Clinical Research

An assessment of *Manasika Bhavas* in menopausal syndrome and its management

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**Abstract**

The present clinical trial was conducted to evaluate the efficacy of *Shirodhara* and *Saraswatarishta* as compared to hormone replacement therapy (HRT) in the management of menopausal syndrome, along with the assessment of *Manasika Bhavas*. The subjects were randomly divided into three groups. A total 48 patients were selected for the study, out of which 43 patients completed the study. Specialized Ayurvedic rating scales like *Manasa Pariksha Bhavas* as well as the Hamilton Anxiety Rating Scale, Hamilton Depression Rating scale, and Menopause Rating Scale were adopted to assess the effect of therapy. The effects were examined on the chief complaints as well as the associated complaints. Patients undergoing *Shirodhara* had better relief of the disturbances of *Manasa Bhavas* and psychic symptoms of menopause as compared to the other two groups. *Saraswatarishta* also showed encouraging results in managing the associated somatic symptoms and the psychic symptoms. Hence, we conclude that it can be used as an alternative therapy to HRT.

**Key words:** Menopausal syndrome, *Manasika Bhavas*, *Shirodhara*, *Saraswatarishta*.

**Introduction**

From the very beginning of existence of life in the universe man has striven to live a physically and mentally healthy and comfortable life. According to Ayurveda health is a combination of a healthy body and mind, the *Atma*, and the *Indriyas*.[1] In Ayurveda, various psychological conditions like greed, grief, fear, anger, envy, excessive attachment, etc., have been considered to play a role in the precipitation of diseases. It is advised that one must control these emotions (*Manas Bhavas*) or else it may lead to various *Manasika Rogas*. Many such *Manas Bhavas* affect the menopausal woman due to various reasons and lead ultimately to various somatic and psychological disturbances.

The propagation of the species is a basic aim of nature. In the multiplication of the human race ‘woman has a pivotal role to play.’ In the fashioning of a woman’s bodily structure nature has proved its great capacity and efficiency in a very astonishing manner.

The phase of ‘menarche’ and ‘menopause’ have important influences on the physical, psychological, social, and emotional aspects of a woman. The menopause is a natural phenomenon and one of the life’s important milestones. As both menarche and menopause are related to post-birth changes, both should be tackled with the same caution and care; however, sometimes increasing age and diminishing qualities from life make the menopausal condition more difficult to handle in the lack of proper understanding, sound medical advice, and good social support. Not every woman passes through a torrid time during this phase but every female surely knows about the negative changes associated with the onset of the menopause. Hot flushes, lack of energy, vaginal dryness, irregular periods, backache, depression, etc., are some of the symptoms which may accompany this stage due to the changes in hormonal activity. The period of menopause is a time of tremendous changes in lifestyle. These changes may cause loss of equilibrium and discipline in her day-to-day life.

There has been extensive research on menopause in the West, but in India only a few research institutes have recognized the potential of research on this subject. Being a common and distressing problem, it needs effective and safe treatment. In modern medicine, the management of menopausal syndrome is through hormone replacement therapy (HRT). Often there is spectacular relief from the symptoms of the disease but there is an associated risk of serious side effects such as increased probability of developing breast cancer, uterine cancer, venous thromboembolism, stroke, etc. HRT, however, is not very effective in managing the psychological symptoms associated with menopause. An effort to manage this with
long-term use of sedatives, hypnotics, and anxiolytic drugs leads to side effects like drowsiness, impaired motor function, loss of memory, antisocial behavior, allergic reactions, etc. Thus modern science mainly concentrates on tackling the physical problems of menopause, but the psychological aspect is often neglected. Therefore, here we have made an attempt to focus on the other side of the coin, i.e., the psychological aspects of menopause. There is a great scope for research in Ayurveda to find a cure for the management of menopause.

Aims and Objectives

1. To study the psychological manifestations in menopausal women and their management
2. To assess the efficacy of a Rasayana preparation and Shirodhara in the management of menopausal syndrome as compared to that of HRT.

Material and methods

Distribution of patients

Forty-eight patients were randomly selected from among the outpatients and inpatients of Panchakarma & Manasa Roga Department, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat. They were divided into three groups as shown in the Table.

| Group  | Completed treatment | Discontinued treatment | Total |
|--------|---------------------|------------------------|-------|
| Group A | 10                  | 00                     | 10    |
| Group B | 15                  | 03                     | 18    |
| Group C | 19                  | 02                     | 20    |
| Total   | 43                  | 05                     | 48    |

Inclusion criteria

1. Age between 40–55 years
2. Women not having menses since at least 6 months
3. Patients having psychological manifestations during menopause

Exclusion criteria

1. Patients with surgical menopause
2. Patients suffering from any major illnesses, e.g., tuberculosis, cancer, diabetes mellitus, etc.

