Premenstrual Syndrome: An Under Estimated Gynecological Suffering

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Abstract

Premenstrual Syndrome is a combination of physical and emotional disturbances that occur after ovulation and end with menstruation. Premenstrual disorders consist of psychological and/or physical symptoms that develop within the luteal phase of the menstrual cycle, affect the patient's normal daily functioning and disappear shortly after menstruation. The luteal phase begins just after ovulation and culminates at the beginning of menstruation (Wyatt. K,1999). The subspecialties of psychiatry and gynecology have developed overlapping but distinct diagnoses that qualify as a premenstrual disorder. More than 200 symptoms have been reported by women during their PMS. Women in their reproductive age often experience these disturbing physical and mental symptoms. These hormonal changes often result in irritable and aggressive behavior. Premenstrual Dysphoric Disorder(PMDD) is a more severe form of PMS. It affects a smaller number of women but it leads to significant loss of function due to unusually severe symptoms. Biological, Psychological, Environmental and Social factors are all responsible in the onset of PMS. Duration and severity of PMS varies in women of different age groups and from cycle to cycle. The most common physical symptoms are fatigue, bloating, breast tenderness and pain, acne, sleep and appetite changes. There are several behavioural and emotional signs of PMS which generally follow a predictable pattern. Regardless of symptom severity, the signs and symptoms generally disappear within four days of the start of the menstrual period for most women. The present paper highlights the physical, behavioural and emotional symptoms of PMS and discusses the etiology, diagnosis, treatment and management of these symptoms.

Index Terms: Pre Menstrual Syndrome, Premenstrual Dysphoric Disorder

Introduction

Premenstrual disorders including PMS and PMDD consist of psychological or physiological symptoms that develop within the luteal phase of the menstrual cycle, affect the patient's normal daily functioning, and resolve shortly after menstruation. The luteal phase begins after ovulation and ends with the start of menstruation. Hippocrates was one of the first to notice the symptoms of Premenstrual syndrome (PMS) .He described it as shivering, lassitude and heaviness of the head which denotes the onset of menstruation. The first connection between Premenstrual syndrome and the ovarian cycle was discovered by Henry Maudsley in 1873.The monthly activity of the ovaries which marks the advent of puberty in women has a notable effect upon the body and mind, wherefore it may become an important cause of physical and mental derangement (Maudsley,1873). However the term Premenstrual syndrome was introduced by Greene and Dalton in 1953.The modern definition of Premenstrual syndrome states that it is distressing physical, psychological and behavioural symptoms, not caused by organic disease, which regularly recur during the same phase of the menstrual or ovarian cycle and which significantly regress or disappear during the remainder of the cycle(Magos & Studd,1984). The recording of Patient-directed prospective symptoms is helpful in establishing the cyclical nature of symptoms that differentiate premenstrual syndrome and premenstrual dysphoric disorder from other psychological and physical disorders. Premenstrual syndrome has a wide variety of signs and symptoms, including mood swings, tender breasts, food cravings, fatigue,

irritability and depression. It is estimated that as many as 3 of every 4 menstruating women have experienced some form of premenstrual syndrome. The prevalence of PMS is not associated with age, educational achievement, or employment status (Obindo T et al 2010).Persistence and severity of symptom tend to fluctuate. One study found that only 36% of women who were diagnosed with PMS continued to meet the diagnostic criteria one year later (Obindo T et al 2010) Women who had gained weight or had in the past year are more likely to be diagnosed with PMS. Very few patients meet the more rigorous diagnostic criteria for PMDD as its prevalence between1.3% to 5.3% (Parry & Rausch,1995)

Symptoms tend to recur in a predictable pattern. The physical and emotional changes experienced during premenstrual syndrome may be slightly noticeable or may be too intense to be tolerated. Premenstrual Dysphoric Disorder (PMDD) is a more severe form of PMS(Freeman E,2008). It affects a smaller number of women but it leads to significant loss of function due to unusually severe symptoms. The list of potential signs and symptoms for premenstrual syndrome is long, but most women only experience a few of these problems.

A Case on PMS

Case 1: A 36-year-old married woman presents to a premenstrual syndrome (PMS) clinic complaining that for 10 days before each menstrual cycle, she develops irritability and mood swings, lashing out verbally at her husband and 3 children. She is impatient and feels overwhelmed and out of control in her reactions to stressors.

