Beyond HRT- Ayurveda for Menopause and Associated Aging Problems

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Abstract: The physiological function of most organ systems tends to decline with age, but there is a wide individual variability. Every person deserves precise diagnosis and assessment of function together with individually tailored management. The climacteric is a critical period in women’s life where loss of ovarian follicular activity is characterized biologically by decline in fertility, endocrinologically by alteration of hormone levels, and clinically by variation in menstrual cycle length and experience of a variety of symptoms. For decades, estrogen, either alone or in combination with progestins (HRT) has been the therapy of choice. The results of two large studies on HRT, The Heart and Estrogen/progestin Replacement Study (HERS) (1) and the Women’s Health Initiative (WHI) Study (2) however, have modified the risk/benefit perception of HRT. Search for safe alternatives other than HRT to provide optimum physical and mental fitness are warranted. This review puts together probable cause and therapeutics based on Ayurvedic principals. It also lists the group of drugs that can be used in aging population to alleviate menopausal as well as associated aging problems, tailored according to the individual needs.

Keywords: Menopause, Rajonivritti, Ama, Dhatu kshaya, Vayahsthapan.

1. INTRODUCTION

Natural menopause is associated with unavoidable manifestations of aging process in women. As a person grows old, the organ function is challenged both by the diseases and by the physiologic processes associated with ageing. Management of menopause involves management of age related changes, its allied ill effects and menopausal symptoms occurring due to failing follicular activity. Currently, the number of menopausal women is about 43 million and projected figures in 2026 have estimated to be 103 million (3). Menopause as a physiological process universally affects all women who reach midlife. Studies indicate that as women complete the transition to menopause, an estimated 85 percent report one or more symptoms, of which about ten percent seek medical help (4), necessitating the need to find effective and safe alternatives. Contemporary science considers ageing as gradual biological impairment of normal functions, probably as a result of changes made into the cells and structural components which consequently have a direct impact on functional ability of organs and biological symptoms (5). Ayurveda terms aging as Vradhvavastha (old age) or Jirna (degeneration), signified by Kshaya (decay). Objective of Ayurveda is to accomplish physical, mental, social and spiritual well-being by adopting preventive and promotive approaches as well as treating disease with a holistic approach (6). Menopausal syndrome does not find mention as disease in Ayurvedic literature, the reason could be women at that time belonged to a society which had Ayurveda as its health standard. They entered in old age as kalaja vridhvavastha (timely aging) and Rajonivritti (menopause) occurring at about age of 50 years passed uneventful.

According to contemporary medical science, this physiological transition from reproductive to post-reproductive life is associated with decline in estrogen levels. Over time, this decline may be experienced as a change in the skin elasticity, altered cognitive abilities, hot flushes or flashes, night sweats, menstrual irregularities, and vaginal dryness. Other symptoms, such as depression, nervous tension, palpitations, headaches, insomnia, lack of energy, difficulty concentrating, and dizzy spells are also reported. Osteoporosis is most prevalent in women over the age of 50 as the hormonal influence of estrogen on bone health dissipates with the onset of menopause. The progressive changes in bone structure, quality and density lead to pathological fractures and an increase in morbidity and mortality among menopausal women (7). Osteoarthritis, the most common articular disorder begins asymptotically in the 2nd and 3rd decades and is extremely common by age 70. Almost all persons by age 40 have some pathologic change in weight bearing joint (8).
To treat the menopause means to relieve the discomfort and disorder due to hormone deficiency and at the same time to ward off degenerative processes of old age or at least to mitigate their effects and slow down their rate of advance. Hormone replacement therapy (HRT) solves only half of the problem but to provide optimum physical and mental fitness search for alternatives other than HRT are warranted.

To understand the rationale of therapy, it is important to understand the problem according to fundamental principles of Ayurveda.

2. AYURVEDIC CONCEPT OF MENOPAUSE

Ayurveda considers aging Nishpratikriya (changes cannot be resisted) and Swabhavabal Roga (natural disease). Rajonivririti (menopause) occurring in Jarapakva Shareer (aged body) at the age of 50 years is comparable to the present day studies showing the mean age of menopause to be 51 years. With advancing age there is gradual diminution in the qualities of Dosha, Dhatu, Mala, Agni and Oja.

