from V0 to V2, and decreased from V0 to V3 and from V0 to V4. PVR increased from V3 (1.07±*mmHg/ml) to V4 (1.13±*mmHg/ml), p = 0.046. PWV decreased from V0 (7.0m/sec) to V2 (6.6m/sec) and from V0 (7.0m/sec) to V3 (6.5m/sec). Pulse wave velocity showed strong correlation with age during all the measurements.

Conclusions: These data indicate that central blood pressure changes are sharpest in the first days, after this it seems that an exercise physiological accommodation occurred. There was a strong correlation between age and pulse wave velocity in this sample.

1B.08 USEFULNESS OF 24-HOUR AMBULATORY BLOOD PRESSURE MONITORING IN PEOPLE LIVING WITH HIV

M. Nuernbergk 1, S. Lang 1, A. Carrol 2, N. Haddour 2, S. Ederhy 1, C. El Avsi 1, L. Dufour-Soulai 1, C. Van Der Vyndt 1, M. Charbonnier 1, A. Cohen 1, F. Boccares 1,2,3 1Department of Cardiology, Saint Antoine Hospital, AP-HP, Paris, FRANCE, 2 INSERM, Saint Antoine Research Center, UMR S 938, Faculty of Medicine Saint Antoine, UPMC Paris 6, AP-HP, Paris, FRANCE

Objective: This study aimed to determine the utility of 24-hour ambulatory blood pressure monitoring (ABPM) in a priori normotensive and known hypertensive people living with HIV by quantifying new hypertension (HTN), masked hypertension, uncontrolled BP, and white coat effect.

Design and method: Data analysed was from the Register of cardiovascular Complications among people living with HIV (RECOVHI), including 263 HIV+ individuals with 1 or more CV risk factors who underwent 24-h ABPM in our cardiac centre.

Diagnostic criteria:
- Elevated clinic BP: at or above 140/90 mmHg
- Elevated mean 24-h ABPM: at or above 130/80 mmHg, systolic and/or diastolic
- Masked hypertension: normal clinic BP and elevated mean 24-h ABPM
- Uncontrolled hypertension: elevated clinic BP and/or elevated mean 24-h ABPM, in known HTN
- White coat effect: elevated clinic BP and normal mean 24-h ABPM, in a priori normotensives.

Results: The cohort had a mean age of 50.3±7.7 years, was predominantly male (91%), had a long median HIV duration (15.3 years), and included 150 (57%) known HTN.

In RECOVHI the prevalence of new HTN was 22% (n = 25), of which 50% masked hypertension diagnosed by 24-h ABPM solely. Uncontrolled HTN prevalence was 45% using clinic BP alone and 32% using 24-h ABPM alone. 24-h ABPM revealed that this masked uncontrolled HTN was frequently due to poor nocturnal BP control. White coat effect prevalence was not significantly different between the 2 groups (6.3% a priori normotensives vs. 9.3% known HTN, p = 0.37). HTN subjects were older, had higher BMI, and more frequently had a history of diabetes, coronary heart disease, and heart failure as compared to normotensives.

Conclusions: Masked hypertension prevalence is high in RECOVHI, particularly among a priori normotensives. Suboptimal BP control is frequent among patients with treated and well-controlled clinic BP. Clinic BP monitoring alone is inadequate to diagnose HTN and assess true BP control because elevated nocturnal BP was frequent. These findings suggest ABPM should be more routinely used to diagnose HTN and confirm BP control in people living with HIV.

1B.09 ACCURACY OF HOME VERSUS AMBULATORY BLOOD PRESSURE MONITORING IN THE DIAGNOSIS OF WHITE-COAT AND MASKED HYPERTENSION

Y. Kang 1, Y. Li 1, Q.F. Huang 2, J. Song 1, X.L. Shan 1, Y. Dou 1, X.J. Xu 1, S.H. Chen 1, J.G. Wang 1 1Shanghai Institute of Hypertension, Shanghai, CHINA, 2 Jiangsu Provincial Authorities Hospital, Jiangsu, CHINA

Objective: We investigated accuracy of home blood pressure (BP) monitoring in the diagnosis of white-coat and masked hypertension in comparison with ambulatory BP monitoring.

Design and method: Our study subjects were enrolled in the ongoing China Ambulatory and Home Blood Pressure Registry and underwent clinic, home and 24-hour ambulatory blood pressure measurement. The blood pressure threshold for hypertension diagnosis was 140mmHg and/or 90mmHg (systolic/diastolic) for clinic blood pressure, 130mmHg and/or 80mmHg for 24-hour ambulatory blood pressure and 135mmHg and/or 85mmHg for home blood pressure. We defined white-coat hypertension as an elevated clinic systolic/diastolic pressure and a normal 24-hour ambulatory or home systolic/diastolic pressure and masked hypertension as a normal clinic systolic/diastolic pressure and an elevated 24-hour ambulatory or home systolic/diastolic pressure.

