



**ASSESSING THE THERAPEUTIC POTENTIAL OF *BRAHMI CHURNA*
CAPSULES IN ALLEVIATING PRE-MENSTRUAL SYNDROME: A
CLINICAL INVESTIGATION**

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ABSTRACT

Introduction: The results of this study highlight the significance of investigating complementary therapies that come from natural sources, like Ayurvedic medicine, in order to treat complicated medical problems like PMS. To validate these findings and clarify the underlying mechanisms of action, more investigation is necessary. Overall, this study adds to the increasing amount of data that suggests Brahmi Churna capsules may be a useful intervention for PMS-affected women, giving this demographic hope for better health and a higher quality of life.

Background: A 27-year-old unmarried girl came to Parul Ayurved Hospital, with complaints of irritability, anxiety, depression, anger bursts and poor concentration before menstruation. With associated complaints of breast tenderness, abdominal bloating and recurrent headaches for 1 year.

Results: PMS self-rating score on first visit was '20' followed by '14' after one month of intervention and further reduced to '12 on third visit'. During initial visit patients score was calculated by adding PMS-OR and self-rating scores which came out to be '39 and was interpreted as severe', after treatment total of PMS-OR and self-rating scores was '16 which is interpreted as mild' on severity scale of PMS. VAS assessment score was '10 on initial visit interpreted as worst possible symptom on VAS symptom scale', it reduced to '4 after first month' of medicine intake and further reduced to '3 after treatment interpreted as mild on VAS symptom scale'.

Conclusion: Ayurveda may offer a promising substitute for medication in cases of premenstrual syndrome.

Keywords: *Ayurveda*, gynecology, premenstrual syndrome, PMS, PMDD, *Rituvyapada*

1. INTRODUCTION & BACKGROUND

Premenstrual syndrome (PMS) is the term used to describe a group of physical and psychological symptoms that occur during the luteal phase of the menstrual cycle and are clinically significant. These symptoms can cause severe discomfort and functional impairment. Within a few days following the commencement of menstruation, these sensations go away [1]. The global pooled prevalence of PMS-affected women of reproductive age is 47.8% [2]. PMS symptoms include changes in appetite, weight gain, headaches, nausea, constipation, anxiety, irritability, rage, fatigue, restlessness, mood swings, and sobbing. It can also cause abdominal pain, back pain, low back pain, headaches, and breast swelling and tenderness. Premenstrual syndrome has an unclear origin. Due to the fact that PMS symptoms coincide with menstrual cycle variations, hormonal imbalances such as excess estrogen and insufficient progesterone have been suggested. Serotonin is also linked to symptoms as a major etiological component. The three main hormones that make up estrogen are estriol, estradiol, and estrone, with estradiol being the most powerful. Women have mood swings due to fluctuations in their luteal phase estrogen

levels. Serotonin precursor levels rise dramatically during days 7–11 and 17–19 of the menstrual cycle, according to clinical investigations. This suggests that PMS and mood problems are closely related due to the control of estrogen and serotonin. The molecular biology research indicates that the hypothalamus releases norepinephrine in response to decreasing estrogen, which in turn causes acetylcholine, dopamine, and serotonin levels to drop. These drops result in depression, exhaustion, and insomnia, which are common symptoms of PMDD and PMS [3]. Due to its unique pattern of Dosha dominance, the *Artavachakra*, also known as the *Ritu Chakra*, is divided into three *Kalas* in *Ayurveda*: *Rajakala*, *Rituvyateekala* and *Ritukala*. According to Ayurvedic theory, PMS symptoms appear a few days before menstruation and are known as *Ritu-vyateekala*.

Rituvyateekala: Following ovulation or *Ritukala*, the *Artava* turns *Aagneya* and raises the body's basal temperature by 0.80 to 1.00 degrees Fahrenheit because of the thermogenic action of the secretory phase of the progesterone hormone, which is controlled by *Pitta* and stays in *Prakupita Awastha*.

2. Patient information

A 27-year-old unmarried girl came to Parul Ayurved Hospital, with complains of irritability, anxiety, depression, anger bursts and poor concentration before menstruation. With associated complaints of breast tenderness, abdominal bloating, and recurrent headaches.

Chief complaints with durations

1. Irritability
2. Anxiety
3. Depression
4. Anger bursts
5. Poor concentration
6. Breast tenderness
7. Abdominal bloating
8. Recurrent headaches

Since one
year
before
menstrua
tion

2.1 Past medical history- No history of any chronic illnesses

2.2 Family history – No family history of any chronic illnesses

2.3 Personal History

Diet: Mixed
 Appetite: Reduced
 Bowel: Regular
 Micturition: 4-5 times/ day, 1-2
 times/ night
 Sleep: Sound
 Dietary *Samashana*
 habits:
 Physical Sedentary
 activity:

2.4 Menstrual History

LMP: 11th November, 2023

Duration: 4-5 days
 Interval: 28-30 days
 Regularity: Regular
 Colour: Reddish brown
 Consistency: Thin
 Amount: 6-7 pads per cycle
 Odor: No foul smell
 Pain: Present

9. Clinical findings

3.1 General Examination

Height: 154 cm
 Weight: 60 kg
 Cyanosis: Absent
 Pallor: Present
 Icterus: Absent
 Lymph nodes: No palpable
 lymph nodes
 Clubbing: Absent
 Blood pressure: 112/80 mm of hg
 Pulse rate: 72/ minute
 Temperature: 98.6 °F