A Case on PMDD

Case 2: A 30 year old woman started observing that she becomes suspicious of her husband all of a sudden and starts accusing him of having relationship with all women around him. She becomes extremely aggressive and the fights between her spouse and herself become too bitter. She screams,shouts and abuses though she is otherwise a very gentle person. She also noticed that she forgot her usual routes while driving. She claimed that her cognitions were extremely sound and she never forgets the maps to any place where she had been. All these symptoms generally occurred a week before her menstrual cycle. During this period she cried over everything and got panic attacks for no reason. All these symptoms faded after three days of her menstruation.

Physical signs and symptoms

In contrast to the Affective symptoms the physical symptoms are much more obvious and even noticeable by self and others. They are commonly recognized as the only signs of PMS though the affective and cognitive symptoms are not acknowledged.

- Joint or muscle pain
- Headache
- Fatigue
- Weight gain related to fluid retention
- Abdominal bloating
- Breast tenderness
- Acne flare-ups
- Constipation or diarrhea
- Alcohol intolerance

For some, the physical pain and emotional stress are severe enough to affect their daily lives. Regardless of symptom severity, the signs and symptoms generally disappear within four days of the start of the menstrual period for most women.

Affective and Behavioural Symptoms

Most of the women notice the physical symptoms but the emotional and behavioural symptoms often go unnoticed even by the female herself. She may be anxious, disturbed, irritable or even aggressive but will not be able to identify the reason behind her restlessness. The emotional and behavioural symptoms of PMS which also serve as the diagnostic criteria are as follows.

- Angry outbursts
- Anxiety
- Appetite Changes
- Confusion
- Poor Concentration
- Depression
- Irritability
- Social withdrawal

Symptoms of PMDD

A small number of women with premenstrual syndrome have very disabling symptoms every month. This form of PMS is called premenstrual dysphoric disorder (PMDD). The American Psychiatric Association (APA) focuses predominantly on psychiatric symptoms in its diagnostic criteria for premenstrual dysphoric disorder. PMDD signs and symptoms include marked affective lability i.e depression and mood swings, anger, anxiety, feeling overwhelmed, difficulty concentrating, irritability and tension. Lethargy, tiredness, or marked lack of energy is a common symptom. The patient reports academic, social and cognitive dysfunctioning as well as identifiable low performance. The symptoms are similar to PMS but they are very severe and greatly hampers the normal functioning of the patient. It can also damage the close and intimate relationships of the person. If the patient has small children their care taking also suffers. In general, the functioning of the whole household gets disrupted if the female suffers from PDD.

Diagnosis

Differential Diagnosis of PMS and PMDD are difficult as the symptoms are similar to many medical and psychological disorders. . Prospective recording of symptoms by patients is helpful in establishing the cyclical nature of symptoms that differentiate premenstrual syndrome and premenstrual dysphoric disorder from other psychiatric and physical disorders. Keeping a menstrual record or diary is the ways in which the patient can help in the diagnosis. Applications on smart phones are available for keeping record of menstrual cycle. The American Psychiatric Association (APA) focuses predominantly on psychiatric symptoms in its diagnostic criteria for premenstrual dysphoric disorder.The symptoms of PMS and PMDD make their appearance one to two weeks prior to menses and they usually subside after the onset. These software and diaries not only help the physicians in diagnosis but also benefit the person by increasing self awareness about their bodies and they can play a role in management. The complete routine tests should be done to rule out the possibility of an organic or hormonal disorder. These symptoms must disappear within four days of the onset of menses, without reoccuring until at least day 13 of the cycle, and must be present in the absence of any pharmacologic therapy, hormone ingestion, or drug or alcohol use. The symptoms

must occur reproducibly during two cycles of prospective recording. The patient must exhibit identifiable dysfunction in social, academic, or work performance. A psychiatric examination can be done if suggested by the physician.

