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Reply to the Letter to the Editor: "Can the Serum Uric Acid to Albumin Ratio be Reliable Enough to Determine Prognosis in Hypertensive Patients in the Future?"

Editöre Mektup Yanıtı: ''Serum Ürik Asit / Albümin Oranı Gelecekte Hipertansif Hastalarda Prognozu Belirlemek İçin Yeterince Güvenilir Olabilir mi?''

LETTER TO THE EDITOR REPLY
EDİTÖRE MEKTUP YANITI

To the Editor,

We thank the authors[1] for their interest and comments regarding our study, which demonstrated the relationship between serum uric acid/albumin ratio (UAR) and circadian rhythm of blood pressure (BP).[2]

In their initial observations, the authors emphasized the importance of aligning study criteria with the most up-to-date clinical guidelines, particularly in light of recent changes introduced in the 2024 ESC Guidelines, regarding the classification of elevated blood pressure. In our study, the classification of patients diagnosed with hypertension and the assessment of ambulatory blood pressure monitoring (ABPM) measurements were based on the 2018 European Society of Cardiology/ European Society of Hypertension (ESC/ESH) Guidelines for the Management of Arterial Hypertension.[3] Although ethical approval for the study was obtained in December 2023, the planning and data collection phases were already designed and initiated based on the criteria defined in the 2018 guidelines, which were the most current and widely accepted recommendations at that time. While it is true that the new ESC Guidelines for the Management of Elevated Blood Pressure and Hypertension, published in August 2024, introduced a newly defined group referred to as "elevated blood pressure" patients, this classification was not available during the initial design phase of our study.[4] Therefore, the inclusion of this patient group was not methodologically feasible within the scope and timeline of our research. We acknowledge that including such patients might have increased the sample size and provided opportunities for broader analysis. Future studies incorporating the updated 2024 ESC classifications will certainly offer more comprehensive insights and expand upon the findings presented in our current work.

In their second comment, the authors underscore the necessity of applying comprehensive exclusion criteria in studies evaluating hypertension-related parameters, particularly in light of the high prevalence and clinical significance of heart failure with preserved ejection fraction (HFpEF), among hypertensive populations. As correctly pointed out in the comment, patients with a history of heart failure and a left ventricular ejection fraction (LVEF) of < 50% were excluded from our study. However, patients with HFpEF (LVEF ≥ 50%), who represent the most common form of heart failure in hypertensive individuals and often exhibit a chronic inflammatory profile, may indeed influence serum uric UAR levels.[5] During the design phase of our study, the diagnostic challenges associated with HFpEF—particularly in the context of retrospective data—were taken into consideration. Due to the difficulty of definitively diagnosing HFpEF based solely on clinical records and imaging data, it was not feasible to define this condition as a separate exclusion criterion. Therefore, while individuals with overt heart failure symptoms and reduced ejection fraction (EF < 50%) were excluded, those with HFpEF were not specifically categorized and excluded. Nonetheless, comprehensive evaluations

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were performed using hospital records, clinical findings and echocardiographic reports, to exclude any patients with clearly documented heart failure. We agree that future prospective studies with larger populations and detailed echocardiographic and biomarker assessments are warranted, to better elucidate the potential influence of HFpEF on UAR levels in hypertensive patients. We sincerely appreciate the reviewer's valuable observation, which highlights an important avenue for further research.

In their third comment, the authors emphasized the potential influence of prior antihypertensive medication use on serum UAR values in our study population. It is indeed well-documented that certain antihypertensive agents, particularly thiazide diuretics, can elevate serum uric acid levels due to decreased renal urate excretion, thereby potentially affecting UAR values.[6] Furthermore, the chronic use of antihypertensive medications may attenuate cardiac and renal remodelling, which could indirectly influence metabolic parameters such as uric acid and albumin levels.[7] While our study did not specifically categorize patients based on prior use of monotherapy or combination antihypertensive regimens, patients using pharmacological drugs that could affect serum uric acid levels were excluded from the study, as specified in the exclusion criteria.

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