A CASE REPORT ON EFFECTIVE MANAGEMENT OF PREMENSTRUAL SYNDROME WITH AYURVEDA

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ABSTRACT
Menstruation is a normal physiological process in females starting at the age of twelve years and lasts till the age of fifty years. It is a cyclical phenomenon usually occurring every twenty-one to thirty-five days and includes uterine bleeding for about three to seven days. Most well adjusted women experience minor psychological and somatic changes for a few days preceding menstruation. These menstrual molimina give way to a sensation of relief and well being once menstruation is established. Most women of reproductive age have some physical discomfort or dysphoria in the weeks before menstruation. Pre-Menstrual Syndrome is one such commonly reported and highly prevalent disorder characterized by constellation of physical, emotional, cognitive and behavioral symptoms. An 18-year-old female patient reported to OPD with the complaints of pain during menses since six years, extreme mood swings, irritability, sudden tearfulness, anger outbursts, nervousness. These symptoms were also associated with vomiting and loose motions. On physical examination, no abnormalities were detected. Mental Status Examination revealed abnormality in mood and affect, attention, concentration and thought process. Based on history, presenting symptoms and diagnostic criteria the case was established as Premenstrual Syndrome. So, the protocol for treatment planned was symptomatic. Internal administration of Gokhura churna plus Yastimadhu with Munnaka kshirapaak was given for 15 days. Rajaswalacharya was advised.

KEYWORDS: Pre-menstrual syndrome, Rajaswalacharya, Gokshura, Yashtimadhu.

INTRODUCTION
Thirty years ago, an article in Science written by psychiatrist George Engel coined a word to describe a developing paradigm for patient care, the "biopsychosocial model" (Engel, 1977). The model encouraged formulating treatments that considered the mind and body of a patient as two intertwining systems influenced by yet a third system-society. Psychological factors have been found to play a dual role in their relationship with women's reproductive health. At times psychological factors are a consequence (infertility has been linked with psychological distress), and at other times are an insidious cause of a health problem (increased hysterectomies have been found in women with a low tolerance for the physical discomfort of menstruation). Mood, anxiety, and alcohol or substance use disorders are three families of psychiatric disorders commonly seen and often comorbid with reproductive. These three groups are defined by specific criteria described by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), published by the American Psychiatric Association in 2000[1]. In most of the females, biological event occurring in their reproductive function acts as stressor. The phenomenon of menstrual cycle is one of it. Menstruation is a normal physiological process in females starting at the age of twelve years and lasts till the age of fifty years. It is a cyclical phenomenon usually occurring every twenty-one to thirty-five days and includes uterine bleeding for about three to seven days[2]. Most well adjusted women experience minor psychological and somatic changes for a few days preceding menstruation. These menstrual molimina give way to a sensation of relief and well being once menstruation is established. In some women these manifestations become exaggerated to constitute a premenstrual syndrome (PMS)[3].

Pre Menstrual Syndrome
This was first described by Frank and Horney in 1931. The word pre menstrual syndrome is composed of Pre means prior to; Menstrual means...
menses; syndrome means group of symptoms. It seems it is a collection of a group of symptoms prior to the menses. There is no universally agreed single definition for PMS. The WHO international classification of diseases (ICD) includes premenstrual tension syndrome under the heading “diseases of the genitourinary tract”. It is also known as Premenstrual Tension (PMT) and Premenstrual Stress. Premenstrual syndrome is a psychoneuroendocrine disorder of unknown aetiology, often noticed just prior to menstruation[4]. There is cyclic appearance of a large no of physical, psychological & behavioural symptoms during the last 7-10 days of the menstrual cycle.

It should fulfill the following criteria (ACOG)

- Not related to any organic lesion (without any physically detectable cause)
- Regularly occurs during the luteal phase of each ovulatory menstrual cycle.
- Symptoms must be severe enough to disturb the life style of the woman or she required medical help.
- Symptom free period during rest of the cycle.

