Integrative approach to reduction of excess weight

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Abstract:

The article considers an integrative approach in weight correction based on the use of zone vacuum magnetic-roller massage, magnetoscillatory stimulation of the central nervous system and liver projection and binaural correction of the psychological state in combination with endonasal breathing of the singlet-oxygen mixture in a magnetic field.

Key words: Overweight, obesity, magneto-laser therapy, binaural correction, singlet-oxygen mixture, endonasal respiration in a magnetic field.

Introduction

Most health professionals are convinced that only "physical" non-infectious diseases practically do not exist - most known diseases always have two components: somatic and psychological. Consciousness and the physical body (psyche and somatics) - this is a single whole, where everything is directly interrelated. Any emotional experience inevitably affects the physical condition of a person. And at the same time, a bad physical condition directly affects the mood, thoughts and behavior. Quite often the body expresses the pathophysiological processes taking place in it in the language of feelings in the form of fear, sadness, or joy. And sometimes emotions, experiences and thoughts of a person are manifested by a change in the pulse rate, pressure, temperature, sweat secretion, etc.

Psychosomatic diseases - a group of diseases in the etiology and pathogenesis of which, the decisive role is played by psychological causes or factors. According to WHO experts (2016), among all patients seeking treatment, the percentage of psychosomatic patients (F54) ranges from 38% to 42%.

According to WHO experts (WHO Newsletter, June 2016), obesity (E66) is one of the most common non-infectious chronic diseases in the world. In 2014, about two billion adults in the world were overweight or obese. Of which almost 30% had a body mass index of more than 30 units. This is the basis for the assertion that "excess weight" provokes one of the most massive non-infectious epidemics in the world. Most often, patients with excess weight are found in North America (USA, Mexico and Canada), the countries of the Persian Gulf (Saudi Arabia, United Arab Emirates, Egypt), Central Europe (Germany, Poland). The growth of the absolute number of overweight patients is dominated by the countries of Southeast Asia (China, India, Indonesia). It should also be noted that a steady increase in the number of cases of excess weight is observed in most countries of the world, regardless of the level of their economic development. In absolute terms over the past decade, the total number of overweight patients has increased by almost 75%. And, unfortunately, this trend will continue for the next decade. This will lead to the fact that by 2025 overweight and obesity will suffer at least 40% of men, 50% of women and about 30% of children.

Unfortunately, overweight and obesity affect not only the quality of life of patients and people with disabilities, but also the life expectancy of this group of patients. Average statistically, they live 8-10 years less than people with normal weight. From diseases provoked by excess weight, more than 2.5 million people die prematurely in the world every year (only in Europe 300 thousand and about 280 thousand in the USA). Total losses of the world economy from the "excess weight" of mankind are estimated at 2.1 trillion of USD annually.

As defined by WHO, overweight and obesity are the result of the formation of abnormal or excessive deposits that are harmful to health. For the diagnosis of overweight and obesity in adults, it is recommended to use the "Body Mass Index" (BMI - kg/m²) - the ratio of body weight (in kilograms) to the square of the growth value (in meters). According to the WHO experts recommendation, the diagnosis of "overweight" or "obesity" in adults is established with: BMI ≥ 25 - overweight and BMI ≥ 30 - obesity.

BMI is the most universal indicator for assessing overweight and obesity in a population, since it can be applied to all categories of people.

The increased value of BMI is one of the main risk factors for the development of the following diseases:

☑ cerebrovascular diseases (I60-I69);

☑ diabetes mellitus (E10-E14);

☑ some diseases of the musculoskeletal system and connective tissue (M00-M99);

☑ mood disorders (F30-F39).

Objective. To develop a method of reducing excess weight on the basis of an integrative approach.

Method

72 clients of the center of cosmetology psychology "A+A" (Kiev) aged from 26 to 47 years took part in the study, having BMI of 27.3 ± 1.9 and giving voluntary consent to participate in the experiment of weight loss based on the use of zone magneto-roller massage [1] in 2017. Only women participated in the study. All women before testing and after 10 procedures were tested for the level of depression in the psychometric tables of A. Beck and the level of anxiety according to Spielberger-Khanin tables, weighing and definition of BMI. Study participants were randomly divided into 3 groups of 24 people.

In the first group, weight correction procedures were performed with the use of the apparatus MVT-01 and the magneto-roller nozzle [2]. The level of local depletion in the magnetic roller head was 0.6 ± 0.8 atm., the procedure time per zone was 5 minutes, in total up to 30 per customer. For the course were prescribed 10 procedures, which were conducted every other day. In addition, before the procedure of magnetic massaging, the clients took 100 ml. of rose hips broth and 1 tablet of aspirin. The main objective of the procedure was to improve blood microcirculation in the area of increased adipose tissue and lymph drainage. An example of the magnetic vacuum massage procedure is shown in Fig. 1.

