mm Hg vs 82.2 ± 9.7, p<0.05; 49.7 ± 25 vs 42 ± 26.4, p<0.04, respectively). Men 55-64 y had larger waist circumference than <44 y (p<0.04). Overweight women or with waist circumference >88 cm had higher mean 24 h PP (p<0.05) than lean. In both genders, PP increased with age (p<0.001) and dippers are younger than non-dippers (women 56.7 ± 10.6 vs 61.4 ± 12.6 y, p<0.01; men 49.9 ± 14.3 vs 53.8 ± 15.6 y, p<0.05). We conclude that overweight men have higher DBP levels and hypertensive load; and waist circumference is greater in those >55 y. In overweight women or with large waist circumference, PP is higher than in lean women or with small waist circumference. In both genders, PP increased with age, and the lack of nocturnal decrease of BP rises with age. All this factors increase the cardiovascular risk.

Key Words: pulse pressure, waist circumference, BMI.

P-27
ARE ACCEPTABLE THE DIFFERENCES BETWEEN HBPM VS ABPM TO EVALUATE THE CONTROL OF HYPERTENSIVE PATIENTS. PRELIMINARY RESULTS OF THE ZANYCONTROL STUDY?

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To determine if the value of BP measurements obtained in the patient’s home using HBPM compared to 24-hour ABPM is trustworthy and consistent.

Multicentric, cross-over study to evaluate diagnostic tests used to validate HBPM in the patient’s home (automatic electronic BP monitor, 3 readings with a period of 1-2 minutes) compared to the results of ABPM. This is a substudy of a large study called Zanycontrol. We built a table 2*2 with a matched data and we calculated the Kappa Concordance index, false positives (f+) and negatives (f-). In order to evaluate disagreements we used the statistic tool of Mc Nemar.

939 patients were included in this substudy, attained consecutively of the global sample, who had all the data required. We obtained the value of BP measurements obtained in the office by the physicians (3 times separated by a 1-2 minutes) and patient’s home using HBPM (3 times with a period of 1-2 minutes). We considered bad control values of SBP > 135 mm Hg or values of DBP > 85 mm Hg in HBPM and SBP > 140 mm Hg or values of DBP > 90 mm Hg in the office readings BP.

Key Words: HBPM, BP Office

P-28
ARE ACCEPTABLE THE DIFFERENCES BETWEEN THE BP OFFICE READING VS HBPM IN ORDER TO EVALUATE THE CONTROL OF HYPERTENSIVE PATIENTS. PRELIMINARY RESULTS OF THE ZANYCONTROL STUDY?

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To determine if the value of BP measurements obtained by the physician in the office vs HBPM is trustworthy and consistent.

Multicentric, cross-over study to evaluate diagnostic tests used to validate HBPM in the patient’s home (automatic electronic BP monitor, 3 readings with a period of 1-2 minutes) compared to the results of ABPM. This is a substudy of a large study called Zanycontrol. We built a table 2*2 with a matched data and we calculated the Kappa Concordance index, false positives (f+) and negatives (f-). In order to evaluate disagreements we used the statistic tool of Mc Nemar.

939 patients were included in this substudy, attained consecutively of the global sample, who had all the data required. We obtained the value of BP measurements obtained in the office by the physicians (3 times separated by a 1-2 minutes) and patient’s home using HBPM (3 times with a period of 1-2 minutes). We considered bad control values of SBP > 135 mm Hg or values of DBP > 85 mm Hg in HBPM and SBP > 140 mm Hg or values of DBP > 90 mm Hg in the office readings BP.

The results are (see table above)

We quantificate the percentage of hypertensives patients with bad control, with the casual readings BP in the office if we considered HBPM the gold standard. We need to have in mind this results (specially the F+) in the follow up of this patients.

Key Words: HBPM, BP Office

P-29
UTILITY OF AN AUTOMATED BLOOD PRESSURE (BP) MEASURING DEVICE (BPTRU) IN CLINICAL DECISION MAKING

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Hypothesis: Accurate BP measurement is critical to decision making in the hypertensive patient. It often is poorly done because of time constraints. The BPTRU is an automated multiple BP measuring device that could replace the gold standard nurse (GSN) JNC VI-recommended multiple office BP measurement.

Methods: 106 pts referred for ambulatory monitoring had 3 GSN ausculted BP in the same arm simultaneously with 2-5 BpTRU BP measurements. The BpTRU device controlled inflation and deflation. The 2 techniques were compared for systematic differences by signed rank test and for random differences by summarizing the inter-method differ-
ences. Bland and Altman was used to examine the relationship between BP level and method differences.