3.2 Systemic Examination

Respiratory: No scar mark or
 discoloration, Bilateral
 airway entry clear, no
 added sounds
 Cardiovascul
 ar system: No
 discoloration/precordia
 l bulging, dull note
 over precordium, S₁S₂
 normal, no added
 sounds
 CNS: Patient conscious and
 well oriented
 GIT: Soft non tender, no
 organomegaly

3.3 Asthavidha Pariksha:**Nadi:** Pittapradhan -**Kaphanubandhi****Mala:** Prakrit**Mutra:** Samyak**Jihwa:** Nirama**Sabda:** Spashta**Sparsha:** Anushnasheeta**Drik:** Prakrit**Akriti:** Madhyam**10. Diagnosis:** Pre-menstrual syndrome**11. Treatment Protocol:**

Patient was prescribed *Brahmi Churna* capsules 2 capsules thrice daily (500 mg each) with luke warm water after meal for two consecutive menstrual cycles.

12. Results:

Table 1: Investigations

S. No.	ASSESSMENT	BEFORE TREATMENT 13 th November 2023	AFTER TREATMENT 13 th January 2024
1.	Hb	13.2 gm/dl	13.5 gm/dl
2.	WBC	7660 cu/mm	6500 cu/mm
3.	PLT	414000 cu/mm	350000 cu/mm
4.	RBS	130 mg/dl	116 mg/dl
5.	USG	Anteverted normal size (57×28×40 mm)	-

Hb: haemoglobin; WBC: White Blood Cell; PLT: Platelet; RBS: Random Blood Sugar; USG: Ultrasonography

Table 2: VAS symptom scale

S. No.		Visit 1 (Screening)	Visit 2	Visit 3	Visit 4 (After medicine free period)
	Date	24/11/2023	18/12/2023	13/01/2024	10/02/2024
	LMP	17/11/2023	14/12/2023	10/01/2024	06/02/2024
1.	Depression	+	-	-	-
2.	Irritability	+	-	+	-
3.	Anxiety	+	-	-	-
4.	Anger bursts	+	+	+	-
5.	Confusion	+	-	-	-
6.	Social withdrawal	+	-	-	-
7.	Breast tenderness	+	+	Reduced	-
8.	Bloating	+	+	Reduced	-
9.	Headache	+	+	+	+
10.	Swelling of extremities	+	-	-	-
	Total	10	4	3	1

Table 3: PMS-OR Scale

S. No.		Visit 1 (Screening)	Visit 2	Visit 3	Visit 4 (After medicine free period)
	Date	24/11/2023	18/12/2023	13/01/2024	10/02/2024
	LMP	17/11/2023	14/12/2023	10/01/2024	06/02/2024
1.	Irritability (0-4)	4	2	2	0
2.	Tension (0-4)	2	1	0	0
3.	Efficiency (0-4)	2	1	0	0
4.	Dysphoria	1	0	0	0

	(0-4)				
5.	Motor coordination (0-4)	1	0	0	0
6.	Cognitive (0-4)	2	1	0	0
7.	Physical symptoms (0-4)	4	2	1	1
8.	Social impairment (0-4)	2	1	0	0
9.	Eating habits (0-2)	1	1	0	0
10.	Sexual drive and activity (0-2)	0	0	0	0
	Total	19	9	3	1

PMS self-rating score on first visit was '20' followed by '14' after one month of intervention and further reduced to '12 on third visit'. During last follow up there rating was '0' for PMS self-rating score. During initial visit patients score was calculated by adding PMS-OR and self-rating scores which came out to be '39 and was interpreted as severe', after treatment total of PMS-OR and self-rating scores was '1 which is interpreted as doubtful' on severity scale of PMS. VAS assessment score was '10 on initial visit interpreted as worst possible symptom on VAS symptom scale', it reduced to '1 after first month' of medicine intake and further reduced to '1 after treatment interpreted as mild on VAS symptom scale'.

13. DISCUSSION

Brahmi Churna is *Tikta* and *Kashaya* in *Rasa*, *Madhura Vipaki* and *Sheeta Virya*.

It is very effective in balancing *Vata* and *Pitta* disorders, it is *Medhya* by *Prabhava*, so it relieves stress and symptoms of PMS, *Vata* and *Pitta* is balanced thus reducing,

bloating, breast tenderness, anxiety, depression, dysphoria, irritability, and swelling. This mood change further increases efficiency and social impairment. *Vata Shaman* also improves motor functions *Brahmi* can control spasms in the intestines. It does not treat irritable bowel syndrome (IBS) permanently, but it might offer momentary respite from its symptoms, thus improving gastro intestinal symptoms of PMS [4].

14. CONCLUSION

The results of this study highlight the significance of investigating complementary therapies that come from natural sources, like *Ayurvedic* medicine, in order to manage complicated medical problems like PMS. To validate these findings and clarify the underlying mechanisms of action, more investigation is necessary. Overall, this study adds to the increasing amount of data that suggests *Brahmi Churna* capsules may be a useful intervention for PMS-affected women, giving this demographic hope for better health and a higher quality of life.

15. Patient consent

Written permission for publication of this case study has been obtained from the patient.

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