

## ANATOMICAL ASPECT AND AYURVEDIC MANAGEMENT OF MENOPAUSAL SYNDROME: A REVIEW ARTICLE

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### ABSTRACT

Menopause is defined as the absence of Menstrual period for 12 months.<sup>[1]</sup> It is a gradual and natural transitional phase of adjustment between the active and inactive ovarian function and occupies several years of a women's life. Menopausal transition is characterized by varying degree of anatomical, physiological and psychological changes. The period may be uneventful or may manifest through various symptoms. The group of symptoms is known as the "Menopausal Syndrome". In Ayurveda, it is called as *rajonivritti*.<sup>[2]</sup> It is a condition of *aartav-vaha srotasa*. *Rajonivritti* is not described separately as a diseased condition in the ayurvedic classics. *Rajonivritti-kala* is mentioned by almost all Acharyas as fifty year of

age.<sup>[3]</sup> Owing to changing lifestyle, food habits and socio-economic standards the age is decreasing. Because of unsatisfactory results and adverse effect of modern management Ayurvedic management can be considered here like *rasayan*, *aahar*, *vihar* and *yoga*. By taking into consideration all the references available in Ayurveda classics and modern sciences efforts have been made to present the said subject critically.

**KEYWORDS:** Menopausal syndrome, *rajonivritti*, *aartav-vaha srotasa*, ayurvedic management and *yoga*.

### INTRODUCTION

Menopause is a natural event as a part of the normal process of ageing; it is turning into a major health problem in recent years, in developed as well as developing countries like India.

According to the 2011 census of India, there were about 96 million women aged 45 & above and this number is expected to increase to 401 million in 2026.<sup>[4]</sup> As per Indian menopausal society, average age of Menopause is around 48 years, but it strikes Indian women as young as 35 years.<sup>[5]</sup> So, the menopausal health demands even higher priority in Indian scenario. Menopause is thus a gradual and natural transitional phase of adjustment between the active and inactive ovarian function and occupies several years of a women's life. Menopausal transition is characterized by varying degree of anatomical, physiological and psychological changes. The period may be uneventful or may manifest through various symptoms. The group of symptoms is known as "Menopausal Syndrome". For the better understanding of the disease it is necessary to know the structures involved in the disease progress and what are the changes taking place.

In Ayurveda female reproductive system can be correlated with *aartavavaha srotasa*<sup>[6]</sup>. The patho-anatomical change or injury of *aartavavaha srotasa* or its *moolsthana* may cause menstrual disturbance, dyspareunia or even infertility.<sup>[7]</sup> So, in menopause syndrome there are symptoms of vitiation of *aartavavaha srotasa* with ageing. The cessation of menstruation is called *rajonivritti* in Ayurveda. It is considered *Jarapakwaawastha* of body. *Jara* and *Rajonivritti* are manifested due to progressive reduction in the functional ability of *Srotasa* and *Agni*, which results into inadequate tissue nutrition. *Rajonivritti* means "*Rajyatirajyatenena va tasya nivrutti*" & "*Rajo stree pushpasya nivruttasya*"

In Ayurveda the treatment is based on *dosha* dominancy. There is *pitta-vata* dominancy in menopausal age and also it is an age-related disease so, *rasayan* therapy is very beneficial. The *rasayan* can be divided into *aachar*, *aahar* and *vihar rasayan*.

## LITERATURE REVIEW

### Normal anatomy of female reproductive system

Female reproductive system, as explained in Ayurveda, comprises of below mentioned components and almost resembled explanation is given in modern anatomy. In Ayurveda female reproductive system can be taken under a single heading i.e. *aartav-vaha srotasa*.<sup>[6]</sup> It is considered under *tryavarta yoni*.<sup>[8]</sup> It has three *aavarta* or layers. In first *aavarta*: external genital organs like *bhag*, *yoni* etc.

In second *aavarta*, *garbhashya-greeva* is included.

In third *aavarta* *garbhashya* along with fallopian tube is considered.

*Garbhashaya* and *aartav-vahini dhamnis* are considered as *moolsthana* of *aartavavaha srotasa*. *Garbhashaya*(uterus) is situated in the 3rd *aavarta* or circle of *yoni*(vagina) and is *rohit matasya mukha* shape i.e. mouth of *rohita* fish. *Garbhashaya* forms one of roots of channel responsible for carrying and expelling menstrual blood. It is also related with 2 arteries responsible for formation of menstrual blood/ovum and two arteries for excretion of menstrual blood.

Thus, whole female reproductive system i.e. ovary, uterus, uterine endometrium, uterine arteries, cervix, vagina and also hormones secretory glands etc. can be considered under *aartavavaha srotasa*. Disturbances in *Artav vaha srotas* will lead to infertility, sexual intolerance, amenorrhea like symptoms.<sup>[9]</sup>

### **In modern**

Female reproductive system is divided into -External genital system and internal genital system

1. External genital organs include labia majora, labia minora, mons pubis, clitoris, vulva, vaginal introitus.
2. Internal genital organs include: vagina, cervix, uterus and fallopian tubes.

