

THE STATE OF CARBOHYDRATE METABOLISM IN WOMEN WITH MFO

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Introductions. Today there is information about the role of insulin in the pathogenesis of multifollicular ovarian syndrome (MFO). There are facts confirming the presence of insulin resistance (IR) and hyperinsulinemia (GI) in patients with SNMP. Obviously, hyperinsulinemia affects the formation of metabolic changes, an increased risk of endothelial dysfunction, anovulatory infertility, type 2 diabetes mellitus (DM), and cardiovascular pathology in patients with MFO. That is why early detection and treatment of carbohydrate metabolism disorders will not only increase the efficiency of ovulation stimulation, but also improve the quality of life of patients with MFO.

Aim. To analyze the state of carbohydrate metabolism in women with classic phenotype multifollicular ovary syndrome.

Materials and methods: for the study, 10 women with a diagnosis of classical type MFO were considered, who were divided into two groups (the first group - 6 women with a normal body mass BMI - 23.3 ± 0.7 kg / m², the second group - 4 women with overweight and obesity I degree BMI 29.9 ± 1.3 kg / m²). The control group consisted of 5 healthy women with normal menstrual function. Carbohydrate Metabolism Study: Fasting Glucose Determination and Standardized 2-Hour Oral Glucose Tolerance Test (OGTT). For the integral assessment of glycemic curves, the following coefficients were calculated: Baudouin's hyperglycemic coefficient and hypoglycemic coefficient.

Results. The fasting glucose level in women with MFO was higher (the first group - 4.7 ± 0.2 mmol / L, the second group - 5.2 ± 0.2 mmol / L) than in women in the control group (glucose level - 4.1 ± 0.2 mmol / L). The variability of glucose values in women with MFO ranged from 4.1 to 5.5 mmol / L, i.e. did not go beyond the range of her physiological fluctuations. Analysis of basal glucose levels in patients with MFO, depending on BMI, showed an increase in this indicator among patients of the first group (12.7 ± 0.4 μ MO / ml) compared with women from the second group (20.0 ± 0.4 μ MO / ml).

According to the results of OGTT, both in the first and in the second groups, the glucose level in 30 and 60 minutes after exercise increased compared with the indicators on an empty stomach. However, an analysis of the structure of the variants of reactions to glucose load testified to their heterogeneity among women with SMF: in 3 women, the patient had an irritative type of glycemic curve with an excessive (+106%) rise in glucose levels 30 minutes after exercise, in 2 women - a torpid type of glycemic curve with an insufficient rise in glucose levels after 30 and 60 minutes (+25.5 and +11.8%, respectively) compared with the indicators of women in the control group. The normal type of glycemic curves was observed in 5 women with PFS. The studies have shown that the irritative and torpid types of glycemic curves were observed among patients with SMF with both BMI <25 kg / m² and BMI > 25 kg / m², however, in the presence of BMI > 25 kg / m², the frequency of their detection was likely more.

Assessing the glycemic coefficients, it was found that an increase in the Baudouin coefficient over 1.7 was observed in 40% of the surveyed, moreover, it was more common among women in the second group, and indicated the discoordination of the processes of glucose absorption and insulin secretion. An increase in the Rafalsky coefficient above 1.04 indicated an insufficient release of insulin in response to glucose load and the absence of an adequate hypoglycemic phase and was also observed more often among patients of the second group.

Conclusions. Consequently, the results of assessing the state of carbohydrate metabolism showed that in patients with PMPF, both with a BMI <25 kg / m² and

with a BMI > 25 kg / m², there is a violation of carbohydrate metabolism. However, when conducting OGTT, a higher frequency of changes was found in patients with BMI > 25 kg / m² as with BMI < 25 kg / m², which allows us to consider excess body weight as an additional factor aggravating the disorders of carbohydrate metabolism existing in PMF. The results of the study indicate the feasibility of determining functional load factors (Baudouin, Rafalskiy) to detect early disorders of carbohydrate metabolism, since exceeding the normal values of one or both coefficients indicates a decrease in glucose tolerance.