Artava (menstrual blood) is an Upadhatu (secondary constituent), formed from Rasa Dhatu within a month after proper metabolization of Rakta dhatu by its dhatvagni and bhutagni. The kshaya of Rakta dhatu causes Artava kshaya due to utarottar dhatu kshaya. Kshaya of Upadhatu Artava and Shukra, manifest as cessation of menstruation and decreased libido. Further, due to same reasons loss of Ojas (body immunity) makes women more susceptible to illness.

Dhatukshaya leads to Vata Vitiation. With advancing age, progressive vitiation of Vata due to its fundamental properties of Ruksha (Unctuousness), Chala (unstable), Laghu (light), Bahu (talkativeness), Shighra (quick) and Sheeta (cold), further precipitates the Soshana and Kshaya (involution and atrophy) of different Dhatu. This degeneration manifests as Indriya kshaya (loss of this perceptive powers of sensory organs), Bala Kshaya (loss of strength) and Virya Kshaya (loss of reproductive strength). This may explain various symptoms of menopause related to degenerative changes in body such as urogenital atrophy, thinning of the membranes of the vulva, vagina, cervix, and also of the outer urinary tract, shrinking and loss in elasticity of all of the outer and inner genital areas and skin, breast atrophy, decreased libido, problems reaching orgasm and dyspareunia or painful intercourse.

Ama, formed due to mandagni (slow/hypo- function of digestive fire) causes strotovarodh (obstruction of channels), which in turn increases Medo -dushti (disorders of fat metabolism) and decreases the nutrient supply to subsequent Dhatu namely Asthi (bone/skeletal system), Majja (bone marrow), and Shukra (sperm/ fertility promoting substance). Increased accumulation of Meda (fat/adipose tissue) and Mamsa (flesh/muscle tissue) Dhatu can cause the weight gain, one of the biggest complaints associated with aging. Body weight increases with age. This is observed in lean, normal weight and in overweight subjects.

One of the functions of Dhatu is Shareer Dharan ((bear/ supports the bodies frame). Among the dhatu, Asthi dhatu (bones/ skeletal system) is specific for Shareer Dharan. It gives shape to the body and protects the vital organs. According to the principal of Ashraya- aashreyee bhava, asthi dhatu is the seat of Vata Dosa, and asthi and Vata are inversely proportionate to each other. Increase of Vata vitiating factors will cause decrease of Asthi Dhatu. With advancing age vitiating Vata leads to kshaya of Asthi Dhatu (decreased bone density). It can be compared with osteoporosis.

Further, vitiated Vata due to kshaya of Rasa Dhatu when gets lodged in Sandhi (joints), causes Sandhigata Vata (osteoarthritis). It is a type of Vatavyadhiti (Vata disorder) and Shula Pradhana Vedana (agonizing pain) is the cardinal feature of the disease associated with Sandhishotha (inflammation of the joints) with Vata Purma Druti Sparsha (lack of movements of the joints or painful movement of the joints). Shula (pain), Shotha (swelling), Stambha (stiffness), Sparsha-asayyata (tenderness), Sphutana (cracking), Akunchana (bending) Prasarana (stretching) etc. at the joints are other features of this problem. This may explain the increased incidence of skeletal ailments like arthralgia, osteopenia, osteoporosis, osteoarthritis and increased predisposition to fractures as seen during menopause.

Although all the three Dosha (Vata, Pitta and Kapha) are always present in body, their relative predominance changes in different conditions and ages. As per fundamental principles of Ayurveda, Kapha is the predominant Dosha during childhood, Pitta during the adulthood and Vata during old
age. The menopause transition represents a period of dynamic change from middle age to old age. This transition from Pitta dominance to Vata dominance causes most of the symptoms of menopause for Pitta is more akin to metabolic activities and Vata have an active role in degeneration. Resulting imbalance of Dosha during this transition and Kshaya of Medo Dhatu (fatty tissues) may be the cause for hot flushes, excessive sweating; while Rasa Dhatu Kshaya may cause sleep disturbance, irritability, dryness of the vagina etc. which are commonest symptoms associated with menopause.

