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A CONCEPTUAL STUDY ON RAJONIVRITI W.S.R TO MENOPAUSAL SYMPTOMS

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ABSTRACT

Menopause is a permanent cessation of menstruation at the end of reproductive period of life' According to WHO life expectancy of female is 69.9. As per Indian population, female-male ratio is 944-1000. In this data we can elicit the decrease of female population may be due to decrease the reproductive life, early menopause, life style etc. Before 10-15 years of menopausal age there is shortening of follicular phase, so chance of getting pregnancy is difficult, so according to modern science the peak time of reproductive life is 25 years. India has large population, in that menopausal age women are about 43 million. Menopausal syndrome presenting with psychological such as mood disturbance, insomnia, cognitive difficulty, anxiety, depression, memory loss, irritability and somatic symptoms like hot flushes, sexual disturbance etc.

KEYWORDS: Prakriti, rajonivriti, Menopause age, menopausal symptoms.

INTRODUCTION

The Menopause 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 and involves biological and psychological changes adjustments. This period is usually associated with unavoidable manifestation of aging process in women. This failure often begins in the late 30s and most women experience near complete loss of production of Estrogen by their mid-

50s. During reproductive years, women are protected by female hormones estrogen and progesterone. With Menopause, women enter an estrogen deficient phase in their lives, which accelerates the ageing process resulting in to greater vulnerability to psychosomatic problems. Hot flushes, sweating, changes in mood and libido are some important outcomes affecting the quality of life (QoL) during menopause in women. Quality of life covers physical, functional, emotional, social and cognitive variables up to 85% of menopausal women. In Ayurveda, Menopause deals with the Jara pakwa awastha of body No more references regarding menopausal or postmenopausal period of woman's life are available. Jara and Rajonivritti are manifested due to progressive reduction in the functional ability of Agni, which results into an inadequate tissue nutrition. This nutritional imbalance triggers the irreversible degenerative changes in 'Sapta Dhatus. Rajonivriti is termed as a normal physiology by the ancient Acharyas and its normal age is 45-55 years.

METHODOLOGY

Initially all available authentic classical source of literature relevant to the present study was surveyed. The Vedas, Upanishada, Samhitas and their respective commenteries were looked into for the relevant information. Laghuttrayees have been refered for the information. An attempt has been made to survey the vast literature of modern medical world. All sorts of articles possessing the concerned topic, medical literature and latest research papers published in international journals of global repute were collected. Many websites on internet have been used as source of literary study.

AYURVEDIC REVIEW RAJONIVRITTI

Rajonivritti is not described separately as a pathological condition or severe health problem in Ayurvedic classics. The ancient Acharyas termed it as a normal physiology.

ETYMOLOGY

The term 'Rajonivritti' is made up of two different words viz. "Rajah" and "Nivritti."

Rajah

According to Sanskrit language the root word for "Rajah" is given as "raj" which means to give colour to the substance. Here, in the context of this subject, the meaning of Rajah is like Artava and Stripushpa i.e. menstrual blood is taken into consideration.

Nivritti

Acharya Hemchandra has coated the synonyms of the word Nivritti like Apravritti, Uparama, Virati, Vyparati, Uparati etc.[1]

Here, in the present context, the meaning of Nivritti is understood as end or ceasing.

"Thus, the whole term Rajonivritti means end of Artava Pravritti or cessation of Menstruation.

RAJONIVRITTI KALA: (AGE OF MENOPAUSE)

Rajonivritti Kala is mentioned by almost all Acharyas without any controversy, few direct references are available regarding it. According to Sushruta[2] and various other references too[3], 50 years is mentioned as the age of Rajonivritti, when the body is fully in grip of senility. Acharya Arundatta opines that the age mentioned above is a probable age and not a fixed one. There may be some variations in this regard.[4]

NIDANA OF RAJONIVRITTI

As it is already mentioned that Rajonivritti is not described in the classics as a separate disease, there is no information available regarding its Nidana, Purvarupa, Rupa, Samprapti etc. Hence, to understand this condition as a disease, certain basic principles have to be considered here. Concentrating on the probable Nidanas (etiological factors) regarding the condition Rajonivritti, few factors can be squeezed out. Some of these factors are mentioned by Acharyas in the context of "Rajah Utpatti Hetus" too., which all are enlisted below.

1. KALA
2. SWABHAVA
3. VAYU
4. KARMA / ENVIRONMENT
5. DHATUKSHAYA
6. ABHIGHATA

TYPES OF RAJONIVRITTI

Rajonivritti also can be divided into two types.

