



**CASE REPORT**

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## ***Ayurvedic* Management of 'Menopausal Syndrome' with Soyabean Granules: A Case Report**

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### **ABSTRACT**

*The menopause, which lasts for several years in a woman's life and involves both biological and psychological changes, is a natural and progressive transition between the active and inactive ovarian function. For women who are experiencing climacterium, hot flushes, sweating, mood swings, and decreased libido are few serious side effects that significantly affect their quality of life (QoL). Menopausal women today number at 43 million, and by 2026, that number is anticipated to rise to 103 million. Menopausal health is therefore significantly more important in India. Hormone replacement therapy, which also entails a number of additional health concerns, is the only treatment option now available for these health issues. Menopausal syndrome may be correlated with Rajonivritti in Ayurveda, and soyabean decreases it by virtue of the Rasa, Guna, virya, and vipaka. A 47-year-old woman complained of not having her period for a full year until July 28, 2022. She visited the O.P.D. of the Prasuti Tantra and Stree Roga of the Parul Ayurveda Hospital, Parul University, Vadodara. She had menopausal symptoms since a year. Soyabean granules were given to her for three months orally. According to the MRS score, this patient's Menopausal syndrome findings were quite good, at 80%. Consequently, soyabean can be thought of as an alternative to HRT for the treatment of menopausal symptoms.*

**Key words:** Menopausal syndrome, Soy Isoflavones, Phyto estrogen, Rajonivritti.

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### **INTRODUCTION**

Menopause define as Menstruation ceases for 12 months, or the equivalent of three cycles, when ovarian function reaches its peak, resulting in chronic amenorrhea. [1] The menopause is therefore a natural and progressive transition between the active and inactive ovarian function that lasts for several years in a woman's life and involves both biological and psychological changes. Typically, this period is connected to the signs of natural aging that affect women.[2] Most women undergo a nearly complete decline in oestrogen production by their mid-fifties. [3] Women's reproductive years are protected by female hormones like progesterone and oestrogen. During menopause, women go through an oestrogen-deficient stage of life that accelerates aging and makes them more prone to psychosomatic conditions. Hot flushes, sweat, mood changes, and decreased libido are just a few critical outcomes that have a substantial impact on the quality of life (QoL) of women who are suffering climacterium. [4] Although Rajonivritti as a disease is not precisely described in the Ayurvedic scriptures, Kala is mentioned by nearly all Acharyas without any disagreement. According to Sushruta[5] and several other texts[6–8], Rajonivritti occurs at the age of 50, when the body is completely affected by senility.[9] There are currently about 43 million menopausal women, and by 2026, that figure is expected to increase to 103 million.[10] Therefore, menopausal health is substantially more crucial in India.[11] The only therapeutic option for these health hazards currently accessible is hormone replacement medication, which also carries a host of other health risks like vaginal bleeding, breast cancer, endometrial cancer, gallbladder disorders, etc.[12–15] However, this therapy does not work well for the psychological side effects of this period. Modern medicine system frequently utilizes sedatives, hypnotics, and anxiolytics to treat these diseases for an extended period of time. However, these medications can have a number of unfavourable side effects, including drowsiness, impaired motor function, memory loss, allergic reactions, antisocial behavior, and drug dependence. Incorporating phyto estrogen containing food articles in the daily regime of perimenopausal women is an attractive alternative for hormone replacement.

## MATERIAL AND METHOD

### *Soyabean Granules preparation*

- Soyabean procured from field
- Roasted
- Powdered
- Sugar syrup made
- Roasted powder added into sugar syrup
- Granules made by passing through sieve
- Dried under shade

**Figure 1 : Soyabean Granules**



## CASE REPORT

**3.1 Patient information:** A 47-year-old woman complained of not having her period for a full year till July 28, 2022. She came to O.P.D. of the Prasuti Tantra and Stree Roga of the Parul Ayurveda Hospital, Parul University, Vadodara. She had menopausal symptoms since a year. She saw a gynecologist since her symptoms were bad enough to affect her quality of life, and the doctor suggested to start hormone therapy. To get guidance regarding an alternative to hormone replacement therapy, and better treatment, she visited Parul Ayurved Hospital, Vadodara, Gujarat.

