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SEROTONIN LEVEL AND NUTRITIONAL BEHAVIOR OF PATIENTS WITH PRIMARY INSULIN RESISTANCE

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Statement of Problem: One of the most important tasks at the initial stage of treatment of patients with primary insulin resistance is a weight loss, which means a decrease in the amount of food consumed. Patients rarely manage to cope with this task independently, and drug therapy does not always provide sufficient effect.

Purpose of Study: To evaluate the effect of acupuncture on the production of serotonin and especially eating disorders patients with primary insulin resistance.

Methods & Theoretical Orientation: Patients (42 people) aged 38.4 ± 2.0 years, body mass index (BMI) 32.3 ± 4.2 kg/m² were selected for this study. Two groups of observation were formed: group 1 (20 people) received reflex therapy using special corporal and auricular points and a low caloric diet. Patients of the 2nd group (22 people) were prescribed only a diet. The comparison group consisted of 12 practically healthy persons. We studied: BMI, ratio of OT/OB (waist circumference/hip circumference), HOMA-IR index, insulin and C-peptide. Serotonin in serum was determined by ELISA. Reflex therapy procedures included daily corporal and auricular acupuncture, surface acupuncture according to a certain scheme (11 II, 36III, 7V, 41XI, 60VII, 34, 25, 22, 18 and 55).

Results: A lower serotonin level in the serum of patients in the observation groups was noted - 173.3 ± 60.8 ng/ml (in the comparison group - 223.9 ± 90.4 ng/ml). The relationship between BMI and serotonin concentration in serum $r = -0.23$ ($p = 0.04$) was revealed. In group 1 there was an increase in serotonin level by 69.5% ($p = 0.0057$), body weight decreased by 9.8%. In group 2 serotonin level increased by 34.4% ($p = 0.031$), and body weight decreased by 7.4% ($p = 0.051$). Patients of group 1 after the course of treatment noted a decrease in appetite, which allows observing the diet and reducing the amount of food.

Conclusion: The use of reflex therapy with the use of special corporal and auricular points promotes serotonin increase in serum and leads to rapid satiety during eating. This allows patients to follow a low caloric diet at the initial stage of treatment.

Biography

Kurnikova Irina is a Professor of Medicine, RUDN University (Peoples Friendship University of Russia), Russia. She has done her PhD in 2010. She has dealt with the problems of endocrinology for more than 20 years. She had led a course of Endocrinology at the Medical Academy (Izhevsk, Russia), Endocrinology department of Russian Scientific Center of Medical Rehabilitation and Health Resort, Russia. Currently, she teaches at Peoples' Friendship University of Russia, Curator of the Scientific Direction of Endocrinology. She has published more than 20 articles in well-known journals, and is the author of 25 books and manuals in Russian.

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