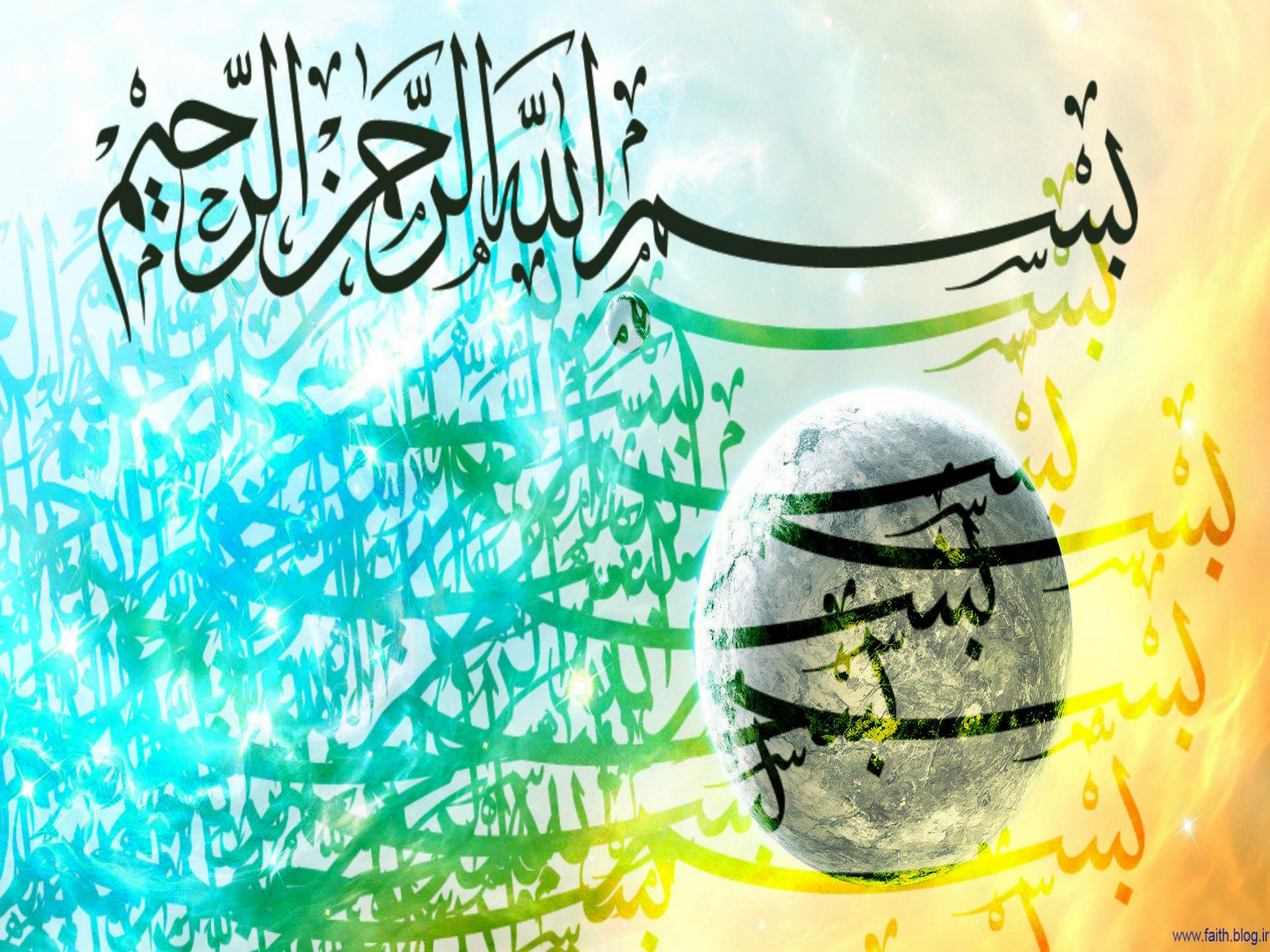
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PSYCHOLOGICAL ASPECTS OF PREMENSTRUAL DYSPHORIC DISORDER

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PMDD

- PMDD has now been included as a diagnosis in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), and is a depressive disorder with 5 percent incidence, that is associated with functional impairment and is entrained to the expected fluctuations in sex steroids associated with ovulatory menstrual cycles. The premenstrual syndrome (PMS) is a broader clinical category, without functional impairment, that affects up to 80 percent of reproductive-aged women. In PMDD, menstrual cycles are hormonally normal.

