P123: UNATTENDED AND ATTENDED BP VALUES AND VASCULARE AND CARDIAC ORGAN DAMAGE

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respectively). Carotid-radial PWV reliably declined only in the 1st group (from $9.5 \pm 1.8$ to $8.8 \pm 1.1$ mmHg; $p = 0.034$).

Conclusion: Addition of rosvastatin to a fixed lisinopril/amiodipine combi-
nation has proved to be more effective than lisinopril/hydrochlorothiazide plus rosvastatin combination in terms of impact on central aortic systolic BP and carotid-radial PWV.

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UNATTENDED AND ATTENDED BP VALUES AND VASCULAR AND CARDIAC ORGAN DAMAGE

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It has been suggested that measurement of “unattended” blood pressure values may provide advantages over conventional BP measurement; some hypertension guidelines now suggest this approach as the preferred one for measuring office BP. Data on the relationship between unattended and cardiovascular events are less solid as compared to those obtained with attended BP; only few studies suggested that unattended BP might be more strictly correlated with hypertensive target organ damage than “attended” BP.

Aim: to evaluate the relationship between “attended” or “unattended” BP values and target organ damage in 261 subjects attending the outpatient clinic of an ESH-Excellence-Centre. BP values were measured by the physician with an automated oscillometric device (OmronHEM9000AI, mean of 3 measurements), after 5 minutes of rest; thereafter, the patient was left alone and the unattended BP was measured automatically after 5 minutes (3 measurements at 1 minute interval).

Results: mean age was 61 ± 16yrs, BMI 26.1 ± 4.2, 60% female, 88% hyperten-
sives (64% treated). Systolic unattended BP was lower as compared to attended SBP (130.1 ± 15.7 vs 138.6 ± 17.2 mmHg). Left ventricular mass index (LVMI) was similarly correlated with unattended and attended SBP ($r = 0.132$ and $p < 0.05$, respectively). LVMI was similarly correlated with unat-
tended and attended pulse pressure (PP) ($r = 0.277$ and $r = 0.299$, $p < 0.05$, respectively). Carotid IMT was significantly and similarly correlated with both attended and unattended BP values ($C_{MaxIMT}: r = 0.172$ and $r = 0.153$ for attended and unattended SBP, $p < 0.05$ and: $r = 0.459$ and $r = 0.436$ for attended and unattended PP, $p < 0.001$). The differences between correlations were not statistically significant.

Conclusion: Measurement of BP “unattended” or “unattended” provides different values, being unattended BP lower as compared to attended BP. Our results suggest that attended and unattended BP values are similarly related with cardiac and vascular hypertensive target organ damage.

P124
CENTRAL BLOOD PRESSURE MEASUREMENT: PARADIGM SHIFT

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Introduction: It is estimated that currently 17 million deaths annually in the world occur due to cardiovascular disease (CV), about one third of all deaths. 9.4 million are related to arterial hypertension (HA). The use of methods that allow the early identification of structural and functional cardiovascular alter-
ations can improve the strategy of treatment and control of these patients.

Description: LSO, 65 years old, female, white. Ringing in the ear and head-
ache. Hypertension for 18 years and panic syndrome using Candesartan 8 mg, Fluoxetine 20 mg and Alprazolan 0.5 mg. In 06-2016, presenting blood
pressure (BP): 172 x 104 mmHg. Candesartan was elevated to 16 mg, initi-
at ing Rosuvastatin 10mg (C-reactive protein:16 and LDL-C:142), targeted Improvement of lifestyle habits. ABPM 2 weeks after normal. Returned on 10-2017 with tachycardia and dizziness. She stopped Fluoxetine and Rosu-

Data are mean ± SD of 527 observations (Table 1). FFosc was lower in the peripheral BP 5,6. Keywords: Hypertension; Central Blood Pressure; Arterial Stiffness.

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P125
ESTIMATION OF MEAN ARTERIAL PRESSURE IN NON-INVASIVE STUDIES

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Background: Mean arterial pressure (MAP) is required for many hemodynamic calculations. Most automated devices do not report MAP and a form factor (FF) is used to estimate it from systolic and diastolic blood pressure (BP). The appropriate choice of FF in the brachial artery is controversial: 0.33 is the traditional value, but invasive measurements report a value of 0.4. 

Non-invasive studies have provided some support for FF = 0.4 but have usu-
ally not measured MAP directly, nor used brachial blood pressure waveforms, or accounted for BP measurement errors. We addressed these issues in a sam-
ple of white Europeans drawn from the Southall and Brent Revisited study.

Methods: BP was measured using a Pulsorcel device (USCOM). Form factors (FFosc and FFwave) were calculated as (MAP-diastolic BP)/(systolic BP-diastolic BP). Central pressure (Pc) was calculated from oscillometric (FFosc) and waveform (FFwave) methods. For each method, MAP was calculated as the waveform mean pressure.

Results: Data are mean ± SD of 527 observations (Table 1). FFosc was lower than FFwave and use of FFosc is more similar to MAPosc. Non-invasive studies have provided some support for FF = 0.4 but have usu-
ally not measured MAP directly, nor used brachial blood pressure waveforms, or accounted for BP measurement errors. We addressed these issues in a sam-
ple of white Europeans drawn from the Southall and Brent Revisited study.

Conclusions: Measurement errors confound estimation of MAP using FF. Mea-
surement errors vary substantially between devices [4] precluding a single FF for all studies. Non-invasive MAP should be estimated by oscillometric methods.