RELATIONSHIP BETWEEN THE CONSUMPTION OF CALCIUM, VITAMIN D, ZINC AND BODY MASS INDEX OF ELDERLY - NUTENV PROJECT, UNIVERSITY OF CAXIAS DO SUL

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About 3.4 million adults die each year as a result of an elevated body mass index (BMI). Studies suggest a relationship between low calcium consumption and elevated BMI through increased lipogenesis and decreased lipolysis. The objective of this study was to evaluate the relationship between calcium intake and BMI in women NUTENV Project. It is a cross-sectional, retrospective study with data collected between 2010 and 2014. From the NUTENV Project database evaluated the sample of 148 women with the following variables: age > 50 years, BMI, waist circumference (WC), consumption of dietary intake of calories, macronutrients, calcium, zinc and vitamin D (usual food recall 24h). Statistical analyzes were performed using SPSS statistical software. The study was approved by the Ethics Committee of the University of Caxias do Sul (UCS) under registration number 061/2009 Protocol. The mean (SD - standard deviation) age of the subjects was 64.0 ± 7.6 years and 70.3% of the sample was elderly. Regarding the anthropometric measurements, the SD of BMI was 28.5 ± 5.2 Kg/m² and of WC was 87.8 ± 11.6 cm. Overweight was presented in 77.6% of sample and 43.9% had elevated WC. The mean consumption of calcium, zinc and vitamin D was 686.6 ± 332.2 mcg; 7.4 ± 4.6 mg and 3.5 ± 6.7 mg, respectively. There was no significant differences between the micronutrients consumptions (calcium, zinc and vitamin D) and overweight or elevated WC (all p-value>0.05) in older women. The results shown the negative correlation and tendency of significance between the consumption of calcium and weight (r=-0.127; p=0.124; n=148) in women. We suggest that if the sample size was large, we would find significant results. More studies are needed in this area, increasing the sample size.

Key words: micronutrients, calcium, obesity.