

SALT INTAKE AND BLOOD PRESSURE IN A PEDIATRIC POPULATION

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Introduction: The increased incidence of hypertension in adolescents, mainly in association with obesity raises concerns about increased cardiovascular morbidity in the future. Aim: To evaluate the intake of salt in a cohort of adolescents and to assess its impact on blood pressure (BP) based on gender and body weight.

Material and methods: We evaluated, through their food diary, the consumption of salt in 320 ambulatory adolescents of 15 years (180 girls and 140 boys). The patients were divided according to the foods into two groups: high salt intake and low salt intake. BP was evaluated by 24-hour ambulatory monitoring. Anthropometric characteristics, personal and family history were recorded for each patient and a questionnaire on physical activity.

Results: The daily consumption of salt was significantly higher in girls (66.6% vs 42.8% in boys, $p=0.006$) and in overweight/obese adolescents (68% vs 32% in normal weight, $p=0.005$). Systolic BP was higher by 15 mmHg in overweight / obese girls, but not in non overweight boys or in girls. There was no statistical significant difference in BP levels with family history of hypertension and /or cardiovascular disease. Physical activity was wrapped only 30% of girls vs. 80% of boys.

Conclusions 75% of the patients were over-consumption of salt and among them most were girls. Higher salt consumptions were associated with higher systolic BP in girls, especially in those who are overweight/obese. Salt consumption and sedentary activity are factors predisposing to hypertension at a young age, but also gender differences may play a role.

