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# Health Influence on Life Quality and Social Acitivities of Women

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Abstract - Modern society has posed new problems for women which force them to maintain longevity, physical and mental health. In new Russia, contribution of women to the national economy is greater than 30-40 years ago. The Federal Law No. 489161-7 "On Amendments to Legislative Acts of the Russian Federation on assignment and payment of pensions" made the role of perimenopausal women more important than ever. Women of 45-55 have the greatest experience and knowledge needed in various economic and social spheres. At present, due to the increase in life expectancy and retirement age, methods for maintaining the ability of perimenopausal women to work are of special interest. The high frequency of menopausal disorders in women who are in the prime of professional and creative activities is due to an estrogen-deficient state caused by natural extinction of the ovarian function. A variety of clinical symptoms and severity of the process significantly worsen the health status of women, deteriorate their life quality, working capacity acquiring greater medical, social and economic significance [1, 2]. In this regard, it is necessary to study menopausal disorder treatment methods. The most effective pathogenetic method for treating menopausal disorders and preventing metabolic disorders is hormone replacement therapy (HRT) [2]. However, the use of hormone therapy can be contraindicated. Therefore, studies conducted in the twentieth century made it possible to substantiate the use of alternative methods for treating menopausal disorders. One of the methods is phytotherapy based on plant materials rich in phytoestrogens [3, 4].

Keywords – women, climacteric symptoms, hormone replacement therapy, herbal medicine, phytoestrogens

## I. INTRODUCTION

On June 16, 2018, a draft law on the pension reform in Russia was introduced to the State Duma by the order of the Chairman of the Government of the Russian Federation D.A. Medvedev. The project provided for a gradual increase in the retirement age for the majority of citizens since

January 1, 2019. On October 3, 2018, Vladimir Putin signed Law No. 350-FZ on amending pension legislation.

According to this reform, the retirement age of women increased from 55 to 60 years. The social role of women has grown. During this period, it is especially important to preserve the physical and mental health of women in order to ensure their well-being [5, 6].

Extinction of the estrogen-producing ovarian function causing vasomotor symptoms, sleep disturbance, reduced resistance to psychological and emotional stress, urogenital and sexual disorders, appearance changes, osteoporosis, back pain and fractures significantly reduces life quality and disability of older women. It is an integral medical and socioeconomic problem. The climacteric period depends on biological and psychological, social and cultural factors.

The natural process of neuroendocrine adjustment strains adaptation mechanisms [7, 8] and the impact of additional factors can impede adaptation and cause both somatovegetative and mental disorders. It is evident from an increase in the number of somatic and mental diseases during the perimenopause. Climacteric symptoms reduce the social and economic role of women, increase the number of health encounters, deteriorate female well-being. Improvement of the female well-being depends on life quality. This concept is an integral indicator of public health and health status, as it reflects e physical, emotional, mental, social, and behavioral components of well-being [9].

Of course, hormone replacement therapy (HRT) is the most effective pathogenetic method for treating climacteric disorders and preventing metabolic disorders. At the same time, hormone therapy should be part of an overall strategy, including recommendations for lifestyle, diet, physical activities, smoking cessation and alcohol abuse in order to preserve female health.



Considering that application of the HRT is limited due to contraindications, development of safe methods for treating menopausal disorders is more and more important due to the progressive increase in life expectancy and need to ensure the required level of female life quality [10].

For a woman, the period of menopausal disorders is a physically and mentally traumatic event. Reactive anxiety, masked depression, internal stress, psychological discomfort develop. During this period, such social factors as marital status, relationships with a husband, children, friends, career and material well-being are of particular importance for the extinction of the reproductive function. All these factors, depending on their orientation, can either help adapt during the transitional period or make it more difficult. It should be noted that specificity of the event, its severity and emotional significance for women rather than the event per se are important for decompensation of the health state and development of various disorders [11, 12]. For this reason, every effort should be made to preserve the quality of life of a woman by using corrective therapy for psycho-vegetative disorders.

#### II. RESULTS AND DISCUSSION

One of the components of therapeutic measures in patients with climacteric disorders may be an alternative therapy using phytoestrogens.

