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MODERN ASPECTS OF DIAGNOSTICS AND TREATMENT OF PREMENSTRUAL SYNDROME

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✓ *Resume,*

The variety of symptoms of premenstrual disorders is due to various reasons, but the trigger is the same - it is ovulation. The most effective approach to suppressing ovulation with premenstrual syndrome is the use of oral contraceptives containing drospirenone as the progestogen component.

Keywords: premenstrual syndrome, oral contraceptives, drospirenone, midiana, dimia,

ҲАЙЗ ОЛДИ СИНДРОМНИ ТАШХИСЛАШ ВА ДАВОЛАШНИНГ ЗАМОНАВИЙ ЖИҲАТЛАРИ

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✓ *Резюме,*

Ҳайз олди синдромининг кўп қиррали симптомларининг келиб чиқиши ҳар хил сабаблар билан боғлиқ, лекин асосий механизм бир хил-овуляция. Ҳайз олди синдромини самарали даволашда овуляцияни тўхтатиш учун дроспиренон таркибли орал контрацептивдан фойдаланиш самарали ҳисобланади.

Калит сўзлар: ҳайз олди синдроми, орал контрацептив, дроспиренон, мидиана, димиа.

СОВРЕМЕННЫЕ АСПЕКТЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ ПРЕДМЕНСТРУАЛЬНОГО СИНДРОМА

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✓ *Резюме,*

Многообразие симптомов предменструальных расстройств обусловлено различными причинами, однако пусковой механизм одинаков - это овуляция. Наиболее эффективным подходом к подавлению овуляции при предменструальном синдроме является применение оральных контрацептивов, содержащих в качестве гестагенного компонента дроспиренон.

Ключевые слова: предменструальный синдром, оральные контрацептивы, дроспиренон, мидиана, димиа.

Actuality

According to the generally accepted definition, premenstrual syndrome (PMS) is a complex of neuro-psychiatric, metabolic-endocrine and vegetative-vascular disorders, manifested in the second phase of the menstrual cycle and disappearing during or immediately after menstruation [1-13, 15].

PMS is characterized by a high frequency of occurrence in the structure of gynecological morbidity (20-85%), a significant decrease in the quality of life and a significant impact on daily activities, causing suffering to many millions of women around the world [14, 16-21]. None of the existing theories of the origin of PMS explains the variety of symptoms that can occur. The most common theory of PMS is the concept characterizing PMS as a result of an inadequate response of the central nervous system and, above all, the hypothalamus to normal fluctuations in the level of sex steroid hormones during the menstrual cycle [1, 10].

For the first time, Robert Frank was told about the PMS problem at a meeting of the New York Academy of Medicine in 1931, presenting the article Hormonal Causes of Premenstrual Tension, although individual manifestations of PMS have been known since ancient times [5]. In the International Classification of Diseases of the 10th revision (ICD-10), the PMS is an independent nosological unit (code N 94.3) "Premenstrual tension syndrome". About 75% of women suffer from mild forms of PMS, about 25% have mild or severe symptoms. Premenstrual dysphoric disorder (PMDD) - an extremely severe form of PMS occurs in 3-8% of women [6].

There are a number of PMS classifications that differ in a different approach to systematizing the diversity of variants and manifestations of the disease. In accordance with ICD-10, the diagnosis of PMS requires the presence of one symptom of significant severity, without a clear specification of the severity of the symptoms [21].

The question of whether the PMS belongs to physical / medical or psychological / mental disorders is currently under discussion.

It should be noted that Robert Frank, who first announced PMS, was a psychiatrist. The American Psychiatric Association (APA) proposed the definition and classification of premenstrual disorders from the standpoint of psychiatric disorders. In October 1998, in the 4th edition of the American Psychiatric Association's (DSM IV - Diagnostic and Statistical Manual of Mental Disorders) the PMDD was recognized as a separate nosological unit (Annex B). In contrast to the more common PMS, premenstrual dysphoric disorder is a severe and disabling condition [6]. In May 2013, the latest, fifth version of the DSM was published, according to which the PMDD was transferred from the DSM-IV Annex B to the main part of the DSM-V, which more strengthened the positions of the PMDD as an object of particular interest not only to gynecologists, but also psychiatrists.

