Letter to the Editor

Letters to the Editor will be published, if suitable, as space permits. They should not exceed 1000 words (typed double-spaced) in length and may be subject to editing or abridgment.

Subtypes of Resistant Hypertension Based on Out-of-Office Blood Pressure Measurement

To the Editor:

We read with considerable interest the article by de la Sierra et al.1 clarifying the prevalence and clinical features of resistant hypertension based on office and ambulatory blood pressure (BP) monitoring in a large cohort of treated hypertensive patients in Spain. The prevalence of white-coat resistant hypertension (24-hour ambulatory BP <130/80 mm Hg for systolic/diastolic) and true resistant hypertension (24-hour ambulatory BP ≥130 and/or 80 mm Hg) was 37.5% and 62.5% among patients with uncontrolled office BP (≥140 and/or 90 mm Hg) and taking ≥3 antihypertensive drugs. They also demonstrated a difference in characteristics between white-coat and true resistant hypertension. These findings indicate that physicians should have patients monitor their ambulatory BP to differentiate between true and white-coat resistant hypertension.

We also evaluated the prevalence of the following subtypes of resistant hypertension in a large-scale nationwide study in Japan: controlled, isolated home (masked) resistant, isolated office (white-coat) resistant, and sustained (true) resistant hypertension based on 140/90 and 135/85 mm Hg cutoff values for office and home BP, respectively.2 The prevalences of white-coat and true resistant hypertension were 27.4% and 72.6% of the 310 patients with uncontrolled office BP and taking ≥3 antihypertensive drugs. On the other hand, the prevalences of controlled and masked resistant hypertension were 43.1% and 56.9%, respectively, among the 218 patients with controlled office BP and taking ≥3 antihypertensive drugs. Surprisingly, 23.5% of patients taking ≥3 antihypertensive drugs had masked resistant hypertension. Although the cardiovascular risk of masked resistant hypertension based on home BP has not been evaluated, Pierdomenico et al.3 demonstrated that individuals with masked resistant hypertension based on ambulatory BP (daytime ambulatory BP ≥135 and/or 85 mm Hg and office BP <140/90 mm Hg) are at higher risk than those with controlled hypertension (daytime ambulatory BP <135/85 mm Hg and office BP <140/90 mm Hg) among patients taking ≥3 antihypertensive drugs.

Therefore, we are interested in knowing the prevalence of masked resistant hypertension in a large cohort of treated hypertensive patients in Spain. Furthermore, demonstrating the clinical features of masked resistant hypertension in this population could be very helpful for improving risk stratification in the clinical setting.

Sources of Funding

This study was supported by Grants for Scientific Research (185402 and 207477) from the Ministry of Education, Culture, Sports, Science and Technology; by Junkanki-Byou-Iaku-Kenkyuhi (H19-Kou-8) from the National Cardiovascular Center; and funding from Nouvelle Place Inc, Japan.

Disclosures

None.

Subtypes of Resistant Hypertension Based on Out-of-Office Blood Pressure Measurement
Taku Obara, Takayoshi Ohkubo, Nariyasu Mano, Nobuo Yaegashi, Shinichi Kuriyama and Yutaka Imai

Hypertension. 2011;58:e28; originally published online August 8, 2011;
doi: 10.1161/HYPERTENSIONAHA.111.178996

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://hyper.ahajournals.org/content/58/4/e28