When these symptoms disrupt daily functioning, these are grouped under the name Premenstrual Dysphoric Disorder (PMDD). It is the severe form of PMS which should recur for at least two menstrual cycles for making its diagnosis. In the mid 1980s, a multidisciplinary US National Institutes of Health consensus conference on PMS proper criteria that were adopted by the diagnostic and statistic Manual III (DSM III)[5] to define the severe form of this condition: originally entitled “late luteal phase dysphoric disorder”, it was later renamed “PMDD”. It is included as a psychiatric disorder. This is extremely common in all age groups but especially found in child bearing age group after the age of 30 yrs upto 45 yrs. The age incidence of PMS is said to be due to the fact that stresses are most severe in the third and fourth decades. It has no relationship with parity, but symptoms disappear during pregnancy & after menopause. The exact causes are unknown, although several different biologic factors have been suggested. Of these, estrogen and progesterone level variation (less common in women with surgical oophorectomy, drug induced ovarian hypofunction such as with GnRH agonists or rare in women with anovulatory cycles), as well as these sex steroids influence the CNS neurotransmitters, noradrenaline, gamma amino butyric acid (GABA) [6] and serotonin, are frequently studied. Sex steroids also interact with the rennin-angiotensin-aldosterone system (RAAS) to alter electrolyte and fluid balance. The antimineralocorticoid properties of progesterone and possible estrogen activation of the RAAS system may explain PMS symptoms of bloating and weight gain[7].

Prevalence

It is estimated that as many as 3 of every 4 menstruating woman have experienced some form of PMS. The symptoms are mild, but 5-8% have moderate to severe symptoms that are associated with substantial distress or functional impairment. However, some studies suggest that upto 20% of all women of fertile age have premenstrual complaints[8].

Previous Indian studies have found a 20% prevalence of PMS in the general population & among there with PMS 8% had severe symptoms[9]. Raval et al. did a study in Gujrat among 489 college students and found the prevalence of PMS was 18.4% and of PMDD was 3.7%[10]. In a study of medical students in Delhi, about 37% of participants had PMDD[11].

Symptoms[12]

A patient may complain of only one symptom or may be full of the following symptoms.

| S.No. | Related to | Symptoms |
|-------|------------|----------|
| 1.    | Fluid retention | Bloating, Weight gain, Oedema, Reduced urination |
| 2.    | Pain | Pelvic pain, Mastalgia (breast tenderness), Headache, Joint & muscular pain, Backache |
| 3.    | Psychological | Depression, Anxiety, Irritability, Weepiness, Aggression, Frequent & severe mood swings, Sadness |
| 4.    | Behavioural | Lack of consciousness, Absenteeism, Suicidal tendency & criminal acts, Aggression, Indecision |
| 5.    | Nervous system | Insomnia, Hypersomnia, Anaemia, Food cravings, Fatigue |
Pricking/tingling sensation
Lethargy
Agitation
Change in sex drive
Clumsiness
Dizziness or vertigo

Nausea
Diarrhoea
Palpitations
Sweating

Acne, Oily skin, Greasy or dry hair

Signs
On physical examination – no abnormality is detected. The pelvic organs feel normal.

Diagnosis
- Difficult to diagnose
- No clear cause
- Symptoms complex and vary
- Cyclic pattern – crucial for diagnosis
- Menstrual diary keeping-changes (physical, psychological)
- Symptoms appear prior to menses & disappear when bleeding starts.
- TFT (thyroid function test) – R/O other medical disorders
- USG to rule out organic cause- endometriosis etc.

Treatment
As the aetiology of PMS is unknown so it is treated mostly empirically and symptomatically. Most commonly prescribed treatment is NSAIDS, pyridoxine, evening primerose oil, diuretics, OCP, Progestogens, GnRH analogues, psychotherapy, lastly surgery.

Case Report
A 18-years-old female Muslim patient student by occupation belonged to middle socio economic status visited the OPD of Prasuti Tantra and Stri Roga Department, National Institute of Ayurveda, Jaipur with the chief complaints of pain during menses associated with vomiting and loose motions during menstrual phase since last six years (since Menarche). After asking her in detail, she told that she also suffered from breast tenderness, anorexia, extreme mood swings, irritability, lack of concentration, anger outbursts, nervousness five – seven days prior to and during first two days of menses since six years with gradual onset. Patient reported that symptoms were severe enough since last six months to disturb her lifestyle. These symptoms significantly caused mental distress and interfered with her personal life and academic life by absenteeism. School performance was poor, did not actively participated in school activities. Family history showed that her mother was also suffered from the same.

