P-205

COMPLIANCE WITH ANTIHYPERTENSIVE THERAPY. COMPARISON OF LOSARTAN, AMLODIPINE AND METOPROLOL IN AN OPEN PROSPECTIVE TRIAL

R. Düsing, K. Lottermoser, T. Mengden, H. Vetter. [1]*Medizinische Universitäts-Poliklinik, Bonn, Germany*

Poor compliance with antihypertensive therapy is a multifactorial problem which is still incompletely understood. In prospective, randomised trials compliance may be markedly higher as compared to retrospective and open studies. This may at least in part be due to the fact that the setting of a randomised trial may impose many artefacts upon the physician-patient interaction. Therefore, in the present study, we have chosen the method of an open, observational, prospective trial to investigate, whether compliance with antihypertensive therapy depends on the choice of the antihypertensive agent. A total of 34.947 patients with newly prescribed antihypertensive therapy with either Losartan (50 mg/day), Amlodipine (5 mg/day) or Metoprolol (95 mg/day), all given o.d., were included in the study. Compliance was measured in terms of the number of days in which antihypertensive treatment was available to the patients during the initial six months of treatment and was defined as a therapeutic coverage of $\geq$ 80%. 71.3% of the patients in the Losartan group (n=29.903) reached the compliance criterium and this figure was markedly lower in the Metoprolol (65.5%; n=3.466) and Amlodipine group (66.5%; n=1.678). In addition, there were significantly more patients who were discontinued from therapy because of side effects in the Amlodipine and Metoprolol group as compared to patients receiving Losartan. Our results confirm a previous study with Losartan that compliance with antihypertensive therapy is better in patients receiving an AT_1-receptor antagonist as compared to other treatment options.

Key Words: Compliance, Losartan, Antihypertensive therapy

P-206

DO ACE INHIBITORS AFFECT THE RELATIONSHIP BETWEEN BLOOD PRESSURE AND PHYSICAL ACTIVITY IN HYPERTENSIVE PATIENTS?

Shigeo Kakinoki, Shigeru Takechi, Akikazu Nomura. [1]*CArdiovascular Medicine, Otaru Kyoukai Hospital, Otaru, Hokkaido, Japan,* [2]*Cardiovascular Medicine, Date Red Cross Hospital, Date, Hokkaido, Japan,* [3]*Phisiology, Hokkaido College of Pharmacy, Otaru, Hokkaido, Japan*

Aim: We reported that a long-acting Ca antagonist does not break the relationship between blood pressure and physical activity in hypertensive patients. The aim of this study is to show this relationship exists when using ACE inhibitors.

Methods: Twenty-two essential hypertensive patients were enrolled in this study (male 9, female 13). Mean age is 59 +/- 9 years old. Various ACE inhibitors were admitted to the patients once a day over two months. After that, Ambulatory blood pressure monitoring (ABPM) and Activetracer were fitted to the patients simultaneously. ABPM was recorded every 30 minutes at day time and every 60 minutes at night time. The activity was measured by Activetracer. Linear regression analysis was performed to calculate the correlation (r) and regression (y=ax+b) between blood pressure and physical activity and between pulse rate and physical activity .

Results: Blood pressure after ACE inhibitor administration decreased 164/101 to 138/84. However, pulse rate was not changed. Systolic blood pressure had good correlation with physical activity (22/22). Diastolic blood pressure had fairly good correlation with physical activity (14/22). Pulse rate had also fairly good correlation with physical activity (14/22).

Conclusion: The long acting ACE inhibitors may not affect the good relationship between blood pressure and physical activity.

Key Words: hypertension, ACE inhibitor, physical activity

P-207

COMPARATIVE EFFECT OF DIFFERENT CLASSES OF ANTIHYPERTENSIVES ON PULSE PRESSURE IN THE ELDERLY

Ihab M. Hajjar. [1] *Geriatrics, University of South Carolina/ Palmetto Health Alliance, Columbia, SC, United States*

This study was designed to compare the effect of different antihypertensive medications on pulse pressure (PP) in the elderly. The medical records of all patients with diagnosis of hypertension on their records in a geriatric primary care practice were reviewed. Abstracted information included demographics, medical history, antihypertensive medications, and selective laboratory tests. Data was selected at the initial visit and at follow up visits (F/U) at an interval of 6±2 month periods. We identified 465 patients (mean age75.96±0.34 years, 24% males, 83% whites, 19% diabetics and 17% had hypercholesterolemia) with the diagnosis of hypertension. PP decreased at the first F/U period but not on the remaining visits (74.3±0.9 mm Hg at initial visit vs 70.3±1.4 mm Hg at 1st F/U, $p<0.05$). 221(47%) of identified patients were not receiving antihypertensives on presentation. Of those treated 25% were on diuretics (alone or in combination), 20% were receiving an ACE-inhibitor (ACE-I), 20% were receiving calcium channel blockers, 11% beta-blockers, 6% alpha-blockers, 2% Angiotensin receptor blocker, and 3% other. During follow-up use of all antihypertensives decreased except for ACE-I. PP in those receiving antihypertensives was lower than those who are not (72.6±1.2 vs 76.2±1.3 mm Hg, $p<0.05$). At the initial visit, PP was not different among the different classes of antihypertensives. There was also no difference among those receiving one, two, and three or more antihypertensives (72.8±1.8 on one medication, vs 71.11±1.9 on 2 medications, vs 75.2±3 mm Hg on 3 medications, $p>0.05$). This was true for all the selected F/U periods. When evaluated the longitudinal change of PP during the F/U periods, there was no difference between the different classes of anti-hypertensives. This study shows that antihypertensives decrease PP in the elderly, but there was no difference between the different antihypertensive classes.

Key Words: Pulse Pressure, Antihypertensives, Elderly

P-208

PROPORTIONAL EFFECT OF DILTIAZEM SR 180 MG ON BLOOD PRESSURE. AN AMBULATORY BLOOD PRESSURE MONITORING (ABPM) STUDY

J. Calaça, L. P. Martins, C. Cotta, P. Calaça, R. Duarte, M. J. Palma, M. A. Basto, R. Palma-Reis. [1]*Corsintra, Lisboa, Portugal*

With the aim of finding a relation between the decrease in systolic blood pressure (SBP) with Diltiazem with the previous SBP values, we studied a group of 29 patients (14 men) with a mean age of 55.2±9.4 years by 24 hour ABPM. Individual hourly SBP values were evaluated in a randomised, crossover study after a period of 4 weeks with a daily dose of Diltiazem 180 mg in slow release capsules or after 4 weeks with placebo. We obtained 632 pairs of values with an average SPB after placebo = 143.8±21.6 mm Hg and after Diltiazem = 139.1±17.7 mm Hg ($p<0.0001$). We divided the SBP values in 4 groups and verified that there was a significant decrease when SBP was > 140 mm Hg, and that below this value there was not any decrease.

SBP Group	N	Placebo SBP (mmHg) Mean±SD	Diltiazem SBP (mmHg) Mean±SD	SBP fall (mmHg) Mean±SD	Significance*
>160 mm Hg	110	178.3±16.4	157.7±17.8	20.6±14.5	p<0.0001
>140 < 161 mm Hg	218	149.8±5.8	142.2±12.8	7.7±12.8	p<0.001
>120 < 141 mm Hg	231	132.0±5.1	132.9±12.9	-0.7±13.0	Not Significant
<121 mm Hg	73	111.4±8.9	121.5±16.0	-10.0±15.6	p<0.001
Total	**632**	**143.9±21.7**	**139.1±17.7**	**4.8±16.3**	**p<0.001**

(*paired samples t-test)