Understanding of Premenstrual Syndrome in Ayurveda – A Conceptual Study

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A healthy woman is the promise of a healthy society. It is estimated that clinically significant PMS (which is moderate to severe in intensity and affects a woman's normal functioning) occurs in 20% to 30% of women. Premenstrual syndrome (PMS) is a psychoneuro endocrine disorder which includes a combination of emotional, physical and psychological symptoms noticed just prior to menstruation. The most common mood-related symptoms are irritability, depression, crying, and oversensitivity. The various physical symptoms are fatigue, bloating, breast tenderness (mastalgia), skin changes (acne) etc. Diagnosis of premenstrual syndrome requires a consistent pattern of emotional and physical symptoms occurring after ovulation and before menstruation to a degree that interferes with normal life. Ayurveda is a life science which always deals explicit in both psychological and physiological aspects of diseases. In the field of Ayurveda many concepts have been explained well-versed. The condition premenstrual syndrome has no reference in Ayurveda classics. The keen observation through the scattered references gives light to have an understanding of the premenstrual syndrome, which is a very common condition noted among Indian women in the present scenario.

Keywords: Ayurveda, PMS, Striroga, Pitha vikara.

1. Introduction

Women’s health is having prime importance for the wellbeing of the family and society. The mental and physical wellbeing of a woman is very essential for fostering and developing the society. Menstruation represents the girl’s identity to expect her social role as a mature woman and is considered as landmark of homeostatic condition of reproductive system governed by HPO Axis. The same menstruation can create hell situation if it is associated with physical, psychological and behavioral disturbances, among which pre-menstrual syndrome common condition is affecting the quality of life of many women.

About 90% of women experience premenstrual symptoms at some point in their lifetime. It is estimated that clinically significant PMS (which is moderate to severe in intensity and affects a woman's normal functioning) occurs in 20% to 30% of women. Premenstrual syndrome (PMS) is a psychoneuro endocrine disorder which includes a combination of emotional, physical and psychological symptoms noticed just prior to menstruation. The most common mood-related symptoms are irritability,
depression, crying, and oversensitivity. The various physical symptoms are fatigue, bloating, breast tenderness (mastalgia), and acne and appetite changes with food cravings.

Management of patients who may have PMS begins with review of the patient's daily symptom diary report together with a physical examination and evaluation of the mood and behavioral symptoms to determine whether there are other physical or emotional problems that may account for the symptoms. As indicated in the ACOG guidelines, the women should meet standard diagnostic criteria and confirm the timing and menstrual relationship of their symptoms with prospective ratings. It is diagnostically useful to examine the patient in the postmenstrual phase of the cycle when the premenstrual symptoms have subsided. Symptoms or problems that are apparent after menses are not PMS and indicate underlying or concomitant problems that may account for the symptoms.

When a diagnosis of clinically significant PMS is confirmed by prospective ratings (preferably for at least two menstrual cycles), medication may be appropriate. The serotonergic antidepressants are the first-line treatment at present. Antidepressant dosages for PMS usually begin at the standard start level for depression. When an SSRI is initiated, some improvement is usually noted in the first cycle of treatment. In cases in which there is no significant improvement or dose-limiting side effects, the dose can be increased in the second or third cycle of treatment. As a general guideline, two to three menstrual cycles of treatment at adequate dose levels are sufficient to determine response. If the selected antidepressant is not helpful, another SSRI may be effective.

If symptom relief does not occur with the initial treatment, another approach should be tried. Calcium supplementation has reported efficacy for PMS. Dietary alterations, exercise, or stress reduction programs are often helpful, particularly for women with less severe symptoms or in combination with medication. Based on evidence of efficacy, second-line treatments include anxiolytics, spironolactone, oral contraceptives, cognitive behavioral therapies, nutritional supplements, and bright light therapy. GnRH is highly effective but has limited use for PMS because of the risks of a prolonged hypoestrogenic status. Further treatment recommendations based on levels of evidence are offered in the ACOG Practice Bulletin.