PMDD

- Neuroimaging research has provided. Empirical evidence of hormonal effects on emotion processing–related activity in orbitofrontal, amygdala–hippocampal, and anterior cingulate cortices as well as brain reward circuits in monetary reward paradigms.

- No definitive abnormalities in estrogen or progesterone levels have been demonstrated in women with premenstrual dysphoric disorder, but decreased serotonin uptake with premenstrual decreases in steroid levels have been correlated with the severity of symptoms in some studies.

Diagnostic Criteria for Premenstrual Dysphoric Disorder

- A.In the majority of menstrual cycles, at least five symptoms must be present in the fial week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenses.

  B.One (or more) of the following symptoms must be present:

  1.Marked affective lability (e.g., mood swings; feeling suddenly sad or tearful, or increased sensitivity to rejection).

  2.Marked irritability or anger or increased interpersonal conflicts.

  3.Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts.

  4.Marked anxiety, tension, and/or feelings of being keyed up or on edge.

Diagnostic Criteria for Premenstrual Dysphoric Disorder

- C.One (or more) of the following symptoms must additionally be present, to reach a total of fie symptoms when combined with symptoms from Criterion B above.
  1.Decreased interest in usual activities (e.g., work, school, friends, hobbies).
  2.Subjective diffiulty in concentration.
  3.Lethargy, easy fatigability, or marked lack of energy.
  4.Marked change in appetite; overeating; or specifi food cravings.
  5.Hypersomnia or insomnia.
  6.A sense of being overwhelmed or out of control.
  7.Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of “bloating,” or weight gain.

Diagnostic Criteria for Premenstrual Dysphoric Disorder

- NOTE: *The symptoms in Criteria A–C must have been met for most menstrual cycles that occurred in the preceding year.*
  D.The symptoms are associated with clinically signifiant distress or interference with work, school, usual social activities, or relationships with others (e.g., avoidance of social activities; decreased productivity and effiiency at work, school, or home).
  E.The disturbance is not merely an exacerbation of the symptoms of another disorder, such as major depressive disorder, panic disorder, persistent depressive disorder (dysthymia), or a personality disorder (although it may co-occur with any of these disorders).
  F. Criterion A should be confimed by prospective daily ratings during at least two symptomatic cycles

PMDD

- Menstrual phase also has been associated with aspects of substance abuse. Although reports vary, craving for cigarettes and tobacco withdrawal appear to vary with menstrual phase (worse in the luteal phase). Women show greater heart rate and pleasurable drug effects after cocaine administration during the follicular phase but report that cocaine improves dysphoric mood during the luteal phase.

PMDD

- The attempt to establish a specific premenstrual dysphoric disorder beyond this more normative premenstrual tension has neglected the occurrence of premenstrual eutonia, increased energy, and sexual drive. The not uncommon occurrence of these positive emotions, along with the labile mixed affective manifestations, tends to point toward a bipolar phenomenon.
- Although women with severe premenstrual complaints appear to have higher rates of lifetime major mood disorders, a recent twin study found that genetic and environmental factors contributing to premenstrual depression and major depressive disorders are largely distinct. Furthermore, events such as migraine, epileptic attacks, and panic states may, in some instances, be associated with the premenstrual phase.

TREATMENT

- Treatment of PMS and PMDD focuses on relieving physical and psychiatric symptoms. Many of the medications used address 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.

PHARMACOLOGIC TREATMENTS:

- ***Serotonergic Antidepressants*:** SSRIs are fist-line treatment for severe symptoms of PMS and PMDD. Sertraline paroxetine, floxetine, citalopram, and escitalopram) can be used to treat the psychiatric symptoms of PMS and PMDD and have been shown to relieve some of the physical symptoms.

