Therapist's view on menopausal hormone therapy

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Abstract: Hypoestrogenism as a result of menopause (natural or surgical) negatively affects a woman's quality of life. Menopausal hormone therapy is prescribed in order to neutralize the negative effects of menopause. The article provides a clinical example where the effect of menopausal hormone therapy on the lipid profile, anthropometric parameters and somatic diseases in patients in surgical menopause is evaluated.
Keywords: menopause, hypoestrogenism, menopausal hormone therapy, arterial hypertension

In 2014, the World Health Organization (WHO) identified "healthy aging" as one of its priorities in the work of national health care systems, since an able-bodied active person spends most of his life against the background of natural physiological processes of the body's withering.

In the Russian Federation, the average age of menopause is 49-51 years, and women live almost a third of their lives in conditions of estrogen deficiency. The onset of menopause is possible both spontaneously (natural menopause) and as a result of surgical intervention (surgical menopause). Currently, they refuse to divide menopausal symptoms into early, mid-term and late, because according to prospective studies, subclinical manifestations of estrogen deficiency begin to appear at the earliest stages of aging of the reproductive system. Estrogen deficiency leads to increased sensitivity of a woman's cardiovascular system to vasomotor instability and serves as a predictor of adverse health consequences in postmenopause. More and more studies indicate an increased risk of developing subclinical atherosclerosis and metabolic disorders in women with various vasomotor symptoms, as the correlation between hot flashes and insulin resistance, endothelial dysfunction, increased aortic calcification and vascular stiffness, increased thickness of the intima-media of the carotid artery, the level of markers of coagulation and inflammation has been determined.

Estrogen deficiency, against which metabolic and neurovegetative disorders develop, affects the state of women's health and quality of life in general, and menopausal hormone therapy is prescribed to compensate for it. The purpose of menopausal hormone therapy is to partially compensate for the deficiency of sex hormones, using the minimum optimal doses of hormonal drugs that can improve the general condition of patients, stop menopausal symptoms, and prevent late metabolic disorders without side effects. The appointment of menopausal hormone therapy should be carried out after a thorough examination by an obstetrician-gynecologist.

After menopause, a woman's cardiovascular system loses cardioprotective protection of estrogens, which affects changes in the lipid profile, vascular stiffness, and blood pressure. In the Russian Federation, patients are quite wary of menopausal hormone therapy, so even when prescribing it, according to indications, they often make an independent decision to refuse the prescribed therapy.

One of the most pressing problems in gynecology is the steady growth of neoplasms of the reproductive sphere of women. About 30% of women undergo surgery with unrealized reproductive function.

Ovariectomy post-acute syndrome includes vegetative-vascular, neuroendocrine and neuropsychic disorders that have arisen after surgical castration in women of reproductive age [1].

The essential and fundamental difference between post-hysterectomy syndrome and menopausal syndrome is the rapid, almost total shutdown of the production of steroid hormones. Menopausal syndrome develops over several years, while compensatory mechanisms come into effect, smoothing out disorders associated with ovarian hypofunction. With posthysterectomy syndrome, there is a momentary shutdown of ovarian function, which is stressful for a woman's body and leads to a breakdown of adaptive mechanisms and the development of the syndrome of "surgical menopause", which is characterized by the rapid development of menopausal disorders characterized by a more severe course.

The frequency and severity of menopause symptoms (both natural and surgical) significantly depend on biological, individual psychological, as well as cultural, social and economic factors.

Taking into account the severe consequences that occur in women after forced removal of the uterus and ovaries, pathogenetically justified as early as possible replacement of estrogen deficiency by hormone replacement therapy.

Surgical intervention that occurs at a young age is especially difficult to tolerate if a woman has not realized her reproductive role by the time of the operation [2]. At a dispensary appointment with a therapist, patients over 40 years old undergo a clinical examination and undergo a comprehensive laboratory and instrumental examination. As an illustration to the discussed problem of the expediency of prescribing menopausal hormone therapy in patients with surgical menopause, two clinical examples are given.

Clinical example No. 1. Patient M., 46 years old, higher education, married, 2 children (adopted son and daughter). At the age of 23, she underwent a pangisterectomy for the inflammatory process of the pelvic organs. A few weeks after the operation, «Divigel» 1 g was prescribed for the treatment of menopausal syndrome.

At the time of the examination, the patient does not complain of pain in the heart area. Over the past year, she has been noting rises in blood pressure with physical and emotional stress. Under the supervision of a gynecologist-endocrinologist, she continues taking «Divigel» 1 g. She adheres to a

low-calorie diet with a sufficient content of dairy products. Leads a sedentary lifestyle. She denies bad habits.

Heredity: the mother has hypertension.