### **3.2 Chief complaints & Associated complaints with duration**

- Absence of menses since one year
- Hot flushes felt 2-3 times per day, increased during time of stress
- Heart discomfort even when talking loudly
- Daily delayed sleep with many awakenings and delayed sleep re-appearance
- Depressive mood, Unstable mood due to any influencing factor
- Uncontrollable Irritation
- Uncontrollable Anxiety
- Pain during coitus and vaginal dryness
- Fatigue even when not doing work
- Having decreased sexual desire
- B/L knee joints pain

All chief and associated complaints were present since one year and two months.

**Past History:** Medical: No relevant history, Surgical: No relevant history

**Family History:** Not specific

### **Past Menstrual History:**

- Age of Menarche - 14 years,
- LMP- 20/7/2021,
- Regularity: Regular, Painless,
- Menstrual Flow: with Clots,
- With Foul smelling,
- Quantity: Medium,
- Color- Dark Red.

### **Personal History:**

- **Appetite:** Moderate,
- **Bowel:** Regular, 1 Times/Day, bloating sometimes,
- **Micturition:** 3-4 Times / Day, 1 Times / Night,

- **Sleep:** Disturbed,
- **Duration of Sleep:** 4-5 hrs / Night,
- **Dietary Habits:** *Vishamashana*,
- **Dominant Rasa:** *Madhura /Amla /Katu*
- **Quantity:** Adequate,
- **Life Style [Vihara]** Nature of Work: Physical: Moderate, **Mental:** Moderate,
- **Habits / Addictions:** Tea (4-5 times in a day)

**General examination:**

**Height:** 150 cm, **Weight:**61 kg **BMI:** 27.1 kg/m<sup>2</sup>

**Systemic examination:**

- RS: AEBE, Clear,
- CVS: S1-S2 heard,
- CNS: Patient conscious and well oriented,
- GI System: No deformity.

**Local Examination:**

**P/A:** Soft and None tender,

**P/S:** Cervix is healthy, No discharge present, No erosion, No congestion present,

**P/V:** Uterus anteverted anti flex, All fornices free, non-tender, Cervical motion tenderness present.

**Vitals with follow-up mentioned in table no. 1**

**Table no :1 Vitals with follow-up**

Vitals	Before treatment	1st Follow up	2nd Follow up	3rd Follow up After treatment
<b>Date</b>	<b>28/07/2022</b>	<b>28/08/2022</b>	<b>28/09/2022</b>	<b>28/10/2022</b>
B.P	110/80 mmHg	118/84 mmHg	114/80 mmHg	120/86 mmHg
Pulse rate	78 / min	74 / min	86 / min	84 / min
SpO <sub>2</sub>	99%	99%	99%	99%
Temperature	Afebrile	Afebrile	Afebrile	Afebrile

**Asthavidhapariksha:**

- *Nadi:* Vatapradhan Kapha,
- *Mala:* Prakruta
- *Mutra:* Samyak
- *Jihwa:* Niram
- *Sabda:* Avishesha
- *Sparsha:* Anushna Sheeta
- *Drik:* Prakrit, Akriti: Madhyama

**Dashvidha Pariksha**

**Prakruti:** *Sharira:* Pitta Kapha , **Manas :** Tamsik,

**Vikruti:** Vata / Pitta / Kapha,

**Sara:** Madhyam,

**Samhana:** Madhyam,

**Pramana:** Madhyam,

**Satmya:** Sarvarasa,

**Satva:** Madhyam,

**Vaya:** Madhyam,

**Vyayamshakti:** Madhyam,

**Aharashakti:** Madhyam,

**Abhyavaranshakti:** Madhyam,

**Jaranshakti:** Madhyam\

**Subjective Parameter:** MRS (Menopause Rating Scale) Score[16]

(Mentioned in the table no 2: with follow up)