Menstrual History
Patient attained menarche at the age of 12 years. Her last menstrual period was on 10/12/2019. She came to the OPD on 3rd day of the cycle. Menstrual cycle was regular with normal duration of menstrual flow with three pads per day in first three days then one pad per day, without any foul smell, with mild clots and the color of menstrual blood was dark red. But the pain was of severe intensity and spasmodic in nature starting from last 5 -7 days of luteal phase of cycle and relieved 2 days after appearance of menstruation. She took allopathic treatment and hot water bag fomentation for dysmenorrhoea (painful menses).

Past Medical History: Took analgesics for dysmenorrhoea.

Past surgical history: Not significant

Family history: Mother also suffered from dysmenorrhoea.

Personal History
Appetite: Poor
Bowel: Normally, it is clear but prior to and during menses loose motion is seen
Micturition: Clear
Sleep: Sound

General examination
Built: Moderate
Nourishment: Moderate
Pulse: 80 / min
BP: 120/80 mm of Hg
Temperature: 97.6 F
Respiratory Rate: 18 cycles / minute
Height: 4'2"
Weight: 40kg
Tongue: Uncoated
Pallor/Icterus/Cyanosis/Clubbing/Edema/Lymphadenopathy: Absent

Systemic examination
CNS: Well oriented, conscious but irritable
CVS: S1 S2 Normal
Per abdomen examination- soft

Ashta Vidha Pariksha

- Nadi - 80 / min
- Mala - Three times a day during menstrual phase otherwise once a day
- Mutra - 5 - 6 times / day
- Jivha – Alipta
- Shabda – Avishesha
- Sparsha - Anushna Sheeta
- Druk – Prakrita
- Akriti - Madhyaama

Dashavidha pariksha

- Prakruti – Pittaja-Kaphaja
- Vikruti – Rasa, Mamsa and Meda
- Sara – Madhyaama
- Samhanana – Madhyaama
- Satmya – Vyamishra
- Satva – Madhyaam
- Pramana – Madhyaama
- Aharashakti-Abhyavarana shakti–Avara
- Jarana shakti – Avara
- Vyayama shakti – Avara
- Vaya – Madhyaama

Lab Investigations

- Hb – 12.7g/dl
- ESR: 9mm
- TLC – 8.4x 10^3Ul
- Bleeding time: 2min 39sec
- Clotting time: 5min 10 sec
- Liver function test: WNL
- Renal function test: WNL
- Thyroid function test: WNL
- Random blood sugar: 75.4 mg/dl
- HIV I & II Non reactive
- VDRL Non reactive
- HBsAg Negative
- USG of uterus and adnexa: Normal study

Signs and Symptoms

| Before Treatment | After 1st Follow Up of 7 days (as told by patient) | After 1 month |
|------------------|-----------------------------------------------|--------------|
| Lower abdominal pain during menses | Present (severe) | Absent | Absent |
| vomiting | Present | Relief (only 1 episode on 1st day of cycle) | Absent |
| Loose motions | Present | Reduced in frequency and duration (only 2 episodes on 1st day of cycle) | Absent |
| Irritability | Present | Reduced | Absent |
| Other Psychological symptoms | Present | Reduced | Absent |
| Breast tenderness | Present | Reduced | Absent |
| Anorexia | Present | Appetite good | Absent |
| Anger outbursts, nervousness | Present | Reduced | Absent |

Diagnosis: Pre-Menstrual Syndrome (Rituvyatita Kala Pitta Vriddhi)

Treatment protocol

- Gokshura powder- 2 grams
- Yastimadhu powder -2 grams with Munnaka Kshirapaaka as Anupana before food.
- Dadimashtaka powder- 3 grams with water after food
- Kala: For 15 days

Pathya and Apathya

Rajaswalacharya[14] was advised to follow the patient in every menstrual cycle. She was advised to eat Rakta Shali rice, Yava (Barley) Chapatti or Daliya with Goghrita, Sita with Godughdha in less amount during the flow days and avoid consumption of Ushna, Tikshana, Vidahi Aahara (Fast foods, deep fried, Packaged items like chips, kurkare etc), excessive salt (except Saindhava Lavana but in less quantity), Divaswapanama, Ratrijagrana. Satwavajaya Chikitsa such as Om chanting, Gayatri Manta, Upwasa was advised to her to make her mind calm.