1) Kalaja Rajonivritti

If Rojonivritti occurs at its probable age (i.e around 50 years of age), it is called as Kalaja Ronivriti.

2) Akalaja Rajonivritti

If Rajonivritti occurs before or after its probable age (i.e around 50 years), it is termed as Akalaja Rajonivritti.

PROBABLE SAMPRAPTI OF RAJONIVRITTI

As the pathogenesis of Rajonivritti is not elaborately described in Ayurvedic text, few points should be taken into consideration in this regard. First of all, classics have quoted the age around 50 years as the probable age for Rajonivritti. This age limit is dominated by "Vata Dosha" and obviously it is easily getting vitiating during this time. (B.P.Pu. 3/196)

This dominant Vata Dosha will have effect all over the female body including all anatomical as well as physiological factors by virtue of its characters i.e "Laghuta" and "Rukshata". At the age about 50 years, the decline process starts in female body due to Jaravastha as a natural process.

SAMPRAPTI GHATAKAS

Dosha: Vata- Apana, Vyana. Pitta- Pachaka. Kapha- Kledaka. Dushya: Rasa- Rakta- Mamsa- Meda- Asthi- Majja- Artava. Agni: Jatharagni Mandhya. Dhatvagni Mandhya.

Srotas: Mainly Artavavaha and Rasavaha. Udbhava Sthana: Rasa Raktavaha Srotas. Vyakta Sthana: Artavavaha Srotas, Sarvagata.

LAKSHANAS OF RAJONIVRITTI

The clinical symptoms manifested by the patients of Rajonivritti have to be considered and can be grouped under following Ayurvedic parameters.

(A) Doshaja Lakshanas

(B) Dhatukshayaja Lakshanas

(C) Manasika Lakshanas

(A) Doshaja Lakshanas

According to available symptoms, differentiation can be done as Vataja Lakshanas, Pittaja Lakshanas and Kaphaja Lakshanas. As this condition is characterized by generalized Vatavriddhi, the Vataja Lakshanas are more dominantly observed than other two (Pittaja and Kaphaja) Lakshanas.

(B) Dhatukshayaja Lakshanas Table - Dhatukshayaja Lakshanas

s.no	Vaataj	Pittaj	Kaphaj
1	Shira Shula	Ushnaanubhuti	Hrid-dravatva
2	Hrid Spandan	Daha	Bhram
3	Hast-Pada-supta	Swedaadhikya	Raukshaya
4	Shabad Asahishnuta	Ratrisweeda	Angamarda
5	Bala Kshaya	Trisha	
6	Adhaman	Mutradaha	
7	Ataop	Glani	
8	Vibandh	Yonidaha	
9	Anidra		
10	Bhrama		
11	Katishula		

C) Manasika Lakshanas

Certain psychological symptoms are also commonly observed due to vitiation of Manovaha Srotas. Hence, Manasika Lakshanas as follows:

1) krodha
2) Dwesha
3) Medhahrash
4) Vishada
5) Utsahani
6) Bhaya
7) Shira Shula
8) Chinta
9) Shoka

PROBABLE PATHOGENESIS BEHIND VARIOUS SYMPTOMS

(A) Probable pathogenesis behind various "Vataja Lakshanas" of Rajonivritti

Shirahshula Balakshaya Anidra Adhmana, Hasta-Pada- Katishula Angamarda Vibandha Supti As the above chart is self-explanatory, the factors present in the female body at the time of Rajonivritti, should be considered as the base for the whole etiopathogenesis. Hence, the factors like Vatavriddhi Awastha, Jara Awastha; generalized Raukshya, Shosha and Kshaya of various body tissues elements will be manifested as generalized Vata Dosha Vriddhi. The Laghu, Ruksha, Khara, Chala etc. Gunas are also aggravated & will lead to various Vata Dosha related symptoms.

(B) Probable pathogenesis behind various "Kaphaja Lakshanas" of Rajonivritti

The same factors will lead to Vatavriddhi, and the increased Laghu, Ruksha, Khara, Chala etc. Gunas act against Guru, Snigdha, Sthira etc. Gunas of Kapha Dosha. Thus, generalized Kaphakshaya will lead to various symptoms like Raukshya, Angamarda, Hriddravatva, Bhrama etc. Bhrama Hriddravatva Angamarda Raukshya KAPHAKSHAYA Increased Laghu, Ruksha, Khara, Chala Guna Vata Vriddhi Vatavriddhiavastha, Jaravastha, Generalized Raukshya, Shosha & Kshaya Acts against Guru, Snigdha, Sthira Gunas of Kapha.

