

PREMATURE MENOPAUSE: A CRITICAL REVIEW THROUGH AYURVEDA

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ABSTRACT

Premature Menopause is common disorder which is increasing in prevalence in present era. Premature Menopause affects 1% of women under the age of 40 years. Diagnosis of Premature Menopause is based on physical changes, psychological changes and sexual function. Premature Menopause or early menopause may be either spontaneous or induced. Women who experiences Premature Menopause (before age 40 years) or early menopause (between ages 40 and 45 years) experiences an increased risk of overall mortality, cardiovascular diseases, neurologic diseases, psychiatric disorders, osteoporosis, infertility and other sequels. Long term hormonal treatment for the management of Premature Menopause may cause increased rate in cardiovascular disease risk, fluctuations in mood, breast cancer etc. *Ayurvedic rasayan chikitsa* adopting *dincharya*, *rutucharya*, *panchkarma*, *sthanikchikitsa*, *yogasana* and *satvavajaya chikitsa* prove beneficial in these conditions. To give new treatment modalities for Premature Menopause by adopting *Ayurvedic* science is the aim of this study.

Keywords: Premature Menopause, *Rasayanchikitsa*, *Sthanikchikitsa*

INTRODUCTION

Premature Menopause refers to menopause that occurs before age 40 years, and early menopause refers to menopause that occurs at or before age 45 years, both ranges being well below the median age of natural menopause (age 51 years). *Rajonivruttikal* according to Ayurveda is approximately fifty years of age. According to Ayurved science, stages of development of body are:

1. *Bal*
2. *Madhyam*
3. *Vruddha*

Madhyamavastha is again divided into three stages i.e.

- A) *Yauvan*
- B) *Sampurnatva*
- C) *Aparihani*.

Premature Menopause can be correlated to abnormality in *Aparihaniavastha*. *Aparihaniavasthavikruti* is due to mainly *Pittadosha-dushti*.

Premature Menopause or early menopause can be spontaneous or induced; if induced, it can be due to medical interventions such as chemotherapy or surgical interventions such as bilateral oophorectomy. Regardless of cause, women who experience Oestrogen deficiency at an age well before the median age of natural menopause are now recognized to be at increased risk for premature morbidity and mortality.

It is a relatively common condition. The diagnosis should always be considered in any woman presenting with a history of primary or secondary amenorrhea or oligomenorrhea, vasomotor disturbances or other signs of oestrogen deficiency and may be confirmed by the detection of an elevated serum level of follicle stimulating hormone and oestrogen deficiency. Cessation of menstruation and the development of climacteric symptoms can occur few years after menarche. The causes for premature ovarian failure are unknown. It is most frequently idiopathic but may be due to autoimmune disorders, genetic causes, infections, enzyme deficiencies or metabolic syndromes. In the present era, it is essential to enlighten the Premature Menopause and the risk of osteoporosis, ischemic heart disease and associated infertility.

Hetu (Aetiology):

Following Aetiological factors are mostly observed--

1. Beeja-doshaja (Genetic disorders):

These are commoner in those cases that present early. Examples of genetic disorders are chromosomal abnormalities. Ovarian dysgenesis is a major cause of Premature Menopause. Ovarian dysgenesis is seen in 30% of the cases. Chromosomal abnormalities are reported in 10-20% of cases involving X sex chromosomes.

Genetic causes of Premature Menopause are:

1. Turner's syndrome(45X0)
2. Pure gonadal dysgenesis
3. Familial
4. Trisomy 18 and Trisomy 13
5. Di George syndrome

2. Chayapachaya-vikrutijaneet (Genetic Metabolic disorder)

1. 17 alpha-hydroxylase deficiency
2. Galactosaemia
3. Myotonic dystrophy

3. Vyadhiksamtavikrutijaneet(Immunologic al):

1. Ataxia telangiectasia
2. Mucocutaneous fungal infections

4. Dhatvanivikrutijaneet (Autoimmune diseases):

This is reported in 30-60% of cases. They are the more common causes in the later onset presentations. Autoimmune causes of Premature Menopause are thyroid diseases, hyperparathyroidism and Addison's disease.

5. Aupasargik (Infections):

Mumps is the commonest infection associated with Premature Menopause. Its effect is maximal during the foetal and pubertal periods when even subclinical infection can result in ovarian failure. Pelvic tuberculosis can cause secondary amenorrhoea and ovarian failure. Pelvic tuberculosis is seen in 3% of cases.