Observation and Results

During treatment rapport was built immediately and patient was convinced easily. She was given the above said treatment for 7 days. Then the patient revisited the OPD on 17/01/2020 for follow up. Her menses had come on 12/01/2020 with intermenstrual period of 32 days. She got relief in previous complaints. She did not perceive any kind of pain during menstrual phase of this cycle. She did not need any oral medicines to relieve the pain during her period. She got relief in the frequency and duration of loose motions and vomiting as there were 2 episodes of loose motions only on 1st day of cycle and 1 episode of vomiting only on 1st day of cycle. She was able to do all daily routine activities. All other associated physical, psychological and behavioural symptoms like irritability, anger outbursts, breast tenderness etc. were relieved almost by next cycle.
DISCUSSION

In the Ritu chakra (menstrual cycle), three phases are described in the classic texts of Ayurveda as well as in modern books. The phases are Rajah Kala (Menstrual phase), Ritu Kala (Proliferative phase with ovulation) and finally the Rituvyatita Kala (Luteal or secretary phase)\textsuperscript{[15]}. 

| Ritu Chakra (menstrual cycle) | Rajah Kala (Menstrual phase) | Ritu Kala (Proliferative phase with ovulation) | Rituvyatita Kala (Luteal or secretary phase) |
|-------------------------------|-----------------------------|---------------------------------------------|---------------------------------------------|
| Dosha Pradhanta (predominance) | Vata                         | Kapha                                       | Pitta                                       |
| Dosha Chaya                   | Kapha                        | Pitta                                       | Vata                                        |
| Dosha Prakopa                 | Vata                         | Kapha                                       | Pitta                                       |
| Dosha Shamana                 | Pitta                        | Vata                                        | Kapha                                       |

Rituvyatita Kala (phase) is governed by Pitta basically. Pitta is a kind of transformation energy. So the basal body temperature is raised by 0.5°F to 1°F as said in the modern books. This is due to Pitta Dosha predominance by Ayurvedic principals and due to thermogenic effect of norepinephrine and progesterone by modern science. Pitta is formed of Agni Mahabhuta mainly. So the Agni of whole body rises along with the Upadhavagni of endometrium layer of uterus specifically.

Premenstrual syndrome can be probably correlated with Rituvyatita Kalaja Pitta Vata Vridhhi, As stated in Sharangdhara Samhita\textsuperscript{[16]}, Pitta and Kapha Doshas are Pangu and the movement of these Doshas is due to Vata Dosha only. So Vata Dosha imbalance causes the imbalance state of other Doshas causing premenstrual syndrome. Vata in association with Pitta and Kapha simultaneously vitiates Manodosha and Rasadhatu. Mithyahar vihar is the Samanya nidana for this syndrome. Mithya ahara, not following codes and conduct of food, Ati-chintana, Shoka, Bhaya leads to Vata prakopa. Further exposure to Nidana makes Vata move in Viloma gati presented as Anavasthita chitta, Udvega, Glani, Rodana, Pralapa, Daha, Shotha, Sarvanga vedana etc.

It is useful to eat Yava during menstruation. Similarly, Milk is sweet, unctuous, refreshing, body-promoting, intellect-promoting, strength-promoting, mind-promoting, vitalises, fatigue-alleviating, destroyer of internal haemorrhage, union-promoting in injuries, whole-some for all living beings.

Hence, it is always better to avoid the factors which triggered the complication during the menstruation. But, now-a-days, at the era of globalization it is quit impossible to follow the Rajaswala Paricharya as it is mentioned in the Classics. But, it can be followed at some extent such as these modifications in the Rajaswala Paricharya will help to maintain her equilibrium of health during the most sensitive period of menstruation. Gokshura acts as sweet, cooling, appetite, digestive in properties. It has also properties of Vedanasthapan, Balya. Yastimadhu acts on central nervous system with its properties Medhya. Other properties are Chardinigrahan, Trishnanigrahan, Vatanulom, Mridurechan. It also acts as hepatoprotective. Dadimastak churna as it contains drugs like Vamsa, Tvak, Patra, Ela, Nagkeshar, Yavani, Dhanyak, Sweta jirak, Pippalimula, Sunti, Maricha, Pippali, Dadima, Sita\textsuperscript{[17]}. These drugs are helpful in indigestion and to treat diarrhea. Hence, it is a single case study, the result which we got was relevant. But more effort to be done in upcoming days, there must be some trials to be done in large population.

