

METABOLIC SYNDROME IN WOMEN IN PERIMENOPAUSAL CLIMACTERIC SYNDROME

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ANNOTATION:

In this article we can see these aim of our study was to study the features of the correction of metabolic disorders in women of the perimenopausal period. The menopausal transition is a special period in the life of women, which requires increased attention to health [1,8,9].

Keywords: syndrome, metabolism, metabolic syndrome, perimenopausal climacteric, HOMA.

INTRODUCTION:

Menopausal hormone therapy (MHT) is recognized as the most effective means of combating menopausal disorders. At the same time, it has both a therapeutic (in relation to the correction of menopausal disorders) and a protective (in relation to the development of diseases associated with age) orientation [2,7].

The most important condition for maximum effectiveness and minimum risk of MHT is the timeliness of the appointment - in the window of therapeutic opportunities. This hypothesis gained its right to exist after the WHI study. It has been found that the benefit/risk ratio of MHT depends on the age of the woman and the time of initiation of treatment in relation

to the onset of menopause. The therapeutic window of opportunity is 45–59 years and/or the duration of menopause is no more than ten years, which is consistent with the concept of eu-estrogenemia [3,4]. Perimenopause is the period that precedes menopause and one year after menopause. For most women of European countries or European ancestry, this period takes, as a rule, somewhere around 5 years, and is a very important period when a woman transitions from one state to another. That is, from a state of regular menstrual function to a state of menopause. [4,5,10].

PURPOSE OF THE STUDY:

To study the features of the correction of metabolic disorders in women of the perimenopausal period.

MATERIALS AND METHODS:

We examined 50 women in the perimenopausal period of menopausal syndrome, aged 45 to 52 years, who applied to the polyclinic of the TMA multidisciplinary clinic. For each woman taken under observation, the following was studied: a hereditary history with the determination of the presence of obesity, diabetes mellitus, cardiovascular diseases and oncological

pathology in parents and close relatives (aunts and uncles on the paternal and maternal lines, sisters and brothers); anamnesis of life and disease; the nature of the formation and violation of menstrual and reproductive functions.

All women were determined waist circumference, hip circumference, weight, height, body mass index, HOMA index, blood sugar on an empty stomach and after eating after 2 hours, hormonal analysis of TSH, free T4, antibodies to TPO, FSH, LH, estradiol. Also, the patients were tested lipid metabolism indicators total cholesterol, high density lipoproteins, low density lipoproteins, triglycerides.

RESULTS:

When examining women with perimenopause, it was found that the average WC was 89.2 ± 1.2 cm, OB 112.3 ± 2.1 cm, body weight was 85.6 ± 3.2 kg, BMI was an average of 31.5 ± 2.3 kg/m². In all examined patients, hormonal changes were checked, such as FSH, LH, Estradiol, and also, to exclude thyroid diseases, TSH, St. T4 and antibodies to TPO. As the results of the hormonal study showed, FSH averaged 92.6 ± 5.4 IU/l, LH 45.1 ± 3.3 IU/l, Estradiol 23.4 ± 3.1 pg/ml. (Table 1) Investigating, thyroid hormones were detected in 24 (80%) women was in a state of euthyroidism, 4 (13.3%) patients had subclinical hypothyroidism, 2 (6.7%) patients had moderate hypothyroidism. On average, TSH was 3.5 ± 1.2 μ IU/l, F T 4 12.7 ± 0.5 pmol/l, and anti-TPO antibodies 25.8 ± 1.4 .

Table 1 Dynamics of hormonal levels in patients with pre-menopause

Hormones	Before treatment n=30	After treatment n=30
FSH, IU/l	92,6±5,4	84,2±4,2*
LH, IU/l	45,1±3,3	32,4±2,4*
Estradiol, pg/ml	23,4±3,1	35,5±2,1*

***p<0.05 significance of indicators before treatment**

To identify disorders in lipid and carbohydrate metabolism, we determined fasting blood sugar, the HOMA index, and lipid spectrum indicators in women. As can be seen from Table 2. These indicators were changed as follows: fasting blood sugar was on average 5.8 ± 1.2 mmol / l, HOMA index 5.3 ± 0.4 , HDL, LDL, cholesterol and triglycerides were changed, respectively, $1.32 \pm 0, one$; 3.54 ± 0.16 ; 5.9 ± 0.15 ; 2.1 ± 0.18 . In 50 women subjected to ice, an increase in the HOMA index was found in 30 (60%) patients.

Table 2 Indicators of carbohydrate and lipid metabolism in examined women with perimenopause

Indicators	Before treatment, n=30	After treatment, n=30
Blood sugar, mmol/l	5,8±1,2	5,4±1,5
HOMA index	5,3±0,4	3,4±1,2*
HDL	1,32±0,13	1,6±2,4
LDL	3,54±0,16	2,1±0,4
Cholesterol	5,9±0,15	5,2±0,12*
triglycerides	2,1±0,18	1,7±0,13*

***p<0.05 significance of indicators before treatment**

All patients with a hormonal imbalance in relation to FSH, LH and estradiol after excluding cardiovascular pathology, as well as after examining the mammologist of each patient, as well as carefully examining the veins of the lower extremities, we prescribed Lenzetto (estrogen) 2 puffs per day as a replacement therapy. Area of the wrist joint and the next 14 days, Duphaston was prescribed 10 mg, 1 tab 2 times a day. Also, for the treatment of metabolic syndrome, all patients were given Metformin at an average daily dose of 2000 mg/day. Further, against the background of treatment with Lenzetto, as well as against the background of Metformin, hormones of the female reproductive system were studied in dynamics, and changes in carbohydrate and

lipid metabolism were compared. As the results of the analyzes showed, it was revealed that during treatment after 3 months, FSH and LH decreased by 9.1% and 28%, respectively, estradiol increased by 34%. (Table 1.)

Also, against the background of treatment with hormone replacement therapy and Metformin, there was an improvement in lipid and carbohydrate metabolism. The HOMA index, an indicator of metabolic syndrome disorders during therapy, decreased by 35%, cholesterol and triglycerides decreased by 11.9% and 19%, respectively. In relation to body weight, there was also a decrease in weight in 20% of women by an average of 5.7 ± 1.2 kg during the treatment period.

Thus, in premenopausal women, hormone replacement therapy in combination with Metformin improves metabolic changes, improves the quality of life of patients.

CONCLUSIONS:

- 1) All women in the period of perimenopause with metabolic syndrome have a violation of lipid and carbohydrate metabolism.
- 2) Lenzetto is a safe and effective drug in hormone replacement therapy in perimenopausal women.
- 3) Combined therapy of Lenzetto with metformin improves carbohydrate and lipid metabolism and improves quality of life in perimenopausal women.

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