Fig. 1. Example of the procedure of magnetic-roller vacuum massage.

In the second group, in addition to the first group, a functional correction of liver function was performed by the method of magnetic laser stimulation of the liver with the use of the apparatus MIT-MT. The optical flux of the red magnetic laser applicator was 50 ± 10 mW, the induction of the magnetic field was 25 ± 5 mT. The applicator was placed on the projection zone of the liver (right hypochondrium). The optical flux of the infrared magnetolaser applicator was 70 ± 15 mW, the magnetic field induction was 25 ± 5 mT. The applicator was placed on the zone of the large occipital orifice. The frequency of modulation of the optical flux and the magnetic field was determined on the basis of the Samosyuk-Chukhraiev method [3,4]. At the majority of clients it was 9.7 ± 1.5 Hz. Procedures were carried out after the procedure of vacuum magnetic-roller massage. The procedure time was 15 minutes. An example of the correction procedure is shown in Figure 2.

Fig. 2. Determination of the modulation frequency of the optical flux and the magnetic field (according to the Samosyuk-Chukhraiev method)

In the third group in addition, compared with the second group, psychological correction was performed using binaural beats. On the right side, the base frequency was set for the normalization of fat metabolism. It corresponded to 465 Hz [5]. On the left side we applied a frequency equal to the sum of the base frequency and the individually selected frequency of the modulation shift in the alpha-rhythm range of the cerebral cortex. The frequency was selected on the basis of the Samosyuk-Chukhraiev method, which for most customers was 9.6 ± 1.6 Hz. The endonasal respiration of the singlet-oxygen mixture in a magnetic field was performed using the MIT-C apparatus [6] using the patented technique [7,8]. The singlet-oxygen mixture with endonasal breathing provided the saturation of blood with active oxygen and compensated the lack of oxidant in the biochemical reaction, reduced the level of formation of free radicals, reduced the level of intoxication of the body. Applying the action of the magnetic field on the sinuses of the nose at the moment of endonasal breathing increases the saturation of the blood with active oxygen, increases fluidity of the blood, enhances the capillary effect, and increases the oxygen capacity of the blood. The remaining parameters were similar, as for the second group. Procedures were performed after the procedure of magneto-laser correction of liver function. The time of one procedure was 30 minutes. An example of the psychological correction procedure with the use of binaural beats and the endonasal breathing of singlet-oxygen mixture in a magnetic field is shown in Fig. 3.

Fig.3. Example of the procedure of psychological correction.

Results and discussion

All clients who participated in the study had weight loss, improved turgor and skin color, mood, lowered the depression and anxiety level according to the psychometric tables of A. Beck and Spielberger-Khanin after the procedures, respectively. Negative effects of procedures were not recorded. All patients were happy to participate in the testing and subsequent discussion of psychological problems. The most active were the clients of the 3-d group. Almost all clients wanted to participate in psychological correction. Individual selection of parameters of magneto-laser stimulation caused an additional positive reaction in almost all clients of group 3. The results of determining the BMI and the psychological state of the clients who participated in the study are shown in Fig. 4 - Fig. 6.

Fig.4. BMI change before and after the procedure

Fig.5. The change in the level of depression in clients of groups 1-3 as a result of the procedures (according to A.Beck's scale)

Fig.6. Change in the level of anxiety among the clients of groups 1-3 as a result of the procedures (according to the Spielberger-Khanin scale)

Conclusions

Based on the results of the study, the values of BMI in the patients who participated in the study in the first group before the exposure was 27.4 ± 1.6 after 7 procedures 25.3 ± 1.5 , in the second group 27.2 ± 1.7 and 24.0 ± 1.3 , respectively, in the third group 27.4 ± 2.0 and 20.7 ± 1.1 . Psychological testing using the psychometric tables of A. Beck and Spielberger-Khanin showed a decrease in the average level of depression after the procedures in the first group by 5.1 ± 1.4 points, the level of anxiety by 3.2 ± 0.3 , in the second group by 7.3 ± 1.5 and 3.5 ± 0.4 , respectively, in the third group by 11.3 ± 1.9 and 7.5 ± 0.7 . In addition, it should be noted that the clients of the third group were more interested in conducting a second course.

The integrative approach to the reduction of excess weight on the basis of the application of zonal effect on the system of microcirculation of blood and lymph by the method of magnetic roller vacuum massage, stimulation of fat metabolism, due to the magnetolaser effect on the projection of the liver and medulla oblongata and correction of the psychological state on the basis of individually selected binaural rhythms in combination with endonasal breathing of a singlet-oxygen mixture in a magnetic field turned out to be the most effective.

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