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## **PREVALENCE, TREATMENT AND CONTROL OF HYPERTENSION IN ELDERLY: THE MARACAIBO AGING STUDY**

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**Background:** Cardiovascular disease is the most prevalent cause of morbidity and mortality in the elderly, worldwide. Uncontrolled hypertension is the leading risk factor for cardiovascular disease. Data from the Maracaibo Aging Study (MAS) were used to examine risk factors and effects of pharmacologic treatment for uncontrolled hypertension in the elderly.

**Methods:** MAS participants (n=2438), residents of Maracaibo (Venezuela) 55 years of age or older, underwent physical examinations. Blood pressure was measured using an automated oscillometric device (DINAMAP, Critikon). Hypertension was defined as average systolic blood pressure (SBP) of 140 mmHg or higher, average diastolic blood pressure (DBP) of 90 mmHg or higher, or current use of BP-lowering medication. Uncontrolled hypertension was defined as average SBP of 140 mmHg or higher, or average DBP of 90 mmHg or higher, with no medication. Univariate chi-square tests were used to examine gender differences in hypertension and BP control. Sequential multivariate logistic regression models were used to determine the effect of risk factors on BP control.

**Results:** Overall prevalence of hypertension among MAS participants was 84.2%, with no difference between genders. Hypertension increased with increasing age, increasing body mass index, history of smoking or diabetes, and high total plasma homocysteine level. 95.8% of individuals with hypertension did not have it controlled. Among these, 32.0% were being treated with medication, and significantly more women were being treated than men (37.6% vs 29.4%). Higher cognitive performance, assessed with the Mini Mental State Examination, was independently associated with controlled hypertension (OR= 1.06, 95% CI=1.01-1.22, p = 0.011).

**Conclusion:** High prevalence and very low control rates of hypertension among elderly residents of developing countries represent a missed opportunity to prevent morbidity and mortality due to cardiovascular disease. Significant capacity building of healthcare systems and personnel focused on diagnosis, treatment, and control of hypertension is obviously needed.