Prakriti of an individual and Dosha predominance play important role in symptom manifestation. Pitta is basically responsible for the decay and degenerative changes due to its specific properties like ushna (hot), tikshna (sharp), visra (loose), amla (sour), Katu (pungent) etc. (21) Pittaj prakriti women are susceptible to untimely or premature manifestations of aging and hence may have early menopause. They may experience more exaggerated symptoms also. Kapha is principally responsible for growth and development. Women with Kapha predominance prakriti have a tendency to delayed manifestation of aging and may show delayed menopause and will be less aggrieved by symptoms.

If Vata dosha is dominant in Vatik prakriti individual symptoms like sensory motor problems, arthropathies and psychological disturbance like anxiety, irritability, depression and mood swing will be more. In a Pittaj prakriti individual hot flashes will be more pronounced, excessive perspiration and thirst, anger, short temper will be more frequent and in a Kaphaja prakriti weight gain, slow digestion, symptoms related to fluid retention, sleepiness will be more.

3. MANAGEMENT PROTOCOL

Two main components which need to be addressed in women having problems during menopause are advancing age and allied changes, and menopausal symptoms. An intellectual adoption of the suitable treatment options which includes planned usage of multiple variables as per individual needs is best approach for its management.

Aging, though considered Nishpratikriya (changes cannot be resisted) has been dealt scientifically in Ayurveda. Emphasizing Ayu (lifespan), its chikitsa (therapeutics) is called as Vaya Sihapana (age stabilizing). Ayurveda Avatarana (descent of Ayurveda on earth) has been guided by zeal of mankind to have Dirgha Hitakara and Sukhakara Ayu (a longer healthy and happy life). It recommends the countering of aging and related changes by use of Vayasthapak drugs (age stabilizers), to rejuvenate the aged body by Jeevneeya drugs (vitalisers) and for allied aging problems Jarachikitsa i.e. Rasayana Chikitsa (rejuvenating process and formulations).

For menopausal symptoms occurring due to in-equilibrium in Dosha status a wide range of options can be used. This approach should begin with eliciting the potential symptoms at individual level. For women who are encountering depression, which may or may not be directly related to menopause, the treatment needs are quite different from a woman who has no such problem but is experiencing hot flashes.

Due to this high individual variability there is need to develop guidelines that can be tailored as per individual and not just based on risk profile and symptoms. As demographic, life style and health related factors have considerable impact on disease outcome, symptomatic management of menopausal symptom needs to be addressed at individual level.

4. PREVENTIVE MEASURES

The most important part of therapeutics in Ayurveda is Swasthyashya Swasthya Rakshanam (to maintain the health). Preventive measures are significantly preferred. The first and foremost objective of chikitsa in Ayurveda is Dhatusamya (homeostasis) and is the most important component of preventive medicine. Observing Dinacharya (daily regimen), Ritucharya (seasonal regimen), regular removal of aggravated Dosha according to Ritu (season) by Panchakarma are the means to keep dosha in harmony, (22) Ahara Vidhi Visheshayatanam (Rules of proper dietary intake), regular utilization of Rasayana (rejuvenation therapies) and Vaajikarana (aphrodisiacs); are various other tools to maintain the homeostasis of the body. Incorporated well in time at the advent of middle age it may not only prevent symptoms related to hormonal changes affecting the body but also save from Akalaj Vradhhavastha (untimely degenerative changes) and other troublesome outcomes related with aging.

As there is natural vitiation of vata dosha with advancing age it is important to avoid the provocative causes of Vata dosha as a preventive measure. Excessive and single use of Amla, Lavana, Katu, Tikta,
and Kashaya rasa in diet, diva swap (day sleeping) and ratri jagaran (night wakefulness), daily coitus without Vaajikarana (aphrodisiacs), overindulgence in alcohol drinking, excessive physical work, etc. should be avoided.

