There is significant diversity in hypertension and cardiovascular disease in the world, strict BP control will decrease the disparities of healthcare [1, 2]. In 2021 and 2022, a lot of important studies directly have impact on the clinical practice have been released [3]. The STEP study on elderly hypertensive patients demonstrated the strict office blood pressure (BP) control between 110-130 mmHg systolic had greater reduction of cardiovascular events including stroke, coronary artery disease, and heart failure, by 33% or more, compared with standard treatment of BP between 130-150 mmHg systolic [4, 5]. In addition, BPLTTC released the up-dated meta-analysis of the previous RCTs including SPRINT trial [6]. The benefit of 5 mmHg-reduction of office systolic BP accounts for 10% reduction of cardiovascular events. This BP lowering effect remained significant until BP <130 mmHg.

The 24-hr BP control is always important to prevent all the cardiovascular disease and organ damage [7]. Nighttime BP is now focused as the residual risk for cardiac stress and cardiovascular events, especially heart failure [8, 9]. Supine position during sleep increases venous return to the heart. And on the top of the increased cardiac preload, higher nighttime BP will increase the risk of heart failure. As well as diuretics, recent studies demonstrated new sodium-releasing drugs such MR blocker, ARNI and SGLT2 inhibitor are effective to reduce nighttime BP [7, 8, 10, 11].

The RDN and digital therapeutics are the innovative therapy of hypertension [12, 13]. More recently, long-term BP lowering effect of RDN in the medicated hypertensive patients was validated by the global multicenter Sham-controlled SPIRAL ON-Med feasibility study [14]. Soon, result of the SPIRAL On-med pivotal study will be released. The RCT of hypertension digital therapeutics successfully reduced the 24-hr, home, and office BPs in the unmedicated hypertensives patients [15].

In addition, watch-type wearable BP monitoring has been validated, and introduced into clinical practice. The wearable BP is associated with cardiac hypertrophy evaluated by cardiac MRI [16]. In addition, wrist-type nighttime home BP monitoring, which causes less sleep disturbance, is validated to into clinical practice [17]. Cuff-less BP monitoring is extensively investigated, [18] but the absolute value in the ambulatory situation is not well validated. The research and development of BP monitoring device will support the digital healthcare and medicine, leading to the telemedicine, which is facilitated in the era of COVID-19 pandemic [19].

Recent 3 years, a lot of research papers on COVID-19, vaccination, and renin-angiotensin-system, and cardiovascular system has been released [20-23]. In this issue of Current Hypertens Review 2022, there are several important papers in clinical practice. Dr. Vasiliki Katsi released the latest review paper on COVID-19, Angiotensin-Converting Enzyme 2 and Renin-Angiotensin System [24]. In addition, Sadeghi R et al. released the predictor of BP control during COVID-19 [25]. The impact of RAS inhibitors on the prognosis of COVID-19 has been controversial since the initiation of pandemic.

In addition, Dr McCall Walker released the clinically important up-dated review on hypertension and atrial fibrillation [26]. Hypertension is the important risk factor for atrial fibrillation, and impact of hypertension on the poor cardiovascular prognosis remains after the initiation of atrial fibrillation [27]. Early detection of atrial fibrillation and initiation of anticoagulation are the key to reduce poor prognosis in hypertensive patients. Recent new home and ambulatory BP monitoring devices are focusing on the detection of AF in the hypertensive patients [28].

The BP is the most important clinical indicator for healthcare, and the management of hypertension is the most effective strategy to reduce disease burden in globe. We are welcome to all the research and review papers with new scientific insights and clinically important ethnic difference in the hypertension profile and management in the world.

REFERENCES