



Case Study

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 Pre Menstrual 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 antimineralecorticoid 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
6.	Gastrointestinal	Nausea Diarrhoea Palpitations Sweating
7.	Skin	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 ^[13]

As the aetiology of PMS is unknown so it is treated mostly empirically and symptomatically. Most commonly prescribed treatment is NSAIDS, pyridoxine, evening primrose 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/Lymph adenopathy: Absent

Systemic examination

CNS: Well oriented, conscious but irritable

CVS: S1 S2 Normal

RS: Normal vesicular breathing, no added sounds

Per abdomen examination- soft

Ashta Vidha Pariksha

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

Dashavidha pariksha

- *Prakruti* - *Pittaja-Kaphaja*
- *Vikruti* - *Rasa, Mamsa and Meda*
- *Sara* - *Madhyama*
- *Samhanana* - *Madhyama*
- *Satmya* - *Vyamishra*
- *Satva* - *Madhyam*
- *Pramana* - *Madhyama*
- *Aharashakti*-*Abhyavarana shakti*-*Avara*
- *Jarana shakti* - *Avara*
- *Vyayama shakti* - *Avara*
- *Vaya* - *Madhyama*

Lab Investigations

- Hb - 12.7g/dl
- ESR: 9mm
- TLC - 8.4×10^3 U/L
- 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

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- 3grams with water after food
- **Kala:** For 15 days

Pathya and Apathya

Rajaswalacharya^[14] was advised to follow by 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), *Divaswapana*, *Ratrijagrana*. *Satvavajaya 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.

Signs and Symptoms	Before Treatment	After 1 st 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 1 st day of cycle)	Absent
Loose motions	Present	Reduced in frequency and duration (only 2 episodes on 1 st 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

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 secretory phase)^[15].

Ritu Chakra (menstrual cycle)	Rajah Kala (Menstrual phase)	Ritu Kala (Proliferative phase with ovulation)	Rituvyatita Kala (Luteal or secretory phase)
<i>Dosha Pradhanta</i> (predominance)	<i>Vata</i>	<i>Kapha</i>	<i>Pitta</i>
<i>Dosha Chaya</i>	<i>Kapha</i>	<i>Pitta</i>	<i>Vata</i>
<i>Dosha Prakopa</i>	<i>Vata</i>	<i>Kapha</i>	<i>Pitta</i>
<i>Dosha Shamana</i>	<i>Pitta</i>	<i>Vata</i>	<i>Kapha</i>

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 *Updhatvagni* of endometrium layer of uterus specifically.

Premenstrual syndrome can be probably correlated with *Rituvyatita Kalaja Pitta Vata Vriddhi*. As stated in *Sharangdhara Samhita*^[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*. *Mithyahaar 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*, *Shohta*, *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, appetizer, 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*, *Vatanuloman*, *Mridurechan*. It also acts as hepatoprotective. *Dadimastak churna* as it contains drugs like *Vamsa*, *Tvak*, *Patra*, *Ela*, *Nagkeshar*, *Yavani*, *Dhanyak*, *Sweta Jirak*, *Pippalimula*, *Sunthi*, *Maricha*, *Pippali*, *Dadima*, *Sita*^[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 their life to some extent.

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