

## Lipidic profile and metabolic control in type I diabetic children

Andreea Liana Rachisan<sup>1</sup>, Simona Cainap<sup>1</sup>, Mariana Andreica<sup>1</sup> and Nicolae Miu<sup>1</sup>

<sup>1</sup>Department of Pediatrics II, University of Medicine and Pharmacy, Romania

**Introduction:** In the past decade a number of studies suggested that type 1 diabetes mellitus is an oxidative stress influenced disease. Poor metabolic control in type I diabetes is known to be the most important factor in the development of long-term diabetic complications. Recently, the abnormalities of lipidic metabolism seem to play a crucial role in the appearance of macrovascular complications.

**Material and methods:** We enrolled 51 diabetic children and 36 healthy subjects. We determined the hemoglobin A<sub>1c</sub>, lipidic profile and C-peptide. The biochemical parameters were measured using a commercial assay kit.

**Results:** The diabetic patients had a poor metabolic control with a mean value of  $9.51 \pm 1.87$  for hemoglobin A<sub>1c</sub>. The lipidic profile showed low-HDL cholesterol and high LDL-cholesterol levels in diabetic patients compared with the control group. The level of C-peptide is in an inverse correlation with the years of the disease.

**Conclusions:** Our study showed that poor metabolic control is not the only crucial factor involved in late diabetic complications, lipidic profile may enhance the possibility to early development of diabetic complications in children. The C-peptide level may be a valuable tool in assessing the residual  $\beta$  cell function.

andreea\_rachisan@yahoo.com