C) Probable pathogenesis behind various "Pittaja Lakshanas" of Rajonivritti

Trusha Swedadhikya Ushnanubhuti, Ratrisweda Glani Daha. To understand the pathogenesis of Pittaja Lakshanas of Rajonivritti, again the same etiological base has to be considered first, which will manifest as generalized Vatavriddhi. Due to this Vatavriddhi, Ashayapakarsha of Pitta will take place and various Pittaja Lakshanas like Ushnanubhuti, Atisweda, Glani, Yoni Daha etc. manifest. Ashayapakarsha is a very specific concept of Ayurvedic Science.

Not going in detail, in this condition, Pitta Dosha is not vitiated, but aggravated Vata Dosha displaces the Prakrita Pitta Dosha from its Ashayas and manifests the symptoms, which broadly look like Pittavriddhi or Pitta vitiation. Hence, Vatavriddhi is mainly responsible for the Pittaja Lakshanas of Rajonivritti.

(D) Probable pathogenesis behind various Dhatukshayatmaka Lakshanas of Rajonivritti

The same etiological factors will lead to generalized Vatavriddhi, which will interfere the process of Dhatu Utpatti and affect the metabolism of Dhatus. Hence, generalized Dhatukshaya will manifest. This event again aggravates the Vata Dosha and this vicious cycle goes on. Due to this Dhatukshaya, symptoms of individual Dhatukshaya will occur, which can be understood accordingly. Concentrating on Rasa Dhatu Kshaya, due to the affected metabolism, its "Upadhatu Rajah" will also deteriorate quantitatively and qualitatively.

(E) Probable pathogenesis behind various Manasika Lakshanas of Rajonivritti

VATAVRIDDHI ≈≈ JARAVASTHA

Vitiation of Raja, Tama Grahana-Dharana- Smarana-Vigyanahani Dhairya Shirah Vishada Medha/ Utsaha/ Alpa Dwesha Hani Shula Smriti Parakrama Harsha & Hrasa Hani Priti Chinta Shoka Krodha Bhaya The afore-said etiological factors will lead to Vatavriddhi and simultaneously Jaravastha. Due to Vatavriddhi, vitiation of Raja & Tama Dosha will take

place. On the other sidedue to Jaravastha, progressive decline occurs in the various physical and psychological factors, and mainly manifests as Grahana - Dharana - Sarana - Vigyanadi Hani. These both conditions will vitiate the Manovaha Srotas due to Sthansamshraya and as a result, symptoms like Krodha, Shoka, Bhaya, Chinta etc. Manifest.

(F) Probable pathogenesis behind various Sharirika Parivartana during Rajonivritti

Because of the same etiological factors & dominant Vayu; Laghu, Ruksha, Khara, Chala, Shukshma etc. Guna also markedly increases in the body resulting into MANOVAHA SROTAS SANGA Vatavriddhiavastha, Jaravastha, Generalized Raukshya, Shosha & Kshaya various anatomical changes like; Rukshata, Parushata and Vali in Twacha; Shatana & Palitya of Kesha; Rukshata and Patana of Nakha; Shosha and Shithilata of Stana; Shaithilyata in Sira and Saushiryata in Asthi. Mamsa will reduce (Shosha) and its Lepan Karma will be hampered so Sphik-gandadi area will be observed Shushka. Adding to these, Rukshata and Shosha will appear at various Ashayas including Garbhashaya and Yoni.

MODERN REVIEW MENOPAUSE

Etymology

The term Menopause is made up of two words viz. 'Meno' and 'Pause.'

Meno = month = Related to menses

Pause = Pausis = Stopping, Cessation.

Thus, the word Menopause refers permanent cessation of menstruation.

Definition

Menopause is defined as the permanent cessation of menstruation at the end of reproductive life resulting from the loss of ovarian follicular activity. The clinical diagnosis is confirmed following stoppage of menstruation for six (or twelve) consecutive months, for which, there is no other obvious pathological or physiological cause. As such, a woman is declared to have attained Menopause only retrospectively. It is an event rather than a period of time.[102]

Different terms Regarding Menopause

1) Climacteric

climacteric is a phase of adjustment between active and inactive ovarian function and may occupy several years of a woman's life. The Menopause and climacteric are peculiar to the human race, in lower animal ovulation and fertility continue into old age.