Results: Uninreated subjects (n = 573), the prevalence of white-coat hypertension (13.1% vs. 19.9%), masked hypertension (17.8% vs. 13.1%) and sustained hypertension (46.4% vs. 39.6%) significantly (P < 0.02) differed between 24-hour ambulatory and home BP monitoring. In treated subjects (n = 1201), only the prevalence of masked hypertension differed significantly (18.3% vs.14.5%, P = 0.005). Regardless of the treatment status, home compared with 24-hour ambulatory BP had low sensitivity (range, 47%-74%) but high specificity (86%-94%) and accordingly low positive (41%-87%) but high negative predictive values (80%-94%), and had moderate diagnostic agreement (82%-85%) and Kappa statistic (0.41-0.66). In untreated and treated subjects, age advancing was associated with a higher prevalence of white-coat hypertension and a lower prevalence of masked hypertension defined by 24-hour ambulatory BP (P < 0.04) but not home BP (P = 0.10).

Conclusions: Home BP monitoring has high specificity but low sensitivity in the diagnosis of white-coat and masked hypertension, and may therefore behave as a complementary to, but not a replacement of, ambulatory BP monitoring.

1B.10 DOES THE RIGHT ARM KNOW WHAT THE LEFT ARM IS DOING? ETHNIC VARIATIONS IN CLINICAL INTERARM DIFFERENCE AND RELATIONSHIP TO WHITE-COAT EFFECTS

C. Schwartz 1, C. Koshia 2, C. Clark 2, M. Sayeed Haque 1, P. Gill 1, J. Mant 1, U. Martin 1, R. Menon 1 1Primary Care Health Sciences, University of Oxford, Oxford, UNITED KINGDOM, 2 Primary Care Research Group, University of Exeter, Exeter, UNITED KINGDOM, 3 Primary Care Clinical Sciences, University of Birmingham, Birmingham, UNITED KINGDOM, 4 Primary Care Unit, University of Cambridge, Cambridge, UNITED KINGDOM

Objective: Evidence suggests an interarm difference (IAD) of >=10mmHg in blood pressure (BP) is associated with a greater incidence of cardiovascular disease. Effect of ethnicity on the prevalence of this difference has not been reported.

Design and method: The Blood Pressure in Ethnic Groups Study (BP Eth), based in primary care, investigated the relationship between ethnicity and different methods of BP measurement. Using these data the prevalence of a significant IAD was investigated in 770 people (300 White British, 229 South Asian, 241 African-Caribbean). Repeated BP measurements were obtained simultaneously in the right and left arm using two BP-Tru machines and comparisons made between the first reading, mean of 2nd/3rd readings and mean of 2nd-6th readings for patients with and without known hypertension.

Results: No significant difference was seen in the prevalence of a systolic IAD between ethnicities whichever combinations of BP measurement were used and whether or not an individual was hypertensive. Overall the prevalence of IAD fell as more measurements were used in the comparison: first measurement (n = 161, 22%), mean 2nd/3rd (113, 16%) and mean 2-6th (78, 11%) (first vs clinic and research mean p < 0.001). To investigate whether this change in IAD prevalence with repeated measurement was due to a white coat effect (WCE), the three types of measurement were compared with participants’ mean daytime ambulatory readings (ABPM). WCE was defined as Clinic BP > = 10mmHg higher than ABPM. Unadjusted results show patients with a WCE were twice as likely to have an IAD on their first BP measurement (OR 2.1, 95% CI 1.4 - 3.1), mean 2nd/3rd (2.1, 95% CI 1.3 - 3.4) and mean 2-6th (2.1, 95% CI 1.2 - 3.9) compared to those without a WCE.

Conclusions: Ethnicity did not affect the prevalence of IAD in people with or without hypertension. However the prevalence of IAD was affected by the number of readings suggesting an element of white coat effect and this was confirmed by comparison with ambulatory monitoring. Therefore ABPM may play an important role in the investigation of those with >=10mmHg interarm blood pressure difference.

1B.11 ACCURACY OF DIFFERENT TYPES OF BLOOD PRESSURE MEASURING DEVICES AT HIGH ALTITUDE. DATA FROM HIGHCARE-ALPS STUDY

G. Bilo 1, A. Faini 2, X. Liu 1, E. Lisi 1,2, S. Hoshida 1, S. Salerno 1, A. Giuliano 3, F. Gregorini 4, M. Revera 4, M. Lang 4, S. Caravita 5, D. Soranna 6, A. Zamboni 7, C. Lombardi 8, G. Parati 1,2, 1 Cardiology Unit, Istituto Auxologico Italiano, Milan, ITALY, 2 Department of Health Sciences, University of Milano-Bicocca, Milan, ITALY, 3 Department of Cardiology, Jichi Medical University School of Medicine, Tochigi, JAPAN, 4 Department of Ciencias de la Rehabilitacion y del Movimiento Humano, Universidad de Antofagasta, Antofagasta, CHILE, 5 Department of Statistics and Quantitative Methods, Division of Biostatistics, Epidemiology and Public Health, Laboratory, Milan, ITALY, 6 Istituto Auxologico Italiano, Milan, ITALY

Objective: Blood pressure (BP) measuring devices may become inaccurate at high altitude due to low barometric pressure. Aim of this study was to assess the changes in the accuracy of different types of BP measuring devices between sea level and high altitude, taking auscultatory measurements with mercury sphygmomanometer as reference.