

Blood pressure control and antihypertensive pharmacotherapy patterns in a hypertensive Portuguese population

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Introduction

Interventions to improve blood pressure (BP) control in hypertensive patients have had limited success in clinical practice, despite evidence from several randomised controlled trials, of the efficacy of antihypertensive agents in controlling BP and in cardiovascular diseases prevention.

Objectives

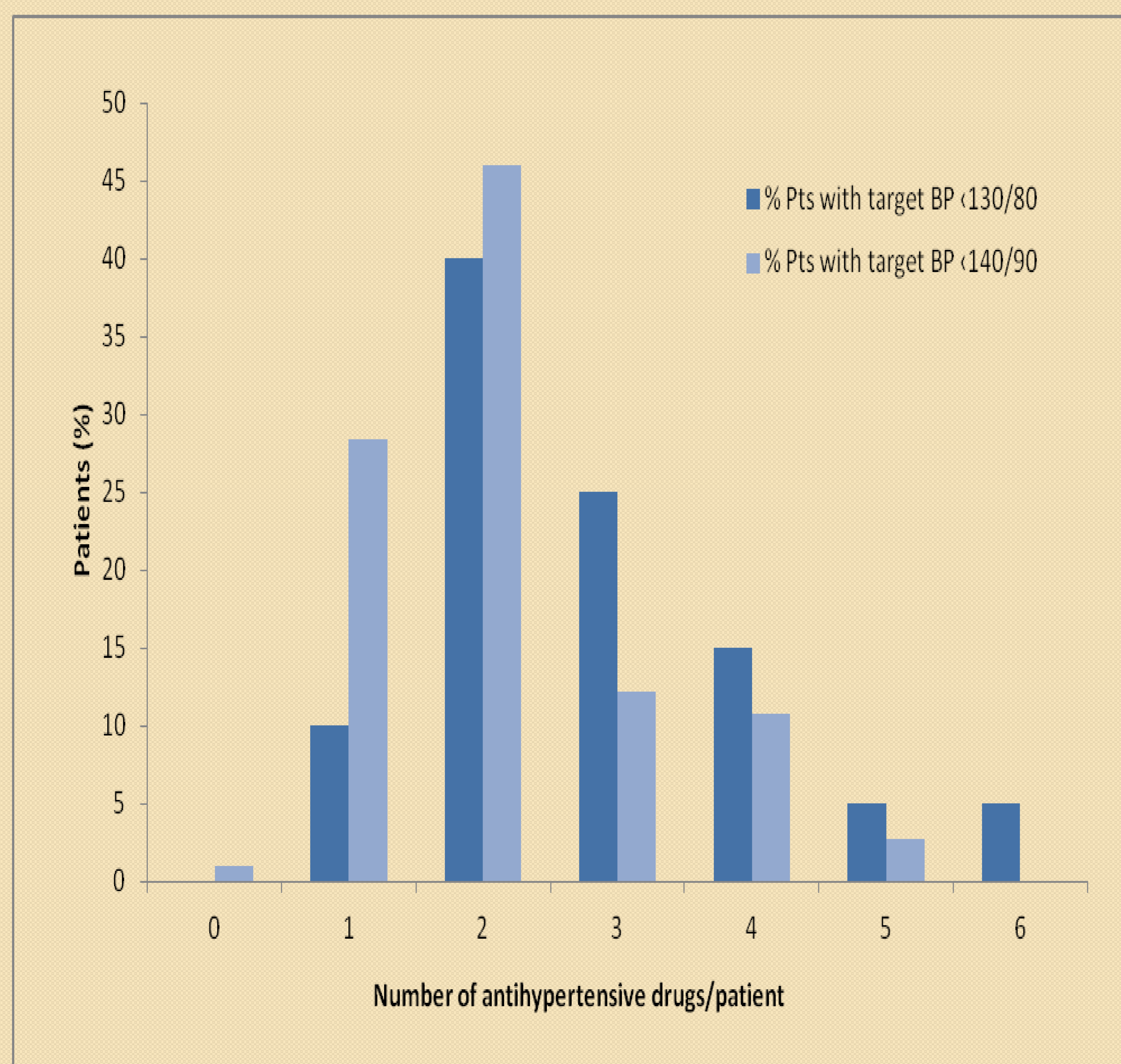
It is our aim to evaluate BP control and antihypertensive pharmacotherapy patterns in a population of Central Region of Portugal, attending a hospital outpatient clinic for routine follow-up and to analyse whether the international guidelines are followed regarding the prescription of certain groups of antihypertensive drugs in hypertensive patients with diabetes mellitus and / or chronic renal failure (CRF).

Materials and Methods

Medical data of adult (aged 18 or over) hypertensive patients attending the hypertension clinic of Cova da Beira Hospital Centre, Covilhã, Portugal, from March to August 2012, were prospectively obtained from medical records and analysed. Demographic variables, clinical data, BP values and prescribed medication of hypertensive patients included in the study were prospectively obtained from medical records of patients on the day of consultation.

Results

In all, 47% of hypertensive patients (n=44) had their BP controlled according to international guidelines. About 54% of patients with a target BP <140/90 mmHg (n=74) were controlled, whereas in patients with diabetes and/or chronic kidney disease (n=20) the corresponding figure was only 20% (P=0.007). The angiotensin II-receptor antagonists were the most prescribed drugs (57.5%), followed by calcium channel blockers (55.3%) and β -blockers (42.5%). About 82.4% patients with comorbid diabetes were treated with an angiotensin-converting enzyme inhibitor or an angiotensin II-receptor antagonist.



Graphic I. Number of antihypertensive medications per patients.

BP	All patients (n=94)	Patients with target <140/90 mm/Hg (n=74)	Patients with target <130/80 mm/Hg (n=20)
Mean \pm SD SBP/DBP (mm/Hg)	138,11 \pm 17,62/82,17 \pm 11,71	138,04 \pm 17,70/82,50 \pm 11,72	144,50 \pm 17,54/80,95 \pm 11,62
BP \geq 140/90 mm/Hg	48 (51,06%)	34 (45,95%)	14 (70%)
BP <140/90 mm/Hg	46 (48,93%)	40 (54,05%)	6 (30%)
BP controlled (JCN 7 guidelines)	44 (46,81%)	40 (54,05%)	4 (20%)
BP not controlled 120-139/80-89	50 (53,19%)	34 (45,95%)	16 (80%)
Degree of Hypertension			
Normal high	2 (4%)	0	2 (12,5%)
Stage 1	21 (42%)	16 (47,06%)	5 (31,25%)
Stage 1 / Isolated systolic hypertension	12 (24%)	8 (23,53%)	4 (25%)
Stage 2	10 (20%)	7 (20,59%)	3 (18,75%)
Stage 2 / Isolated systolic hypertension	5 (10%)	3 (8,82%)	2 (12,5%)

Table I. Blood pressure control of hypertensive patients.

Conclusions

Many hypertensive patients prescribed with antihypertensive therapy fail to achieve BP control in clinical practice, with control being worse among patients with diabetes or chronic kidney disease. As pharmacotherapy patterns seem to agree with international guidelines, further research is needed to identify the factors underlying the high rate of uncontrolled hypertension in the latter group of hypertensive patients.

Conflicts of Interest: nothing to disclose.