were titrated to once daily O 40mg, V 160mg and L 100mg. At wk 8, pts taking O remained at 40mg daily (maximum recommended dose) for an additional 4 wks, pts taking V were titrated to 320mg daily, and pts taking L were titrated to 50mg twice daily. The primary endpoint was mean change in cuff seated diastolic BP (SeDBP) from baseline to wk 8. Secondary efficacy variables included mean change in cuff seated systolic BP (SeSBP). A secondary analysis was performed to determine BP goal rates. Wk 12 analysis was designed to show equivalence of treatments. BPs were measured 21-27 h post-dose (trough). Daily administration of O 40mg, V 160mg or L 100mg significantly reduced mean SeDBP and SeSBP from baseline (P<0.001) and versus PLA (P<0.01) at wk 8. For the primary endpoint, mean reduction in SeDBP with O (-13.1 mmHg; P=0.001) was greater than L (-9.6 mmHg; P<0.001) and numerically greater than V (-11.8 mmHg; P=0.078, NS). Mean reduction in SeSBP with O (-15.1 mmHg) was also greater than L (-11.0 mmHg; P=0.001) and PLA (-6.2 mmHg; P<0.001) and numerically greater than V (-12.8 mmHg; P=0.054, NS). The BP differences allowed forty percent more pts to achieve BP <140/90 mmHg with O compared with V (40.3% vs 28.5%; P=0.016), and twice as many to achieve this goal with O compared with L (40.3% vs 20.1%; P=0.001) at wk 8. PLA allowed 12.2% of pts to achieve this goal. At 12 wks (maximum recommended doses), mean reductions in SeSBP and SeDBP were similar for each active treatment arm. However, the percentage of pts achieving BP <130/85 mmHg with O was numerically greater than V (18.0% vs 10.9%; P=0.057, NS) and L (18.0% vs 11.2%; P=0.069, NS) and significantly greater than PLA (18.0% vs 2.3%; P<0.001). Thus, O is an effective antihypertensive agent and allowed more pts to achieve BP goals compared with V and L at wk 8.

Key Words: Goal Rates, Olmesartan, Stage 2 Hypertension

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REDUCTION OF EARLY MORNING BLOOD PRESSURE SURGE WITH TELMISARTAN COMPARED WITH RAMIPRIL IN MILD-TO-MODERATE HYPERTENSIVE PATIENTS
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Objective: To compare the effects of telmisartan and ramipril on the magnitude of the early morning blood pressure surge (EMBPS). Patients with a high systolic EMBPS are at increased risk of stroke (Kario et al, Circulation. 2003;107:1401–6) and may benefit from antihypertensives that reduce its magnitude.

Methods: Two identical, prospective, open-label, blinded endpoint, randomized studies recruited patients with seated SBP/DBP 180/105–180/119 mmHg and no significant co-morbidities. Patients on telmisartan (n=802) received 40 mg for 2 weeks, then 80 mg for 12 weeks. Those on ramipril (n=811) received 2.5 mg for 2 weeks, uptitrated to 5 mg for 6 weeks and 10 mg for the remaining 6 weeks. ABPM was performed at baseline and the end of the study. EMBPS was defined as the difference between night-time low (NTL) and early morning mean (EMM) blood pressure, and patients were grouped into quartiles according to baseline EMBPS.

Results: Sleep patterns did not differ significantly in the two treatment groups at baseline or endpoint. Telmisartan showed small, but statistically significant reductions in SBP surge in the quartiles with lower BP surge, but reductions were greater and statistically significant in the highest quartile (≥34 mmHg), in whom telmisartan reduced systolic EMBPS by 12.4±0.92 mmHg and ramipril by 7.1±1.01 mmHg (p=0.0001). The difference in reductions in diastolic EMBPS in this quartile (6.3±0.79 and 4.1±0.87 mmHg, respectively), did not reach statistical significance (p=0.058).

Conclusion: Telmisartan 80 mg reduced systolic EMBPS compared with ramipril 10 mg, which may imply a beneficial effect on cardiovascular outcomes.

Key Words: Early Morning Blood Pressure Surge, Ramipril, Telmisartan

P-147
ASSESSMENT OF NORMOTENSIVE HOPE PATIENTS BY AMBULATORY BLOOD PRESSURE MONITORING: EVALUATION OF SINGLE VERSUS TWICE DAILY DOSING OF RAMIPRIL
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Purpose of Study: Ramipril has been used in twice daily dose of 5 mg BD in most heart failure trials whereas the dose used in the HOPE study was 10 mg once a day at bedtime. The HOPE investigators in an ambulatory substudy observed a fall of night time but not daytime blood pressure [BP]. The rationale for bedtime dosing is unclear. A lack of daytime BP effect may reflect waning pharmacological effect. We examined the effects of once daily Ramipril [10mg in the morning] versus 5mg twice daily.

Methods: 29 patients were recruited on the original criterion for the Heart Outcomes Prevention Evaluation (HOPE) study and were given Ramipril either in twice daily dose (5mg BD) or one daily dose (10mgOD) in a randomised, prospective cross over trial. Their blood pressure was monitored with a 24-hour ambulatory blood pressure recording just before commencement of Ramipril therapy followed by (in a random order) recordings after treatment with twice-daily ramipril in dose of 5 mg and once daily ramipril in the dose of 10 mg (to be taken at 10.00 am).

Results: Our results show that ramipril therapy does cause a significant reduction of blood pressure over a 24-hour period as compared with baseline. Both regimens effectively lower BP to a similar extent with no significant difference at peak [1200 – 1500hrs] and trough [0500-0800hrs] between OD and BD doses (p=not significant).

Conclusion: Ramipril causes significant blood pressure reduction when assessed by ambulatory blood pressure measurements in both once and twice daily dosing. The fall in BP after daytime dosing is greater than that observed in the HOPE study [including ambulatory sub study].

Key Words: Ambulatory Blood Pressure, Heart Outcomes Prevention Evaluation Study (HOPE), Ramipril

<table>
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<tr>
<th>Data as Mean(SD)</th>
<th>Systolic BP(SBP) at baseline</th>
<th>Systolic BP twice daily ramipril 5 mg</th>
<th>p value Baseline vs BD</th>
<th>Systolic BP once daily ramipril 10 mg</th>
<th>p value Baseline vs OD</th>
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</table>

Ambulatory BP profile at baseline and after ramipril therapy (diastolic pressure data not shown due to abstract limit)

Key Words: Ambulatory Blood Pressure, Heart Outcomes Prevention Evaluation Study (HOPE), Ramipril