- All SSRI doses seemed to be effective for psychiatric symptoms, and ultimately could be titrated to the patient's tolerability.

- SSRIs are effective in alleviating the symptoms of PMDD. Improvement may be seen during the first week of treatment. Mood, irritability, and anxiety improve. Physical symptoms, such as swelling, bloating, and breast tenderness, are less responsive to treatment.

SSRI

- Studies conducted to compare continuous dosing versus luteal phase dosing of SSRIs in parallel or crossover designs have found that both strategies are efficacious.

- A single dose of fluoxetine 90mg given 14 days prior to menses and 90mg again 7 days prior to menses has also been shown to be effective for PMDD in one trial.

PHARMACOLOGIC TREATMENTS

- *Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs).* SNRIs such as venlafaxine have been used off-label to treat PMDD in women with predominantly psychological symptoms.

PHARMACOLOGIC TREATMENTS

- *Quetiapine (Seroquel).* This antipsychotic has been studied as an adjunctive treatment with an SSRI or SNRI in patients with PMS or PMDD. The goal was to improve luteal phase mood in women who did not respond to SSRI or SNRI therapy alone.

PHARMACOLOGIC TREATMENTS

- Buspirone has demonstrated some benefit in the treatment of premenstrual syndrome (PMS) in two RCTs. The first RCT compared buspirone (n = 19) to nefazodone (n = 22) and placebo (n = 22) in subjects suffering from premenstrual dysphoria, and found that subjects taking buspirone had a greater global improvement and improvement in irritability compared to placebo. The second RCT demonstrated that subjects on buspirone (n = 17) had a significant improvement in PMSrelated symptoms, including aches and pains, cramping, impaired social interaction, and irritability

Hormone Suppression in Premenstrual Dysphoric Disorder

- A variety of hormonal therapies have been employed in premenstrual dysphoric disorder (PMDD). Currently the best evidence of efficacy exists for gonadotropin-releasing hormone agonists, compounds that reversibly suppress pituitary secretion of the gonadotropins FSH and LH and hence turn off ovarian steroid secretion.

- GnRH therapy should be considered for those women who do not respond to SSRIs, particularly if they have severe symptoms.

TRETMENT

- Prudent clinical practice would entail the use of GnRH agonists for not greater than 3 months without consultation with a woman's gynecologist and without consideration of the addition of bone-sparing adjunctive estradiol (which, if given continuously, would not be expected to reverse the efficacy of the GnRH agonist).

- Because of the largely unknown risk of compromising fertility, and of nonreversible reduction in bone mass, this treatment should be reserved for those who do not intend to subsequently have children and should be administered only in consultation with a gynecologist and with full consideration of risks and benefits.

TRETMENT

- *Oral Contraceptives.* Studies have suggested that oral contraceptives provide benefi when treating physical and psychiatric symptoms of PMS or PMDD. Although results were somewhat inconsistent, an improvement in depressive and physical symptoms (from 30% to 59%) was identifid.

TRETMENT

- Calcium supplementation has been evaluated as treatment for PMS. Women with PMS and mood instability have been noted to have associated cyclic changes in their calcium levels; the exact mechanism of action is unknown.

- Magnesium, vitamin E
- Alprazolam

MODIFY DIET AND LIFE STYLE

- Eat smaller, more-frequent meals to reduce bloating and the sensation of fullness.
- Limit salt and salty foods to reduce bloating and fluid retention.
- Choose foods high in complex carbohydrates, such as fruits, vegetables and whole grains.
- Choose foods rich in calcium. If you can't tolerate dairy products or aren't getting adequate calcium in your diet, a daily calcium supplement may help.
- Avoid caffeine and alcohol.

TRETMENT

- 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. A separate study followed 401 women for 16 years and compared those who developed PMS with those who did not. The analysis concluded that low vitamin D levels were not associated with an increased risk of PMS. Further studies are needed to support the use of vitamin D as a treatment for symptoms of PMS and PMDD.

