EFFECTS OF AMLODIPINE PLUS AMILORIDE/HYDROCHLOROTHIAZIDE VERSUS AMLODIPINE PLUS TELMISARTAN ON CAROTID ATHEROSCLEROSIS IN HYPERTENSIVE PATIENTS

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Objective To investigate the effects of amlodipine plus amiloride/hydrochlorothiazide versus amlodipine plus telmisartan on carotid atherosclerosis in hypertensive patients. Methods The patients with essential hypertension were randomly divided into amlodipine plus amiloride/HCTZ (Group A, n=207) or into amlodipine plus telmisartan (Group B, n=211). Carotid arterial mean intimal-medial thickness (MIMT) and carotid inner diameters and blood flow parameter and carotid plaques were measured with high resolution ultrasound for two groups. For groups A and B, all above indices and blood pressure were measured again after 12 months and 24 months of treatment respectively.

Results There was no difference in reduction of blood pressure and improvement of PSV and EDV between group A and B (p>0.05), there effect was more remarkable with treatment prolonged, but amlodipine plus telmisartan had better effect of improvement RI of CCA; The MIMT and Crouse scores of carotid after treatment were reduced significantly and inner diameter was significantly enlarged between two groups, the effects was more remarkable with treatment prolonged, Compared with group A, group B had a significantly better effect on normalising carotid IMT and decreasing of Crouse scores (p<0.05). After 24 month treatments, The incidence of carotid in group A increased and in group B was not much higher than that of baseline.

Conclusion The combination therapy of amlodipine plus amiloride/HCTZ and amlodipine plus telmisartan produced a similarly and statistically significant BP reduction, but amlodipine plus telmisartan has better effect on regression of abnormal function and structure of large arteries, which may delay the progression of atherosclerosis.