Investigations

All selected patients were subjected to routine investigations, which included the following:

- Blood: Hb, TC, DC, ESR, PCV, etc.
- Urine: Routine and microscopic examination
- Biochemical examination: Fasting blood glucose, total serum proteins, lipid profile, alkaline phosphatase

Grouping/dose/duration of treatment

The selected patients were randomly separated into three groups as follows:

Group A was treated with conjugated estrogens 0.625 mg once daily for 45 days

Group B was treated with Saraswatarishta 20 ml mixed with water and taken before meals twice a day for a duration of 45 days

Group C was treated with Shirodhara with Bala Taila, 30 min per sitting for 45 days (After 7 days of continuous Shirodhara, a gap of 3 days in between before the next 7 days sitting with 3-3 days gap after every 7 days)

Follow-up study

All patients were followed up for 1 month.

Method of assessment

- Detailed history was taken and a thorough physical and mental examination was done, with the data being recorded in a special proforma that was specifically designed for this study
- Relief in the subjective signs and symptoms of menopause was assessed
- Gradation of Manasa Pariksha Bhavas as per Charaka Vimanasthana, Hamilton’s Anxiety Rating Scale, Menopause Rating Scale

Overall effect of therapy: Overall effect of the therapy was graded as complete remission, marked improvement, moderate improvement, improvement, and unchanged; the following criteria were used for grading:

1. Complete remission: 100% relief in Manasa Bhavas and clinical features
2. Marked improvement: More than 75% reduction in the score of Manasa Bhavas and clinical features
3. Moderate improvement: 50%–75% improvement in the score of Manasa Bhavas and clinical features
4. Improvement: 25%–50% improvement in the score of Manasa Bhavas and clinical features
5. Unchanged: Less than 25% reduction in the score of Manasa Bhavas and clinical features

Observations and Results

In this series of 48 patients with menopausal syndrome, 68.75% of the subjects were from the age-group of 40–45 years and 31.25% patients were in the age-group of 46–50 years. Hindus comprised 89.58% of the patients, and 10.41% patients were Muslims. Seventy-five percent of the patients were housewives, 12.5% were laborers, and 12.5% were engaged with government service. With regard to educational status, 39.6% were graduates and 25% had studied up to secondary school. Socioeconomically, 58.4% patients were from middle class and 25% patients were from lower class.

We assessed the dietary habits and found that 39.58% patients complained of having poor appetite and 31.25% patients had marked appetite. Vegetarians constituted 60.42% of the subjects, whereas 39.58% were nonvegetarians. Vishama Agni was found in 39.58% patients and Manda agni was found in 33.34% patients. The 55.54% patients were doing Vishamashana and 20.84% patients followed Samashana and Adhyashana dietary habits. Among the patients, 81.25% were taking a Lavana Rasa dominant diet and 64.58% patients were taking Katu Rasa dominant diet. Irregular bowel habits were present in 79.17% patients and 66.67% complained of habitual constipation. The 52.08% patients were having Madhyama Koshtha, while 66.67%
patients were suffering from Muhurmuhur Mutra Pravritti, 45.54% had Sadaha Mutra Pravritti, and 43.75% had Kricheha Mutra Pravritti.

The majority of the patients (91.67%) complained of disturbed sleep. A large proportion (79.17%) said that they were doing little Vyayama. Of the subjects, 64.58% were from Sadharana Desha and 35.42% were from Jangala Desha.

Fifty percent of the patients had attained menarche at the age of 11–13 years. At the time of the study, 60.42% patients were in the climacteric stage, whereas 39.58% had established menopause. Among the patients, 70.83% said they had painless menstrual bleeding, 66.66% had delayed menses, and 50% had heavy bleeding during menstruation.

The majority (81.25%) of the women were married, with 60.42% saying they had some problems with the partner (sexual/psychosexual). Oral contraceptive pills were used by 16.67% of patients, while 39.58% patients were using intrauterine contraceptive devices, and 39.58% had undergone tubectomy. The majority (68.75%) had full-term normal deliveries (FTND), while 22.92% gave history of caesarean section.

A little over half of the patients (54.17%) were of Vata-Pitta Prakriti and 22.92% were of Vata-Kapha and Kapha-Pitta Prakriti; 66.67% were of Rajasika-Tamasika Prakriti, 29.17% were of Satwika-Rajasika Prakriti, and 4.17% were of Satwika-Tamasika Prakriti.

56.25% patients were of Madhyam Satwa and 43.75% were of Avara Satwa. 72.92% patients were of Madhyama Sara. 81.25% patients had Madhyama Samhanan. 75% patients were of Madhyama Pramana. 72.92% patients were having Sarvaka Saratmya. 72.92% patients were having Madhyama Abhyavarana Shakti. 56.25% patients were having Avara Jarana Shakti. 52.08% patients were having Avara Vyayama Shakti.

