Results: Aliskiren-based therapy was well tolerated in all patients without significant adverse events. After 12-weeks of aliskiren-based therapy, office BP, ambulatory BP, and central BP were significantly decreased as compared with baseline (24-hr systolic BP, 147 ± 13 vs135 ± 12 mmHg; 24-hr diastolic BP,89 ± 10 vs81 ± 10mmHg; daytime systolic BP, 155 ± 15vs143 ± 14 mmHg; daytime diastolic BP, 93 ± 11 vs 85 ± 10mmHg; night time systolic BP, 128 ± 11vs 119 ± 12mmHg; night time diastolic BP,80 ± 9 vs72 ± 8mmHg; central BP,166.6 ± 15.3 vs 151.4 ± 12.8mmHg; P < 0.05). Compared with baseline, aliskiren-based therapy also significantly decreased baPWV and plasma renin activity (PRA) (baPWV,1656 ± 202vs1490 ± 226cm/sec; PRA, 0.6 ± 0.3vs0.3 ± 0.2 ng/ml/hr; P < 0.05).

Conclusion: These results suggest that aliskiren-based therapy, as a first-line regimen, improves ambulatory BP profile as well as clinic BP and may have vascular protective effects in patients with untreated mild-to-moderate essential hypertension.

PP.44.396 THE ANTIHYPERTENSIVE AND RENOPROTECTIVE EFFICACY OF ALISKIREN: RESULTS OF EVERY OTHER DAY ADMINISTRATION

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Objective: Renin inhibitor aliskiren shows antihypertensive and reno-protective activity similar or better than other renin-angiotensin-aldosterone system (RAAS) blockers. Furthermore, it has been suggested that the drug has a long half-life (exceeding 40 hours), provides smoothly sustained 24-h blood pressure control and maintains a blood pressure lowering effect following a missed dose. In this pilot study we investigated the antihypertensive and renoprotective effect of every other day administration of the drug, either as monotherapy or in combination with other antihypertensive agents.

Design: Six hypertensives with microalbuminuria (5 patients) or proteinuria (1 patient) were studied. Initially all patients received aliskiren 150mg once-daily (od) and then titrated to 300 mg od, if blood pressure (BP) was not well-controlled (BP measurements > 140/80 mmHg). In patients who remained hypertensives diltiazem 200 mg od was added with a subsequent titration to 300 mg od if required, followed by nebivolol 5 mg or chlorthalidone 25 mg. Those patients who completed a 6-month treatment period program were switched to every other day administration of aliskiren 300 mg for an additional period of 6 months without changing the administration frequency of the other agents.

Methods: Office BP measurements were monitored every 4 weeks while 24h and 48h ambulatory BP measurements (ABPM), as well as laboratory measurements were performed at baseline, month 6 and month 12, respectively.

Results: All patients completed the total treatment period. There was non-statistical significant difference in office BP between month 6 and month 12 (median 130/85 mmHg and 130/84 mmHg, respectively). There was also non-statistical significant difference in the overall 24 and 48h systolic/diastolic ABPM (median 126/82 mmHg and 134/83 mmHg, respectively). However, at the end of the 12-month period the measurements of the first 24 hours (the day that aliskiren was taken), there was better systolic BP control than the second half of the 48h-ABPM (median 127/82 mmHg and 137/83 mmHg, respectively, p = 0.043). The administration of aliskiren resulted in a median reduction of microalbuminuria of 20 mg/g serum creatinine, (p = 0.043). This reduction was evident also on the every other day protocol (median 25 mg/g serum creatinine, p = 0.042).

Conclusions: Despite the long half-life of the drug, aliskiren provides less -adequate blood pressure control on an every other day administration protocol. However, in terms of reducing microalbuminuria, administration of aliskiren every other day appears to be effective.

PP.44.397 EFFECTS OF ALISKIREN VERSUS TELMISARTAN ON CENTRAL AORTIC SYSTOLIC PRESSURE DURING ACTIVE TREATMENT AND FOLLOWING TREATMENT WITHDRAWAL

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Objective: Antihypertensive drugs may have different effects on brachial BP (BrBP) and central aortic systolic pressure (CASP); assessing CASP may provide information on drug effects and cardiovascular risk beyond that provided by BrBP. This study compared the BP-lowering effects of aliskiren and telmisartan after 12 weeks' treatment and following 1 week of withdrawal in 822 patients with hypertension. A subset of patients underwent non-invasive measurement of CASP to determine the effects of active treatment and its withdrawal on control of CASP.

