# ABSTRACTS

## Abstracts for Oral Session:

## HYPERTENSION

### 12.

**Prevalence of Hypertension in the Hong Kong Cardiovascular Risk Factor Prevalence Study Cohort**

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**Introduction:** In 1995-6 2881 Hong Kong men and women aged 25-74 were randomly chosen to participate in the Hong Kong Cardiovascular Risk Factor Prevalence Study. Here we report the prevalence of hypertension in subjects recalled for follow up after 6 years.

**Methods:** 1046 subjects (506 men, 540 women; age 52±12 yrs) were randomly chosen from the cohort. Blood pressure was measured carefully, after 5 min of rest, 3 times at 5-min intervals. Hypertension was defined as systolic pressure of ≥ 140 mmHg and/or diastolic pressure of ≥ 90 mmHg, or if having medication to treat hypertension.

**Results:** The prevalence of hypertension in 1995-6 and 2001-2 is 18.0% and 26.7% respectively (p<0.001). After adjusting for age, the prevalence of hypertension has increased by 15.7%. In 2001-2, the prevalence of hypertension in >64 years is 53.8±4.9% in men and 52.3±5.4% in women.

***Prevalence of hypertension in percentage.*** The number of subjects is given in brackets.

| Age | | <35 | 35-44 | 45-54 | 55-64 | 65-74 | >74 |
|---|---|---|---|---|---|---|---|
| 1995-6 | Male | 2.8 (316) | 6.6 (395) | 17 (277) | 37.3 (249) | 51.9 (162) | -- |
| | Female | 0.6 (310) | 5.4 (503) | 20.2 (302) | 40.4 (213) | 54.5 (154) | -- |
| 2001-2 | Male | 5.6 (36) | 13.4*(119) | 23.8 (160) | 42.5 (87) | 54.8 (84) | 50 (20) |
| | Female | 0 (29) | 4.8 (147) | 19.1 (194) | 48.8 (84) | 50.8 (63) | 56.5 (23) |

*p<0.05 vs. 1995-6

**Conclusion:** The prevalence of hypertension rises sharply with age, especially after 55 years of age. The prevalence of hypertension in male under 45 appears to have doubled since the last survey.

### 13.

**EVALUATION OF EFFICACY AND TOLERABILITY OF A FIXED DOSE COMBINATION OF LOSARTAN AND RAMIPRIL IN THE MANAGEMENT OF HYPERTENSIVE PATIENTS WITH ASSOCIATED DIABETES MELLITUS**

**LORD TRIAL (LOsartan Ramipril in Diabetic Hypertensives)**

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**Aim:** To evaluate efficacy and tolerability of combination of Losartan and Ramipril in the management of mild to moderate hypertensive patients with associated diabetes mellitus.The secondary objective was to evaluate the efficacy of the combination in reducing microalbuminuria.

**Patients and Methods** : The study was an open, non-comparative, multicentric clinical trial conducted in 7 centres in 325 patients. All the patients were treated with Losartan 50mg + Ramipril 2.5mg or Losartan 50mg + Ramipril 5mg once a day depending upon the baseline BP 12 weeks.

**Results** : The data was evaluated on a total of 315 patients. The mean prestudy systolic BP was 160.56± 14.44 which was significantly reduced to 126.85 ± 9.78 at the end of 12 weeks (P<0.001). Similarly the mean diastolic BP was 98.91 ± 8.33 at baseline which was significantly reduced to 79.82 ± 5.42 at the end of 12 weeks (P< 0.001). A mean fall of 33.72 mmHg and 19.10mm Hg was observed in systolic and diastolic BP respectively which was statistically highly significant (P<0.001). The JNC-7 goal of blood pressure <130/80 was achieved in 79.05% patients. At the end of the therapy 20.8% patients achieved normoalbuminuria.

Conclusion : The fixed dose combination of Losartan and Ramipril showed good to excellent efficacy response in 98.10% patients and achieved a target blood pressure of 130/80 mm Hg in 79.05% patients and 98.41% patients reported good to excellent tolerability. The combination reduced the urinary albumin excretion in majority of the patients with microalbuminuria and proteinuria.

