ABSTRACT

Ageing is physiological happening which affects each and every organ and system of human body. Ageing affects both physical and mental health of every human being. In women menopause is one of the natural and unavoidable occurring between 45-55 years. The Postmenopausal female is susceptible for many diseases as she is subjected to a state of hormonal deficiency. Many female experience symptoms like hot flushes, night sweats, insomnia, irritability, mood swings, fatigue etc. But few may suffer from serious disorders like Osteoporosis, heart diseases and others. Estrogens, either alone or in combination with progestin (HRT) has been used for the management of menopause. But various side effects like breast carcinoma and endometrial carcinoma has limited the use of hormonal treatment. According to Ayurveda menopause is termed as rajonivrutti. Panchakarma and other procedures like meditation and yoga etc are also found to be beneficial without any side effects. There many herbs like Shatavari, Shatapushpa, Guduchi etc are good source of phytoestrogen and can be effectively used in managing menopause. In present review, an attempt is made to find all possible available safe regimens for prevention and management of menopausal symptoms according to Ayurveda.

KEYWORDS: Menopause, Hormones, Phytoestrogen, Panchakarma, Yoga.
INTRODUCTION
Menopause means permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity. Clinically it is confirmed following stoppage of menstruation for six consecutive months. With increased life expectancy, significant span of life will be spent as post menopausal period. So it is important to take care of such long span of life. During reproductive life of females there is an adequate quantity of Follicle stimulating Hormone, Luteinizing Hormone, Oestrogen and progesterone. Few years prior to menopause, these hormones begin to fluctuate, and in most women menstrual cycle becomes anovulatory. Inadequacy or deficiency of these Hormones produces menopausal symptoms. These include hot flushes, palpitation, Insomnia, Irritability, mood swings etc. and these need to be managed.[1] Modern science is primly depending on hormone replacement therapy which include use of estrogens and progesterone. With the aging of the worldwide population in the coming decades, it is estimated that 1.2 billion women worldwide will be menopausal or postmenopausal by the year 2030.[2] It is estimated that as many as 85 % of postmenopausal women have experienced a menopause-related symptom in their lifetime.[3] So it is important to take care of these women and make their life happy.

Menopause is known as Rajonivriti in Ayurveda. Common perception of society regarding menopause is that it is disease or disorder; but it is a naturally occurring stage of a woman’s life. According to Ayurveda age of menarche and age of menopause is given as 12 years and 50 years respectively. According to modern science average age of menopause is of average 50 years. According to the Sushruta Post menopause period comes in Hani Awastha, where Vata suppose to be predominant.[4] Vata is rajogunbahul hence affecting mental status of menopausal female. So treatment of Vata and Dhatukshay is main goal while managing menopause. Menopause can be managed by various available regimen of Ayurveda like Panchkarma, Snehan, Swedan, Yoga, Meditations, Ahar and Vihar modification and finally by use various herbs and preparations. These procedures are far better and safe than hormone replacement therapy.

SEARCH CRITERIA
Articles and research papers on menopause and herbs useful for menopause, published in journals and in Pubmed central, Cochrane Library, Ayush, Dhara were studied out and related articles and papers were taken into consideration. Ayurveda literature including Samhita and Nighantu related to Rajonivriti was also studied out. Information regarding menopause and
Hormone replacement therapy was collected from Modern literature. All the literature was especially studied for management of menopause by Ayurveda and taken into consideration. More emphasis was done on clinical trials carried out on. Finally results were obtained from all the data and literatures studied.

Concept of Menopause

Modern View

Menopause means permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity while climacteric is physiological period in Woman’s life during which there is regression of ovarian function. Perimenopausal period around menopause is 40-55 years. Effective folliculogenesis is impaired and there is significant fall in oestrogen production. Ultimately, due to physiological ageing GnRH, FSH, LH decline along with decline of oestrogen. This decline in hormone leads to various organ changes and leads to various symptoms. Ovaries shrink in size, Fallopian tube shows feature of atrophy. Uterus becomes smaller, vagina becomes narrower, and vulva shows feature of atrophy, breast becomes flat and pendulous.[5]

Table 1: Signs & Symptoms of menopausal female[6,7]

<table>
<thead>
<tr>
<th>Hot flushes</th>
<th>Night sweats</th>
<th>Insomnia</th>
</tr>
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<tbody>
<tr>
<td>Irritability</td>
<td>Mood swings</td>
<td>Depressive symptoms</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Digestive disturbances</td>
<td>Headaches</td>
</tr>
<tr>
<td>Incontinence</td>
<td>Muscle/joint aches and pains</td>
<td>Thinning hair</td>
</tr>
<tr>
<td>Vaginal dryness</td>
<td>Changes in sexual response</td>
<td>Concerns about memory and ability to concentrate</td>
</tr>
</tbody>
</table>

Post menopausal female is at risk of osteoporosis, fractures, cardiovascular diseases and Heart diseases. As main cause is hormone deficiency, modern science is primly depending on hormone replacement therapy which include use of estrogens and progesterone. But this therapy has significant side effects including breast and endometrial carcinoma.