2. History

Vedic medicine is considered as one of the oldest systems of medicine in the world. Its development occurred during the period 2000-1000 B.C. Being as old as Vedas, the history of Ayurveda takes us back to the remotest antiquity. The foundation of Ayurveda is said to be well and truly laid in the Vedas. The word Ayurveda is not seen a much in the Vedas.

Ayurveda is considered as the upaveda of Atharvaveda because a good portion of Vedas specially Atharvaveda is devoted to the promotion of life, prevention of disease and to some extent about various medical treatments also.

2.1. Vedic period:

Amongst Vedas, Rig-Veda is considered as the most ancient book of wisdom and it gives only some scattered ideas regarding genital organs. Reference of tridoshas and panchamahabhutas can be found on Rig-Veda. References about anatomical structure of human beings were discussed in Yajurveda. Samaveda have references on use of natural therapies. In Atharvaveda description about structure, function and diseases regarding the female genitalia, signs and symptoms of abnormal labour and puerperal disorders can be obtained.
2.2 Brahmanas:

The word yoni and upastha is used for female genital tract. References about a girl not having menarche, having growth of public hair, importance of ritumati (menstruating) women for conception are also dealt with these books.

2.3 Upanishad:

In this era there was evolution and systemmization of fundamentals of Ayurveda. Reproduction along with importance and mode of life during ritukala (ovulation), contraception etc. has been dealt elaborately. Garbho Upanishad mentions about doshas, dhatu and growth of fetus.

2.4 Data from the epics:

The two great epics of ancient India are Ramayana and Mahabharata.

a) Ramayana: Among the three doshas, role of vayu was given the highest position of immense power for movement and activities, because of this it was also called as bhagavan, deva etc. The pathological effects caused by aggravated vayu are accurately described as deformities in body, pain and immobility of joints and obstruction in passage of urine and faeces.

b) Mahabharata: Vata is said to have panchakarma i.e. having fivefold functions and bhagavan. Five types of vata, koorma, krkara, dhananjaya etc. are also mentioned.

c) Puranas: In Padma purana, Vayu purana, Vishnu purana, vayu is given particular importance is regarded as bhagavan and is glorified.

d) Samhita period: Detailed description regarding artava, artava chakra, ritumati, Rajaswala charya, Rithukala is available in Charaka Samhita Sareera, Susrutha Samhita Sareera, Astanga hridaya, Astanga samgraha.

3. Historical Concept of Premenstrual Syndrome

3.1 Evidence of PMS in records from antiquity

- The earliest written records in the Western medical tradition come from Ancient Greece. The earliest observation of premenstrual symptoms ‘... shivering, lassitude and heaviness of the head denotes the onset of menstruation ...’ may have been made by the Greek philosopher, Hippocrates (460-377 BC).

- The medicinal use of three hundred and eighty plants is described in the Corpus Hippocraticum. Among the forty-four most frequently mentioned plants are peony and chaste tree. Both herbs were prescribed in antiquity for ‘uterine suffocation’, a term used to describe symptoms thought to be caused by the impingement of the womb on vital organs when it wandered out of the pelvis in search of a baby. Both these herbs are used in contemporary phytotherapy for female reproductive disorders including PMS.

- This era informs, very little of the writing that is easily available from secondary sources relates to premenstrual syndrome.
3.2 Understanding Premenstrual Syndrome in the middle ages

- Humoral theory was embraced and expanded upon by the influential physician Galen of Pergamon (129-216 AD) who attributed to women a constitution that was cold and moist owing to a lack of vital heat.

- Menstruation was understood to function to restore a healthy humoral balance. Galen believed the hot, dry qualities of men allowed them to be active and constructive, while cool, damp women were indolent and less productive.

- The reluctance of women to discuss their menstrual and premenstrual experience with men, even doctors, is a familiar theme. In England in the 1900s this reticence may even have extended to conversations between women. Shyness or a sense of propriety almost certainly led to the under reporting of many female reproductive symptoms, probably including reference to symptom remission coinciding with menstruation.

