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METABOLIC CONTROL AND BODY MASS OF CHILDREN
AND ADOLESCENTS SUFFERING FROM DIABETES
MELLITUS TYPE 1

INTRODUCTION

Children and adolescents up to the age of 19 make 2-4% of those suffering from diabetes. It is believed that 98% of the patients have diabetes type 1, which is characterized by total insulin dependency, emotional instability, considerable morbidity and proneness to acute complications.

AIM

The aim of this study is to establish the body mass (estimated BMI) of patients in relation to their age, sex, type of insulin therapy and achieved metabolic control (HbA_{1C}%).

METHODOLOGY

100 patients were examined (55 girls and 45 boys) at UCH in Belgrade during the eight-year-long period of growth and development of children with a satisfactory metabolic control, aged 2-18, after remission. The examinees were divided into two groups: pre-adolescents and adolescents.

RESULTS

An average BMI in 5-to-7-year-olds of both sexes is 16.3 kg/m². BMI shows an expected and significant increase from the age of 12 in both sexes. Girls have a considerably higher BMI at the age of 13, 14, 16 and 18 than boys of the same age. Adolescents who are on IITh have higher average BMI values than the examinees who are on KITh (22.23 vs 18.83), especially female examinees whose BMI is notably higher than the one in boys of the same age (23.18 vs 19.83). Adolescents show a considerable decline in their metabolic control in comparison to

pre-adolescents (HbA_{1c}% 9.2 vs 8.5), which is especially the case with female examinees (9,45%).

CONCLUSION

Adolescents on ITh have higher average BMI values in comparison to examinees on KTh, and these differences are considerably greater in female examinees than in boys.

BMI increase in adolescents is followed by metabolic control deterioration. ITh is combined with a better metabolic control due to the application of larger daily insulin doses and BMI increase, especially in female adolescents.