

Can the Serum Uric Acid to Albumin Ratio be Reliable Enough to Determine Prognosis in Hypertensive Patients in the Future?

Serum Ürik Asit/Albümin Oranı Gelecekte Hipertansif Hastalarda Prognozu Belirlemek İçin Yeterince Güvenilir Olabilir mi?

To the Editor,

We read with interest the article "The Correlation Between Serum Uric Acid/Albumin Ratio and Circadian Rhythm of Blood Pressure in Patients with Hypertension" by Karayigit et al.¹ The study explores the relationship between the serum uric acid to albumin ratio (UAR), ambulatory blood pressure monitoring (ABPM), and circadian blood pressure (BP) patterns in patients previously diagnosed with hypertension.

This study suggests that easily measurable biomarkers of cellular inflammation may be useful in predicting the future risk of atherosclerotic cardiovascular disease during hypertension risk assessment. The associations between ABPM measurements, UAR, and other biomarkers were thoroughly examined in the study population.

The cut-off values for ABPM and the definition of hypertension in the study were based on the 2018 European Society of Cardiology/European Society of Hypertension (ESC/ESH) Guidelines for the Management of Arterial Hypertension.² However, ethical approval was granted in December 2023, and the manuscript was accepted in November 2024. In August 2024, the updated "ESC Guidelines for the Management of Elevated Blood Pressure and Hypertension",³ introduced a new category: patients with elevated BP. If these patients had been included in the study, the sample size could have been larger, potentially allowing for a more comprehensive analysis.

Reviewing the study's inclusion criteria, we noted that patients with a history of heart failure with reduced ejection fraction (EF < 50%) were excluded. However, those with heart failure with preserved ejection fraction (HFpEF), a condition most commonly associated with hypertension, were not. Given that HFpEF is a chronic condition, its presence could have influenced UAR values and affected the study's findings.

Although the demographic characteristics of the study population are clearly reported, the use of monotherapy or combination antihypertensive medications by patients presenting to the clinic was not specified. This is significant, as thiazide-based combination antihypertensive medications can induce hyperuricemia,⁴ and long-term use of antihypertensive drugs has been shown to reduce cardiac and renal tissue remodeling.⁵ Therefore, this factor could potentially lead to variations in UAR values.


In conclusion, this study supports the potential utility of serum UAR values, derived from biomarkers in patients presenting with hypertension, for assessing the relationship between ABPM and circadian BP patterns. This may be valuable in long-term cardiovascular risk assessment. However, we emphasize the need for further studies in this area and recommend careful patient selection in future research to ensure the reliability of UAR measurements.

Conflict of Interest: The authors have no conflicts of interest to declare.

Funding: The authors declared that this study received no financial support.

LETTER TO THE EDITOR EDİTÖRE MEKTUP

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Received: April 07, 2025

Accepted: May 07, 2025

Cite this article as: Yalvaç HE, Görenek B. Can the Serum Uric Acid to Albumin Ratio be Reliable Enough to Determine Prognosis in Hypertensive Patients in the Future? *Türk Kardiyol Dern Ars.* 2025;53(5):374-375.

DOI: 10.5543/tkda.2025.52389



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