3.3 The Renaissance, a new view of menstruation and evidence of PMS

- In this era, and Italian physician, Giambattista Da Monte (1489-1551) clearly referenced premenstrual as well as menstrual discomfort and suggested that physicians could gain the trust of their female patients by correctly predicting the approach of menstruation.

- This could be achieved by close attention to symptoms that result from ‘the blood, which wants to flow and descend to the uterus ..... beginning to move and be agitated’ causing heaviness, heat in the whole body and lassitude. Later head pain and heaviness occur due to the ‘many ascending vapors’ and ‘make the whole belly swell, so much that some women seem pregnant, because of the accumulation of much matter’. Da Monte’s confidence may suggest such symptoms were frequently encountered.

3.4 The Enlightenment seventeenth and eighteenth centuries

- Physicians in this era interpreted premenstrual complaints as evidence of increasing plethora and mention prostration, heat, pain in the loins, hips and head, lack of appetite, swelling and pains in the breast, tinnitus, insomnia and bad dreams. Symptoms were seen as the result of the excess of blood in the circulation impinging on organs and therefore would be expected to be relieved by menstruation.

- An English woman writing in 1783 mentioned mood change, irritability, insomnia and nervous attacks and described a premenstrual ‘irritation of nerves.

- The connection between PMS and cyclical ovarian activity was first made by the English doctor Henry Maudsley in 1873. A year earlier the first example of surgery to remove normal ovaries as a treatment for a non-gynecological disorder was performed first by Alfred Hegar. Robert Battery believed that insanity was often caused by diseases of the ovary or uterus and the operation was performed for menstrual madness, oophoromania, hysterical vomiting, menstrual epilepsy, dysmenorrhea, nymphomania and masturbation.
Distressing and even dangerous mental symptoms are recorded from a number of nineteenth century sources. In Psychosis Menstrualis, published 1882, Richard von Kraft-Ebing considered menstruating women to experience: “Abnormal irritability, attacks of melancholia, feelings of anxiety are common phenomena. Inability to get along with the husband and domestics, ill-treatment of otherwise tenderly cared for children, emotional explosions, libelous acts, breach of peace.”

3.5 Twentieth Century

The myth of menstrual disability was culturally entrenched in the late nineteenth and early twentieth centuries with women advised to take it easy during menstruation and avoid any number of situations said to worsen symptoms such as washing hair and getting wet feet.

With the birth of endocrinology new etiologies for premenstrual symptoms were proposed.

In 1931, Dr. Robert T. Frank published three case histories and twelve case summaries of women with what he termed premenstrual tension. He notes the emotional and social cost of these symptoms, writing ‘these periodic attacks lead occasionally to extreme unhappiness and family discord’. Frank suggested an excess of circulating ‘female hormone’ was responsible for the symptom complex and cited cases where venesection gave temporary relief and X-ray ‘toning’ of the ovaries produced amenorrhea and long-term relief from PMS.

Raymond Green and Katarina Dalton coined the term premenstrual syndrome in a paper published in the British Medical Journal in 1953.

Dalton opened the world’s first PMS clinic at the University College Hospital, London, and became an important advocate for the recognition of PMS as a medical condition renewed prejudice. Dalton’s research involved thousands of patients, many of whom were given progesterone. In the 1980s Dalton was called as an expert witness for the defense in two English murder trials. A plea of diminished responsibility due to PMS was accepted. This served to raise public awareness of premenstrual syndrome.

Premenstrual symptoms can be identified regardless of the changing medical assumptions about the role of menstruation and women. Among the many impacts of social inequality are a lack of literacy and education that, together with shyness, have certainly impacted on the volume of written symptom records.