### **Clinical features**

In Ayurveda the clinical presentation can be divided into these three headings:

1. *Lakshanas* due to *dhatukshaya* like osteoporosis, arthralgia, poor skin tone, hairfall, weight loss etc.
2. *Manasika Lakshana's* - Psychological symptoms are also commonly observed due to vitiation of *Manovaha srotas*. So, these symptoms can be grouped under the heading of *manasika lakshanas* as follows-
  - *Krodha*
  - *Shoka*
  - *Bhaya*
  - *Dwesh*
  - *Smriti Hras*
  - *Utsaha Hani*
  - *Dhairya Hani*
  - *Shirah Shula*
  - *Vishada*

- *Chinta*
  - *Medhahras*
  - *Alpa Harsha and Priti*
3. *Doshik lakshanas (vata-pitta dominance)* like:

During a *vata* dominated menopause, you will likely be experiencing any of the following symptoms:

- Nervousness
- Anxiety
- Insomnia
- Mild hot flashes
- Depression
- Poor skin tone
- Constipation
- Vaginal dryness.

Women whose menopause is dominated by *pitta* may generally experience any or all of the following symptoms:

- Angry outbursts
- Irritability
- Short temper
- Hot flashes and night sweats
- Urinary tract infections (UTI's)
- Skin rashes

Women whose menopause is dominated by *kapha*, which has natural elements water and earth, can manifest as:

A “heavy menopause,” where you’re feeling tired a lot, have difficulty concentrating or just can’t seem to shake that “heavy feeling.” Other symptoms may include:

- Weight gain
- Sleepiness
- Sluggishness
- Fungal infections
- Slow digestion
- Fluid retention

The anatomical changes<sup>[10]</sup> in menopausal syndrome can be divided into two main headings:

1. Regional changes
2. Systemic changes

### **Regional Changes**

#### **Ovaries**

- Undergo atrophy and regression
- Ovaries get shrunk
- Surfaces: grooved and furrowed
- Tunica albuginea thickens
- Dimensions: < 2 x 1.5 x 1cm (3.5 x 2.5 x 1.5 cm in adult age)
- Volume: 8 ml

#### **Uterine Tubes**

- Cilia disappear from tubal epithelium
- Tubal plicae regress

#### **Uterus**

- Becomes smaller
- Atrophy of plain muscles take place.
- Endometrium: only the basal layer with its compact stroma and few simple tubular glands.

#### **Cervix & Vagina**

- Cervix becomes smaller
- Vaginal fornices gradually disappear
- Vagina becomes narrow
- Epithelium: pale, thin and dry which get infected easily causing senile vaginitis.
- Vulva: atrophies and vaginal orifice narrows causing dyspareunia.

#### **Labia Minora and Majora**

- Skin of labia minora become thin, pale and dry.
- Reduction in amount of fat in labia majora.

#### **Others**

- Laxity of ligaments of uterus and vagina: predisposing to prolapse of genital organs.

- Stress incontinence of urine (due to poor vascularity and tone of internal urinary sphincter) and faecal incontinence.
- Fat deposition: around the breasts, abdomen and hips.
- Mammary glands: atrophied.
- Breasts: pendulous.
- Hair growth around chin and lips.

### **Systemic Changes**

- Arthritis and osteoporosis.
- Depression and mood swings
- Hot flushes & night sweats
- Hypertension
- Muscle cramps
- Insomnia
- Irritability
- Poor skin tone
- Constipation
- Weight gain and fluid retention
- Memory loss etc.

### **Chikitsa**

#### ***According to symptoms***

*Mansik lakshanas: satvavajya chikitsa* like meditation, *pranayama* (breathing exercises), yoga postures.

*Doshik lakshanas (vata-pitta dominant): vata piita shamak chikitsa*

*Dhatukshaya janya lakshanas: dhatuwardhak aahar and vihar (rasayan chikitsa)*

In Ayurveda *rajonivritti* is considered as the *jarapakwa awastha* of the body. According to *jara rog chikitsasutra*, *rasayana* is the only way to combat symptoms associated with *jara*.

### ***Rasayana***

“*Labdhopayo hi shastanam rasadinaam rasayanam*”<sup>[11]</sup>

*Rasayan* can be divided into 3 parts:

**Aachar Rasayan**

It includes *swasthviritta* and *sadviritta*. *Dincharya*, *Ritucharya*, *ratricharya* should be followed for the treatment and prevention of the diseases. Daily exercise, yoga & meditation should be done for healthy body and mind.

**Aahar Rasayan (Food As Drug)**

In Menopause related to *dhatukshaya (ojas-kshaya)* dietary articles like black gram, milk, ghee, meat soups etc. are very beneficial.