Results: 106 pts mean values for: age 62.8± 13.3 yrs, weight 82.9± 20.6 kgs, referral SBP 151.8± 22.5 mm Hg, and DBP 83.5± 12.4 mm Hg. The inter-method differences (GSN – BpTRU) SBP were +1.8± 5.1 mmHg and for DBP-4.8± 5.1 mmHg (Both P<0.001). When GSN was compared to BpTRU on the clinical question of whether the pt. did or did not have BP<140/90, there was agreement in 97 patients (42 pts <140/90 and 55 pts ≥ 140/90) and 9 cases of disagreement (7pts GSN <140/90, 2 BpTRU≤140/90).

Conclusions: Despite differences in inter-method SBP and DBP, BpTRU provides accurate repeated BP measurement. In 92% of pts it provided decision making BP information equal to JNC VI GSN measurement. The BpTRU provides a labor saving alternative to the practitioner for accurate BP measurement.

Key Words: automated BP device, clinical decision making

P-30
THE ROLE OF HOME BLOOD PRESSURE MEASUREMENTS IN THE DIAGNOSIS OF HYPERTENSION

Home blood pressure (BP) measurements, using automatic devices, become increasingly popular. However, their role in the diagnosis of hypertension (HT) is not well established. Therefore, we compared BP levels obtained in the clinic and at home.

Fifty four patients with essential HT (33 males and 21 females) with a mean age of 52 ± 7 years (range 40-70) were included in the study. BP and heart rate were measured 3 times in the clinic and for 2 weeks at home. Home BP measurements were taken daily, morning and evening, with an Omron IC BP monitor - a digital BP monitor that stores all data including BP, heart rate, up to 300 measurements. The devices were checked for accuracy against a mercury sphygmomanometer. BP and heart rate data were downloaded and the levels obtained in the clinic were compared to those obtained at home.

Average BP levels in the clinic were higher by 9/6 mm Hg than at home (Average clinic BP was 147 ± 14/89 ± 9 mm Hg and at home 138 ± 13/83 ± 8 mm Hg). Females had a greater clinic-home BP difference than males (12/7 mm Hg vs 6/4 mm Hg in males; p<0.05). The clinic-home BP difference was related to the clinic BP levels (R = 0.53; p<0.01), and was unrelated to age and body weight. Eleven patients (20%) had higher BP levels at home than in the clinic. Isolated home HT was observed in 8 patients.

White coat hypertension is more common in females with high BP levels in the clinic. Blood pressure levels may sometimes be higher at home than in the clinic (“white coat normotension”). Therefore, it is recommended to perform home BP measurements in females with high clinic BP levels, and in patients with target organ damage who have normal BP levels in the clinic.

Key Words: white coat hypertension, pulse pressure, circadian

P-31
PULSE PRESSURE DIFFERENCES BETWEEN NORMOTENSIVE AND WHITE COAT HYPERTENSIVE SUBJECTS
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The prevalence and clinical significance of white coat hypertension (WCH) is still controversial. Although recent longitudinal studies have provided preliminary prognostic data on subjects with WCH as compared to patients with sustained hypertension, the possible relation between WCH and vascular risk is still under debate. Accordingly, we compared the circadian pattern of blood pressure (BP) variability between normotensive subjects and patients with WCH. We studied 465 subjects (230 mean and 235 women), 45.7±15.4 (mean±SD) years of age, with diurnal BP mean below 135/85 for systolic/diastolic BP, and hyperbaric index (area of BP excess above a time-specified tolerance interval) below the previously established threshold for diagnosis of hypertension from data obtained by ambulatory BP monitoring [Hermida et al. Hypertension. 2000;35:118-125]. Among those subjects, 222 (119 men and 103 women) had WCH (mean from 6 office BP measurements above 140 or 90 mm Hg for systolic or diastolic BP). BP was measured at 20-minute intervals during the day (07:00 to 23:00 hours) and at 30-minute intervals at night for 48 consecutive hours. Circadian parameters established by population multiple-component analysis [Fernandez & Hermida. Chronobiol Int. 1998;15:191-204] were compared between normotensive and WCH subjects by nonparametric testing. Patients with WCH are characterized by a significant increase in systolic (2.6 mm Hg; P<0.001) but not in diastolic BP (P=0.568 for comparison of 24-hour mean) as compared to normotensive subjects. The differences in systolic BP between normotension and WCH are much more pronounced during the first 6 hours after awakening, and they are almost irrelevant during nocturnal resting hours. The largest and highly significant difference between groups was found around the clock in pulse pressure (about 3 mm Hg in 24-hour mean, P<0.001). In volunteers studied by 48-hour ambulatory monitoring, WCH is characterized by a significant elevation in systolic BP and, especially, in pulse pressure as compared to truly normotensive subjects. If indeed pulse pressure is an independent predictor of risk and cardiovascular events, WCH could then be associated to a long-term worst prognosis in comparison to true normotension, an issue that deserves further investigation.

Key Words: white coat normotension, pulse pressure, circadian

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