All patients, i.e., 100%, had Vata Doshha dushti; 85.41% had Pitta Doshha Dushti and 31.25% showed Kapha Doshha Dushti.

All of the patients were having Manovaha, Udayavaha, Rasavaha, and Artanavaha srotodushti; 90% patients were having Purishavaha Srotodushti; 85.40% patients were having Swedavaha Srotodushti, and 83.34% were having Raktavaha Srotodushti.

Krodha was seen in 85.42% of patients, Shoka in 80%, Moha in 75%, Bhaya in 66.67%, Smriti Bhraňsha in 62.50%, and 58.34% patients had disturbances related to Medha.

All patients complained of anxiety, disturbed sleep, and fatigue; 85.2% complained of irritability; 79.17% complained of depression, and 62.5% complained of vertigo.

Headaches were complained of by 97.91% patients, 93.75% had joint pains and backache, 89.58% had constipation, 83.34% had dyspepsia, 81.25% had palpitations, 79.17% had decreased libido, 75% had muscular aches, 70.83% had tingling sensations in different body parts, 68.75% suffered from hot flushes and frequent urination, and 60.41% suffered from flatulence.

**Effect of therapy**

As shown in Table 1, group A showed highly significant result (<.001) in Moha, Shoka, Bhaya, Medha, and Smriti, whereas there was insignificant result in Krodha (>.01). Group B and group C showed highly significant improvement (P≤.001) in all the Mansas Bhavas.

Thus, group A showed highly significant (P≤.001) relief in the psychic symptoms of menopause, except in the case of irritability, where the change was statistically nonsignificant (P>.01). Group B and group C showed highly significant result (P≤.001) in all the psychic symptoms of menopause [Table 2].

As the Table 3 shows, in group A there was highly significant relief (P≤.001) of all the somatic symptoms, except constipation, flatulence, backache, joint pain, and tingling sensation. Group B showed highly significant results (P≤.001) in the somatic symptoms of menopause. Group C shows highly

### Table 1: Effect on Mansas Bhavas

| Manasa Bhavas | Group A | Group B | Group C |
|---------------|---------|---------|---------|
|               | (%) Relief ± SD | P value | (%) Relief ± SD | P value | (%) Relief ± SD | P value |
| Moha          | 32 ± 0.42 | <.001   | 39.02 ± 0.25 | <.001 | 48.93 ± 0.46 | <.001 |
| Krodha        | 34.48 ± 0  | <.1     | 51.51 ± 0.35 | <.001 | 73.46 ± 0.48 | <.001 |
| Shoka         | 29.03 ± 0.31 | <.001 | 45.94 ± 0.35 | <.001 | 62 ± 0.57 | <.001 |
| Bhaya         | 30.76 ± 0.42 | <.001 | 48.38 ± 0.37 | <.001 | 59.45 ± 0.42 | <.001 |
| Medha         | 31.57 ± 0.25 | <.001 | 46.66 ± 0.25 | <.001 | 60 ± 0.48 | <.001 |
| Smriti        | 38.88 ± 0.48 | <.001 | 46.66 ± 0.25 | <.001 | 46.15 ± 0.48 | <.001 |

### Table 2: Effect on psychic symptoms of menopausal syndrome

| Psychic symptoms | Group A | Group B | Group C |
|------------------|---------|---------|---------|
|                  | (%) Relief ± SD | P value | (%) Relief ± SD | P value | (%) Relief ± SD | P value |
| Anxiety          | 41.93 ± 0.48 | <.001  | 50.94 ± 0.41 | <.001 | 70.90 ± 0.51 | <.001 |
| Irritability     | 40.90 ± 0 | ≥.10    | 53.19 ± 0.48 | <.001 | 67.92 ± 0.76 | <.001 |
| Vertigo          | 66.66 ± 0.42 | <.001 | 80 ± 0.63 | <.001 | 71.87 ± 0.66 | <.001 |
| Depression       | 40.74 ± 0.56 | <.001 | 70.27 ± 0.59 | <.001 | 72.50 ± 0.60 | <.001 |
| Sleep disturbance| 31.25 ± 0.47 | <.001 | 57.14 ± 0.50 | <.001 | 82.35 ± 0.68 | <.001 |
| Fatigue          | 40 ± 0.51 | <.001  | 67.27 ± 0.63 | <.001 | 55.17 ± 0.42 | <.001 |
Table 3: Effect on somatic symptoms of menopausal syndrome

