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THE SEASONAL VARIATION OF BLOOD PRESSURE IN HYPERTENSIVE PATENTS TREATED WITH COMBINATION THERAPY IN CHIEF TRIAL

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Subject The aim was to investigate the seasonal variation of BP level and BP control rate in patients with well-controlled BP by combination therapy.

Methods This study as a branch of Chinese Hypertension Intervention Efficacy Study (CHIEF) included 332 hypertension patients in Nanchang area. The patients were enrolled from February to August of 2008 and randomised to amlodipine+ compound amiloride (group AA) and amlodipine+telmisartan (group AT) therapy. Their BP was reached to target BP by gradually increasing the dosage of drugs at the 12 week. The 2-year

data up to June 2010 were collected and the BP on follow-up week was translated to on calendar month. The average month temperature was from Jiangxi Provincial Meteorological Observatory.

Results (1) The BP curve on week decreased gradually as the following duration increased, but the BP curve on calendar month showed obvious seasonal variation, with the BP peak in cold season during the 2-year period. The SBP increment amplitude in cold season was about 9.7–10.5 mm Hg and DBP about 3.1–3.9 mm Hg. (2) Generally, BP control rates on week increased from 70% to 90% as following duration increased. But the BP control rates on calendar month varied significantly from 58.1 % to 95.5 %, with dips in the cold seasons. (3) No significant deference on BP level, BP control rate and BP seasonal variation was seen between AA and AT groups.

Conclusion Even in BP well-controlled patients with combination therapy exits obvious seasonal variation of BP control rate.