (5.2) Kg/m2 and waist circumference 102 (12) cm for men and 96 (16) cm for women. Mean systolic and diastolic BP was 147 (17) and 84 (12) mmHg. Additional cardiovascular risk factors were distributed as follows: type 2 diabetes 45%, dyslipidaemia 75%, smoking habit 25%, and family history of premature cardiovascular disease 18%. Renal disease was present in 36%, coronary heart disease in 27%, previous stroke in 18% and peripheral artery disease in 18%. Diuretic-based combinations (54%) were the most frequently used, either with ARB (34%) or with ACE inhibitors (12%), followed by calcium channel blocker-based combinations (31%), either with ARB (20%) or with ACE inhibitors (6%). 38% of patients received treatment in single pill fixed-dose combination, whereas in the remaining 62% treatment was administered in a 2 pills free combination.

Conclusion: Hypertensive patients not controlled with 2 antihypertensive drugs are a group of high cardiovascular risk, with a significant proportion of diabetes or established cardiovascular or renal disease. Most patients still receive this treatment with 2 drugs in a 2 pill free combination, being the diuretic-based combination the most frequently used.

Antihypertensive drug therapy in haemodialysis patients

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Blood pressure is raised in the majority of haemodialysis (HD) patients. Many of them need antihypertensive medications and some of them are resistant of antihypertensive medication.

The purpose of the present cross-over observational study was to investigate the use of anti-hypertensive drugs and to compare these results with those from a preliminary study three years ago. A total of 11 dialysis centers were included in the study. Age, sex, HD duration, systolic and diastolic blood pressure before and after HD were recorded, as well as the anti-hypertensive drugs used in HD pts: beta-blockers (BB), calcium
channel blockers (CCB), diuretics (D), angiotensin – converting enzyme inhibitors (ACEI), angiotensin II-receptor blockers (ARB), alpha-blockers (AB) and centrally acting drugs (CAD). Hypertension was defined as blood pressure > 140/90 mmHg before HD, or less if pts were on antihypertensive treatment.

A total of 780 pts were included and hypertension was observed in 652, i.e. 83.6%. Average blood pressure before HD was 158.2 ± 24.2 mmHg and 88.5 ± 15.2 mmHg. In the preliminary study three years ago the prevalence was the same, i.e. it was 88%. The most frequently used drug were CCB, in 550 pts (70%), after that BB in 335 (43%) of pts, ACEI in 312 (40%) of pts. ARB was the same, i.e. it was 84%. The most frequently used drug were CCB, in 550 pts (70%), after that BB in 335 (43%) of pts, ACEI in 312 (40%) of pts. ARB was the same, i.e. it was 84%. The most frequently used drug were CCB, in 550 pts (70%), after that BB in 335 (43%) of pts, ACEI in 312 (40%) of pts. ARB was the same, i.e. it was 84%. The most frequently used drug were CCB, in 550 pts (70%), after that BB in 335 (43%) of pts, ACEI in 312 (40%) of pts. ARB was the same, i.e. it was 84%.

**Results and Conclusions:** The group of patients treated with Olmesartan reduced significantly their AUE in 51% (from 11.42 ± 10.26 mg/kg at the beginning, to 5.99 ± 5.33 mg/kg at the end), with p < 0.05. There was a tendency towards a higher AUE reduction, the higher the SBP reduction was. On the other hand, Lercanidipine reduced AUE at the end of the study in 9.05% (from 7.07 ± 8.50 mg/kg at the beginning to 6.43 ± 3.24 mg/kg at the end), although this descent was not significant. Notwithstanding, these results lend Lercanidipine a nephroprotecting effect which has not been observed in other calcium channels blocking drugs.