| Somatic symptoms   | Group A (%) Relief ±SD | Group B (%) Relief ±SD | Group C (%) Relief ±SD | P value |
|--------------------|------------------------|------------------------|------------------------|---------|
| Palpitation        | 55 ±31                 | 62.16 ±63              | 54.28 ±41              | <.001   |
| Tingling           | 45.45 ±0               | 64.86 ±63              | 37.50 ±0.70            | <.001   |
| Decreased libido   | 50 ±42                 | 51.42 ±67              | 38.46 ±51              | <.001   |
| Joint pain         | 19.04 ±51              | 68.29 ±63              | 22.22 ±61              | <.01    |
| Backache           | 38.88 ±48              | 52.63 ±72              | 10.34 ±38              | <.05    |
| Dyspepsia          | 50 ±56                 | 72.97 ±67              | 44.44 ±75              | <.001   |
| Flatulence         | 30.43 ±48              | 79.54 ±81              | 27.02 ±61              | <.01    |
| Constipation       | 21.73 ±52              | 83.33 ±65              | 30.76 ±59              | <.001   |
| Hot flushes        | 46.87 ±52              | 62.22 ±35              | 68.51 ±63              | <.001   |
| Headache           | 41.93 ±48              | 54.76 ±51              | 84.12 ±23              | <.001   |
| Muscular ache      | 40 ±42                 | 71.79 ±51              | 27.5 ±50               | <.01    |
| Night sweats       | 65.21 ±52              | 60.46 ±45              | 68.88 ±66              | <.001   |
| Micturition         | 50 ±47                 | 68.57 ±50              | 30.30 ±51              | <.001   |

significant result (P≤.001) in all the somatic symptoms except flatulence, backache, and joint pain.

According to Hamilton’s Anxiety Rating Scale, group A showed highly significant (P≤.001) results in all symptoms, except in tension, which showed insignificant improvement. Groups B and C showed highly significant results (P≤.001) in all the symptoms [Table 4].

Thus, group A showed highly significant results (P≤.001) in all the symptoms assessed by Hamilton’s Depression Rating Scale, except in guilt (<.1). Group B showed highly significant results (P≤.001) in all symptoms, except in the case of except in the case of suicidal tendencies (P<0.02) and weight loss (P<0.1). Group C showed highly significant result (P≤.001) in all symptoms, except in the case of psychomotor retardation (P<0.01) [Table 4].

The Table 6 shows the effects as assessed by the Menopause Rating Scale. Group C showed the greater relief than the other two groups in hot flushes (66.66%), sleep problems (80.39%), in depressive mood (72.5%), in irritability (69.81%), and in anxiety (70.90%). The overall effect of the therapy is shown in Table 7.

**Effect on hematological /biochemical values**

None of the three groups showed any significant change in the hematological and biochemical values after treatment.

**Discussion**

The slogan ‘Healthy Women, Healthy World’ embodies the fact that as custodians of family health, women play a critical role in maintaining the health and well-being of their communities. Although anatomically there is no difference in the structure of the brain between males and females, the emotional makeup of a female is different; certain Manobhayus are peculiarly more common in females, e.g., Sukumarta, Laja, Ekanishta, Bhavukta, Vishvamayya, Sahasreehta, Udara, Tyaga, Andrachitta, Bhakti, Dhairya, Moha, etc. Due to this and other factors, females are likely to be affected to a greater extent by any change occurring in their physical or psychological milieu. Hence, she is to be handled with great care and should be helped to sail through any emotional turmoil. During the perimenopause and menopause, emotions can bubble to the surface in a way similar to that seen in the premenstrual syndrome or during the postpartum period. Hence it is very important for a physician to appreciate the psychological state of the female before undertaking the task of managing her menopausal condition.

Rajonivritti is a consequence of Jaraavastha, and Vata is the dominant Dosha during this stage; it is therefore very important to understand the interrelationship between Vata and Manas. It can be clearly seen that all the disturbances during Rajonivritti are directly proportional to the vitiation of Vata during this phase. The Table below clarifies this interrelationship:

| Disturbance in given physiology of Vata | Disturbances observed in Rajonivritti phase |
|----------------------------------------|-------------------------------------------|
| Niyanta Praneta Cha Manas              | Psychological disturbances like anxiety, irritability, depression, mood swings, etc. |
| Sarvendriyarthanam                     |                                            |
| Abhivodhac                             |                                            |
| Sarvendriyohana Udhyojaka              |                                            |
| Harsha Uttsaha Yoni                    |                                            |
| Sameerane Agni                         | Digestive troubles like Aruchi, Hrilasa, Ajeema, etc. |
| Sarvasharira Dhatu Vyuukar             | Circulatory disturbances resulting in cardiovascular problems like palpitations, and vasomotor complaints like hot flushes |
| Sandhankar Sharirasya                 | Menopausal arthropathies                  |
| Kshepta Bahimalanam                    | Disurbances related to waste products like stool, urine, sweat, menses, etc. For example, constipation, dysuria, excessive sweating, etc. |
| Prakriti Shabda Sparshayoh            | Sensory motor problems                    |
| Pravartak Cheshitanam                 | Difficulty in initiating activities, fatigue, weakness, etc. |
| Ucchaavachanam                        |                                            |
| Pravartako Vacha                      |                                            |
Table 4: Effect as assessed by Hamilton’s anxiety rating scale

