

## DETERMINANTS OF BLOOD PRESSURE CONTROL IN HYPERTENSIVE PATIENTS SEEN IN THIRD REFERRAL CENTERS

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### Objectives

This work was designed to look for the main characteristics of hypertensive patients seen in Academic Centers from Belgium, with special emphasis on factors influencing blood pressure (BP) control.

### Methods

Nine hundred forty-two hypertensive patients without evidence of secondary hypertension (HTN) were recruited in six Academic Hospitals from 02/2005 to 06/2009. A standardized clinical file was filled in for all patients. Data were analyzed using NCS5<sup>®</sup>.

### Results

Mean age of patients at inclusion was  $58 \pm 14$  years. Fifty-eight % were females and 88 % were under treatment. Mean BP was  $173 \pm 23$  mmHg/ $101 \pm 14$  mmHg at diagnosis and  $149 \pm 24/88 \pm 15$  mmHg at inclusion. Seventy-four % of patients had 2 or more risk factors other than HTN; abdominal obesity (55%) and hypercholesterolemia (52%) were the most frequent. The prevalence of left ventricular hypertrophy was 12.5%. Patients taking 1, 2, 3, 4 or more antihypertensive drugs represented 31%, 29%, 22% and 18%, respectively. Mean systolic BP tended to increase with the number of antihypertensive drugs used ( $p=0.026$ ). The most frequently used drugs were diuretics (53%) and  $\beta$ -blockers (52%). Hypertension was uncontrolled in 64% of treated patients and refractory in 21%. These figures were respectively 68% and 22% according to ABPM criteria (subgroup analysis,  $n=234$ ). In univariate analysis, refractory HTN was associated with abdominal obesity [OR=3,26(1,88-5,66)], age>60yrs [OR=2,21(1,38-3,55)], BMI $\geq 30$ kg/m<sup>2</sup> [OR=1,93(1,20-3,10)] and diabetes [OR=2,79(1,53-5,10)]. When controlled for age>60yrs, BMI $\geq 30$ kg/m<sup>2</sup> and diabetes, abdominal obesity remained significantly associated with refractory HTN.

### Conclusions

In patients seen in third referral centers, the prevalence of uncontrolled and refractory HTN was high despite frequent use of combination therapies and mainly influenced by abdominal obesity, age and diabetes. No significant contribution of white coat effect could be demonstrated.