**Objective Parameter:** (Mentioned in table no.3)

**Informed Consent:** written informed consent was obtained.

**THERAPEUTIC INTERVENTIONS:**

**Soyabean granules,**

**Dose:** 10 grams,

**Route:** Oral,

**Anupana:** Luke warm water,

**Duration:** 2 months, Empty stomach BD morning-evening.

The patient has completed the study according to the protocol

Date of completion of study: **28/10/2022**

#### Pathya-Apathya advised

**PATHYA: Aahara:** Go-dugdha, Go-Ghrita, Laghu –Ahara, Mudga, Dadima, Freshly prepared food, Takra(Buttermilk), **Vihara** :Yatha shakti vyayam, **Vichara:** Sadvrittapan

**APATHYA: Aahara:**Adhyashan, Atyashana, Ativyayama, Ativyavay, Paryushitannan, Junk food, **Vihara** : Ratri Jagran, Divaswapa, **Vichar**:- Atichinta , Krodha ,etc.

#### OBSERVATION: (Mentioned in the table no 2: with follow up)

MRS score was 25 before treatment, gradually it decreased by 14, 09, and upto 06 by 3 months of intervention of soyabean granules orally. Patients all over health has been improved.

#### RESULT (PERCENTAGE OF RELIEF)

**80%, No ADR found.**

**Table no. 2 : MRS (Menopause Rating Scale) Score with follow up.**

Sr. no.		Before Treatment	1 st Follow-Up	2 nd Follow-Up	3 rd Follow-Up
	<b>DATE</b>	<b>28/07/2022</b>	<b>28/08/2022</b>	<b>28/09/2022</b>	<b>28/10/2022</b>
1	Hot flashes, sweating (episodes of sweating)	3	1	1	0
2	Heart discomfort (unusual awareness of heart beat, heart skipping, heart racing, tightness)	3	1	0	0
3	Sleep problems (difficulty in falling asleep, difficulty in sleeping through the night, waking up early)	3	2	2	1
4	Depressive mood (feeling down, sad, on the verge of tears, lack of drive, mood swings)	2	2	0	0
5	Irritability (feeling nervous, inner tension, feeling aggressive)	3	2	1	1
6	Anxiety (inner restlessness, feeling panicky)	2	2	1	1
7	Physical and mental exhaustion (general decrease in performance, impaired memory, decrease in concentration, forgetfulness)	4	2	2	1
8	Sexual problems (change in sexual desire, in sexual activity and satisfaction)	3	1	1	1
9	Bladder problems (difficulty in urinating, increased need to urinate, bladder incontinence)	0	0	0	0
10	Dryness of vagina (sensation of dryness or burning in the vagina, difficulty with sexual intercourse)	0	0	0	0
11	Joint and muscular discomfort (pain in the joints, rheumatoid complaints)	2	1	1	1
	<b>Total</b>	<b>25</b>	<b>14</b>	<b>09</b>	<b>06</b>

Each follow up taken after 1 month.

Gradation of severity of Menopausal Syndrome : 0-10 None / Mild / Doubtful, 11-21 Moderate , 22-32 Severe , 33-44 Extremely severe.)

**Table no . 3: Objective Parameters**

Investigation	Before Treatment	After Treatment
<b>Serum FSH (Follicle Stimulating Hormone)</b>	54.8 mIU/ml	50 mIU/ml
<b>Hb %</b>	11.7 %	12.75 %
<b>CBC</b>	Within Normal Limit	Within Normal Limit
<b>TSH</b>	2.5 mIU/L	2.60
<b>T3</b>	1.00	0.98
<b>T4</b>	7.80	7.81
<b>FBS</b>	98 mg/dl	100 mg/dl
<b>URINE ROUTIN MICRO</b>	Within Normal Limit	Within Normal Limit
<b>USG (abdomen and pelvis)</b>		
<b>Liver</b>	Normal in size	Normal in size
<b>Gallbladder</b>	Normal	Normal
<b>Pancreas and spleen</b>	Normal in Size	Normal in Size
<b>Rt. And Lt. kidneys</b>	Normal in Size	Normal in Size
<b>Uterus</b>	Normal in Size	Normal in Size
<b>Both Ovaries</b>	Normal in Size	Normal in Size