Objectively: the general condition is satisfactory. The skin covers of normal humidity. There is no swelling. Normal nutrition (weight 60 kg, height 164 cm). BMI =22.2kg/m2. Waist circumference is 84 cm, hip circumference is 106 cm, the ratio of waist circumference to hip circumference is 0.79. In the lungs, breathing is vesicular, wheezing is not heard. BH 16 per minute. The heart tones are muted, the rhythm is correct. Heart rate =PS=74 per minute. Blood pressure = 130/80 mmHg. The abdomen is not enlarged in volume, painless. There were no dysuric phenomena.

The average thickness of the intima-media complex of the main arteries of patient M., 46 years old:

Parameter	**Common carotid artery**		**Internal carotid artery**		**External carotid artery**	
	right	**left**	**right**	**left**	**right**	**left**
Diameter (mm)	6,6	6,5	4,7	4,5	4,0	4,0
Intima-media complex (mm)	0,5	0,6	0,5	0,6	0,6	0,6

The results of a biochemical blood test: total cholesterol - 5.44 mmol/l, triglycerides - 1.7 mmol/l, HDL-1.39 mmol/L, LDL-3.27 mmol/L, glucose - 5.38 mmol/L, urea 5.0 mmol/l, creatinine - 73 mmol/L, C-RB - 0 mmol/L.

Based on the available data, we can say that the patient has no pronounced changes in the cardiovascular system against the background of long-term use of «Divigel» 1 g.

The prognosis is favorable, however, given the presence of coronary heart disease factors, the patient should be monitored by a cardiologist with annual monitoring of the lipidogram.

Clinical example No. 2.

Patient K., 48 years old, special secondary education, single, no children. At the age of 20, a bilateral ovariectomy was performed due to cysts of both ovaries, the uterus was preserved. A few months later, menopausal hormone therapy was prescribed, but after 1.5 years, the reception was discontinued. Since the age of 29, the patient has been suffering from hypertension, with blood pressure rises to 170/110 mmHg, taking antihypertensive therapy. Since the age of 36, a diagnosis of type 1 diabetes mellitus has been established, insulin is used. Notes chest pains in recent years, disturbing 2-3 times a month, sometimes lasting up to 10 hours, relieving themselves. Does not follow a low-calorie diet, leads a sedentary lifestyle. Bad habits: smokes from the age of 14, drinks alcohol (beer). Heredity: the mother has hypertension.

Objectively: the general condition is relatively satisfactory. Skin with high humidity. There is no swelling. Normal nutrition (weight 60 kg, height 160 cm). BMI =23.2 kg/m2. Waist circumference 84 cm, hip circumference 96 cm, ratio FROM / ABOUT = 0.88. In the lungs, breathing is hard, wheezing is not listened to. BH 18 per minute. The heart tones are muted, the rhythm is correct. Heart rate =PS=95 per minute. Blood pressure = 160/100 mmHg. The abdomen is not enlarged in volume, painless. There were no dysuric phenomena.

The average thickness of the intima-media complex of the main arteries of patient K., 48 years old:

Parameter	**Common carotid artery**		**Internal carotid artery**		**External carotid artery**	
	right	**left**	**right**	**left**	**right**	**left**
Diameter (mm)	7,2	6,8	5,2	5,3	4,6	4,1
Intima-media complex (mm)	0,9	0,8	0,9	0,8	0,8	0,8

The results of a biochemical blood test: total cholesterol - 5.6 mmol/l, triglycerides - 1.77 mmol/l, HDL-C - 1.26 mmol/L, LDL-C - 3.8 mmol/L, glucose - 8.0 mmol/L, urea 5.9 mmol/l, creatinine - 104 mmol/L, C-RB - 0 mmol/L.

Based on the available data, we can talk about the presence of pronounced changes in the cardiovascular system in the patient. The patient is periodically disturbed by discomfort in the chest, she suffers from hypertension and type 1 diabetes mellitus. Taking into account the instrumental data against the background of changes in the biochemical analysis of blood, it is advisable to resolve the issue of correction of antihypertensive and hypolipidemic therapy, because concomitant type I diabetes significantly aggravates micro- and macroangiopathy, which negatively affects the prognosis of quality of life in women with a burdened gynecological history.

In the first clinical example, the patient can be assessed as a practically healthy woman from the position of a therapist, despite the existing risk factors [3]. She took the therapy recommended by the gynecologist immediately after surgery and continues to comply with doctors' prescriptions. The second patient is strikingly different in the presence of already formed somatic diseases, which can be associated both with the initial social status and with her lack of adherence to the recommendations of doctors during her life. Consequently, patients comparable in age and initial burdened gynecological history, as a result of different compliance with doctors, have objectively qualitatively different examination indicators and a different prognosis of life.

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