The diagnostic criteria for PMDD according to DSM V include 11 symptoms, with 10 of 11 attributable to psycho-emotional and behavioral disorders. It is stipulated that the symptoms cause significant disturbances and it is necessary to have at least five symptoms. It should be noted that according to ICD-10, with the diagnosis PMS suffers too many women, while the DSM-V classification is restrictive, which can lead to inadequate diagnosis [1, 21]. In September 2008, an international interdisciplinary group of experts met and created the International Society for Premenstrual Disorders (ISPMDD).

ISPMDD experts reviewed the existing criteria set out in ICD-10, DSM-IV, at the Royal College of Obstetricians and Gynecologists (RCOG), at the American College of Obstetricians and Gynecologists (ACOG) and, after appropriate analysis, created a unified version of the classification and diagnosis of premenstrual disorders (PMD) [10].

According to the consensus achieved by the ISPMDD, the PMD is divided into two categories: basic and variant premenstrual disorders. The clinical manifestations of PMS are characterized by great diversity. More than 200 premenstrual symptoms are reported in the literature [9, 12, 15].

Often, women make their own retrospective diagnosis of premenstrual syndrome, which is based on the symptoms of previous cycles, but a large-scale comprehensive study comparing the retrospective diagnosis with a prospective assessment of symptoms showed that the retrospective diagnosis is unreliable [16].

Currently, the most reliable and effective method of diagnosing and quantifying PMS is a prospective daily assessment of symptoms by patients in a special diary or menstrual calendar of symptoms. Completion of the menstrual calendar of symptoms has a great importance for assessing the effectiveness of the therapy and the implementation of therapeutic monitoring. Recently, electronic, more effective, systems for assessing the symptoms of PMS have appeared, taking into account the individual characteristics of patients (for example, www.symptometrics.com).

It is necessary to further develop a system for evaluating clinical manifestations in the form of online symptom registration using numerous software applications for Windows, Android and iPhone OS, which will undoubtedly be much more convenient and effective for both the patient and the doctor.

Taking into account polyetiology and multifactorial nature of PMS different methods of therapy are offered. The tactics of therapy depends largely on the prevalence of certain symptoms of PMS. In a randomized, placebo-controlled study, spironolactone at a dose of 100 mg / day, taken in the luteal phase, has been shown to alleviate symptoms such as bloating, swelling, discomfort of the mammary glands and mood swings [20]. During mental manifestations that occur before menstruation in mentally healthy women, psychotherapeutic correction is necessary in combination with small doses of psychotropic drugs less than those recommended for the treatment of mental diseases [2, 17, 19].

A meta-analysis of placebo-controlled studies showed that selective serotonin reuptake inhibitors (SSRIs - fluoxetine, paroxetine, citalopram, sertraline) are effective when mood fluctuations occur, and noradrenaline reuptake inhibitors (NRI - venlafaxine) are the best choice to treat physical symptoms of PMS [2, 17].

It should be noted that the reversible side effects of SSRIs are less common with intermittent therapy [19]. SSRIs and oral contraceptives can be taken at the same time without reducing the effectiveness of any of the class of drugs [20]. During the placebo-controlled studies, it was proved that some tranquilizers (alprazolam, tazepam, elenium, diazepam, buspirone) are superior to the placebo effect [19], but they are less effective than SSRIs. In a meta-analysis of 9 randomized studies (n = 40), it was shown that taking pyridoxine (50-600 mg / day for 2-6 months) resulted in a significant decrease in PMS symptoms compared with placebo (OR 2.32; 95% CI 1.95-2.54) in the absence of side effects [20].

In a multicenter, randomized, placebo-controlled study of 170 women, the effects of the combined intake of the organic form of magnesium with vitamin B6 over 2 menstrual cycles were studied. The greatest reduction in PMS symptoms was achieved when magnesium was combined with vitamin B6 compared with magnesium alone and with the placebo group [4]. A systematic review suggests that the use of progesterone in treatment is ineffective and often causes re-stimulation of symptoms [19].

Different symptoms of premenstrual disorders may be due to different reasons, but the trigger is the same - it is ovulation, respectively, the suppression of ovulation is a pathogenetic reasonable approach to the treatment of PMS.