5. THERAPEUTIC INTERVENTION

Snehan Karma (oleation therapy) is recommended treatment for Vata- vitiation; it can be done externally and internally. The therapy of choice for Vata vitiation is Basti (medicated enema). Basti therapy is considered as prime among all the therapeutic measures, especially for management of Vata disorders, and is accepted as a complete therapeutic measure by many physicians. Yapanā bastī (23, 24) (a type of enema having palliative property) can be recommended in general. Matra Basti with medicated oils such as Sukumar Ghrita, Dhanvantari Tail etc. can be used. As for example Basti with Tikta Dravya Ghrita and Kshira is recommended in Asthi kshaya (25). Tikta Rasa by its Deepana (appetite stimulant), Paachana (digestive) and Rochana (stomachic) properties (26) increases the Dhatvagni (metabolic stage). With increased Dhatvagni, nutrition of all seven Dhatu is improved and thus it checks Asthi kshaya. Tikta Rasa by its Lekhana (scraping) property helps in the weight reduction and thus supports the management of Osteoarthritis (26).

Abhyanga (unctuous body massage) with various medicated oils such as Mahanarayan Taila, Ksheer-balana Tail or Masa Tails for external snehan done regularly as daily routine to check vitiating Vata may also prove useful.

For symptoms occurring due to transition from madhayamavasth (pitta dominant phase) to vradhavastha (vata dominant), use of Ghrita can be recommended. Ghrita is Vata-pitta shama (pacifying), Balya (strengthening), Agnivardhaka (promoting digestion), Madhura, Saumya (agreeable), Sheeta-Virya (cooling in effect), Shulahara (pain relieving), Jwar-hara (antipyretic), Vrishya (aphrodisiac) and Vayasthapaka (age stabilizer) (27). Thus, it not only pacifies Vata and Pitta but also improves the general condition of the body and acts as a rejuvenator of the body. Ghrita is Yogavahi (28) (special affinity to carry and to potentiate the actions of the main drug to which it is mixed) and thus helps in increasing bio-availability of other drugs without losing its own property. Medicated ghrita such as Amalak Ghrita, Shatavari ghrita, Guduchi ghrita, Chitraka ghrita, Panchakola ghrita and Panchatikta ghrita are various medicated Ghrita preparations suitable for menopausal women.

6. MEDICINAL PLANTS

Ayurvedic literature is treasure trove of medicinal plants and herbs. Listed below are names of few which may form the root of knowledge in scientific researches and open up unexplored avenues for treatment and management of menopausal symptoms and associated problems.

Vayasthapak Aushadha- (Age stabilizer drugs) (29) According to Ayurvedic classification, drugs of this group may possesses age sustaining and health promotive properties. They are

- Amrita/ Guduchi (Tinospora cordifolia),
- Abhaya/ Haritiki (Terminalia chebula),
- Dhatri/ Amalki (Emblica officinalis),
- Yukta (Pluchea lanceolata),
- Shweta (Clitoria ternatea),
- Jeewanti (Leptadenia reticulate),
- Atirasa (Asparagus racemosus),
- Mandooparni (Centella asiatica),
- Sthira (Desmodium giganticum) and
- Punarnava (Boerhavia diffusa).

Jeevaneeya Aushadha- (Vitalizers/ restorative drugs) (29), Drugs of this group may promote longevity and optimize all the vital constituents and functions in the body. Collectively the first eight of this group are also called as Astavarga. As the original herbs are rare to find, the substitute herbs are used now days, they have been listed along with their substitute commonly used-
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- **Jeevak** (Microstylis wallichi Lindl (30) or Microstylis spp.) (31), substitute taken is Vidarikand (Pueraria tuberosa) (ROXB. EX. WILLD) DC,
- **Rishbhak** (Microstylis muscifera Ridley (30) or Microstylis wallichi) (31) substitute taken is Vidarikand (Pueraria tuberosa (ROXB. EX. WILLD.) DC,
- **Meda** (Polygonatum verticillatum) (30) Substitute taken is Shatawari mool (roots of Asparagus racemosus WILLD.),
- **Mahameda** (Polygonatum verticillatum Allioni (30), substitute taken is Shatawari mool (roots of Asparagus racemosus WILLD.),
- **Kakoli** (Roscoea procera Wall (30) or Fritellaria oxypetala Royle) (31), substitute taken is Aswagandha mool (Withania somnifera Dunal),
- **Ksheerkakoli** (Roscoea procera Wall (30) or Lillium polyphllum) (31), substitute taken is Aswagandha mool (Withania somnifera Dunal),
- **Mugdaparni** (Phaseolus trilobus),
- **Mashparni** (Teramnus labialis) (32) or Phaseolus mungo,
- **Jivanti** (Leptadenia reticulata),
- **Madhuka** (Glycyrrhiza glabra),
- **Riddhi** ( Substitute taken is Varahikand (Diascorea bulbifera Linn),
- **Vriddhi** (Substitute taken is Varahikand (Diascorea bulbifera Linn).

