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ADMINISTRATION-TIME-DEPENDENT EFFECTS OF NIFEDIPINE-COAT CORE “ADALAT-CR” ON CIRCADIAN BLOOD PRESSURE PROFILE IN PATIENTS WITH ESSENTIAL HYPERTENSION
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The aim of this study was to evaluate the effects of nifedipine-coat core “adalat-CR” administered at different times of the day (morning vs evening) on circadian blood pressure (BP) profile in patients with essential hypertension. Nifedipine-coat core (40mg/day) was given at 07:00 or 19:00 for more than 4 weeks in a cross over fashion. Systolic (SBP) and diastolic BP (DBP) were monitored before and after morning and evening treatment every 30 minutes every 48 hours by ambulatory BP monitoring (TM-2425, A&D, Japan) in untreated 12 outpatients with essential hypertension. The daytime and nighttime mean, as well as the daytime/nocturnal ratio (D/N) of SBP and DBP were analyzed by reviewing the patients’ diaries.

<table>
<thead>
<tr>
<th>Daytime(mmHg)</th>
<th>Nighttime(mmHg)</th>
<th>D/N ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP Before</td>
<td>144±10</td>
<td>125±10</td>
</tr>
<tr>
<td>Morning Tx.</td>
<td>137±10*</td>
<td>112±13</td>
</tr>
<tr>
<td>DBP Before</td>
<td>88±11</td>
<td>75±9</td>
</tr>
<tr>
<td>Evening Tx.</td>
<td>82±7*</td>
<td>72±9</td>
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</table>

Values are expressed as mean±SD, *p<0.05, **p<0.01 as compared with before treatment. Morning treatment decreased only daytime BP. Evening treatment decreased BP throughout the day, and the D/N ratio of DBP did not change before and after the evening treatment. In conclusion, evening treatment of nifedipine-coat core might be superior to morning treatment in reducing BP throughout 24 hours and preserving circadian BP profile.

Key Words: Essential Hypertension, Nifedipine-Coat Core, Ambulatory Blood Pressure Monitoring

P-203
COMPARATIVE EFFECTS ON RENAL POTASSIUM EXCRETION OF Candesartan Versus Lisinopril in Hypertensive Patients with Type II Diabetes Mellitus and Preserved Renal Function
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Introduction: ACE inhibitors are renoprotective beyond their antihypertensive effects but can provoke or exacerbate hyperkalemia in advanced renal failure or diabetes mellitus (DM). It has been proposed that Angiotensin II antagonists (ARB) may produce less hyperkalemia, but the effects of ARB versus ACE inhibitors on dynamic renal potassium (K) excretion in response to an acute oral K challenge have not been tested quantitatively.

Methods: Randomized crossover study of candesartan (C) versus lisinopril (L) titrated to blood pressure control. Study subjects: 23 patients with Type II DM, JNC VI Stage 1 hypertension, and mean (SD) serum creatinine 0.96 mg/dl (18). In response to challenge with an acute oral K load (0.75 mEq/kg), K and creatinine (Cr) concentrations of serial urine and blood samples were determined to quantitate sequential changes in fractional excretion of potassium (FEK), rate of urinary potassium excretion (UkV), peak urinary potassium excretion (Peak UkV), and changes from baseline in FEK, UkV, and serum K.

Results: [Mean (SEM)] Hourly FEK, UkV, Peak UkV, and serum K were similar for C and L although FEK at hour 2 for C tended to exceed that for L [.13(4) vs. .26(3)] and approached significance (p=.10). Similarly, UkV at hour 2 was 177(26) for C and 121(21) for L and approached significance (p=.10). Peak UkV and serum K did not differ between C and L.

Conclusion: Our study demonstrates that C and L did not produce statistically significant differences in dynamic renal K handling in our subgroup of mildly hypertensive patients with type II diabetes mellitus and preserved renal function. Whether C and L produce significant differences in renal K handling in patients with renal impairment remains to be investigated.

FEK | Baseline | Hour 1 | Hour 2 | Hour 3 | Hour 4 | Hour 5 |
--- | -------- | ------ | ------ | ------ | ------ | ------ |
Lisinopril | .14 (0.01) | .18 (0.02) | .26 (0.03) | .27 (0.02) | .23 (0.01) | .19 (0.01) |
P-value | .70 | .50 | .10 | .37 | .23 | .18 |
Candesartan | .14 (0.01) | .17 (0.03) | .34 (0.04) | .29 (0.02) | .26 (0.01) | .22 (0.02) |
P-value | .69 | .92 | .10 | .79 | .85 | .53 |

Grant/Research Support -- AstraZeneca
Speaker’s Bureau -- AstraZeneca

Key Words: potassium, lisinopril, candesartan

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SEXUAL ACTIVITY AND PLASMA TESTOSTERONE IN HYPERTENSIVE MEN TREATED WITH VALSARTAN OR ATENOLOL
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The aim of this study was to evaluate the effect of antihypertensive treatment with valsartan (V) or with atenolol (A) on sexual activity and plasma testosterone in hypertensive men never treated for hypertension. We studied 110 newly diagnosed never treated hypertensive men (DBP ≥ 95 mmHg) aged 40–49 yr, all married and without any previous sexual dysfunction, not diabetic and not taking any drug. After a 4-week placebo (P) period they were randomized to receive A 50 mg o.d. or V 80 mg o.d. for 16 weeks. After 8–weeks the dose was doubled in the non responders (DBP > 90 mmHg.). At the screening visit, at the end of P period, and after 8 and 16 weeks of treatment BP was evaluated, a blood venous sample was drawn in the morning and patients were interviewed by a questionnaire about their sexual activity (intercourse/nummonth). BP significantly decreased with both treatments with a 49% of normalisation with V and 44% with A. Plasma testosterone levels and mean frequency of sexual activity per year were as follows:

Intercourse/year
After 8 weeks After 16 weeks
A 50 mg 506 536
V 80 mg 524 506
**p < 0.05, ***p < 0.01 vs screening. **p < 0.05, ***p < 0.01 vs A

Erectile dysfunction was complained by 8 pts with A and by 1 with V. These data suggest that β-blockers induce a chronic worsening of sexual activity and a reduction of testosterone, while AngII antagonists induce a sexual activity improvement without any concomitant change in testosterone.

Key Words: Balsartan, Sexual activity, Testosterone