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Abstract

Assessment of Body Weight, Body Height and Body Fatness in Albanian Children Aged 7–15 Years and Comparison with International Standards, and Follow-Up at One Year †

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Abstract: Objectives: In Albania, a large number of infant and young child have a poor nutritional status. At the same time, the population is undergoing a nutrition transition, and the prevalence of overweight and obesity is high among adults. Few data are available on the nutrition status of those aged between 6 and 18 years in Albanian. The aim of this study was to evaluate the nutritional status of Albanian children and conduct a one-year follow-up. Methods: In Yilber Elementary School in Tirana, body composition (FAT, FFM, TBW) by BIA (RJL device) was measured in 314 children, 151 boys and 163 girls, aged 7–15 years. Food intake was also measured with a food questioner. Height and weight were compared with the international reference values. One year after the first survey, the same baseline parameters were measured in the same sample population of children to verify growth trends in order to detect any significant changes in the parameters being studied. Results: A significant difference was detected between the sexes in terms of fat mass (FM), with a significantly higher value for girls ($p = 0.049$). The prevalence of underweight, overweight, and obesity for Albanian children (7–15 years) was quite a bit lower than the references; on the contrary, overweight was higher for boys and girls aged 9 years. Frequency for overweight or obese increased with age. In the follow-up, there was a significant increase in weight, height and BMI, lean mass, total body water, and fat mass in both sexes. Body cell mass index did not change in males. Significant height increases were detected in both sexes for all age groups, except for children aged 11 and 13. The most significant changes were observed for 11-year-old females, while for males, the findings appear to be homogeneous across all ages, which is consistent with the typical phases of male development. Conclusions: An important percentage of Albanian children are at risk of being overweight or obese, which requires more attention because the development of obesity results in different types of diseases associated with changes in body composition. Improvements in healthcare and efforts in nutrition education are needed to prevent the transition to obesity and chronic diseases.

Keywords: Albanian children; body composition; bioelectrical impedance

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