Nighttime Activity Influences the Evaluation of Ambulatory Blood Pressure Monitoring

To the Editor:

We read with great interest the article by Agarwal et al1 in which the authors concluded that nocturia among nighttime physically active patients is associated with nondipping blood pressure pattern in mostly elderly patients with chronic kidney disease.

There are several factors that make the results difficult to evaluate. First, the conclusion of this study is based on an older population, but the authors did not explore the patients’ psychological conditions, especially depression, which often occurs in old age. The use of antidepressants or hypnotics was not considered in the study, which may also influence the sleep-time activity, especially in a new (hospitalized) environment. Second, undiagnosed sleep-disordered breathing associated with hypertension in untreated nonmorbidly obese men should have been explored with a valid questionnaire to assess the risk of obstructive sleep apnea syndrome.2 Although this study excludes those patients with extreme obesity, the risk of obstructive sleep apnea and related hypertension could have remained high in this population.

Over the past 20 years, many studies focused on analyzing the factors that influence the values of 24-hour noninvasive ambulatory blood pressure monitoring, especially the diurnal patterns. These factors may be advanced age, sex, ethnicity, sleep apnea syndrome, sleep quality, depression, or stress.3,4 Nocturia is a prevalent symptom of many conditions, and its severity is a further component that may be important when evaluating ambulatory blood pressure monitoring. Numerous authors have recommended that these previously described factors are important aspects during the evaluation of ambulatory blood pressure monitoring, but most of the published studies have not taken these factors into consideration. In the future, we should focus on establishing an age- and/or disease-specific ambulatory blood pressure monitoring evaluation score, where the proven influential factors are taken into account so that the “cleaned” dipping pattern of hypertension will be a real strong predictor of cardiovascular mortality.

Results of this study are a further call to highlight the factors that we have to consider thoughtfully and that may affect the sleeping period and nighttime blood pressure.

Disclosures

None.

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References

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