| Symptoms                | Group A (%) Relief ±SD | P value | Group B (%) Relief ±SD | P value | Group C (%) Relief ±SD | P value |
|-------------------------|------------------------|---------|------------------------|---------|------------------------|---------|
| Anxious mood            | 35.48 ±0.31            | <.001   | 53.06 ±0.45            | <.001   | 54.28 ±0.41            | <.001   |
| Tension                 | 30.30 ±0.0              | <.10    | 44.18 ±0.45            | <.001   | 37.50 ±0.70            | <.001   |
| Fear                    | 34.61 ±0.56            | <.001   | 54.83 ±0.35            | <.001   | 38.46 ±0.51            | <.001   |
| Insomnia                | 35.48 ±0.56            | <.001   | 61.90 ±0.59            | <.001   | 22.22 ±0.61            | <.01    |
| Cognitive disturbances  | 42.85 ±0.42            | <.001   | 48.38 ±0.53            | <.001   | 10.34 ±0.38            | <.05    |
| Depressed mood          | 33.33 ±0.31            | <.001   | 60 ±0.50               | <.001   | 44.44 ±0.75            | <.001   |
| Muscular complains      | 40.90 ±0.31            | <.001   | 79.41 ±0.41            | <.001   | 27.02 ±0.61            | <.001   |
| Sensory complains       | 54.54 ±0.42            | <.001   | 64.28 ±0.56            | <.001   | 30.76 ±0.59            | <.001   |
| CVS                     | 61.90 ±0.51            | <.001   | 74.07 ±0.48            | <.001   | 68.51 ±0.63            | <.001   |
| GUS                     | 66.67 ±0.42            | <.001   | 81.81 ±0.37            | <.001   | 27.5 ±0.50             | <.001   |
| RS                      | 66.66 ±0.42            | <.001   | 93.75 ±0.37            | <.001   | 68.88 ±0.66            | <.001   |
| Autonomic complaints    | 38.46 ±0.47            | <.001   | 57.69 ±0.37            | <.001   | 68.88 ±0.66            | <.001   |
| Behavioral changes      | 33.33 ±0.31            | <.001   | 52.17 ±0.50            | <.001   | 30.30 ±0.51            | <.001   |

Table 5: Effect as assessed by Hamilton’s depression rating scale

| Symptoms               | Group A (%) Relief ±SD | P value | Group B (%) Relief ±SD | P value | Group C (%) Relief ±SD | P value |
|------------------------|------------------------|---------|------------------------|---------|------------------------|---------|
| Depressed mood         | 33.33 ±0.31            | <.001   | 60 ±0.50               | <.001   | 71.79 ±0.61            | <.001   |
| Guilt                  | 29.03 ±0.31            | <.10    | 46.87 ±0.53            | <.001   | 56.41 ±0.64            | <.001   |
| Suicidal tendency      | 63.15 ±0.63            | <.001   | 88.88 ±0.74            | <.02    | 81.25 ±0.75            | <.001   |
| Insomnia initial       | 35.36 ±0.54            | <.001   | 61.20 ±0.56            | <.001   | 76.60 ±0.76            | <.001   |
| Insomnia middle        | 35.44 ±0.54            | <.001   | 62.90 ±0.62            | <.001   | 76.10 ±0.77            | <.001   |
| Insomnia delayed       | 35.66 ±0.60            | <.001   | 61.62 ±0.59            | <.001   | 75.32 ±0.74            | <.001   |
| Work interest          | 43.24 ±0.51            | <.001   | 78.26 ±0.77            | <.001   | 67.74 ±0.70            | <.001   |
| Retardation            | 42.30 ±0.31            | <.001   | 70 ±0.70               | <.001   | 50 ±0.76               | <.01    |
| Agitation              | 57.14 ±0.42            | <.001   | 54.90 ±0.51            | <.001   | 58.92 ±0.51            | <.001   |
| Anxiety (psyche)       | 35.48 ±0.32            | <.001   | 60 ±0.53               | <.001   | 59.37 ±0.80            | <.001   |
| Anxiety (somatic)      | 43.33 ±0.48            | <.001   | 70.58 ±0.73            | <.001   | 91.89 ±0.47            | <.001   |
| GIT complaints         | 30.43 ±0.48            | <.001   | 48.97 ±0.50            | <.001   | 70.90 ±0.62            | <.001   |
| Genital complaints     | 68.42 ±0.48            | <.001   | 70 ±0.50               | <.001   | 61.70 ±0.60            | <.001   |
| Hypochondriasis        | 46.15 ±0.42            | <.001   | 58.82 ±0.48            | <.001   | 45.94 ±0.63            | <.001   |
| Insight                | 58.82 ±0.47            | <.001   | 64 ±0.70               | <.001   | 34.31 ±0.57            | <.001   |
| Weight loss            | 0 ±0.47                | <.001   | 0 ±0.73                | <.10    | 66.67 ±0.62            | <.001   |