6. *Asatmya-vihar-janeet- Smoking:*

Smoking is known to induce Premature Menopause. There is a dose-related effect of smoking on age of menopause. The effect of smoking is believed to be caused through polycyclic hydrocarbons contained in cigarette smoke.

7. *Sroto-vidhyata/vikritijaneet*

(Post-Surgery/radiotherapy):

Ovarian failure following hysterectomy is seen in 15-50% of the cases. This is caused by impairment of ovarian vascular supply or by the loss of some important endocrine contribution by the uterus to the ovary. Radiation and chemotherapy causes *sroto-vidhyata* and produces Premature Menopause but the effect is reversible and the ovary may resume ovulation and menstruation after one year of amenorrhoea. Megavoltage irradiation (4500-5000 rads) is often associated with ovarian failure but irradiations less than 500 rads restores normal ovarian function by 50% after a period of one year.

8. *Aushad-upadravajaneet(Drugs):*

Prolonged GnRH therapy may lead to ovarian suppression and failure. Drugs in psychological disorders interfere in hypothalamo-pituitary -ovarian -endometrial

axis and produces amenorrhoea, hypomenorrhoea. The chemotherapeutic agents implicated in the aetiology of Premature Menopause are alkylating agents, methotrexate, 6 mercaptopurine, actinomycin and Adriamycin. Ovarian damage from cancer therapy depends on the age at treatment and on the type of treatment.

Pathophysiology and Clinical Features According To Ayurved:

According to Ayurved *Artav-vahastrotasvidhyata* causes infertility, dyspareunia and amenorrhoea. *Strotasvidhyata* causes *Strotovaigunya*. *Mithya-aahar*, *Mithya-vihar*, depression, strainous work causes *Vataprakop*. *VitiatedVata* causes *Pitta-Kaphaksaya*. Together these three i.e. *prakupitVata* and *kseyena Pitta-Kapha* produces *Jatharagni-mandya* which in turn causes *Dhatvagni-mandya* and *uttarottarDhatuksaya*. *Jatharagnimandya* also causes *Aamotpatti* and *avarodhatmakasamprapti*. *AamaDushittridosh* produces *Anartava*, *Vandhyatva*, *Medovruddhi*, *Hrid-vikruti*, *Asthi-saushirya* etc. *Vitiated Dosha* causes *Dhee-Dhruti-Smrutivikruti* which in turn responsible for decrease in promptness in day to day work. *Aamadushit Pitta-Kapha* along with *prakupitVata* causes *vidgdhatva* causing *hasta-padadaha* and *santap of Mana-Indriya* and disturbed sleep. *PrakupitVata* and *kseyenaKapha* cause dryness of *Vagina and Mansa-dhatushaithilya* causing *Yonisransa* and *Yonibhransha and maitun-anichcha*. According to Ayurveda above described *rugnasanvedya* and *vaidyasurvedyalaksane* helps in *vyadhivinishchaya*.

Pathophysiology and clinical features according to Modern science:

Lack of gonadotrophin receptors is the underlying cause of non response of follicles and the main cause of this disorder.

Premature Menopause is associated with multiple symptoms such as vasomotor symptoms (Hot flushes and night sweats), vaginal symptoms (vaginal dryness and dyspareunia), urinary symptoms (frequency, urgency, incontinence and atrophic cystitis), sexual dysfunction, and sleep disturbances. Other symptoms are headache, depression, anxiety, irritability, skin atrophy, joint pains, cancer phobia, pseudocyesis and lack of concentration

Diagnostic criteria: According to modern science:

There are no unique clinical features that establish the diagnosis of Premature Menopause.

The diagnosis is based on a triad of amenorrhea, elevated gonadotropin levels and signs and symptoms of oestrogen deficiency. The concentrations of gonadotropins in the premature menopausal range are necessary to establish a diagnosis of ovarian failure but because of the intermittent presentation of the disease, repeated assays may be required at intervals of 2-4 weeks. Women with FSH levels above 40 mIU/ml may not have viable ovarian follicles on biopsy and such women may be regarded as having undergone permanent ovarian failure.

Investigation:

1. FSH level >40 Miu/ml:
2. E2 level <20 pg/ml.

3. Chromosomal study: Sex chromosomal analysis should be performed on all patients who present with primary amenorrhea or with early-onset ovarian failure. The women that present with later onset ovarian failure should check their adrenal reserve.
4. Thyroid function: The women who present with later onset ovarian failure should be screened for high titres of anti-adrenal and anti-thyroid antibodies to rule out autoimmune adrenal or thyroid failure which may follow ovarian failure a year or more later.
5. Blood Sugar
6. X-ray of the pituitary gland to rule out tumour.
7. Blood calcium level.
8. Bone mineral density study.