Design and Method: Patients with hypertension (mean sitting SBP 140– < 180 mmHg; 24-h mean ambulatory SBP [MASBP] ≥ 135 mmHg) were randomized to aliskiren 150 mg or telmisartan 40 mg for 2 weeks, then double the doses for a further 10 weeks, followed by 1-week's treatment withdrawal. Office CASP was derived from pulse wave analysis calibrated to BrBP using the BPro™ device, and was measured at baseline, end of active treatment (EOA) and end of withdrawal; 324 patients had CASP measurements.

Results: At baseline, CASP was similar in both groups (Table). Aliskiren and telmisartan reduced CASP to a similar extent from baseline to EOA. There were profound differences between treatments in control of CASP after 1 week's treatment withdrawal: aliskiren-treated patients had a further reduction in CASP of 0.9 mmHg from EOA, compared with an increase of 6.5 mmHg in the telmisartan group (between-treatment difference, 7.4 mmHg; $p < 0.001$; Table). MASBP showed similar trends, but the between-treatment differences were less marked than for CASP.

	Aliskiren 300 mg (n=412[a])			Telmisartan 80 mg (n=406[a])			Aliskiren vs telmisartan
BP from baseline to end of active treatment, mmHg							
	n	Baseline	Change	n	Baseline	Change	LS mean difference
CASP	70	139.3±1.4	−12.9±1.7	71	143.8±1.4	−13.5±1.8	0.6
MASBP	91	142.6±1.7	−8.4±1.9	90	145.9±1.7	−9.6±1.9	1.2
BP from end of active treatment to end of withdrawal, mmHg							
	n	End of active treatment	Change	n	End of active treatment	Change	LS mean difference
CASP	75	129.5±1.8	−0.9±1.5	72	126.8±1.8	6.5±1.5	−7.4*
MASBP	98	136.0±1.7	−0.1±2.2	93	136.7±1.8	2.1±2.2	−2.2

Data are shown as least-squares (LS) mean±SEM.
*p<0.001 based on an analysis of variance model.
[a]Number of patients shown for the full analysis set.

Conclusions: Aliskiren and telmisartan provided similar reductions in both MASBP and CASP after 8 weeks of treatment. However, aliskiren was more effective than telmisartan at sustaining BP reductions following treatment withdrawal; this was particularly pronounced for CASP, suggesting that direct renin inhibition provides prolonged effective control of CASP in patients with hypertension.

PP.44.398 CHRONOTHERAPEUTIC ADMINISTRATION OF ALOPURINOL AT PREHYPERTENSION

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Background and aims: Last few years previously reported data suggest that hyperuricemia may cause hypertension. Uric acid (UA) values have circadian variation reaching its maximum intensity in the middle of the night, when circadian expression of circulating nitric oxid (NO) is minimal. The objective of this study is to analyse the effects of Alopurinol on UA and BP when administered on chronotherapy in a cohort of men with hyperuricemia and prehypertension

Subjects and Methods: 57 male patients (aged 45.7 years) with asymptomatic hyperuricemia (blood UA levels ≥ 7 mg/dL), and prehypertension (sBP: 120-139 mmHg/dBP: 80-89 mmHg) were included. Patients were assigned to 3 treatment groups for a 12-week period: one group received only hygienic-dietetic recommendations; the second group took Alopurinol 300 mg OD on awakening; the third group took Alopurinol 300 mg OD at bedtime. In all cases, a clinical and biological assessment was performed before and after treatment, including Ambulatory Blood Pressure Monitoring (ABPM) with a Spacelabs 90207 device, adjusting diurnal/nocturnal periods for each patient.

Results: In patients receiving only hygienic-dietetic recommendations, neither body weight nor uricemia nor ambulatory BP (-1.5 mmHgSBP-24h; -1.1 mmHg DBP-24h) modifications were observed. In patients receiving Alopurinol 300 mg on awakening, a significant reduction was shown in uricemia levels (-2.1 mg/dl; p < 0.001 regarding the baseline value) and in SBP-24h