## DISCUSSION

Menopause is described as the cessation of menstrual flow for a period of twelve months as a result of impaired ovarian function, which results in amenorrhea permanently. Thus, the adjustment between the active and passive ovarian function occurs gradually and naturally. Various levels of somatic and psychological alterations, such as hot flashes and mood swings, are present throughout this phase. Dosa imbalance, which dispels discouraging negativity like numerous symptoms, together known as menopause syndrome, is the only source of the discomfort. In Ayurveda, the term "Rajonivritti" refers to the caseation of Raja as a result of "Jara pakva sharira" brought on by Dhatu kshya. Because of the body's decreased hormone production, this dhatu kshya causes a variety of symptoms in females. Some supplements should be taken in order to reach this level. The Ayurvedic classics don't specifically mention soyabeans, but they all discuss the SHIMBIDHANYA group, which includes soyabeans. Acharya Priyavata Sharma's Priya Nighantu contains a special references to soyabeans. Where the word RAJ SHIMBI, which means "soya bean," is used.

राजशिमबी गुरुः सिग्धा मधुरोष्णा कषायका।

दुर्जरा वातशमनी स्तन्यदा बलवर्धनि।। [18]

Thus by Rasa, Guna, virya, vipaka Soyabean encounters Menopausal syndrome.

Phytoestrogens are oestrogens derived from plants that can have either estrogenic or anti-estrogenic effects. The amount of phytoestrogen in various foods varies, and it can differ greatly even within the same group of foods, depending on the methods of processing and the kind of soybeans used. In reality, phytoestrogens are estrogenic analogues with a potential for great therapeutic value and oestrogen-mimetic activity, which can bind to estrogenic receptors.

It is possible that soy isoflavones, which are estrogen-like compounds chemically and functionally related to 17-estradiol, can help relieve menopausal symptoms. Isoflavones are thought to have both estrogenic and antiestrogenic actions. For instance, isoflavones might inhibit the estrogen receptor, which would have an anti-estrogenic effect on breast and uterine tissue, where excess estrogen might encourage tissue development. Isoflavones, on the other hand, may bind to the estrogen receptor and promote the production of estrogen in other tissues, having an estrogenic action. The menopausal syndrome may be affected by soy isoflavones in a pro-estrogenic way.

Numerous research have been conducted to determine the impact of soya on different menopausal syndrome. Extract from soy isoflavones reduced flush frequency and intensity and did not stimulate the endometrium. Extracts from soy isoflavones are a desirable addition to the options for treating hot flushes. In women who reject or have contraindications to hormone replacement therapy, it may be a secure and effective treatment for hot flushes etc Menopausal syndrome. Soy flour added to diet has also shown to lessen hot menopausal syndrome. Soy has a positive impact on cognitive processes since there is more psychological variety, such as mood swings and depression throughout menopause.

## CONCLUSION

Due in great part to the presence of isoflavones in the soybean, an extraordinary amount of study has been done on the health benefits of soy eating. Isoflavones started to be widely discussed at this time as prospective alternatives to traditional hormone therapy. Soya seeds are among the plants with the highest concentration of isoflavones, a type of phytoestrogen that is particularly effective in treating menopause-related symptoms such as hot flashes, osteoporosis, coronary artery disease, and cognitive decline. According to Ayurveda, soyabean works by the Rasa, Guna, virya, and vipaka on Menopausal symptoms. This patient got very good results in Menopausal syndrome by 80 percentage and it is documented through MRS score. So Soyabean can be considered as an alternative of HRT for management of Menopausal syndrome.

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**Conflict of Interest:** Nil.

**Ethics Statement:** Approve by Institutional Ethics Committee.

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