General Ayurvedic management of Premature Menopause:

Most of the Premature Menopause symptoms are due the *Vata-aggravation* followed by other *doshaj* factors. Prevention is better than cure. In the Premature Menopause, it is better to balance the aggravated or under playing factors, so that the intensity of the Premature Menopausal symptoms will be far less or even can be negligible. In order to achieve this, one should follow the *dosha* based Diet and life style principles followed by *Ayurvedic* herbs on regular basis. If still symptoms persists, it is better to undergo '*panchakarma*' (*ayurvedic* detoxification), which helps in the elimination of vitiated humours or *doshas* to bring them to balanced stage, then it is advisable to take few *Ayurvedic* herbs or decoctions and other preparation. To make the transition more

graceful, Ayurveda has excellent solution for a safe and happy transition. Ayurvedic treatment for menopausal symptoms involves correcting dosha imbalance with ---

1. Appropriate diet and herbs,
2. *Samshamana* therapy
3. *Panchakarma-Samshodhan* therapy (Internal detoxification therapy) and *Sthanikchikitsa*
4. *Sattvajayachikitsa* or *Acharrasayan*,
5. *Yoga*-therapy
6. *Rasayan* therapy

1. Ayurvedic diet and herbs

(a) For *Vata* dominant Premature Menopause- warm food and drinks, regular meals, and use spices such as fennel and cumin. Decrease caffeine and other Stimulants, refined sugar, cold drinks. Lifestyle early bedtime, oil massage using almond and olive oil, meditation, *yoga*, regular exercise like walking. Herbs *Ashwagandha* (*Withaniasomnifera*), *Arjuna* (*Terminaliaarjuna*), *Cardamom* (*Elettariacardomam*), *Garlic* (*Allium sativum*), *Guggul* (*Commiphoramukul*), *Sandalwood* (*Santalum alba*) and *Zizphus* (*Ziziphusjujube*).

(b) For *Pitta* dominant Menopause - Diet- *Tikta*, *madhur*, *kashay rasa-pradhan* foods, water intake, sweet juicy fruits i.e. grapes, pears, plums, mango, melons, apples, cucumber, organic foods. Use spices such as cinnamon, cardamom and Fennel. Avoid hot spicy foods, hot drinks and alcohol. Lifestyle oil massages using coconut and sesame oil. Use meditation and other techniques to reduce anger, hatred and resentment. Exercise and exposure to the sun are limited. Herbs -

Aloevera, *Arjuna* (*Terminaliaarjuna*), *Amla* (*Emblicaofficinalis*), *Saffron* (*Crocus sativus*), *Sandal* wood and use spices such as Cinnamon, Cardamom and Fennel.

(c) For *Kapha* dominant Premature Menopause- Diet – Prefer for light, dry and warm food, consume fruits, whole grains, legumes and vegetables. Use spices such as black pepper, turmeric and ginger. Avoid meat, cheese, sugar, cold foods and drinks. Weekly fasting is helpful. Most or all of the daily food should be consumed before 6 p.m. Get up early. Mustard oil and linseed oil are often recommended for massage. Herbs Cinnamon, *Guggul* (*Commiphoramukul*), *Mustard* (*Brassicianigra*), *Haritki* (*Terminaliachebula*), *Nagarmotha* (*Cyperusrotundus*).

2. Samshamana therapy–

Agnideepana, *Amapachana*, *Anulomana*, *Balya*.

3. Panchakarma- Samshodhan therapy and Sthanikchikitsa-

(Internal detoxification therapy)

Panchkarmachikitsa is physical therapy that thoroughly cleanses and purifies the physical and mental impurities from the body and mind. The general purpose of the *Panchakarma* therapies is to loosen, liquefy and remove the vitiated substances and *doshas* from their abnormal sites in peripheral tissues via their natural pathway of elimination. More serious symptoms, such as frequent hot flashes, continual sleep disturbance, and moderate to severe mood swings, are signs of deeper imbalances. *Ayurveda* describes that these stubborn symptoms are usually due to the wastes and toxins, referred to as ‘*aama*’ in

the body's tissues. In this case, a traditional Ayurvedic detoxification programme 'Panchakarma' may be needed to clear the body's channels and gain relief. This internal cleansing approach is also the treatment of choice for more serious problems such as osteoporosis and high cholesterol. *PanchakarmaAbhyanga* (massage), *Mriduswedana*, *Shirodhara*, *Mriduvirechan*, *Basti* are beneficial. *Lasunadi tail basti*, *Lasunkseerpakbsti* is useful in osteoporosis. *Sthanikchikitsa* like *Yoni-pichu*, *Yoni-dhavan*, *Yoni-parishkek*, *Yoni-varti*, *Yoni-pinda*, *Yonidupan*, *Yoni-lepa* and *Uttarbasti* are more appropriate for *yonishushkata*, *yonisransa* or *yonishraithilya* and loss of libido.

