Abstract

Introduction: Recent studies have indicated that diets rich in sodium may predispose to the development of obesity, either directly, or be associated with the consumption of foods that promote weight gain. Objective: The aims of this study were to analyze the association between urinary sodium and the presence of excess of weight. Additionally, the study investigated the relationships between salt intake and dietary habits, as a high salt intake may be associated with inadequate eating habits and a high incidence of obesity. Methods: This study involved 418 adults (196 men and 222 women) aged 18 to 60 years old. Weight, height and waist circumference were measured, and we calculated, BMI and waist/height ratio. Dietary intake was estimated using a "24 h recalls", for two consecutive days, and sodium content was determined from 24 h urine sample. Results: The 34.4% of the population had overweight and 13.6% had obesity. A positive association was seen between BMI and urinary sodium concentration. Urine sodium values were also positively associated with others adiposity indicators such as waist circumference and waist/height ratio. Body weight, BMI, waist circumference, and waist/height ratio were higher in the group of individuals with a urinary sodium excretion 154 mmol/l (Percentile 50) (P50). Additionally, individuals placed in this group presented a higher caloric intake and total food intake, in particular, more meat, processed food and snacks. Adjusting by energy intake, a higher sodium intake was a risk factor of being overweight or obese (OR = 1.0041, IC 95% 1.0015-1.0067, p < 0.01). Conclusions: Salt intake was associated with obesity; since people with higher sodium intake consumed more energy and presented worse eating habits. Additionally, sodium intake itself appears to be related to obesity.

Keywords

Sodium, Obesity, Overweight, Adults.