**Balya Mahakashaya**– (33) (improving strength), the drugs of this group improve vigour and power in body.
- **Aindri** (Citrullus colocynthis Schrad.)
- **Rishabhi** (or Rishabhaka) (Manilkara hexandra),
- **Atirasa** (Asparagus racemosus),
- **Rishyaprokta** (Teramnus labials),
- **Payasya** (Impomoea paniculata),
- **Aswagandha** (Withania somnifera),
- **Sthira** (Desmodium gangeticum),
- **Katukarohini** (Picrorhiza kurroa),
- **Bala** (Sida cordifolia) and
- **Atibala** (Abutilon indicum).

**Rasayan Chikitsa**- (rejuvenation therapy), is a unique concept of Ayurveda. It provides a comprehensive physiologic and metabolic restoration for aging. *Rasayana chikitsa* is mainly used for maintaining the health of healthy individuals although it can be used for diseased also.

The word *Rasa* in *rasayan* has multiple references; it refers to the *Rasa Dhatu* in the context of *Rasadi Sapta Dhatu* (body tissues) and to the pharmacodynamic properties of a drug in the context of *Rasa Guna* etc. *Ayana* means circulation, the measures by which one is capable of getting the nourishing *Rasa*. Acting through a complex and comprehensive mechanism of *rasa-samvahan* (circulation of nutrient juices), *dhatu, agni and srotas*, it nourishes bodily tissues through micro-nutrition, thus helping in regeneration, revival and revitalization of *Dhatu*.

Acting at all levels of *Rasa* are the drugs such as *Draksha* (Vitis vinifera Linn.), milk, *Shatavari* (Asparagus racemosus), *Salparni* (Desmodium gangeticum) etc. they act by enriching the nutritional value of the circulating plasma. Acting at the level of *Agni* i.e. at the level of digestion and metabolism are the drugs such as *Pippali* (Piper Longum Linn.), *Haritaki* (Terminalia chebula), *Citraka* (Plumbago zylenica), etc. they improves the digestion, absorption and metabolism, and has
some anabolic effect. Acting at the level of Srotamsh (the microcirculatory channels carrying nutrition to the tissues) are the drugs such as Guggulu (Cuminum cyminum), Pippali (Piper longum Linn.), Rasona (Allium cepa), etc. These Rasayana cleans and activate the micro–circulatory channels i.e. Srotoshuddhi leading to improved tissue health and their quality (34). Appropriate applications have potential to ward off problems related not only to aging and natural menopause but also in menopausal symptoms induced due to surgical, medical and other reasons.

Aushadha Rasayana - Some of the Rasayan (formulations) that may be helpful is Hartitaki Rasayan, Amalki Rasayan, Pippali Rasayan, Vidanga Rasayan, Shilajit Rasayan, Bhallataka Rasayana, Triphala Rasayana, Vardhman Pippal Rasayana etc. They can be used in menopausal women for various indications.

Ahara Rasayana - To ward off problems related with agnimandya and ama accumulation in body leading to dhatukshaya, following the directives of diet becomes even more important in aging and women with menopausal symptoms. Aahar is dhatuposhak and dhatu is responsible for the maintenance of compactness and strength, dhatu reflects in the terms of Sara (absoluteness of body tissues), which makes a person look young and beautiful (35) (36). Menopausal women should refrain from Vata vitiating food. Laghu (light) and Santarpaka (nutritive) diet is recommended. Packaged, processed, frozen, canned food and erratic food habits should be avoided.

