COMMENTS AND RESPONSES

Impact of White-Coat Hypertension on Microvascular Complications in Type 2 Diabetes

Response to Eguchi et al.

Eguchi et al. (1), in their response to our study (2), point out that microvascular damage associated with white-coat hypertension may be the cause of increased blood pressure responses to daily stressors. This is a very interesting and original interpretation; however, the direction of the cause-and-effect relation between microvascular disease and blood pressure response to exercise can only be confirmed by prospective cohort studies.

We share the idea of Eguchi et al. that continuously high levels of blood pressure are more important for the development of diabetes complications than transient rises. In a previous study of our group, Leitão et al. (3) studied 270 type 2 diabetic patients with ambulatory blood pressure monitoring (ABPM) and verified that the correlations between urinary albumin excretion rate and echocardiography structural alterations with 24-h systolic blood pressure means were more consistent and of greater magnitude than with night/day blood pressure ratios. Reinforcing the role of sustained hypertension, Leitão et al. demonstrated that type 2 diabetic patients with masked hypertension (office normotension but hypertension on ABPM) had higher albumin excretion and increased left ventricular wall thickness than truly normotensive patients (4).

Given the current evidence on ABPM and type 2 diabetes complications, we believe that blood pressure levels are a strong predictor of chronic complications and that blood pressure should not be categorized only as normal or abnormal but, rather, should be considered with even subtle changes in blood pressure homeostasis taken into account, such as masked hypertension (4), white-coat hypertension (2), and high-normal blood pressure levels (5).

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