4. Sattvajayachikitsa or Achar-rasayan-
Counselling and Reassurance.

5. Yoga- therapy-

Yoga is an original & ancient holistic art of living that include physical, mental, moral, spiritual spheres. The Sanskrit word 'yoga' means to 'join or union' and the practice of yoga brings this union to all levels of one's self. The eight limbs of yoga are *Yama*, *Niyam*, *Aasana*, *Pranayama*, *Pratyahar*, *Dharana*, *Dhyana*, *Samadhi*. The most commonly performed *yoga* practices are postures (*aasana*), controlling breathing (*pranayama*) & meditation (*dhyana*). *Asana* – *shavasan*, *padhmasana*, *varjasana*. *Pranayama* – *Sheetalipranayam*, *Ujjayipranayamayoga* therapy is a useful adjunctive complementary & integrative for premature menopausal women. Current evidence indicates that women will benefit from *yoga* therapy during premature menopausal stage in term of decrease risk of

cardiovascular disease, insulin resistance & loss of bone mineral density as well as improved psychological wellbeing, sleep patterns & Emotional modulation.

6. Rasayana therapy -

Rasayana therapy is not only preventing the aging changes but it brings in youth fullness to a person. It increases life span, memory, intelligence & health; improves colour, complexion, strength & performance of the organs of cognition & conation. *Rasayana* drugs act by strengthening all seven *dhatu*s. According to *Aacharya Charaka*, *rasayana* produces long life lasting memory, talent, healthy physique, youth, lustre bright complexion, good voice, strength of body and senses, truthfulness, respect, and glowing body. *Aacharya Charaka* has described 'rasayana' as a means to promote vigour and health which is mainly virilific and promotive of vitality. *Maharshi Sushruta* has defined 'rasayana' as the method which retards the aging process, increases longevity, talent, vitality and makes the body fit to overcome the factors causing ailment. Many drugs act as *rasayana* property *Triphala*: *Triphala* consisting of *Haritaki* (*Terminaliachebula*), *Vibhitaki* (*Termanaliabelerica*), *Amalaki* (*Embelicaofficianalis*), pacify all the three *doshas* & also is an excellent *vayasthapana* (antiaging agent) *Ashwagandha* (*Withanasomnifera*) It is a powerful antioxidant & immunomodulator. It is one that improves strength, muscle mass and relieves stress. In Premature Menopause, it controls effectively the vasomotor symptoms (hot flushes, night sweats, palpitation)

Yasthimadhu (*Glycerrhizaglabra*)– It is another *rasayana* drug which is prescribed for Premature Menopause. It is an excellent antioxidant, immunomodulator & antidepressant, memory enhancer. It is described as a promoting agent for life, voice, hair, complexion, strength & libido. *Shatavari* (*Asparagus racemosus*)–*Shatavari* is widely recommended in *Ayurveda*. *Shatavari* has been used for many diseases with a multi-dimensional approach as per *Ayurvedic* pharmacodynamics which help to enrich nutrition, increasing plasma and white blood count in the blood. The root contains phytoestrogen, helping to regulate estrogen from ovaries and the skin.

Management of Premature Menopause with respect to *hetu* by *Ayurved* science:

1. *Beejadushijanya*-

Premature Menopause is directly proportional to *beejabhaganshadushti*. To prevent *beejadushti* one should follow ‘*Vivavsanskar*’ to whom and at what age *stree* or *purush* should get married. Before *garbhadhansanskar* both of married *stree* and *purush* should do *sharir-shuddhi*. For ‘*SampatorSuprajanan*’ *Ayurved* has advised ‘*yugma-ayugmadinisambhog*’ in ‘*ritu-kal*’ only. After *garbhadharan* pregnant woman should follow ‘*Garbhineeparicharya*’. With these principles’ male or female baby which would get produced might have predominance of *Shukra* or *Artavbhahulya* respectively and hence *Supraja-nirmitee*. Again with the help of ‘*Garbha-Sanskar*’ same goal would be achieved. Premature Menopause due *beejadushti* and autoimmune diseases can be

avoided by following these *ayurvedic* principles.

