the no dipper phenomenon of BP represent a higher cardiovascular risk in this population.

Key Words: Blood pressure measurement, circadian rhythm, elderly blood pressure

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BLOOD PRESSURE VARIABILITY IN OBESE AND NON OBESE ADOLESCENTS WITH 4 AND 5 PUBERAL STATES BY TANNER CRITERIA
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The adolescents obesity study has been an important topic in medicine over the last several years. The blood pressure (BP) has been related with the sexual maturity during the puberty. The mean BP in obese is higher than non obese adolescents in casual measurements. The objective in this study was to compare the BP variability using ambulatory blood pressure monitoring (ABPM) in obese and non obese adolescents group with 4 and 5 breast develop by Tanner criteria.

The age range was from 12 to 17 years. The assessment of the breast develop was made by physical exam by Tanner. Obesity: body mass index (BMI) >95th percentile and tricipital skinfold thickness (TST) >95th percentile. Anthropometric measurements: weight, height, arm circumference, waist, hip, waist-hip ratio (W/H), subcapsular, abdominal and suprailliac skinfold thickness. The casual BP of each subject was measured three times. A Space Labs 90207 monitor was used for 24 hours, during a regular school day. The variability analysis included also absolute variability (AV), variation coefficient and pulse pressure (PP).

The statistical analysis were made by percentages (%), means, standard deviation (SD), J2, student t test and Pearson correlation.

We included 29 obese (mean age 13.9±0.84 y), and 30 non obese (mean age 14.9±1.55 y). BMI in obese group 31.2±4.0 and non obese 21.2±2.2; p<0.001. TST 31.5±6.1 mm obese and 13.8±4.0 mm non obese; p<0.001. Casual systolic BP (SBP) 116.8±1 mmHg obese and 105.9±9.3 mmHg non obese; p<0.001. Diastolic BP (DBP) 71.98±9.3 mmHg obese and 68.2±8.2 mmHg non obese; p=0.104. By ABPM mean 113.8±6.2 mmHg obese and 107.6±5.6 mmHg; p<0.001. DBP 64.9±4.2 mmHg obese and 65.4±3.9 mmHg obese; p=0.581. The absolute variability DBP in obese 13.2±1.8 mmHg and 8.7±1.5 mmHg non obese; p<0.003. The variation coefficient over 24 hours in obese 17.3±3% and non obese 15.4±2.6%; p<0.05. Systolic non dipper obese 16.552% and non obese 9 (30%); p<0.05. Mean PP in 24 h obese 49.3±8 mmHg and non obese 43.5±9 mmHg; p<0.001.

The systolic in the casual BP in 24 hours, day time and night time were higher in obese than non obese (p<0.001). The systolic non dipper and the PP were higher in obese with statistical significance. These observations could be important indicators in the development of hypertension or other cardiovascular diseases in the adult life.

Key Words: Blood pressure monitoring, obesity, sexual maturity

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THE COMPARISON OF THE CARDIAC STRUCTURE, FUNCTION AND ENDOThELIAL FUNCTION BETWEEN DIPPERS AND NONDIPPERS IN PATIENTS WITH EH
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To compare the cardiac structure function and endothelial function of dippers in patients with EH with nondippers in patients with EH. 388 patients with EH who were divided into two groups according to the night blood pressure fall rate were studied. Different parameters of UCG, ABP and plasma levels of NO and ET were measured to investigate the differences between the two groups. The levels of 24h SBP, 24h DBP, nSBP, nDBP, IVS, PW, LVM, LVMi, BAD, A, ATVI, A/E, ET of nondippers in patients with EH are significantly higher than that of dippers. The values of FS, ESV, NO of nondippers in patients with EH are significantly lower than that of dippers. Night blood pressure levels of nondippers in patients with EH are significantly higher than that of dippers. The extents of LVH, LVDf and endothelial dysfunction of nondippers in patients with EH are significantly worse than that of dippers.

Key Words: Night blood pressure fall rate, endothelial function, ambulatory blood pressure

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CHANGES IN TREATMENT: STRATEGIES FOR THE MANAGEMENT OF HIGH BLOOD PRESSURE
MEASUREMENTS
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Aims: to assess primary care health professionals attitudes towards blood pressure measurements that signal bad control among patients with hypertension

Design: retrospective cohorts study. Random sample of primary care centres in Catalonia (Spain)

Methods: random sample of patients attending the selected centres with a diagnosis of hypertension. External audit of clinical charts. Considered variables were: age, sex, screening for and diagnosis of cardiovascular risk factors, treatment, blood pressure measurements during the last year and bad control management.

Results: About 32.4 % of the patients had blood measurements under 140/90. About 15.4 % of all the patients had not been prescribed any antihypertensive drug, 40.8 % were under one drug regimen, 31.3 % were under two drugs regimen, and 12.5% were under three drug regimen. ACE inhibitors (49.3%) and diuretics (47.4%) were the most prescribed drugs and so was their combination (22.1%), followed by the combination of diuretics and calcium channels blockers (9%). Life style modification counseling had been performed in 81.7%. When blood pressure showed to be repeatedly not under control, treatment was modified in 66.8 % of the cases, while expectant attitude was only adopted in 23.2%. This last management was significantly more frequent for patients older than 65 and with systolic blood pressure 140-150 or diastolic blood pressure 90-95 (p<0.001).

Conclusions: expectant attitude is frequent, specially among patients older than 65 and with slightly high blood pressure measurements.

Key Words: Treatment, management, high blood pressure

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INFLUENCE OF SPIROLACTONE ON CIRCADIAN NON-DIPPER BLOOD PRESSURE RHYTHM IN SALT-SENSITIVE BLACK HYPERTENSIVES UNDER HIGH SALT DIET
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We examine whether spironolactone (SPL) can reverse the non-dipper circadian rhythm of BP to a dipper pattern in salt-sensitive hypertensives