**INTRODUCTION**

The role of Influence of the basal metabolic profile on the evolution of the pediatric patient with obesity

**AIM**

To study how basal metabolism influences the somatometric evolution of the child and adolescent population with obesity in a pediatric endocrinology clinic.

**METHOD**

Study of the entire population followed with childhood obesity in a tertiary hospital by means of a multichannel impedance study, TANITA BF 430.

**RESULTS**

100 randomly selected patients from a database with 1400 records were studied. Most of the patients who come to these consultations for obesity are girls, between 8 and 11 years old. All the patients studied had a basal metabolism lower than the theoretical ideal calculated. The group of boys at the beginning of follow-up showed a higher basal metabolism and more similar than the group of girls. Girls had a higher fat mass content compared to boys at the beginning of follow-up. At one year of follow-up, both groups achieved a decrease in the percentage of fat mass, being double in boys compared to girls.

After three years of the study, it was observed that 54% of the boys achieved a reduction in their MG compared to 36% of the girls. Overall, weight reduction is not achieved in this pediatric population; what we do observe is a decrease in fat content in the medium term 1-3 years. The reduction of this fat mass could be a protective factor against cardiovascular diseases in adults. Given the same adherence to nutritional programs, we think that the rate of physical exercise influences this reduction. It was also observed that the most relevant data in the evolution of obesity in these patients is the basal metabolism that they present at the beginning of follow-up.

**CONCLUSIONS**

We are committed to the existence of a multichannel impedance meter in each of the pediatric endocrine consultations as it is a non-invasive, easy-to-use test that can provide a lot of information about the evolution of these patients.

Since we believe that focusing efforts on those children who have a worse basal metabolism could contribute to improving the efficiency and effectiveness of the scarce health resources that we have.

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