mmHg) and nighttime ABP (6.1, 3.0-9.1 and 3.2, 1.0-5.5 mmHg). P-renin, correlated inversely with systolic and diastolic salt sensitivity (R=-0.44, P=0.008 and R=-0.39, P=0.02, respectively). These data suggest that salt reduction with 100 mmol (6 grams) per day induces blood pressure reductions comparable to pharmacological antihypertensive mono-therapy in subjects with normal or slightly elevated blood pressure. Initial P-renin, with subjects on their habitual diet, correlated inversely with salt sensitivity and could thus be useful to identify individuals with the greatest blood pressure lowering benefit from reduced salt intake.

Key Words: Blood Pressure, Salt, Salt Sensitivity

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CHANGES IN THE CONCENTRATION OF SODIUM AND POTASSIUM IN ERYTHROCYTES DURING PREGNANCY IN PATIENTS WITH AND WITHOUT ESSENTIAL HYPERTENSION

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To date, there is scant information on the relation between pregnancy and the intracellular Na+ and K+ content in patients with essential hypertension. The aim of this study is to determine the changes in the concentrations of Na+ and K+ in erythrocytes of patients diagnosed with essential hypertension in pregnancy.

We studied a group of 204 Polish women in ambulatory conditions. During pregnancy all women had no dietary restrictions, did not take any medications, and were non-smokers.

We divided the patients into 3 groups. From a cohort of 84 women (mean 29.5 ±5.5 years of age) diagnosed with essential hypertension before the pregnancy by complete clinical examination and appropriate laboratory investigation with definite exclusion of the secondary causes of HTN, we assembled 2 groups of hypertensive women. In the first group diagnosed with HTN before pregnancy, BP did not exceed 140/90 mmHg throughout the time of pregnancy (HTN, BP<140/90 mmHg). The second group had BP between 140/90 and 160/110 mmHg during pregnancy (HTN, BP>140/90 mmHg). The third group of patients had normal BP, but had a family history of HTN in, at least, one of parents. The forth group of normotensive 60 women (mean 28.5 ±4.9 years of age) was used as a control group.

We took a sample of blood from each patient for measurements of Na+ and K+ on 3 occasions throughout the pregnancy: between weeks 8 and 12, 24 and 28, 34 and 38 of gestation and additionally 4 months after the delivery.

The lowest values of the concentration of intracellular Na+ in all groups occurred between weeks 34-38 in the group of normotensive patients with FH + (10.93 ±0.64 mmol/l) (p<0.05).The only significant difference in the concentration of intracellular K+ occurred between the weeks 8 and 12 of pregnancy when values of the concentration of K+ in the erythrocytes were significantly lower in the groups of HTN>140/90 mmHg compared to all other groups (p<0.01). This disparity disappeared later in the pregnancy. We have recorded a statistically significant elevation in the concentration of intracellular K+ inside the group of HTN>140/90 mmHg during the pregnancy (p<0.05).

Key Words: Essential Hypertension, Intracellular Electrolytes, Pregnancy

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HIGH DIETARY SALT INTAKE IN HYPERTENSIVES, RELATIVES OF PATIENTS WITH STROKE AND IN UNIVERSITY STUDENTS. THE DRAMA OF A COUNTRY WITH RATE OF MORTALITY BY STROKE

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Our country exhibits one of the highest rates of mortality by stroke in European Community. Prevalence of hypertension in adults is >43%. It is believed but not demonstrated that high salt intake is common in our population. We evaluated in subjects under their usual dietary habits the 24-h urinary sodium (UNa) and potassium (UrK) excretion in duplicate samples of 148 hypertensive subjects HTs (representative of 1234 subjects) followed in a reference hospital hypertension clinic, in 19 relatives (RLTs) living together with patients that have suffered from strokes and in 52 healthy normotensive university students (STs) (20-25 yrs). HTs: 52% females, ageing 51+16 yrs, BMI 28.2+7.3, BP 164/95 + 27/13 mmHg. RLTs: 60% females, ageing 58+21 yrs, BMI 26.8+9.1, BP 149/89 + 21/9 mmHg. STs: 58% females, ageing 22+2 yrs, BMI 22.4+3.3, BP 125/77 +109 mmHg. HTs: UNa was 208+49 (mmol/day) corresponding to an intake of 11.9+2.9 g of salt/day; UK was 61+19 (mmol/day); Ratio UNa/Uk 1.8 ±0.5 g/d. RLTs: UNa was 199 +59 (mmol/day) corresponding to an intake of 11.4+3.1 g of salt/day, and UK was 67+29 (mmol/day), with a ratio UNa/Uk of 1.5 ±0.9 g/d STs: UNa was 198+66 (mmol/day) corresponding to an intake of 10.6+3.5 g of salt/day, and UK was 79+31 (mmol/day), with a ratio UNa/Uk of 1.3 ±0.5 g/d. UNa+ correlated significantly with office systolic BP in hypertensives and RLTs, (r=0.324, p<0.001) and also in STs (r=0.396, p<0.03) despite being normotensives. Our results suggest that a general very high dietary salt intake is present in different subsets of our population including in young normotensive healthy students. In these subpopulations Systolic BP correlates with 24-h urinary salt excretion. We speculate that such a high salt intake may contribute for the high prevalence of HT and for the high mortality by stroke observed in our country and it imposes important adequate health preventive attitudes.

Key Words: Hypertension, Salt Intake, Stroke

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EFFECTS OF DIETARY SALT INTAKE ON NOCTURNAL BLOOD PRESSURE FALL IN ESSENTIAL HYPERTENSION

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Several data suggest a relation of dietary salt intake and sodium (Na) renal handling with blood pressure (BP) and target organ damage. The prognostic significance of abnormal nocturnal blood pressure (BP) fall in essential hypertensive patients (pts) is increasingly recognized. The aim of the present study was to investigate the association between dietary salt intake, as evaluated by urinary Na excretion and nocturnal BP fall patterns in hypertensive pts.

We studied retrospectively 5538 consecutive untreated pts (3051 men, 2487 women, age 56.4±13.0 years old) with mild to moderate chronic uncomplicated essential hypertension. According to their nocturnal systolic BP fall, pts were classified in extreme dippers (941 pts with >20% nocturnal systolic BP fall), dippers (2379 pts with >10% but <20% fall), nondippers (1594 pts with >0% but <10% fall) and reverse dippers (624...