Ayca Torel Ergur et al., J Diabetic Complications Med 2018, Volume 3
DOI: 10.4172/2475-3211-C2-006

An important method in the early diagnosis of prediabetes in obese children; Ambulatory Glucose Monitorization

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Childhood obesity (CO) is an important risk factor for the development of many chronic metabolic diseases of the adult age, and one of the most important ones is glucose homeostasis. However, the parameters used to diagnose carbohydrate metabolism disorders in obese children are not always guiding early in detecting pathologies, and may be inadequate to predict the pathologies. . For this reason new diagnostic methods are needed. For this purpose, in this study it was deemed suitable to investigate the importance of ambulatory glucose monitoring (AGM) in obese children to evaluate metabolic complications of the glucose homeostasis system in early stages. After detailed history, anthropometric evaluation and physical examination in nine obese children who applied to our pediatric endocrine polyclinic, biochemical and hormonal panels were searched. First of all, ambulatory glucose monitoring (AGM) was applied to all cases and measurements were taken seven times a day for 14 days. Diet and exercise treatments were not performed during these measurements. Especially we wanted them to go on their daily life and habits during this period. Other conventional diagnostic methods (basal and postprandial blood glucose level, insulin resistance parameters, OGTT HbAlc) were used to determine glucose homeostasis after 14 days of measurement. Measurements were determined as morning hunger, first and second hours after breakfast, before lunch, after 1 and 2 hours after meals, before dinner, 1 and 2 hours after meals, and at 03:00 in the morning. Measurements of blood glucose level below 70 mg / dl were assessed as hypoglycaemia; values above 180 mg / dl were assessed as hyperglycaemia. Although conventional parameters of glucose homeostasis were normal levels fasting glucose intolerance in 21 cases and postprandial glucose intolerance in 3 cases were determined during AGM. In the other hand 31 hypoglycaemic attacks were recorded during AGM data.

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