THE EFFECTS OF ANGIOTENSIN-II RECEPTOR BLOCKER ON PULSE WAVE VELOCITY IN PATIENTS WITH HYPERTENSION: A META-ANALYSIS

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Objectives Our purpose was to evaluate the effect of angiotensin-II receptor blocker on peripheral arterial stiffness in patients with hypertension. What’s more, we also made a comparison between ARB and other kinds of drugs.

Methods We searched the trials, which studied the effect of ARB on PWV, in the database of Medline, Embase, Clinical evidence online, Socolar searchig platform, China National Knowledge Infrastructure, VIP Database and Wanfang Database. The including trails underwent heterogeneous test, metaanalysis and publication bias test.

Results 10 clinical trials were included. After medication of ARB, the PWV was 1.11 m/s lower than that before medication (95% CI: 0.53 to 1.70, p=0.0002), which was also 0.38 m/s lower than that after medication of calcium-channel blocker, CCB (95% CI −0.53 to 0.22, p=0.28). The including trails exist heterogeneity and publication bias.

Conclusions ARB had the effects of reducing PWV on patients with hypertension and it is similar to that of CCB. The result of our study showed that ARB had the effect of anti-atherosclerosis.