The Menstrual Cycle: Menstrual Molimina, Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD)

Premenstrual syndrome is a vague term that is used to describe a wide range of symptoms severity that are confined to the luteal phase of the menstrual cycle and that recur in multiple ovulatory cycles. These symptoms should cause significant impairment in the quality of life.

Definition

Premenstrual syndrome is explained as the changes in the emotions and physical body of a woman which occur before her periods begin. Premenstrual syndrome is usually diagnosed based on a daily record of the symptoms and their temporal relation to the different phases of the menstrual cycle. Each woman is different; thus, they need to be observed for at least 3 ovulation cycles for a diagnosis to be made.

It is important for a correct diagnosis to be made seeing that some conditions, such as depression, may mimic the signs of PMS. Once the diagnosis is confirmed, treatment should be based on three main key elements: lifestyle modification, medical intervention, and psychological support. Non-steroidal anti-inflammatory drugs, new-generation oral contraceptive pills, and antidepressants are the main options for the symptomatic
management of premenstrual syndrome. There is also an increasing number of women who are seeking herbal interventions.

Low dose danazol can be used to manage the symptoms of the disorder, whereas high dose danazol can be used to suppress ovulation and completely obliterate the symptoms of premenstrual syndrome.

Overview

There are three main conditions that belong to the premenstrual syndrome spectrum and they include molimina, premenstrual syndrome and premenstrual dysphoric disorder from the least severe to the most severe in symptomatology. The general definition of premenstrual syndrome is the recurrent deterioration of quality of life within the luteal phase of the menstrual cycle that is characterized by physical and psychiatric symptoms.

Molimina is a condition that is experienced by about 90% of women during the reproductive years and is characterized by breast pain, bloating, food cravings, fluid retention, sleep problems, acne, and constipation. These symptoms usually occur before menstruation during the luteal phase of the cycle. Bloating is usually subjective and weight gain is rarely documented. The term premenstrual syndrome is vague and poorly defined, but is generally preferred when the symptoms are slightly more severe compared to molimina. PMS means that these symptoms are more intense.

Premenstrual dysphoric disorder is characterized by more severe symptoms that clearly affect the quality of life. They are so severe that they interfere with a woman’s daily routine; thus, during this period, her work, relationships, and other aspects are affected. The symptoms of premenstrual dysphoric disorder are mostly psychiatric, and the diagnosis is now recognized by the American Psychological association as in the Diagnostic and Statistical Manual of Mental Health Disorders. It is important to note that there is no clear explanation as to what causes premenstrual symptoms, but the levels of hormones, such as progesterone, keeps changing in a woman’s body based on the phase of the cycle. Most attribute this syndrome to this variation in hormones.

Epidemiology of Premenstrual Syndrome and Related Disorders

Because the definition of premenstrual syndrome can be vague, the diagnosis is believed to be under-reported, especially in younger women. The average age at which a woman is likely to seek treatment for PMS is when they are in their early thirties. Women with mood swings and psychological symptomatology many times contribute their symptoms to hormonal changes or heartbreaks instead of premenstrual syndrome. Women aged between 25-35 years are more likely to have PMS symptoms. It is estimated that 60 to 80% of women in the reproductive age will experience molimina, premenstrual syndrome or premenstrual dysphoric disorder.

Premenstrual syndrome has been shown to be experienced more often in women with a family history of the disorder, suggesting a strong genetic predisposition. Approximately, 70% of the daughters of women who experienced premenstrual syndrome before will develop the condition, whereas, up to 60% of the daughters of women who never had premenstrual syndrome will not experience the condition. This shows that there is a link between genetics and PMS.
Premenstrual syndrome is typically experienced only within ovulatory cycles; therefore, conditions that physiologically or pathologically inhibit ovulation are known to decrease the severity of premenstrual syndrome or even make the symptoms completely disappear. Pregnancy, lactational amenorrhea and menopause are the most common physiologic conditions that inhibit the symptoms of premenstrual syndrome. Excessive stress, vigorous exercise and anorexia nervosa are known to cause hypothalamic amenorrhea and they can make the symptoms of premenstrual syndrome disappear.

Clinical Presentation of Premenstrual Syndrome and Related Disorders

The symptoms of premenstrual syndrome occur within the luteal phase of the menstrual cycle, are recurrent and are severe enough to alter the quality of life of the woman. These symptoms might be psychological or physical. Physical symptoms such as breast pain are typically cyclic.

To improve the definition of premenstrual syndrome and make it easier for researchers to study the condition, strict diagnostic criteria were put by the Diagnostic and Statistical Manual of Mental Health Disorders.