### 14.

**Advantages of blood pressure optimisation study**

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**Introduction:** Lowering blood pressure (BP) reduces cardiovascular events but aggressive BP control may not be advantageous. Our aim was to compare optimal BP control (<120/80 mmHg) with conventional BP targets (<140/90 mmHg) in hypertensive patients in terms of target organ damage and tolerability.

**Method:** 23 hypertensive patients (13 men and 10 women, age 47±9 yrs) were randomised to optimal versus conventional treatment for 6 months. Initial therapy was lercanidipine 10 mg daily. For BP control, the dose could be doubled or other drugs added. We studied three indices of target organ damage, left ventricular mass index (LVMI), flow-mediated dilatation (FMD) of the brachial artery and 24 hour urinary albumin excretion (UAE). The coefficient of variation of LVMI and FMD measurement were 7% and 5% respectively.

**Results:** BP decreased significantly by 21.3±3.4/13.2±1.7 mmHg in the conventional group and 26.6±3.6/17.9±1.5 mmHg in the optimal group. Diastolic BP was significantly lower by 4.7±2.3 mmHg in the optimal group (p<0.05). Ambulatory BP also decreased significantly in both groups. Heart rate did not change significantly in either group. There were no significant changes in the LVM, FMD or UAE in either group. However, baseline LVMI and FMD were related to systolic BP (r=0.51, p=0.02; r=0.54, p=0.009), whilst the change in urinary protein excretion was related to change in the systolic BP (r=0.52, p=0.02). Treatment was well tolerated, without any withdrawals. There were no significant differences in adverse events between the 2 groups.

**Conclusions:** Optimisation of BP using lercanidipine as initial therapy is feasible, safe and well tolerated. However, LVM and UAE did not decrease, nor did endothelial function improve in this 6 month study.

### 15.

**Different effects of lercanidipine and felodipine on circadian blood pressure and heart rate among hypertensive patients**

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**Purpose:** This study was conducted to compare the changes in average and variability of ambulatory blood pressure (BP) and heart rate (HR) recordings with lercanidipine and felodipine treatment in Chinese patients with primary hypertension.

**Methods:** After withdrawing from their previous anti-hypertensive medication, 30 patients with primary hypertension were randomized to double-blind treatment with lercanidipine 10mg once daily or felodipine ER 5mg once daily after four weeks of placebo run-in. The dosages were doubled after four weeks if clinic BP was not controlled and treatment continued for a total of 12 weeks. Ambulatory BP and HR were recorded before and after the active treatment phase and biochemical parameters were monitored.

**Results:** Both treatments were well tolerated and there were no treatment-related drop-outs. Fitted circadian variations in BP showed significant reductions in the midline-estimating statistic of rhythm (MESOR) of systolic (S) BP and diastolic (D) BP with both lercanidipine (mean ± SE, -10.5 ± 3.0/-4.5 ± 1.4 mm Hg, p<0.01) and felodipine (-17.1 ± 2.8/-10.1 ± 1.6 mm Hg, p<0.001). The changes in MESOR DBP were greater with felodipine, but the pulse pressure was reduced (p<0.02) to similar extent by both treatments (-6.0 ± 2.2 mm Hg for lercanidipine, -7.0 ± 1.6 mm Hg for felodipine). Reductions in circadian amplitudes of SBP and DBP were not significant with either treatment. The MESOR of HR was increased (by 4.5 ± 1.7 beats/min, p<0.02) among subjects treated with lercanidipine and the circadian amplitude of HR was also increased (from 15.7 ± 1.6 to 25.5 ± 2.4 beats/min, p<0.02). Clinic BP and HR values showed similar changes to the MESOR values. There were no significant changes in plasma biochemistry or urine catecholamines with either treatment.

**Conclusion:** Felodipine had a greater BP lowering effect than lercanidipine in these doses, especially in reducing DBP. However, the increase in HR variability seen with lercanidipine may be an additional benefit for hypertensive patients.