Ayurveda view

Sushruta has described three stages of life. Madyama Avastha of life is described after 16 years up to the 70 years. This Avastha is again divided into 4 stages. Third stage of Madyama Avastha is of Sampurnata (full maturity) and last up to 40 years while fourth stage is described as slight Hani (decline) which is up to 70 years, then thereafter Vrudhhavastha commences. Pitta Dosha is predominant in Madhya Avastha while Vata in Vruddha Avastha. Charaka and Vagbhata have described Vruddhavastha after 60 years. It means that
Menopause occurs during slight Hani stage of Madhyaama Avastha of life. This phase can be considered as transitory phase from Pitta dominance to Vata dominance. During this phase, Saptadhuhu starts to decline and Vata Dosha start to aggravate. Both Sharirik and Mansik Bala are affected. Most of the menopausal symptoms are due to aggravated Vata-Pitta Dosha and Saptadhatukshaya.

### Table 2: Symptoms of menopause can be correlated according to Ayurveda[^8,9]

<table>
<thead>
<tr>
<th>Sr no</th>
<th>Symptoms</th>
<th>Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hot flashes</td>
<td>Pitta Prakopa</td>
</tr>
<tr>
<td>2.</td>
<td>Night sweats</td>
<td>Pitta Prakopa</td>
</tr>
<tr>
<td>3.</td>
<td>Insomnia</td>
<td>Vata and Pitta Prakopa</td>
</tr>
<tr>
<td>4.</td>
<td>Irritability, mood swings</td>
<td>Vata, Pitta Prakopa and Rasa Kshaya</td>
</tr>
<tr>
<td>5.</td>
<td>Depressive symptoms</td>
<td>Vata Prakopa</td>
</tr>
<tr>
<td>6.</td>
<td>Fatigue</td>
<td>Dhatu kshaya and Vata Prakopa</td>
</tr>
<tr>
<td>7.</td>
<td>Digestive disturbances</td>
<td>Agni Doorbalya and Pita Prakopa</td>
</tr>
<tr>
<td>8.</td>
<td>Headaches</td>
<td>Vata Prakopa</td>
</tr>
<tr>
<td>9.</td>
<td>Vaginal dryness</td>
<td>Vata Prakopa</td>
</tr>
<tr>
<td>10.</td>
<td>Changes in sexual response</td>
<td>Vata Prakopa and Artav Kshaya</td>
</tr>
<tr>
<td>11.</td>
<td>Thinning hair</td>
<td>Vata Prakopa and Asthi Kshaya</td>
</tr>
<tr>
<td>12.</td>
<td>Incontinence-</td>
<td>Vata Prakopa and Dhatu kshaya</td>
</tr>
<tr>
<td>13.</td>
<td>Osteoporosis</td>
<td>Asthi kshaya and Vata Prakopa</td>
</tr>
<tr>
<td>14.</td>
<td>Muscle/joint aches and pains</td>
<td>Vata Prakopa and Dhatu kshaya</td>
</tr>
<tr>
<td>15.</td>
<td>Concerns about memory and ability to concentrate</td>
<td>Vata Prakopa</td>
</tr>
</tbody>
</table>

### DISCUSSION AND RESULTS

#### Principles of management

1. **Management of Dosha**

   Menopause starts in late stage of Madhyamaavastha and then continued in Vruddhavastha. In Vruddhavastha Dosha aggravated is Vata. Ageing and Dhatukshaya is main cause of Vata aggravation. So management of Vata is of very much important. At the beginning of menopause there is also associated Pitta Dosha. So symptoms like hot flushes, sleeplessness etc can be controlled by managing Pitta Dosha.

2. **Agni**

   Agni is important integral part of the body. Agni is causative factor for life span, colour and complexion, strength and enthusiasm. Derangement in Agni causes disturbances in all above factors. Postmenopausal females are more prone for Agnidushti due to Dhatukshay, ageing and aggravating Vata. For good digestion Agni must be maintained.[^10]
3. Management of Dhatukhsaya
Menopause is one of the natural ageing events in late stage of life. Dhatukshaya occurring due to old age is unavoidable, but it can be delayed or magnitude of symptoms of Dhatukshaya can be minimised to certain extent. While managing the menopause Dhatupooran is of very high value.

4. Maintenance of Mansik(mental) health
There is very important interrelationship between Vata and Manas. The aggravated Vata which is Rajogunpradhan along with Rasa Dhatukshaya affects the mental health of menopausal female. Hence it is very important for a physician to appreciate and understand the psychological state of the female before undertaking the task of managing her menopausal condition.