- Ghee: - improves *shukradhatu*
- *Til* & its oil are very good in promotion of *raja*. (black til + jaggery)
- Black til are good source of zinc and contains antioxidant property.

**Phytoestrogen<sup>[12]</sup>**

These are the plant based estrogenic sources which can be used in place of modern hormonal replacement therapy. E.g. soyabean and its products, flax seeds, oats, lentils, licorice root, barley, carrots etc.

**Dravya rasayan (drug therapy)<sup>[13]</sup>**

The drug used for the treatment of *rajonivritti* should have following properties: *Rasayan*, *balya*, *vatanulomak*, *hridya*, *ojovardhak*, *deepan* and *vata-pitta shamak*.

**Kalpas for rajonivritti**

In Ayurveda the treatment is based on the vitiation of *dosha*.

In *vatic* symptoms *mahamamsa taila*, *mahanarayan taila*, *rasna-saptak kwatha*, *dashmool kwatha* can be used.

For *paitik lakshanas* *Chandrakala ras*, *kushmand avleha*, *chandanasava*, *aamalki rasayan*, *Chandan loha kalpa* can be used.

For kapha dominant features: *kantkari avleha*, *vasa avleha*, *medohar gugulu* can be used.

Other formulations: *ashokarishta*, *ashwagandharishta*, *vasant kusumakar ras*, *shatavari kalpa*, *Sudha varga* etc. can be used for the management of *rajonivritti*.

**Role of Panchkarma<sup>[14]</sup>**

- For Insomnia, mood swings, decreased concentration: *Abhyanga*, *Shirodhara*, *Nasya* are very beneficial.
- For Osteoporosis, *vata roga*: *Basti (panchtikta ksheera basti)* can be used.

- For management of Weight gain: *Peti swedana*, *udvartana*, *lekhan basti* are very effective.
- For *pitta* dominant symptoms like Hot flushes, skin rashes: *Virechana*, *raktamokshana* (*shiravedh*) are very beneficial.

### Role of Yoga<sup>[15]</sup>

- The yoga calms the brain and helps in treating insomnia.
- Relieves stress, anxiety and fatigue.
- Relieves headache and anxiety.
- Strengthens the muscles.
- Improves digestion.
- Improves liver and cardiac functions.

Some yoga postures for menopausal syndrome

1. Padangusthasana (big toe pose)
2. Baddha konasana (bound angle pose)
3. Setubandha sarvangasana (bridge pose)
4. Adhomukha svasana (down mouth dog)
5. Padmasana
6. Utthita trikonasa (extended triangle pose)
7. Virasana (hero pose)
8. Paschimottanasana (seated forward bend)
9. Suryanamaskar (sun salutations)
10. Pranayama
11. Dhyan (meditation)

### DISCUSSION

According to acharya sushruta and other acharyas too; 50 years is the age of *rajonivritti*. But it can vary due to environment, diet and individuality of every woman. Menopause is not only the cessation of monthly menstrual periods but it is a transition phase of life and body in which there is imbalance of hormones which is further aggravated by misconduct of changing lifestyle. It reflects as menopausal symptoms collectively called as menopausal syndrome.

Although it is not mentioned in ayurvedic classics but according to symptoms based on involved dosha the treatment can be planned. The logic behind the age of *rajonivritti* and

*rajadarshan* is that the raja is by product of *rasa dhatu* which functions better in *tranunavastha* and its function decreases in *praudhavastha*. Rajonivritti is a physiological process but when it causes discomfort to body and mind it attains *vyadhisvarupa* and requires medical attention.

Climacteric syndrome<sup>[16]</sup> is the result of the gradual failure of ovaries to produce oestrogen and progesterone as a consequence of which the pituitary gland becomes more active and produces FSH and LH in greater quantity resulting into vasomotor and psychological symptoms. In *rajonivritti* there is an increase *vata dosha* and diminution of *kapha dosha*. The vitiated *vata* also expel out the *pitta* from its origin called *ashyapakarsha*. The symptoms of menopause like sleep disturbance, irritability and hot flashes etc can be correlated with *vata-pittaj lakshanas*. As *rajonivritti* deals with *jaravastha*, *rasayan* is the line of treatment and preventive measure of long-term effects of *dhatukshaya*. Hormone replacement therapy is one and only alternative for this health hazard in allopathy but it has a wider range of complications like breast cancer, endometrial cancer and gallbladder disease etc. so, ayurvedic treatment like *rasayan*, *aahar*, *vihar* and *yoga* are potent and cost effective.

## CONCLUSION

There are anatomical, physiological and psychological changes in menopausal syndrome which adversely affects the health of a woman. As the modern treatment is not satisfying because of its large number of side effects so, there is need of Ayurvedic diet, drugs and daily regimen.

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