Suppression of ovulation has been successfully achieved through the use of oral contraceptives, gonadotropin-releasing hormone agonists, an inhibitor of gonadotropin danazol, etc. The results of several randomized controlled studies have shown that gonadotropin-releasing hormone agonists are effective in alleviating severe forms of PMS [18].

Long-acting gonadotropin-releasing hormone suppresses the production of steroids by the ovaries, which leads to "drug menopause", and thus, facilitates premenstrual syndrome. However, as is known, the therapy with gonadotropin releasing hormone agonists cannot last for a long time due to the pronounced unwanted phenomena and most importantly - a decrease in bone mineral density, which limits the possibilities of using this class of drugs in the treatment of patients with PMS.

When conducting a randomized placebo-controlled cross-sectional study, the advantage of danazol compared with placebo in the treatment of patients with severe PMS was established [7]. However, pronounced side effects while receiving danazol also limit its widespread use in the treatment of patients with PMS.

A number of randomized, placebo-controlled studies indicate a pronounced decrease in the frequency and severity of PMS symptoms during therapy with oral contraceptives [8, 9, 11, 14, 15, 18, 21].

The most effective approach to the use of oral contraceptives for PMS is the use of drugs containing drospirenone as a progestin component. Drospirenone is similar to spironolactone, but it is superior to the latter in terms of antimineralocorticoid effect [13, 18].

This fact is of particular importance given the fact that most of the symptoms of PMS are due to the interest of the tissues in fluid retention.

For example, headaches can be initiated by fluid retention in brain tissue, mastalgia and mastodynia - edema of the breast tissue, discomfort in the lower abdomen - fluid retention in the intestinal wall, etc. Drospirenone is characterized by high bioavailability and does not accumulate in the body during prolonged use [15], which ensures a safe profile of its application.

A distinctive feature of oral contraceptives containing drospirenone, from most other combined contraceptives is a positive effect on the psycho-emotional component in PMS [8]. R.K. Verma, D.K. Chellappan, A.K. Pandey after analyzing the results of randomized clinical studies concluded that oral contraceptives containing drospirenone are highly effective in the treatment of PMS in patients, noting the particular positive effect of treatment on the psycho-emotional component of the disease [21].

Various aspects of using oral contraceptive containing drospirenone have been thoroughly analyzed by L.M. Lopez, A.A. Kaptein, F.M. Helmerhorst in the Cochrane Central Register of Controlled Trials, MEDLINE, POPLINE database; EMBASE, LILACS, PsycINFO, ClinicalTrials.gov and the International Clinical Trials Registry Platform (ICTRP) of the World Health Organization. The authors, on the basis of the analysis of the described clinical observations in 1920 women, state that after three months of using oral contraceptives with drospirenone (3 mg) and ethinyl estradiol (20 µg), statistically significant reductions in the severity of deterioration in labor productivity, disturbances in social activities and social maladjustment were observed in patients with PMS [11].

Currently the most widespread oral contraceptives containing drospirenone are Dimia and Midiana (Gedeon Richter). The preparations differ in the dose of ethinyl estradiol and the regimen of administration: Dimia (20 xg ethinyl estradiol + 3 mg drospirenone, 24 + 4 regimen), Midiana (30 xg ethinyl estradiol + 3 mg drospirenone, regimen 21 + 7). Taking Dimia is especially preferable in young women (under 25 years) due to the minimal hormonal load. A lot of researchers announced that prolonged use of oral contraceptive can reduce the severity of hormonal fluctuations and has good therapeutic effect [3, 9].

Thus, the use of oral contraceptives containing drospirenone in the complex treatment of PMS is pathogenetic reasonably, as evidenced by a statistically significant decrease or disappearance of most PMS symptoms, significantly improving the quality of life of women and their families.

Physiotherapy is also quite effective in complex treatment of patients with PMS. When contacting the medical and sports clinic, a woman can be offered a special program, such as therapeutic aerobics, in combination with hydrotherapy - a variety of methods of hydrotherapy and massage. Different kinds of physical exercises has a

great importance in achieving and maintaining effective treatment. Moderate exercise reduces stress, likely to increase the release of endorphins. Walking, climbing stairs, biking, running or swimming give excellent results and positive emotions.

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