The Prognostic Significance of Renal Resistive Index in Essential Hypertension

To the Editor:

I read with great interest the paper by Doi et al1 that was very recently published in Hypertension. The authors demonstrated that, after a mean follow-up period of 3.1 years, renal resistive index (RI) has been found to be an independent predictor of worse cardiovascular and renal outcomes in essential hypertensive patients.1 Although the study is informative, some additional data would be of importance. Recently, we have shown that, although the RIs of dipper patients were lower than those of nondippers in univariate analysis, there was no independent relationship between RI and nocturnal nondipping in newly diagnosed essential hypertensive patients.2 Thus, I wonder whether authors had any data regarding the relationship between circadian blood pressure measurements and dipping/nondipping pattern with renal RI in their study cohort. In another study, we have also showed that, in newly diagnosed type 2 diabetes mellitus patients, insulin resistance as evaluated by homeostatic model assessment index has been positively and independently associated with renal RI.3 Additionally, in a very recent study, we showed that, in newly diagnosed type 2 diabetic patients, as going from patients without albuminuria and normal glomerular filtration rate to patients with albuminuria and decreased glomerular filtration rate, renal RI was increased (P<0.0001 for trend).4 However, in multivariate regression, 24-hour creatinine clearance (P<0.0001), but not 24-hour urinary albumin excretion, was related to increased renal RI.4 Given the fact that the study population of Doi et al1 had 28.9% prevalence of diabetes mellitus, it would be very valuable if authors could give additional data regarding the independent relationship between estimated glomerular filtration rate and urinary albumin excretion with renal RI.

Disclosures

None.

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