Etiology

The exact cause of PMS and PMDD is still not known but different theories suggest different causes for explaining the phenomena of PMS and PMDD. The hormone theory suggests the imbalance in the estrogen and progesterone level ratio with deficiency in progesterone level. Serotonin theory suggests that there is a deficiency of serotonin in women experiencing PMS. Serotonin is responsible for maintaining a balanced mood. Insufficient amounts of serotonin may contribute to premenstrual depression, as well as to fatigue, food cravings and sleep problems. Some Psychosocial theories suggest that as menstruation is the proof of not being pregnant it may be traumatic for some women who are planning pregnancy but are unable to conceive. Cognitive and Social learning theories suggest that as Menstruation is an aversive process for some females they become anxious prior to its onset.

Treatment and Management

Medical Treatment

While treating PMS and PMDD the doctors focus on relieving physical and psychiatric symptoms. Many of the medicines which are used target the body's hormonal activity through suppression of ovulation, whereas others affect the concentration of neurotransmitters such as serotonin, norepinephrine, or dopamine in the brain. A third group of complementary or alternative agents with varying mechanisms of action are also used. In the United States, selective serotonin reuptake inhibitors (SSRIs) are approved for primary treatment. Although SSRIs are considered psychiatric medications, when used to treat premenstrual disorders they improve physical and psychiatric symptoms in most patients(Magnay, El-Shourbagy & Fryer, 2010) Taking oral contraceptives may help stabilize the changes in hormone levels and stop ovulation. Bloating and water retention can be improved by cutting down on salt and by using a mild diuretic that will makes the patient urinate. Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) such as venlafaxine have been used off-label to treat PMDD in women with predominantly psychological symptoms(Poiană ,Muşat & Carsote,2009). Physicians should customize therapy based on tolerance and response of the patient to each medication.

Diet and Lifestyle: The PMS and PDD can be treated by diet modifications such as eating smaller portions of meal more often, consuming diet high in carbohydrate and low in salt or refined sugar, reducing the intake of caffeine and alcohol and by quitting smoking [25]. Vitamin D supplementation for treatment of PMS and PMDD symptoms was reviewed in a cross-sectional analysis of a large study The cross-section analyzed was too small to make strong conclusions about the benefit of vitamin D(Curtis, Overholt & Hopkins ,2006) Vitamin B_6 at a dosage of 80 mg per day has also been studied and recommended for the treatment for primarily psychological symptoms of PMS. Evidences suggest that exercises and physical activities help release endorphins which in turn improve general health, nervous tension and anxiety. Endorphins are neurotransmitters that contribute to positive feelings and they affect mood positively, reduce the perception of pain, improve memory retention and learning(Bhatia & Bhatia , 2002)

Stress Management and CBT: A variety of methods for stress reduction and relaxation may be used for reducing stress and anxiety (Goodale , Domar & Benson ,1990) Alleviation of premenstrual syndrome symptoms with the relaxation response. They include yoga, meditation, emotional support from family and friends, counselling and awareness, individual and couple therapy, anger management, self-help techniques, support group and cognitive-behavioural therapy. Stress Management and relaxation techniques may be used for overcoming anxiety and irritability during the pre menstrual period. Yoga and meditation are

particularly beneficial for managing PMS and PDD(Goodale, Domar &Benson,1990). A 2009 meta-analysis analyzed seven trials, three of which were randomized controlled trials, and showed improvement in functioning and depression scores for patients with PMS or PMDD(Shamberger R,2003) The frequency and duration of therapy were not defined. However, the results suggest that mindfulness-based exercises and acceptance-based cognitive behavior therapy may be helpful for reducing symptoms.

Conclusion

Premenstrual problems are prevalent among women during their reproductive years. A variety of diagnostic symptoms have been discussed in the paper to increase the sensitivity of the general population towards this problem. This gynecological discomfort is taken for granted by the female herself and as well as the people around her. The treatment and therapeutic approaches have been suggested in the literature to reduce the severity and duration of the symptoms. Premenstrual suffering should not to be taken for granted as it can have a number of implications. If it is obvious that the woman consistently suffers from several premenstrual symptoms, it is recommended to consider referring her to a professional for a diagnostic and treatment plan. Despite the high prevalence of PMS, most of the women do not seek help from the professionals. This may be because of their lack of awareness and acceptance of the symptoms as just part of being a woman and therefore must be tolerated. In addition, they may not be aware of a variety of potential management plans and treatments to this problem. The workshops and conferences about the symptoms and treatment should be conducted. Females should be encouraged to seek help from their physicians and the physician can refer them to psychologists or psychiatrists if needed.

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