

OUR CLINICAL EXPERIENCES IN TYPE 2 DIABETES

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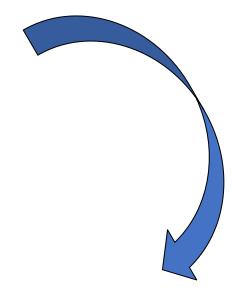
Background: Type 2 diabetes is a heterogeneous disorder characterized by the defective of insulin, which can not progressively compensate for insulin resistance, due to the influence of environmental factors on the basis of genetic susceptibility. Although many factors play a role in etiology, obesity is the most common cause. Type 2 diabetes is more common in girls than boys. In this article, we present etiology and clinical features of type 2 diabetic cases followed-up in our clinic, and share treatment and follow-up approaches.

Results:



17 year old male patient admitted to pediatric emergency clinic because of weakness, frequent urination and headache. The blood sugar was 921 mg/dl and 0.25 U/kg of crystallized insulin had been applied to the patient and transferred to pediatric endocrinology clinic. The patient had the diagnosis of insulin resistance and used metformin for 3 years. But he did not have a clinical control for last 1 year.

On physical examination his height was 172 cm (42 p), weight was 110 kg (99.9p), dehydration stage was moderate and vital signs were stable. His neurological and systemic examination was normal. The plasma glucose level was 402 mg/dl, ketone was 1.9 mg/dL, ph was 7.44, pCO2 was 32 mmol/L, HCO3 was 23.4mmol/L, serum osmolarity was 322.2 mOsm/kg.



Type 2 diabetes	
Mean age of onset	13.57
Gender	Kız>ekek(12>4)
Clinic	2 hasta stres hiperglisemis
	6 hasta diabet semptomları
	8 hasta asemptomatik
Obesity	%25 hasta overweight, %68.8 hasta obez , tek hastanın kilosu boyuna uygundu
Acantozis nigricans	%50
Type 2 diabetes in relatives(1' and 2')	%68.8

The fundus examination showed no papilloedema or optic atrophy and the kranial CT was normal. On the basis of clinical manifestations and laboratory results, he was diagnosed with hyperosmolar non-ketotic coma. Intravenous fluid was started immediately but 9 hours later the plasma glucose remained high and insulin was added to therapy.



15-year-old male patient was operated due to craniopharyngioma. After the operation he developed panhypopituitarism and polyphagia and he gained 19.9 kg in 5 months. He applied to our center with ketoacidosis. He had acanthosis nigricans and the plasma glucose was 420 mg/dl, HgA1c 12.7 and C-peptide 2.7 ng/mL He was diagnosed with type 2 diabetes and was started metformin and insülin.

11-year-9-month-old female patient was diagnoed with cataract and was referred to our center for further evaluation of metabolic disease. The patient was obese and had acanthosis on her fingers, in armpits and other body folds, she also had striae on her abdomen. Though the fasting glucosis was 78 mg/dL, 120.min glucose during OGTT was 232 mg/dl, her HgA1c was 6.3 and C-peptide 5.06. She was diagnosed with type 2 diabetes mellitus and was started metformin.



Conclusion: Type 2 diabetes is an insidious disease and rare in children. Because of this, the diagnosis can be delayed. Here we discussed the cases of heterogeneous clinical for type 2 diabetes: two cases of hyperosmolar nonketotic coma, one with diabetic ketoacidosis, one with ketosis, one with cataract, and 8 asymptomatic patients. Family history was positive for majority of children and type 2 diabetes was especially associated with obesity. In spite of heavy insulin resistance, acanthosis was seen in half of the patients, which is another case showing clinical heterogeneity in the patients. In conclusion, in children with obesity, especially if there is family history, type 2 diabetes should be considered even in absence of clinical symptoms.