4. Ayurvedic Understanding

A woman is likely to experience both physical and mental metamorphosis throughout her life span, as the psychosomatic aspect does not remain the one and the same. Acharyas highlighted the importance of age with respect to the tridoshas owing to categorise certain changes regarding puberty, menstruation, reproduction and menopause. The general classification of women life is classified under balavasta, madhyamavasta, vriddhavasta. According to Acharya Sushruta, vrddhi (developmental stage) is seen up to twenty years. When menstruation starts and the particular changes are complete, Rajaswala epoch begin which is pitha pradhana kala. This epoch is further classified as Taruni (16-32) and Adhirudha (32-50). This epoch is the child bearing age. Hence it is the reproductive age of a female where the female genital organs become fully mature i.e. certain physical characteristics of woman hood are complete with the development of psychological factors due to the changes affecting
the normal menstrual cycle. Menstruation and conception are the two important physiological changes which occur in relation with the tridoshas. The lifestyle, food habits, climatic variations and all the challenges she face in her family, job, society all affects the female hormonal system and this predisposes the research topic discussed here i.e. premenstrual syndrome.

### Table 1

<table>
<thead>
<tr>
<th>Bala</th>
<th>Kanya Bala</th>
<th>Kaphaachaya,prakopa</th>
<th>Kaphapradhanya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajaswala</td>
<td>Taruni,</td>
<td>Pithachaya,pithaparakopa</td>
<td>Pithapradhanya</td>
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<tr>
<td></td>
<td>Adhirudha</td>
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<tr>
<td>Vridha</td>
<td>Vridha</td>
<td>Vataparakopa(pithashamana)</td>
<td>Vatapradhanya</td>
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</tbody>
</table>

### Table 2: According to Sharangadhara Poorvakhnda

<table>
<thead>
<tr>
<th>Decades of life</th>
<th>Dhatuksaya(Sarangadara)</th>
<th>Dhatuksaya(Astanga samgraha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Balya</td>
<td>Balya</td>
</tr>
<tr>
<td>Second</td>
<td>Vriddhi</td>
<td>Vriddhi</td>
</tr>
<tr>
<td>Third</td>
<td>Chhavi</td>
<td>Prabha</td>
</tr>
<tr>
<td>Fourth</td>
<td>Medha</td>
<td>Medha</td>
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<tr>
<td>Fifth</td>
<td>Tvaca</td>
<td>Tvaca</td>
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<tr>
<td>Sixth</td>
<td>Drishti</td>
<td>Sukra</td>
</tr>
<tr>
<td>Seventh</td>
<td>Sukra</td>
<td>Drishti</td>
</tr>
<tr>
<td>Eighth</td>
<td>Vikrama</td>
<td>Srotendriya</td>
</tr>
<tr>
<td>Ninth</td>
<td>Buddhi</td>
<td>Manas</td>
</tr>
<tr>
<td>Tenth</td>
<td>Karmendriya</td>
<td>Sparsendriya</td>
</tr>
</tbody>
</table>

In the above table no.2, we could see that the relation between the age and psychological aspect such as medha, budhi are ironically explained by Acharya Sarangadhara since then. While going through various research papers it is understood that the age group prone to premenstrual syndrome are the reproductive age group from 18-40.

Ayurveda helps women to gain better health and quality to her life by following various paricharyas. Paricharyas are conduct to be followed during different phases of life. Such conducts are duly explained in Ayurveda and the most important conduct with respect to women are the Rajaswala Paricharya,[7] Garbhami Masanumasa Paricharya and Sutika Paricharya in various epochs of life right from puberty till post-partum. This knowledge of paricharyas were passed down from one gen-
eration to next. The modern era, emergence of nuclear families, aversion towards ancient tradition and western way of living, is not seen. So, in 20th century it has been observed that menstrual problems are at its high risk and also incidence of infertility increased. It should be understood that the negligence of these paricharyas pave a strong base for the premonitory symptoms of premenstrual syndrome which is of psychosomatic origin. So, it is necessary to follow Paricharya to get relief from such conditions and to gain better healthy life.

5. Discussion

Rajaswala paricharya mentioned in various Ayurvedic granthas:- Rajaswala paricharya – a mode of living during menstruation is mentioned various Ayurvedic granthas such as Charaka samhita, Sushruta samhita, Kashyapa samhita, Ashtanga Hridya, Ashtang Sangraha and Bhava Prakasha.

Activities contraindicated are:

1. Avoid seeping during day time. She should be sleep over bed made up of darbha (specific sacred leaf plant) spread over ground.

