P124: CENTRAL BLOOD PRESSURE MEASUREMENT: PARADIGM SHIFT

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respectively). Carotid-radial PWV reliably declined only in the 1st group (from 9.5 ± 1.8 to 8.8 ± 1.1 mm/s; p = 0.034).

Conclusion: Addition of rosuvastatin to a fixed lisinopril/amlopidine combina-

nasion 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 BP 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. Aims: 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 (OmronHEM9000AL, mean of 3 measurements), after 5 minutes of rest; thereafter, the patient was left alone and unattended BP was measured automatically after 5 minutes (3 measurements at 1 minute interval).

Results: mean age was 61 ± 16 yrs, 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 r = 0.133, 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 (CBMaxIMTr: 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.

**References**


4. Aronow WS. Multiple blood pressure medications and mortality among elderly individuals. JAMA 2015;313(13).


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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 alterations 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-

ating 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-

vastatin. BP:178 x 84 mmHg. Reintroduced Fluoxetine and Rosuvastatin with new normal ABPM. Returned in 02-2018 with feeling of death, uneasi-

ness and palpitations. BP:138 x 78 mmHg and normal ECG, in regular use of the medications. Accomplished non - invasive central blood pressure mea-

surement (Mobil O’Graph) with arterial stiffness elevation, central AP:143 mmHg and augmentation index (AI):50 was performed. Feliopidine -2.5 mg was started even with the new normal ABPM. 4 months later new measures with central BP:128 and AI = 33-table 1.

Conclusion: The treatment of HA depends on the choice of the drug and early onset with reduction of BP and CV outcomes 3.4. The central BP has greater relevance in the reduction of BP and cardiovascular outcomes than the peripheral BP 5,6. Keywords: Hypertension; Central Blood Pressure; Arterial Stiffness.

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**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 calculated as (MAP-diastolic BP)/(systolic BP-diastolic BP) or accounted for BP measurement errors. We addressed these issues in a sample of white Europeans drawn from the Southall and Brent Revisited study.

**Methods:** BP was measured using a Pulsecor device (USCOM). Form factors (FFosc and FFwave) were calculated as (MAP-diastolic BP)/(systolic BP-diastolic BP) overestimated MAPosc. Allowing for measurement errors based on [2-3] gave estimates of MAPwave calculated as the waveform mean respectively.

Data are mean ± SD of 527 observations (Table 1). FFosc was lower than FFwave and use of FF = 0.4 (MAP0.4) underestimated MAPosc. Allowing for measurement errors based on [2-3] gave estimates of MAPwave that were more similar to MAPosc.

**References**


4. Aronow WS. Multiple blood pressure medications and mortality among elderly individuals. JAMA 2015;313(13).
