**J025**

**PREDICTION OF LEFT VENTRICULAR MASS (LVM) IN THE ELDERLY BY CASUAL MEASUREMENT AND AMBULATORY BLOOD PRESSURE MONITORING (ABPM)**


Ambulatory blood pressure monitoring (ABPM) in adult population seems to be associated to organ damage involvement better than casual blood pressure (BP) measurement. However, it is unknown which BP measurement is the best predictor of left ventricular hypertrophy (LVM) in the elderly. The aim of the study was to compare the contribution of casual BP, at home and at hospital, and ABPM in predicting the hypertension cardiac effects in the elderly population. 265 patients completely evaluated, were prospectively studied making an echocardiogram and office BP measurements made by doctors and home BP made by a nurse and ABPM (SpaceLabs 90207). Mean age 74 ± 6 (65-93). 51.4% women; 15% were excluded because of bad quality of the echocardiogram. If or if the number of correct measurements of ABPM were less than 80%, Left ventricular mass (LVM) was calculated by Devereux method. Logistic regression was performed trying to find predictors of LVM including systolic and diastolic BP at the hospital (SBPH, DBPH) and ABPM pressures. Confounding factors such as age, sex, antihypertensive treatment, cardiovascular risk factors and anthropometric variables (height, weight, body mass index) were included. An equation that predicted 41% of LVM (r²=0.69) was obtained. The equation variables were (8 coefficient, p value): SBPH (β=1.2, p<0.001), DBPH (β=-1.2, p<0.006), height (β=-2.3, p<0.001), age (β=4.0, p<0.001), antihypertensive treatment (β=-1.4, p<0.001). In the elderly patients casual BP informs better about the cardiac effects appreciated by echocardiography than ABPM measurements. With this model, in the elderly, 48% of the LVM was explained.

**Key Words:** echocardiography, pulse pressure, microalbuminuria

**J026**

**MICROALBUMINURIA, PULSE PRESSURE, LEFT VENTRICULAR HYPERTROPHY AND MYOCARDIAL ULTRASONIC TEXTURAL PARAMETERS (VIDEOENVIRONMENT LVM IN ARTERIAL HYPERTENSION)**

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Microalbuminuria (UA) may be considered a marker of systemic vascular dysfunction such as Pulse Pressure (PP) an indicator of the stiffness of vascular conduits; both these parameters with Left Ventricular Hypertrophy (LVM) are linked with cardiovascular morbidity in hypertensive patients. Aim of the study was the analysis of the eventual relationship between UA, PP and LVH with ultrasonic myocardial textural parameters, to analyse the microenvironment that could be the target of some medical treatments.

We compared a group of age-matched (58 ± 7 y) male essential hypertensive patients (n = 70) to normotensive healthy subjects as controls (n = 32). ABPM was performed with an oscillometric monitor: UA was measured by nephelometry. All subjects performed a conventional 2D-echocardiography (to analyze left ventricular mass: LVM) and a quantitative analysis of the echocardiographic digitised imaging with the use of a calibrated digitisation system (to calculate the septum and the posterior wall textural parameters). The myocardial Mean Gray Level was calculated to derive the Cyclic Variation Index (CVI). CVI was significantly lower in hypertensives both for septum wall (+13.2 ± 2.2 vs +34.7 ± 13.3 %; p<0.001) and for posterior wall (+15.2 ± 23.6 vs. +38.2 ± 15.4 %; p<0.001). Significant inverse correlation was found between log(UA) and CVI of septum (r=-0.42; p<0.001), between PP and CVI of septum (r=-0.40; p<0.001) and between CVI and LVH (r=-0.42; p<0.001). We have confirmed that LVM, log(UA) and PP were correlated parameters and CVI could be considered a sensitive parameter in the identification of an abnormal myocardial texture in hypertension. Probably high stiffness level and the presence of vascular dysfunction in hypertension could participate to determine myocardial alterations, selecting patients with the worst prognosis in terms of morbidity or mortality for cardiovascular events.

**Key Words:** echocardiography, pulse pressure, microalbuminuria

**J027**

**DO PATIENTS WITH DE NOVO HYPERTENSION DIFFER FROM THOSE WITH PREVIOUSLYKnown HYPERTENSION WHEN MALIGNANT PHASE HYPERTENSION OCCURS?**

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Malignant phase hypertension (MHT) represents the most severe form of hypertension; and many consider that this condition only occurs in poorly managed patients with previously known HT. To investigate this further, we studied 350 patients with MHT on the West Midlands Hypertension Cardiac Effects Study. The mean follow-up period was 21 months. Of the patients, 190 (54.3%) had previously had HT (Group 1 and 165 (47.1%) were previously unknown HT (Group 2). The mean follow-up period was 21 months. Of the patients, 190 (54.3%) had previously had HT (Group 1 and 165 (47.1%) were previously unknown HT (Group 2). There were similar to MHT patients with previously known HT. MHT can occur de novo in patients without previous HT, and the prognosis in J027 patients is similar to MHT patients with previously known HT.

Malignant phase hypertension, survival, de novo, prognosis

**Key Words:**