At least 5 symptoms should recur in most menstrual cycles, and be present in the last week before the onset of menses and improve within a few days after the onset of menses. Symptoms should disappear one week after the menses.

One or more of the following mood symptoms:

1. Mood swings, feeling sad or tearful
2. Excessive anger or irritability
3. Marked anxiety

One or more of the following physical symptoms:

1. Decreased interest in daily activities
2. Concentration difficulties
3. Lethargy
4. Over-eating or a marked increase in appetite
5. Insomnia
6. A feeling of being out of control
7. Breast tenderness, joint or muscle pain, bloating and/or weight gain

The five symptoms from criterion B and C should cause significant impairment with work, school, and social life.

The symptoms cannot be attributed to another existing psychiatric condition.

Criterion A should be confirmed by the prospective daily ratings during at least two symptomatic cycles.

The symptoms cannot be explained by drug abuse, medication or other treatment. Medical conditions that are known to be associated with similar symptoms, such as hyperthyroidism, should also be excluded.

In criterion F, we mention a very important tool for the confirmation of the diagnosis of premenstrual syndrome, i.e. a daily prospective symptom record. This daily record should have four main elements to be sufficient to diagnose premenstrual dysphoric disorder.
with good specificity and sensitivity. The listing of symptoms should be performed daily, the symptoms should be rated in severity, the timing of the symptoms to ovulation and the onset of menses should be documented, and the rating of baseline symptoms during the follicular phase of the menstrual cycle should be written.

Diagnostic Workout for Premenstrual Syndrome and Related Disorders

The documentation of one’s emotional and physical change offers insight on whether the woman has molimina, PMS or PMDD. This is because there is not a test that can be applied to diagnose PMS. Laboratory investigations are indicated to exclude other causes such as anemia, leukemia, and hyperthyroidism. Women with the premenstrual syndrome do not have any specific changes on their endocrine, biochemical or routine blood workout.

Some patients with severe and non-specific symptoms of the premenstrual syndrome were found to have a brain tumor; therefore, when patients have significant baseline symptoms, a brain magnetic resonance imaging study might be indicated. There should be no symptoms at all within the baseline of the menstrual cycle, i.e. the follicular phase.

Treatment of Premenstrual Syndrome and Related Disorders

The treatment of premenstrual syndrome consists of psychological support, diet and lifestyle modifications, and medical interventions.

The symptoms etiology should be explained to the patient and their families, i.e. children or spouse if they are affected. Small frequent meals during the symptomatic days have been found to alleviate the symptoms of premenstrual syndrome. Less salt, more fruits, and vegetables, low sugar and fats are also recommended. Avoidance of alcohol, caffeine, and cigarettes can also decrease the severity and frequency of symptoms.

Stress management, as well as ensuring one sleeps well, are also effective management practices. Calcium supplementation has been proven to improve the symptoms of premenstrual syndrome in small randomized controlled trials. Exercise, especially running, has been shown to decrease the severity of the symptoms of molimina and premenstrual syndrome.

Mefenamic acid 500 mg three times a day has been used for the management of premenstrual and menstrual symptoms. Typical oral contraceptive pills are not useful in managing the symptoms of premenstrual syndrome; however, combined oral contraceptives that contain drospirenone were proven to be superior to a placebo in managing the symptoms of the disorder. Pyridoxine can be used for managing the symptoms of molimina. Pyridoxine was found to be as effective as a placebo, but the placebo effect in molimina is quite strong.

The management of breast tenderness is usually based on the administration of danazol. The use of diuretics, progestin therapy or Oil of Evening Primrose is not useful in managing premenstrual syndrome and should be avoided.

Antidepressants, such as fluoxetine or venlafaxine, can be used to manage the mood swings and tearfulness that are experienced by some women with premenstrual
syndrome. Very high dose danazol is known to suppress ovulation in most women and can achieve complete resolution of the symptoms. This approach should be reserved for patients with severe symptoms who do not respond to other treatment options. Other methods of the induction of anovulation, such as the use of gonadotropin-releasing hormone agonists or surgical therapy, might also be considered in severe cases of the premenstrual dysphoric disorder.

Vitamins D and B6, wheatgerm and lemon balm can also be taken to help with the symptoms. Alprazolam can also be administered but only in the last two weeks of the cycle due to its highly addictive nature. Implants and estradiol patches can also improve symptoms. There is a need to test other birth control methods to see if they have effects on PMS seeing that currently only the birth control pill is seen to relieve the symptoms.

References


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