2. Application of anjana, crying, massaging, laughing, talking too much and exercise should be avoid.

3. Use of Swedana karma, Vamana and Nasya karma are contraindicated.

4. Diet contraindicated: Avoid pungent (tikshna), spicy (katu) and salty food.

5. Coitus is contraindicated.

6. No adorn oneself, not wear ornaments.

*Indicated activities and diet:*

1. Always concentrate on thinking good and auspicious things.

2. Should eat havishya (meal made up of ghee, Sali rice and milk) and Yawaka (meal made up of barley and milk) in utensils made up of clay and leaves.

The non-observance of the paricharyas may be a reason for the symptoms seen in the premenstrual syndrome.

The menstrual cycle into 3 phases based on physiological changes that take place in the body - rutuka-la, rutavateta kala, and rajahkala. The doshas are continuously ebbing and flowing throughout the body and are influenced by external factors. These factors include a person’s constitution, the climate that they live in, the time of day, as well as the time of the year (season), and time of their life (age). The doshas all rise, peak, and retreat as part of the natural stage of doshic development. The first stage is sanchaya or accumulation. This is where the dosha rises and typically causes unnoticed, mild symptoms in the digestive tract.

The second stage is prakopa or aggravation. This stage is when someone may become more aware of their symptoms; if taken care of, the dosha will retreat into the final phase. The last stage is prashama or alleviation. This is when the dosha withdraws, and the series of events can begin again.
The first phase, ritukala, begins after menstruation and is related to the proliferative phase of the uterine cycle as well as the follicular phase of the ovarian cycle. Kapha governs this phase for two reasons: the uterus is building tissue and Kapha is rasa, a main component of the developing endometrium. In this phase, Kapha accumulates (kaphachaya) and peaks (Kapha-prakopa). All the while Kapha is aggravating, Pitta is accumulating (Pittachaya) and Vata is alleviated (vatashama). Kapha is essential for growth of the uterine lining, and because Vata impedes growth, it must be alleviated for proper formation of the uterine lining. The next phase is rutavateta kala, which is related to the secretory phase of the uterine cycle and it is governed by Pitta. Pitta works through Rakta to build make the glandular and vascular changes in the endometrium to best prepare it for implantation of the egg. In this phase, Pitta keeps Kapha in check and prevents it from overgrowing. Pitta’s aggravation here causes Kapha’s alleviation. The Pitta that was accumulating during the later phase of rutukala now moves into aggravation, or Pittaprapkopa. Meanwhile, Vata is accumulating (Vatachaya) and when Vata hits its peak (Vata-prakopa), the last phase, called rajahkala, begins. Vata acts through the arteries by spasm, which helps the uterus to shed the stratum functionale. Apana Vayu is the downward force that helps the menstrual fluid find its proper exit through the cervix and out the vagina. Once menstruation starts, Pitta diminishes into Pittashama. So, no symptoms are noted once menstruation starts.

6. Conclusion

Premenstrual syndrome is now one of the most common psycho neuro endocrine disorder affecting the quality of life of many women with conditions of both physical, psychological and behavioral symptoms being prevalent among the reproductive age group of 18-40 age groups. Increased anxiousness and mixture of physical, psychological and behavioral symptoms with an increased incidence of mood swings five to seven days before menstruation.

On thorough evaluation through the classics vata vriddi lakshana pitha vriddi lakshna symptoms along the vitiation of manasa bhavas can be correlated to some of the symptoms of premenstrual syndrome.

It can be described as a separate clinical or a premonitory symptom of premenstrual syndrome. Due to the evaluation of nidana, samprapti etc. Excessive vata prakopa, pitha prakopa and kapha prakopa lakshanas were initially noted in the sanchayaavasta of the symptoms of premenstrual syndrome.

7. Referance

1. D.C.Dutta, D.C.Dutta’s Text Book of Gynoecology, 6 chapter P.1 ,p - 174-176
2. Howkin’s and Bourne, Shaw’s Text Book of Gynaecology, 14th edition; 2008, p -126-127


