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## Diabetes and Child Obesity - Case presentation

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The presented clinical case aims to highlight the elements of the metabolic syndrome and the association with type 2 diabetes mellitus in children, as well as the necessary therapeutic behaviour to normalize the parameters that are modified in this child pathology. A 14-year-old patient presented with polyuria, polydipsia, polyphagia and weight loss (10kg in 9 months - 12,5% from initial weight). The history showed the child's unhealthy lifestyle, being sedentary and having a high-calorie diet, rich in refined carbohydrates, saturated and trans fats, poor in vegetables and fruits.

At presentation, the child was found to be overweight and with abdominal obesity, without clinical signs of metabolic acidosis. From the blood tests that were taken we recall: blood sugar at admission=339mg/dL, HbA1c=14.3%, total cholesterol=228mg/dL, HDL-cholesterol=23mg/dL, triglycerides=647mg/dL, incalculable LDLcholesterol, normal arterial pH, urinary ketone bodies present and positive urine culture for Escherichia Coli.

During hospitalization, C-peptide was determined with a value of 2.22ng/mL (normal values: 0.78-5.19 ng/mL) and anti-GAD antibodies under 5 IU/mL. Thus, the diagnosis of unbalanced insulin-requiring type 2 diabetes is established. The importance of lifestyle optimization was explained, then a hypoglycemic and hypolipidic diet was recommended containing foods rich in fiber and antioxidants. Insulin therapy was initiated, in regressively titrated doses, upon discharge when the patient received a recommendation for insulin degludec 6 IU/day and metformin 2g/day.

The urinary infection was treated with antibiotic therapy. The evolution of clinical and paraclinical parameters after 1 month, 3 months and 6 months after discharge is presented in Table 1. Thus, weight loss, balancing of diabetes and improvement of the lipid profile are observed. An obese child is an adult with type 2 diabetes who represents a great burden on the health system, but especially on himself. It is desirable to be aware of this problem and to be actively involved in its solution.

### References

1. Preda A, Pădureanu V, Moța M, Ștefan AG, Comănescu AC, Radu L, Mazilu ER, Vladu IM. Analysis of Maternal and Neonatal Complications in a Group of Patients with Gestational Diabetes Mellitus. *Medicina (Kaunas)*. 2021 Oct 28;57(11):1170. doi: 10.3390/medicina57111170. PMID: 34833388; PMCID: PMC8619358.

### Biography

Emilia Roxana MAZILU is a last year resident doctor into the field of Diabetology and Nutrition, specialty which she loves and which allows her to do her best in improving the lives of the patients with nutritional troubles or with autoimmune diabetes. She started gaining experience into this field near her hometown, at the University Hospital of Craiova in Romania, continuing with a short period of time at a Hospital in France (CH

Cherbourg-en-Cotentin) and then she worked at Elias's Hospital in Bucharest improving her skills concerning Pediatric Diabetes, CGMS and insulin pumps. Dr MAZILU aims becoming a doctor who can make a difference in treating diabetes using compassion and understanding of people's illnesses with methods that can increase patients' motivation to make lifestyle changes. Even in type 1 diabetes, the psychological support is very important for the little patients and their parents when it comes to understand this condition. She is a focused doctor on the therapeutic education of the people in understanding a very actual disease that is diabetes.

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