INCIDENTALLY DETECTED MONOGENIC DIABETES CASE

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We present our case to emphasize that monogenic diabetes should be considered in young patients having positive family history. 25 years-old female was referred to our clinic due to elevated blood glucose. The patient had no symptoms of hyperglycemia. She had no chronic illness or didn`t take any medication. Her 55 years-old mother has been followed by uncomplicated diabetes for 16 years with oral antidiabetics, 75 years-old grandmother had uncomplicated diabetes for 30 years and she has used basal insulin. On physical examination; vital signs were stable, height 168cm, body weight 70kg, BMI 24.8kg/m2. Systemic examination was normal, and no findings of insulin resistance were present. Laboratory findings revealed that fasting plasma glucose(FPG) was 140mg/dL, postprandial plasma glucose 178mg/dL, HbA1C 7.2%. Blood count and biochemical parameters were normal. Fasting C-peptide was 2.32ng/mL, urine ketone negative; Anti-GAD, ICA and Anti-insulin antibodies were negative. We recommended life-style modifications and metformin. Then, considering the patient age, family history of diabetes, absence of insulin resistance, negative autoantibodies and normal body mass index, we performed genetic analysis for 'Maturity-Onset Diabetes of the Young'(MODY). Heterozygous mutation of p.R191W(c.571CT) was detected in glucokinase gene, and diagnosis of MODY type2 was confirmed. She was followed by life-style modifications without metformin. FPG and glucose tolerance test results of siblings of the patient were normal. Genetic screening was recommended for family. It may be difficult to decide the type of diabetes in young patients. In suspected patients, genetic analysis for may help definite diagnosis for MODY.