

Features of Nutritional Behavior of Patients with Primary Insulin Resistance

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Purpose: of this study was to assess the influence of acupuncture on the production of serotonin and the features of the nutritional behavior of patients with primary insulin resistance.

Methods: patients (42 people) aged 38.4 ± 2.0 years, body mass index (BMI) 32.3 ± 4.2 kg / m². Two groups of observation were formed: group 1 (20 people) received reflexotherapy using special corporal and auricular points and a hypocaloric diet. Patients of the 2 nd group (22 people) were given only a diet. Were studied: BMI, the ratio of WC/HC, HOMA-IR index, insulin and C-peptide. ELISA (Labor Diagnostica NORT Serotonin research ELISA, Germany) determined serotonin in serum. The reflexotherapy procedures included daily corporal and auricular acupuncture. Statistical processing of the results of the study was carried out using the software package Statistica 6.0 for Windows (Stat Soft Inc.).

Results: the serotonin content in the blood serum of patients was reduced in comparison with the control group (173.3 ± 60.8 and 223.9 ± 90.4 ng / ml). The values of the analytical parameters before treatment between the indices of group 1 and group 2 were not statistically different. In the first experimental group of patients, after a 2-week course of acupuncture, there was a significant decrease in anthropometric parameters: BMI initially - 33.7 ± 4.5 after treatment - 29.2 ± 4.05 kg / m² ($p = 0.002$). The body weight of patients decreased by 9.8% (from 88.9 ± 10.6 kg to 80.2 ± 10.5 kg ($p = 0.013$)).

Pearson correlation analysis was performed and statistically significant correlations between BMI and serotonin concentration in serum $r = -0.23$ ($p = 0.04$). A statistically significant increase in the level of serotonin in the blood serum of patients was found 69.5%, up to 294.5 ± 98.7 ng / ml compared to the initial 173.7 ± 71.3 ng / ml in this group of patients ($p = 0, 0057$). In the group 2 tendency of serotonin level increase in the serum of patients was established by 34.4%, up to 227.9 ± 95.9 ng / ml in comparison with the initial 169.6 ± 72.4 ng / ml ($p = 0.031$).

Conclusions: Shown that the increase in serotonin in the serum is statistically significant only when the combination of the therapeutic diet with reflex therapy, but not in the case of exclusively dietary correction. The use of reflexotherapy with the use of special corporal and auricular points promoted the increase of serotonin in the blood serum and led to rapid satiety during eating.

Biography:

Dr. Irina Kurnikova MD, PhD, Professor of Medicine, RUDN University (Peoples Friendship University of Russia), Moscow, Russia. Irina Kurnikova Doctor of Medical Sciences (since 2010), Professor, the first academic degree (PhD) received at the age of 28 years. Problems of endocrinology studies for over 20 years. Currently, she teaches at the Peoples Friendship University of Russian (RUDN-university, outdated abbreviation), curator of the scientific direction endocrinology. She has published more than 30 articles in reputed journals, the author of 25 books and tutorials in Russian language, 10 inventions (patents). Leading expert in the field of diagnostics, treatment, rehabilitation of diabetic and thyroid diseases. Under the leadership of I. Kurnikova, 6 candidate and 2 doctoral dissertations were defended.