Role of Panchkarma and other procedures
Judicially and timely performed Sanshodhana will increase the Agni, relieves from suffering disease and restore the state of homeostasis. Sense, Mind, intellect and complexion will be clear. Increases strength, delays the ageing and person will live for a long time without disease. Useful procedures for menopausal females includes-

Abhyanga
Abhyanga is said to be Jarahar, Shramhar, Vatahar, Drishtiprasdakar, Pushtikar, Ayushyakar, Swapnakar, Kleshsahhtwa, Abhightasahatwa, Kapha Vata Nirodhan. It has considered as important part of the external Snehana. By the Abhyanga with oil, human body become strong and smooth- skinned. It becomes unsusceptible to the disease of Vata and resistant to the exhaustion and exertion. If the body of an individual is oleated properly through Abhyanga then he lives for a long time without any decay of disease. It helps to prevent and arrest the ageing process by rejuvenations.[11]

Swedan: it is designed to induce sweating. It is Vatahara, Mardavkar, Agnidipti (Improves digestive fire), Twakprasadan (Beneficial for skin), Bhaktashraddha (Increases appetite), Sandhistabdhahanti (Relieves joint stiffness), Shoolhar (Relieves pain).

Basti
In this karma decoction or medicated oil is administered in the Pakwashaya. Basti is best therapy to treat all Vatavyadhies. It is useful for sustained age, improves strength, digestive
power and complexion. Relieve stiffness, pain and constipation, effective in dislocation and fracture conditions. Arrest premature old age and progress of white hair. It induces sound sleep. It improves intellectual power and provides clarity of mind. Matra Basti is useful in menopausal female as less quantity of Sneha is used and can be given at all time without any complications. Various medicated oils like Bala oil, Dashmool oil, Guduchi oil are useful for Matrabasti.\[12\]

**Shirodhara**
In this procedure Medicated oil milk or butter milk are poured in continuous straight over head. It is mainly useful in premature greying of hairs, fatigue, sleeplessness, stress and psychological disorders. Research conducted on this has proved its utility in management of Manasika Bhavas.\[13\]

**Shiroabhyanga**
It is application of oil on head. It is useful for health of facial skin and hairs. It also cures Shiriroga. It nourishes Indriya. Similary Shirobasti is also useful.\[14\]

**Role of Rasayan**
Rasayans are therapeutic measures that promote a youthful state of physical and mental health and expand happiness. These are the measure which extend lifespan, sustaining life, empower mental competence and promote memory, calmness glowing skin and physical strength along with the resistance against diseases. Certain rasayan drugs like Ashwgandha, Shatavari, Chavanprash, Triphala Rasayan, Amalaki Rasayan, Pipali Rasayan etc are best which possesses anti ageing effect.\[15\]

**Role of medicinal plants**
Plats and herbs which are capable of preventing or delaying Dhatukshay and ageing, having property to pacify Vata and associated Pitta can be gold standard in management of Menopause. Plants rich in phytosestrogens are also useful for minimising menopausal symptoms. Medicinal herbs useful for menopausal symptoms are as-

**Balya Gana**
These includes Indravaruni, Kapikachhu, Shatavari, Vrishhyaprokta, White Gourd, Aswagandha, Sariva, Katuka, Bala, Atibala. All these plants provide strength.
Vaysthanpan Gana
These includes Guduchi, Haritaki Amalaki, Rasna, Swetjirak, Jeevanti, Shatavari, Mandukparni, Shalparni, Punarnava. This plant is helpful to retard ageing or postpones old age and preserves youth.[16]

All these plants helps to pacify Vata due to Dhatukshaya in old age are extremely useful in managing ageing event “menopause”.

Supplementations of Phytoestrogens
Postmenopausal women are at a risk of developing diseases like osteoporosis, cardiovascular diseases and cancer. Phytoestrogens are safe, cheap and effective alternative.[17] When used in proper way these are beneficial in breast CA, Endometrial CA and also in the management of menopause. Shatavari, Shatapushpa, Guduchi etc are rich source of phytoestrogens. These are also useful in reducing the menopausal sign and symptoms like hot flush, vaginitis, anxiety and osteoporosis.[18]

Yoga and meditation
Yoga is useful for controlling mental problems mainly to stress and strain. Astang Yoga includes Yama, Niyam, Asan, Pranayam, Pratyahar, Dharana, Dhyan and Samadhi. Out of these Asana, Pranayam and Dhyan can be effectively used in menopausal female.[19] Asanas means different postures; these have capacity to maintain equilibrium of body and mind. Pranayam strengthens the respiratory system and enhances the lung power. Meditation is a process whereby consciousness looks in and acts upon itself. The aim of meditation is to help still the mind.[20,21] Meditation is also useful in stress and strain. The integrated approach of Yoga therapy can improve hot flushes and night sweats. It can also improve cognitive functions such as remote memory, mental balance, attention and concentration.[22,23] Along with yoga and meditation; proper counselling of menopausal female about these physiological changes holds much value.

CONCLUSION
Menopause is not a disease but transitory phase from reproductive years to wise woman years due to physiological loss of ovarian follicular activity producing various symptoms. It is the phase where Dhatukshaya starts and Vata Dosha turn out to be Predominant Dosha. Management of vitiated Vata, Dhatukshaya, supplement of Phytoestogens, Bruhaniya, Balya and Vayasthapan drugs along with maintenance of mental health with the help of Yoga and
meditation definitely helps menopausal females to change annoying menopause to healthy and happy menopause.

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