2. *Mithyahar-viharjanyajanya*-

Atyadhikushna, *tikshnaahar* causes *Pitta-dushti*, *atyadhiksheet*, *guru*, *snigdha*, *pichchilahar* causes *Kaphadushti*; *atirukshaahar* causes *Vata-dushti*. *Dipaswaap*, *ratrau-jagaran*, excessive alcohol or aerated drinks, cigarette smoking cause *tridoshprakop* and *jatharagnimandya*. *Tridoshprakop* and *Atiorakalvyavay* causes ‘*Yoni-vyapad*’ and in turn *artavdushti* and *artavksaya*, *anartav*. *Parivarjan* of these *hetu* is ideal *chikitsa*.

3. *Jatharagnimandyajanya*-

Atisthauilya, *atikarshya* might be caused by *jatharagnimandya* and vice versa. *Dhatuutpatti* as per ‘*Rasatraktamtatomamsam*’ was not followed. So *Artav* was not produced as *upadhatu* and so consequently Premature Menopause occurs. So one must follow *Aharvidhivishshaayatane*, *dincharya*–*ratricharya*, *rutucharya*. *Ayurvedikdravya* i.e. *deepan*, *pachan* helps in *jatharagnideepan*.

4. *Dhatvagnimandyajanya*-

Rasadhatvagnimandya causes *utpatti* of *malarupakleda-vruddhi* and *uttarottardhatuksaya* and *updhatuksaya* i.e. *Artavksaya*.

Due to *dhatvagnimandya* *Rakta*, *Mamsa*, *Meda*, *Asthyadidhatuutpatti* gets disturbed and *sthaulya*, *asthisaushirya* occurs. *Majjadhatuksaya* causes forgetfulness, insomnia. *Prakupit Vata* and *kseena Kapha-Pitta* causes disturbance in *prakrit karma* of *Mana-Buddhi* and produces mood swings,

nervousness, loneliness. *Shodhan –shaman chikitsa* is beneficial.

5. *Vishisthavyadhiupadravajanya-*

Granthi-Arbud of *Tryavartayoni* and *Antahphala*, *Artavdusti*; *Yonivyapadsuch* as *Vataj*, *Arajaska*, *Vandhya* causes *salpa Artavnirmitee*. Diagnosis and management of these *vyadhi* helps in *sampraptibhang* of Premature Menopause. Indicated hysterectomy should be done only. Preservation of ovaries should be priority unless and until there is clear indication for oophorectomy.

6. *Srotasvaigunyajanya-*

Apan Vayu causes *Artavvahasrotosavaigunya*. *Artav* never get *vyaktibhava* in *ArtavvahasrotasApanVayu* never does *Dharan* of *Prasadrupi Artav*. *Sthanikchikitsa* normalises *Apanvayu*.

7. *Manasikvyadhijanya-*

Manasvyadhi causes imbalance in functions of *Mana* and *Indriya*. *Vikrut* perception of emotions cause *Vatadi dosh prakop* mainly *Vyana*, *Saman* and *Apanvayu*. This again produces vicious cycle of *Artavksayanirmitee*. *Nasya*, *Shirobasti*, *Ashwasanchikitsa* improves *Manovahasrotas karma*.

8. *Swabhavjanya-*

Early menarche in present era might be cause of Premature-Menopause as it causes early depreciation of ovarian reservoir.

CONCLUSION

Ayurveda has excellent solution for Premature Menopause. The basic concept of

ayurvedic medicine is prevention is better than cure. *Beejadustijanya* Premature Menopause can be avoided by following *Vivahsanskar*, *Garbhadhan-sanskar*, *Garbhinee-paricharya* and *Garbhasanskar*. *Deepan*, *Pachan* and *Shodhanchikitsa* help in *Dhatvagnimandyajanya* and *Jatharagnimandyajanya*, *srotovaigunyajaneet* Premature Menopause. *Ayurvedic rasayan chikitsa* adopting *dincharya*, *rutucharya*, *panchkarma*, *sthanikchikitsa*, *yogasana* and *satvavajayachiitsa* is very beneficial in *swabhavajanya* and *manasikvyadhijanya* Premature Menopause. Proper treatment for *garbhashajanyavyadhi* and ethical practice for hysterectomy, oophorectomy helps to minimise and avoid Premature-Menopause.

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