INSULIN RESISTANCE ASSESSMENT IN OBESE AND NON-OBESE CHILDREN USING HOMA

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Introduction: Obesity is one of the most common nutritional problems worldwide and its prevalence is increasing. Many children are diagnosed with obesity in our country, as well, but lack of the evaluation of insulin resistance syndrome in such patients could delay the initiation of therapeutic measures.

Material and methods: The aim of our study was to determine the association between the BMI and the homeostatic index for insulin resistance (HOMA-IR) in 56 obese (27 boys and 29 girls) and 45 non-obese (21 boys and 24 girls) children.

Results: The average level of HOMA in children diagnosed with obesity was 6.79, whereas in non-obese children was 1.79. The homeostatic index for insulin resistance (HOMA-IR) was calculated according to the homeostatic model as Insulin (uIU/ml) x Glycemia (mmol/L)/22.5.

Conclusion: These results demonstrate that HOMA-IR could be used as an important tool in insulin-resistance assesment in pediatric population.