

## Hypertension

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### EFFECT OF DIFFERENT ANTIHYPERTENSIVE STRATEGIES ON THE MICROALBUMINURIA EXCRETION

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**Objectives** Giving different therapy to hypertensive patients with microalbuminuria in order to find the appropriate individual therapy for this kind of high-risk hypertensive patients.

**Methods** This is a multi-centre, randomised, positive controlled clinical study. Patients with essential hypertension, aged 18–

75 years, systolic blood pressure 140–179 mm Hg and/or diastolic blood pressure 90–109 mm Hg and complicated with microalbuminuria were enrolled in. Patients were divided into three groups randomly and given different antihypertensive treatment, which were amlodipine, telmisartan or combination therapy of amlodipine and telmisartan. The whole treatment period was 6 months, among them the first 3 months was dosage titration period, the follow-up interval was 1 month. If the blood pressure did not reach the target goal (systolic blood pressure more than 140 mm Hg and/or diastolic blood pressure more than 90 mm Hg) at the end of the first month, HCTZ 12.5 mg per day was given. If the blood pressure did not reach the target goal at the end of the second month, double dosage of the basic drug was given. If the blood pressure did not reach the target goal until the end of the third month, other antihypertensive drugs was given, including  $\beta$ -blocker,  $\alpha$ -blocker or central nervous system antihypertensive drug. The basic therapy continued until the end of the study in patients whose blood pressure had reached the target level.

### Results

#### 1. Basic conditions of all patients

Total 594 patients with essential hypertension and microalbuminuria were enrolled in. The full analysis set (patients with at least once follow-up data) has 579 patients. PP set has 531 patients, among them 277 (52.2%) were male and 254 (47.8%) were female. The mean age was  $57.46 \pm 10.68$  years, and the basic blood pressure was  $(146.19 \pm 13.25)/(90.00 \pm 9.95)$  mm Hg. The basic conditions of three groups were matched, except the systolic blood pressure was higher slightly than the other two groups.

#### 2. The blood pressure changes after treatment

The blood pressure decreased significantly at the end of the first month in three groups respectively. The blood pressure difference before and after therapy between the three groups has not statistical significance. The blood pressure at the end of the study of the three groups were 129.66/79.64, 129.64/79.53 and 128.51/79.01 mm Hg respectively.

#### 3. Microalbuminuria status in the three groups before and after therapy

The microalbuminuria level decreased significantly after 6 month's treatment. The microalbuminuria decreasing altitude seems higher in telmisartan group and combination treatment group than that in amlodipine group, but the difference has not statistical significance. About two third of patients had decreased microalbuminuria level in each group, the decreasing proportion seems higher in telmisartan group and combination treatment group than that in amlodipine group, but the difference has not statistical significance. The positive urinary albumin excretion changed to negative in part of patients in three groups, among them the negative rate was higher in telmisartan group than that in the other groups, but the difference has not statistical significance.

**Conclusions** Effective antihypertensive therapy can decrease urinary albumin excretion, regardless which type of drug was used. The role of decreasing microalbuminuria excretion seems higher in angiotensin II receptor antagonist group than that in calcium channel blocker group, but the difference has not statistical significance.