CONCLUSION

Severe PMS is consistently reported by about 5% of all women of fertile age. The management of PMS is complex. At the outset it is important to establish a precise diagnosis and not rely on the patient's own diagnosis. It is mandatory to separate PMS/PMDD from other diagnoses, particularly depression and anxiety disorders, premenstrual exacerbation of another disorder, or mild physiological symptoms requiring no more than reassurance; preferably this assessment should be done by the general practitioner before referral to a Gynaecologist or a psychiatrist. Diagnosis is best achieved through daily rating symptoms over at least one menstrual cycle; clinicians can ask patients to choose their worst symptoms and chart the severity daily, or can select a validated scale such as the Daily Record of Severity of Problems.

The main principle of Vata dosha balance behind this pre menstrual syndrome is noticed. Patient was recovered from the symptoms which was bothering her day to day activities. She did not complaint of pain during menses. The treatment protocol acts as Vedanasthapan, Balya & Medhya as well. Hence, it can be concluded at some extent Rajaswalacharya will help to maintain her equilibrium of health during the most sensitive period of menstruation. Hence, we concluded that by using above protocols we can cure the patient as PMS
is emerging problem of every female which has disturbed theirs life to some extent.

REFERENCES

1. Robert W. Shaw, W. Patrick Soutter, Stuart L. Stanton, Gynaecology, 3rd edition, Elsevier science limited Churchill livingstone, 2003, p. 401.
2. Dutta's D.C, Konar Hiralal (edited by) Textbook of Gynaecology, 6th edition, Jaypee Brothers Medical Publishers Ltd, New Delhi 2013, p. 82.
3. Pratap kumar & Narendra malhotra, Jeffcoates Principles of Gynaecology 7th edition; Jaypee Brothers Medical Publishers Ltd, New Delhi 2008, p. 625.
4. Greene R, Dalton K. The premenstrual syndrome. BMJ. 1953;1:1007–14.
5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders-DSM-III. 3. Washington DC: American Psychiatric Association; 1980. p. 6.
6. Smith SS, Ruderman Y, Frye C, Homanics G, Yuan M. Steroid withdrawal in the mouse results in anxiogenic effects of 3alpha, 5beta-THP: a possible model of premenstrual dysphoric disorder. Psychopharmacology. 2005;29:1–11.
7. Pratap kumar & Narendra malhotra, Jeffcoates Principles of Gynaecology 7th edition; Jaypee Brothers Medical Publishers Ltd, New Delhi 2008, p. 626.
8. Borenstein J, Dean B, Endicott J, et al. Heath and economic impact of the premenstrual syndrome. J Reprod Med. 2003;48:515–24.
9. Sarkar AP, Mandal R, Ghorai S. Premenstrual syndrome among adolescent girl students in a rural school of West Bengal, India. Int J Med Sci Public Health 2016;5:408-11.
10. Raval CM, Panchal BN, Tiwari DS, Vala AU, Bhatt RB. Prevalence of premenstrual syndrome and premenstrual dysphoric disorder among college students of Bhavnagar, Gujarat. Indian J Psychiatry 2016;58:164-70.
11. Mishra A, Banwari G, Yadav P. Premenstrual dysphoric disorder in medical students residing in hostel and its association with lifestyle factors. Ind Psychiatry J 2015;24:150-7.
12. Pratap kumar & Narendra malhotra, Jeffcoates Principles of Gynaecology 7th edition; Jaypee Brothers Medical Publishers Ltd, New Delhi 2008, p. 625.
13. Ibid.
14. Maharshi Sushruta, Baidhyarakshii Dalhanacharya Birachita Nibandha Samgrahavyakhya Sushrutena Virachita Sushruta Samhita 2/25, 1994, Chaukhamba Surabharati Prakashan, P. 267.
15. Tiwari Premvati, Ayurvediya Prasuti Tantra avum striroga Part I, 2nd edition, Varanasi Chaukhamba Orientalia, 1999, p.78.
16. Pandita Sharangadhara Acharya, Sharangadhara Samhita, Purvakhanda, Rogabheda-parichaya with Dipika Hindi Commentary, by Dr. Brahmanand Tripathi, edition 2012, Chaukamba Surbharati Prakashana, Adhyaya, 7/176.
17. P.V.Sharma, Dravyaguna Vigyan, volume II. Reprint. 2013, 4th edition, Chaukhamba Sanskrit Sansthan. Varanasi. Page no. 253.

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