Achara Rasayana - Achara Rasayana (37) (social and personal code of conduct) is unique concept of socio- moral and behavioral therapy which is preventive in nature. It is a non-pharmacological approach by which one can acquire the Rasayana effect. It broadly includes personal and social behavior and Sattvika Ahara. One should maintain inner peace, maintain cleanliness of body and mind, do Japa, control his senses, and give up exhaustive exercises and practice to be free from Ahamkara (ego). About social behavior it has been said that one should always speak truth, do not show anger, have sympathetic behaviors to others, remain conscious about the change of body and environment etc. State of mind such as greed, hate, and dullness cause doshic imbalances and lead to a state of vikriti (diseases).

From the options presented, evaluation based on Rogi – Roga Pariksha (examination of the patient as an individual irrespective of his disease and examination of the disease entity/disease state) specific drug and therapeutics can be selected as per individual needs.

Before deciding upon a treatment, the physician should minutely examine and determine, Dushya (the Dhatu and Mala involved), Desha (the area of the body where disease is manifested, the living place of the patient), Bala (strength of the patient), Kala (season, how old is the disease, age of the person etc.), Anala (digestive power of the patient), Prakriti (Body constitution), Vayas (age of the patient and disease), Satva (mind, tolerance capacity of the patient), Satmya (The food and activities to which the patient is accustomed to), Ahara (food habits) and Avastha (stages of the diseases) of the patient and then only should decide the appropriate treatment (38).

7. DISCUSSION

Natural menopause is a biological process, at the transition phase of life it brings changes that manifest as symptoms in some warranting attention, and it may pass uneventful in most women. As this is often associated with aging, it is signified by dhatukshaya and Vata vitiation. At the dosha level, this involves transition from Pitta dominant phase to Vata dominant phase of life; while aging and natural menopause is distinctly different processes, the consequences of each are similar. Aging women should embrace change of life. By understanding the bodily changes well in advance and making gradual modifications in life style and food habits can give effective results.

To prevent or to reduce the symptoms Vayahsthan, Vajikar, Balya, Rasayan, Vata- Pitta pacifying drugs provide a vast range of options. For research purpose principles and philosophy of Ayurveda must be kept under consideration. Instead of looking for active chemical constituents, paradigm should be on the trial of the whole drug (39).

A condition such as surgical menopause or premature menopause occurring due to genetic or medical reasons, where menopause occurs before the age of 40 years and is not a part of natural aging process, requires the need to distinguish between chronological age and endocrininal change. Assessment using elaborate methodology of Rogi Roga Pariksha and deciding therapeutics based on Ayurvedic
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principals, suggested treatment modalities can be used without any untoward effects for these individuals also.

Further, women having menopausal symptoms are led to believe that estrogen decline must be replaced and medical intervention is needed. In majority of such women, the depletion of estrogen which occurs during menopause does not need to be ‘replaced’; estrogen is only required for women who have significant menopausal symptoms due to deficiency of the hormones. Understanding age related changes and Doshic involvement at individual level a timely intervention may help such individuals and prevent symptoms also.

8. CONCLUSION

Ayurveda and modern medicine have basic epistemological differences. Ayurvedic wisdom and logic is more health-oriented than disease-oriented. Started during midlife as component of preventive health care, management of menopausal symptoms based on Ayurvedic principals can not only reduce the menopausal symptoms but can also effectively address the aging and allied problems. It can improve the quality of life as well as life expectancy of aging female population. It provides wide range of treatment options in the form of single herbs, formulations, therapeutic procedures and lifestyle modifications, which can be utilized as per individual needs. Single drugs given under Jeevaneeya, Vayahstapan and Balya Mahakashaya, formulations and Rasayan Yoga, Ghrita Yoga and Achara Rasayan, Aahar Rasayan opens new avenues for scientific researches. Although menopausal syndrome does not find mention in Ayurvedic literature, todays growing population of suffering female prompts us to look for effective and safer alternatives. It is not possible to name each and every disease; it is the responsibility of the physician to identify the nature, sign and symptoms of presenting ailment and treat it accordingly.

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