

[gw22-e0836]

THE IMPACT OF CIRCADIAN RHYTHM OF BLOOD PRESSURE ON CAROTID ARTERY INTIMA-MEDIA THICKNESS AND LEFT VENTRICULAR HYPERTROPHY AND CLINICAL RESEARCH FOR DRUG INTERVENTION IN PRIMARY HYPERTENSION PATIENTS

Wang Zhengbin, Huang Zhenwen *Department of Cardiology, The First Affiliated Hospital, Zhengzhou University, Henan, Zhengzhou, China*

10.1136/heartjnl-2011-300867.590

Background The results by the 24 h ambulatory blood pressure monitoring show the change rules of normal blood pressure are double peaks and one valley long ‘dipper’ type. The blood pressure circadian rhythms adapt to changes in human bodies, and protect cerebrovascular normal structure and function importantly. Once blood pressure circadian rhythms disappear, that makes the cardiovascular system in overweight loads level for a long time, easily leading to increase of target-organ damage (TOD). Clinical data shows

that the not-scoops hypertension patients have more serious target-organs damage than the patients with drop of night time blood pressure. These target organs include heart, brain, kidney, especially cardiovascular and cerebrovascular. Using echocardiography in nearly 30% of the adult with hypertension and nearly 90% of severe hypertension can find left ventricular hypertrophy (LVH). Therefore, when we choose antihypertensive medicine, we do not only distinguish scoops type with not scoops type, but also consider the pharmacological nature of the drug and blood pressure situations of patients, and select the appropriate time for taking drug (time-therapy of hypertension). So it is important to choose suitable treatment measures for recovering normal blood pressure circadian rhythms, according to blood pressure rhythms characteristics of the patients and the pharmacokinetics of antihypertensive drugs. The increased of carotid intima-media thickness (IMT) is an independent predict factor for cardiovascular and cerebrovascular diseases. The articles about carotid intima-media thickness and left ventricular hypertrophy influenced by abnormal blood pressure rhythms are lack. The aim of this article is to explore the relationships between them, discusses the correcting action for abnormal blood pressure rhythms by taking long-term calcium-channel blocker (CCB) levorotatory amlodipine in different time with the time-therapy principle, and select the best corrective action to protect target organs.