Phytoestrogens (PE) is a term used to refer to non-steroidal substances of polyphenols, of plant origin, which have an estrogen-like effect on the human body [13]. The mechanism of action of phytoestrogens is associated with their physicochemical properties, which allow them to bind to estrogen receptors (ER) stimulating specific reactions in the cell, as well as their ability to influence the activity of the aromatase system enzymes, stimulate formation of globulins in the liver that bind sex steroids and modulate the biological activity of endogenous estrogens [14]. Researchers believe that phytoestrogens can be an effective alternative to the traditional hormone therapy which is contraindicated for whatever reason [15,16].

The research purpose: to compare the quality of life of women before and after taking phytoestrogens.

The research materials and methods: 60 women of perimenopausal age (mean age  $51.3 \pm 1.2$  years) receiving alternative treatment with phytoestrogens for 3 months were involved in the study. The research method was questioning. The questionnaire included questions about the severity of menopausal symptoms (using the modified Kupperman-Uvarova menopausal index) taking into account neurovegetative (headaches, palpitations, sweating, swelling, irritability, drowsiness, sleep disturbances, hot flashes, asthma attacks), metabolic and psycho-emotional (sleepiness, memory loss, increased tearfulness, changes in appetite, depression) symptoms.

The severity of symptoms was determined by a 4-point scale: 0 - standard; 1 point - light degree; 2 points - moderate degree; 3 points – heavy degree of menopausal symptoms. To assess the quality of life, the generally accepted Russian version of the SF-36 questionnaire [12] was used. It is not designed for age groups and diseases and is characterized by high reproducibility and validity, including for studies involving small groups. The questionnaire includes 36 questions about 8 areas (scales) of health (physical performance, social activity, degree of physical performance and social activity, mental health, fatigue, pain, general health assessment and its changes over the past year) and provides quantitative determination of the quality of life by the specified scales. At the same time, indicators can vary from 0 to 100 points. The higher the value of the indicator, the better the score according to the chosen scale [17, 18].

The research results: The average age of the respondents was  $51.3 \pm 1.2$  years. The average duration of menopause was  $2.01 \pm 1.50$  years. According to the survey, 100% of women experienced menopausal symptoms before taking phytoestrogens prescribed by the doctor, of which 51% rated the symptoms as light (1 point by the Kupperman menopausal-Uvarova index), 39% - as moderate (2 points), 10% - as severe.

The severity of menopausal symptoms before taking phytoestrogens is presented in Fig. 1.

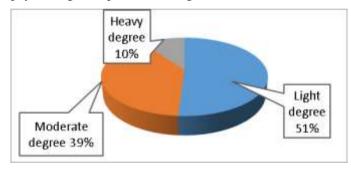


Fig. 1. Severity of climacteric symptoms before taking phytoestrogens.

In 64% of the women surveyed, the main symptom of menopause was hot flashes up to 10 times a day, 22% had a headache, 10% had increased blood pressure, and 4% had a change in weight.

Three months after taking phytoestrogens, the femal health improved significantly. Menopausal symptoms were experienced by 35% of respondents. Of these, 75% rated them as light, 22% - as moderate, 3% - as severe.

The severity of menopausal symptoms after taking phytoestrogens is presented in Fig. 2.



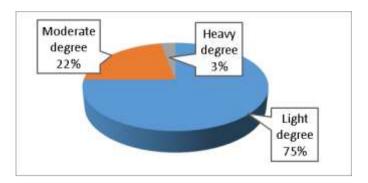


Fig. 2. Severity of climacteric symptoms after taking phytoestogens.

According to the results of the SF-36 questionnaire before taking, the average score of respondents was 61.0 (the average level of social activity). After taking phytoestrogens, the average score was 78.0 (the above average level of social activity).

### III. CONCLUSION

The study showed a significant decrease in the severity of menopausal symptoms (35% of women experienced menopausal symptoms 3 months after using phytoestrogens), improved quality of life and increased social activity of women surveyed (78.0 points in the SF-36 questionnaire). Thus, the use of phytoestrogens significantly reduces severity of neuro-vegetative and psycho-emotional symptoms, increases adaptation of women to the perimenopausal period.

The positive role of alternative treatment aims at preserving the working capacity and social role of women in the modern world. In the long run, it can delay chronic diseases and maintain professional and creative activity of women.

The Federal Law No. 350 "On Amendments to Legislative Acts of the Russian Federation on assignment and payment of pensions" generated interest in physical and mental health maintenance for older women due to their significant role in economic and social activities. By reducing the symptoms of menopause, the quality of life and well-being of women can be improved.

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