Table 6: Effect as assessed by the menopause rating scale

| Symptoms                            | Group A (%) | Group B (%) | Group C (%) |
|-------------------------------------|-------------|-------------|-------------|
| Hot flushes/sweating                | 46.87       | 62.22       | 66.66       |
| Sleep problems                      | 31.25       | 57.14       | 82.35       |
| Depressive mood                     | 40.74       | 66.66       | 72.5        |
| Irritability                        | 40          | 55.31       | 69.81       |
| Anxiety                             | 45.16       | 50.94       | 70.90       |
| Heart discomfort                     | 55          | 59.45       | 54.28       |
| Physical/mental exhaustion          | 41.66       | 68          | 66.03       |
| Sexual problems                     | 43.47       | 59.25       | 41.17       |
| Bladder problems                    | 55          | 85.18       | 36.36       |
| Vaginal dryness                     | 47.61       | 60.71       | 37.14       |
| Joint and muscular discomfort       | 31.81       | 75          | 36.84       |
Table 7: Overall effect of therapy

|                      | Group A |                      | Group B |                      | Group C |
|----------------------|---------|----------------------|---------|----------------------|---------|
|                      | Manas Bhavas | Effect on chief complaints (%) | Manas Bhavas | Effect on chief complaints (%) | Manas Bhavas | Effect on chief complaints (%) |
| Marked improvement   | 0       | 0                    | 6.67    | 11.11                | 94.45   |
| Moderate improvement | 0       | 20                   | 93.33   | 77.78                | 5.55    |
| Mild improvement     | 90      | 80                   | 0       | 11.11                | 0       |
| No improvement       | 10      | 0                    | 0       | 0                    | 0       |

Probable mode of action of Saraswatarishta

The drug Saraswatarishta has mainly Madhura, Tikta, Katu Rasa, Sheeta Virya, Madhura Vipaka, Laghu Guna, and Tridoshashamaka properties.[7] The ingredients also have properties such as Rasayana, Vayasyashamaka, Balya, Medhya, Manasdosahara, Vedanasthapana, etc. Thus, when Saraswatarishta is administered to patients through the oral route, due to its Laghu Guna, Katu Rasa, and Ushna Virya, it acts as Deepana and Pachana and regulates the Agni. On the other hand, the same drug due to its MadhuraRasa and Vipaka, Snigdha Guna, and Sheeta Virya acts as Rasayana, Balya, Vayasyashamaka, Medhya, and Vatashamaka so that the process of formation of Dhatu is benefited, thereby delaying the aging process. As a result, the symptoms of Rajonivritti also subside.

In Jaravastha, as the Vatadosha is dominant, the majority of the symptoms occur due to Vataavriddhi. Saraswatarishta, by its Snigdha Guna, acts against Ruksha Guna of Vatadosha and pacifies it. Thus, the majority of the symptoms of Rajonivritti may subside. Moreover, Agnimanandha is also a common manifestation of Rajonivritti. The drug Saraswatarishta, by its Deepana-Pachana action, acts on Jatharagni and effectively relieves gastrointestinal symptoms like dyspepsia, decreased appetite, flatulence, constipation etc.

Brahmi, which is a major ingredient of Saraswatarishta, is reported to be an effective tranquilizer; it has intellect-promoting and anxiolytic activities that are useful for managing the psychic disturbances during the menopause. The ingredients of Saraswatarishta also possess digestive properties (e.g., carminative, laxative, antispasmodic, etc. actions), which are attributed to the Deepan-Pachana Karma, and helps to control gastrointestinal complaints such as constipation, loss of appetite, etc. Drugs like Usheera, Haritaki, Mishreya, Vidarikanda, and Brahmi possess diuretic properties and this helps in the management of urinary tract infections during the menopause. [9] Drugs like Brahmi, Vidari, Haritaki, etc. act as a cardiotonic and helps in the prevention of cardiac problems. [10] It also has other properties (e.g., aphrodisiac, hypolipidemic, and hypotensive) that may help in relieving some other menopausal complaints. [11] Moreover, drugs like Vidarikanda, Mishreya, and Shatavari are reported to have estrogenic properties. [12]