- Vitamin B6 at a dosage of 80 mg per day has also been studied and recommended as treatment for primarily psychological symptoms of PMS, but these studies are small and more data is needed to recommend it as fist-line treatment

EXERCISE

- A range of exercise interventions were assessed, including various types of aerobic exercise programmes, yoga regimens, Pilates regimens, water aerobics programmes, and stretching and resistance exercise programmes.

- Based on current evidence, exercise may be an effective treatment for PMS, but some uncertainty remains.

COMPLEMENTARY AND NONPHARMACOLOGIC TREATMENTS

- *Herbal Preparations and Acupuncture*. Many small, poorly conducted studies have reviewed the effectiveness of Chinese herbal supplements and acupuncture in the treatment of premenstrual symptoms. This evidence is too limited and study quality is too poor to suggest benefit.

- The studies evaluated use of saffron, St. John's wort, ginkgo, vitex agnus-castus, peppermint, angelica root, dragon's teeth, turmeric, tangerine leaf, and bitter orange, among others.

Persian name	English name	Scientific name	The modes of action
Baboone	Chamomile	Matricaria *chamomila*	anti-inflammatory, antioxidant, analgesic, antineoplastic, anti-anxiety, and digestive effect
Zafran	Saffron	*Crocus sativus*	Serotonergic, antidepressant, antispasmodic
Zardchoobe	Turmeric	*Curcuma longa*, Curcumin	antidepressant, anti-inflammatory, antioxidant, anti-carcinogenic, anti-arthritic, thrombo suppressive, anti-microbial, and Hypoglycemic reduces prostaglandins synthesis modulation of neurotransmitters levels
Badranjbooie	Lemon balm	*Melissa officinalis*	anti-depression, sedative and improve cognitive function
Avishan Shirazi	Zataria multiflora	*Thymus vulgaris*	antibacterial agent, anti-dyspepsia, inhibit mediators of inflammatory reactions, antioxidant, antispasmodic, analgesic and antiseptic
Gandom	Wheat Germ Extract	Triticum spp	contains magnesium, zinc, calcium, selenium, sodium, potassium, phosphorus, chromium, antioxidants including beta-carotene (for vitamin A), vitamin E, vitamin C, vitamin B12, vitamin B6, thiamin, riboflavin, niacin, folic acid, iron, amino acids, and enzymes so has a high dietary and medicinal value
5 angosht	chaste berry	*Vitex agnus castus* berries	regulation of stress, induced prolactin discharge via dopamine, Binding to opioid receptors, endorphins, and neuroactive flavonoids may also have a role
Khousharizeh Or Tigh Touragh	prickly parsnip	*Echinophora platyloba*	antibacterial components, anti-spasmodic effects, anti-fungal effects
Raziane	Fennel	*Foeniculum vulgare*	relieve painful menstruation , inhibitory effect on the production of oxytocin and Prostaglandin E2 (PGE2), the mode of action of fennel appears to be hormonal.
Katan	Flax Seed	*Linum usitatissimum* L.	Contain :Fiber, manganese, vitamin B1, alpha-linolenic fatty acid, omega-3 and phytoestrogen, antioxidant, Anti-inflammatory
Sonbolettib	Valerian	*Valeriana officinalis*	Sedative effects Inhibition of contractions Antispasmodic Antidepressants
porteghal	Sweet – Orange tree	*Citrus sinensis*	Stimulation of the CNS and mood-enhancing effects, sedation, Antispasmodic anti-inflammatoire Antidepressants
Gole raei or alaf chai	St. John's Wort	*Hypericum perforatum* or Perforan	Antidepressants Prevention of Serotonin reuptake and Amino oxidase activity
zanjabil	Ginger	*Zingibar officinale*	Effect on prostaglandin system, Anti-nausea, vomiting, dizziness, Prostaglandin inhibitor, Headache relief, Anti-rheumatoid

PSYCHOTHERAPY

- the results suggest that mindfulness-based exercises and acceptance-based cognitive behavior therapy may be helpful for reducing symptoms.

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