



Special Issue: Current evidence and perspectives for hypertension management in Asia

## Preface—this month's Asian perspectives

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**Keywords** Uric acid · Preeclampsia · Pediatric hypertension · Ambulatory BP monitoring device

Received: 16 November 2022 / Accepted: 17 November 2022 / Published online: 6 February 2023  
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The Special Issue on Hypertension in Asia in this month's edition of *Hypertension Research* includes four Original Articles. Dong et al. demonstrated the association of serum uric acid with the incidence of hypertension using a functional community cohort in Beijing [1]. As mentioned in a previous review in *Hypertension Research*, uric acid has been one of the key players in the topics of hypertension research [2]. Hyperuricemia induces vascular endothelial damage via an increase in oxidative stress or inflammation, resulting in atherosclerosis, cardiovascular disease, and hypertension. Serum uric acid levels have been correlated with blood pressure in women [3]. Moreover, a J-shaped curve has been observed between serum uric acid levels and blood pressure abnormalities [4]. The present study suggested that elevated serum uric acid levels were an independent risk factor for developing hypertension in both men and women. Yue et al. reported an interesting finding between serum uric acid and preeclampsia [5]. They showed that uric acid levels in early pregnancy could be a causative factor in preeclampsia from a retrospective cohort study with a total of 4725 women in China. A systematic review and meta-analysis showed that uric acid measurement is useful for predicting adverse maternal and perinatal outcomes in pregnant women with high blood pressure [6]. The roles of uric acid in pregnant women have been highlighted.

The COVID-19 pandemic restricts people's activities and has been associated with increased metabolic risk factors induced by higher calorie and salt intake and decreased

physical activity in hypertensive outpatients [7], which probably resulted in the wide surge in cardiovascular events observed in the first year of the pandemic [8]. Jang et al. investigated the correlation of blood pressure between offspring (2224 boys and 1772 girls) and their parents (3197 fathers and 3197 mothers) from the Korea National Health and Nutrition Examination Survey [9]. The risk of hypertension in offspring was approximately two times higher if either the mother or father had hypertension. Moreover, the risk of hypertension in offspring was over four times higher if both parents had hypertension compared to neither parent having hypertension. Adolescents whose parents have hypertension should be carefully monitored for the prevention of pediatric hypertension.

The nationwide practitioner-based prospective HI-JAMP (Home-Activity Information and Communication Technology [ICT]-based Japan Ambulatory Blood Pressure Monitoring Prospective) study was performed in 2017, and a total of 2754 medicated hypertensive patients were registered [10]. This study used the newly developed ICT-based multisensor ambulatory BP monitoring device, which could measure office, home, and ambulatory BP and three hemodynamic properties, namely, BP variability, trigger-specific BP sensitivity, and central hemodynamics. Recent *Hypertension Research* demonstrated the beneficial effects of the assessment of ambulatory morning BP in addition to the commonly used ABPM indices to identify high-risk masked hypertension in the HI-JAMP study [11]. Thus, the HI-JAMP study will successively provide more important evidence for the management of hypertension in Asia. Enjoy this month's Special Issue for Hypertension in Asia.

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### Compliance with ethical standards

**Conflict of interest** The authors declare no competing interests.

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