Suvarna added in the formulation is Medha-Buddhi-Smruti Sukshkar, Shoka-Bhaya-Krodha Nashesnam, Hrid Dourbalaya Haram Param, Virshyam Agreym, etc., which may act as a driving force by enhancing the activities of other Rasayana drugs in Saraswatarishta. Modern research shows that gold is beneficial for rejuvenating sluggish organs, especially the brain and digestive system. It has been used in cases of glandular and nervous congestion and lack of coordination. The body’s temperature-stabilizing mechanism is restored to balance with gold, particularly in cases of chills, hot flashes, and night sweats. Colloidal gold has a balancing and harmonizing effect on all levels of body, mind, and spirit. It is used to improve mental attitude and emotional states. [13] It has been reported to increase energy, will power, mental focus, and libido. According to many studies, colloidal gold increases mental acuity and the ability to concentrate. It may help to combat feelings of depression and inferiority and to calm excitation and states of anger. It is said to alleviate stress and help stabilize emotions. It is thought to be helpful for arthritis and heart and vascular diseases. Hence, it is a very important component of this drug.

All the drugs in Saraswatarishta are different from one another, having different properties and actions, e.g., Medhya, Balya, Dhatupushhitaka Brimhantiya, Jivaniya, Agnivardhaka etc. The drugs may be adaptogens; antioxidants (minimize oxidation); immunostimulants (which heighten the resistance); antistress; nootropics (which improve higher integrative brain functions like memory learning, thinking, understanding); anabolics (which promote growth); tonics (which mitigate weakness); or may have other geriatric benefits (helping to prevent the diseases of old age).

In a nutshell, Saraswatarishta is believed to comprise antioxidant, nootropic, adaptogenic, immunomodulatory, and intellect-promoting drugs, all of which enhance the Rasayana property of this drug. Hence, Saraswatarishta proved to be a very good formulation, with many beneficial properties.

Probable mode of action of Shirodhara

Shirodhara is a type of Parishkeha among the Murda Taila. It was selected in the present context to deal with the psychic problems occurring in menopause. The rationality behind using Tarpana or Snehana type of treatment in Manas Vikaras is that it is the preferred treatment to control Vayu, which plays the main role in creating pathology at the level of the psyche. Charaka has clearly mentioned that in all Vata Vikaras, Snehana should be the first line of treatment.

Mode of action of Shirodhara can be understood in the following ways

Drug absorption

a) Topically applied drug may use either of two diffusional routes to penetrate into intact skin and the skin appendages (sweat glands and hair follicles).

b) Penetration of topically applied drug into the skin follows passive diffusion. Passive diffusion takes place when a
solute’s thermodynamic activity is unequal on the two sides of the membrane.

c) The hydrated stratum corneum has an affinity for both lipophilic and hydrophilic compounds. The lipophilic compounds transfer preferentially into the lipoidal intercellular phase of the stratum corneum, while the relatively more hydrophilic compounds transfer into the intercellular domain of the stratum corneum.

d) The effect of regional variation on skin permeability can be marked. Overall data suggest the following order of diffusion of simple molecules through the skin: plantar<palmar<arms<legs, trunk, and dorsum of hand<scrotum and post auricular<scalp (< skin permeability less than)

**Physical effect**

The symptoms like tension, headache, and muscular tension caused due to sustained contraction of skeletal muscles can be relieved by the physical effect of **Shirodhara**. Various muscle stress and stiffness can be relieved by **Shirodhara**. It is well recognized that for relieving this type of tension, oil is the most effective.

**Effect on blood supply**

Due to warm effect of the oil used for **Shirodhara** there is local vasodilatation. **Shirodhara** lasts for 45 min; the continuous flow of warm fluid on the forehead for such a long period will cause mild vasodilatation. The region where Shirodhara is performed overlies mainly the cortex arterial branches, venous sinuses, venous reservoir of the brain, the superior sagittal and the cavernous venous sinuses. **Shirodhara** improves the circulation in these areas and helps in regularizing the blood supply of brain.

**Effect on central nervous system**

The hypothalamus controls many body activities and is one of the major regulators of homeostasis. Sensory input from the external and internal environments ultimately comes to the hypothalamus via sensory pathways originating in somatic and visceral sense organs. Other important functions include: control of the autonomic nervous system, control of the pituitary gland, control of body temperature, regulation of eating and drinking, regulation of diurnal rhythms and states of consciousness, regulation of emotional and behavioral patterns (acting together with the limbic system), control of corticotrophin releasing hormone (CRH), increasing serotonin concentration in the synaptic cleft, etc. It can be postulated that **Shirodhara** has some effect on the hypothalamus, with resulting relief of most of the psychic and somatic disorders.

**Effect on anxiety**

It may decrease anxiety by facilitating the inhibitory presynaptic action of GABA and sedative activities in limbic system.

**Effect on depression**

**Shirodhara** may have an antidepressant effect like Mono Amine oxidase inhibitors. The enzyme MAO is present intra-cellularly in most of the tissues. Inhibition of the MAO-A decreases the deamination of Nor-Adrenaline (NA) and to a lesser extent of 5-HT which is associated with the antidepressant action. Drugs used in **Shirodhara** may inhibit the reuptake and cause a localized increase in active NA in the synaptic gap.

**Effect on endocrine system**

An effect of **Shirodhara** on hormone secretion has also been postulated considering the effect on the hypothalamus (as hypothalamus is the main controller of endocrine secretions, acting through the pituitary gland, i.e., the hypothalamus–pituitary axis).

**Effect on autonomic nervous system**

**Shirodhara** may also have an alpha-adrenergic blocking effect and thus block certain actions of adrenaline and noradrenaline. It may produce moderate inhibition of actions of acetylcholine and 5-hydroxytryptamine. It may have a central depressant action on the hypothalamic center controlling sympathetic activity. It may also act on the catecholamine uptake mechanism, acting as sympathomimetic amine. **Shirodhara** may also act on the adrenergic neurons, probably producing their effects by modifying the synthesis, storage, and uptake mechanisms of noradrenaline.

**Effect on Marmas**

Sushruta regards **Marma** as the seat for the soul, mind, Vata, and others (Su.Sha.6/30). Out of the 37 Marmas in the supraclavicular region, 23 are situated in the head. Hence, it can be believed to have effects on mainly Sthapani, Utikshepa, Shankha, and Adhipati Marmas. **Shirodhara** stimulates these marmas and improves their Pranic circulation, as the oil used for **Shirodhara** is always warm and therefore causes vasodilatation of all channels, improving their circulation and thus improves the blood circulation of the brain. As a result there is improvement of the higher intellectual functions, which are related to the hypothalamus, frontal area, etc.

**Effect on Chakras**

Chakras are those regions where there is higher congregation of energy. In **Shirodhara**, Agnya Chakra is the one that is mainly affected.

**Conclusion**

This study shows that menopausal syndrome can be managed by Rasayana drugs like Saraswatarishta and procedures like **Shirodhara**. Many women experience emotional and spiritual challenges during the menopause – a female mid-life crisis – that may or may not be due to changing hormone levels, but which needs to be addressed just as urgently. This includes disturbances in Manas Bhavas like Moha, Krodha, Shoka, etc. All these patients when subjected to the *Panchakarma* procedure **Shirodhara** showed better effect in combating the disturbances of Manas Bhavas and the psychic symptoms of menopause. Saraswatarishta also showed encouraging results in the associated somatic symptoms also. Hence, it can be used as an alternative to HRT.

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नई प्राप्ति
मीनोपोज्हल सिन्ध्रोम में मानसिक भावों का अध्ययन एवं चिकित्सा
ख्यात संतवानी बी.डी.शुक्ला एम.ए. संतवानी गायत्री ढाकर
मीनोपोज्हल सिन्ध्रोम में, होमोन रिप्लेसमेंट थेरापी की तुलना में शिरोधारा तथा सारस्वतारिष के प्रभाव आकलन हेतु मानसिक भावों का अध्ययन करते हुए चिकित्सकीय परीक्षण किया। रोगियों को तीन समूहों में विभाजित किया गया। चिकित्सा का प्रभाव देखने हेतु विशिष्ट आयुर्वेदिक क्रमांक सारणी जैसे मानसिक परीक्षण एवं साथ ही साथ हेमिल्टन एजेंटी रेटिंग स्केल, हेमिल्टन डिप्रेशन रेटिंग स्केल, मीनोपोज्हल रेटिंग स्केल को अन्वेषित किया। चिकित्सा परिणाम को प्राथमिकता के साथ सम्बद्ध वेदना पर भी देखा गया। शिरोधारा और रोगियों के अन्य दो समूहों की तुलना में विचारित भावों तथा मीनोपोज्हल मानसिक लक्षणों से लड़ने में बेहतर प्रदर्शन किया। सारस्वतारिष ने भी मानसिक लक्षणों के साथ-साथ सम्बद्ध शारीरिक लक्षणों के प्रबन्धन में उत्साहवर्धक परिणाम दिये। अतः एच.आर.टी. की वेकल्पिक चिकित्सा के रूप में इनका प्रयोग किया जा सकता है।