2. Pre-menopause

(The period prior to Menopause) The term Pre-menopause is often used ambiguously to refer to the one or two years immediately before the Menopause or to refer to the whole of the reproductive period prior to Menopause. The group recommended that the term be used consistently in the latter sense to encompass the entire reproductive period up to first menstrual period (WHO).

3. Post menopause

(The period after Menopause) The term is defined as dating from the final menstrual period regardless of whether the Menopause was induced or spontaneous. (WHO)

4. Perimenopause

(The period around Menopause) The Perimenopause encompasses the time before, during and after Menopause.

5. Menopausal transition / Perimenopausal transition

The years prior to Menopause that encompass the change from normal ovulatory cycles to cessation of menses are known as the Perimenopausal transition. The term menopausal transition should be reserved for that period of time before the final menstrual period when variability in the menstrual cycle is usually increased. This term can be used synonymously with Pre-menopause, although this latter term is confusing & preferably should be abandoned. (WHO) The most significant symptom of menopausal transition in most women is menstrual irregularity.

6. Premature Menopause

If the Menopause occurs at or below the age of 40, it is said to be premature. In developing countries, the age of 40 years is frequently used as an arbitrary cut-off point; below which Menopause is said to be premature (WHO).

7. Induced Menopause

The term Induced Menopause is defined as the cessation of menstruation following either surgical removal of both ovaries (with or without hysterectomy) or iatrogenic ablation of ovarian function.

8. Menopausal Syndrome

Menopausal syndrome can be defined as a group of relatively characteristic symptoms, which attains the stage of disease or syndrome produced by the process of Menopause.

Age of Menopause

Menopausal age is not related to menarche, race, socioeconomic status, no. of pregnancies

and lactation or taking of contraceptive pills.[104] On the basis of various cross-sectional studies, it can be concluded that the age of Menopause ranges between 45 to 55 years, average (median age) being 50 years, varying from 47 to 51 years.

Endocrinology of Menopause[5]

(A) Few years prior to Menopause

Chart 5 (Endocrinology few years prior to Menopause)

Depletion of follicles

↓

Resistant to gonadotrophins

↓

Impaired folliculogenesis

↓

↓

↓ed estradiol and inhibin and decreased negative feedback

↓ ↓

Anovulation / Oligoovulation / Corpus luteum insufficiency menstrual abnormality

↓

↑ed GnRH

↓

↑ed FHS and LH

After establishment of Menopause

Chart - Endocrinology after establishment of Menopause

absence of follicles or even some exist

↓

resistance to gonadotrophins

↓

no follicular development

↓

estradiol falls (upto 20pg/ml) absent negative feedback

↓ ↓

no endometrial growth increased FSH & LH

↓

prolonged amenorrhoea and absence of menstruation

↓

menopause

Hormonal changes of Menopause[6]

Estrogens

After Menopause, the predominant estrogen is estrone. The serum level of estrone (30-70) is higher than that of estradiol (10-20) so, following Menopause, all women continue to have measurable levels of circulating estradiol and estrone throughout their lifetimes. This decreased level of estrogens is mainly believed behind various signs and symptoms of menopausal syndrome. The aromatization of androgens to estrogens occurs primarily in muscle and adipose tissue. For this reason, obese women often have an increased level of circulating estrogens and the unopposed estrogen places them at an increased risk of endometrial cancer. In contrast, thin women have a decreased level of circulating estrogen, so they have an increased risk of osteoporosis.

Progesterone

After Menopause, the progesterone production ceases. A trace amount of progesterone detected is probably adrenal in origin. The decreased levels of progesterone affect the organs like endometrium and breasts, which are extremely sensitive to gonadal steroids.

Androgens

In latest studies, it has been noted that the ovaries play a potential role in the production of androgen, especially after Menopause. The main androgens are androstenedione and testosterone, which are produced mainly by adrenal and partially by ovary. After Menopause, the stromal cells of the ovary continue to produce androgen because of increase in LH. So, due to this cumulative effect, there is a decrease in Estrogen: Androgen ratio. This result in increased facial hair growth and change in voice and ultimately gives a woman the coarser build and appearance.

Gonadotropin-Releasing hormone

Following Menopause, due to absent negative feedback effect of estradiol and inhibin, the responsiveness of pituitary to GnRH is enhanced. So, GnRH pulse section is increased both in frequency and amplitude.

Gonadotropins: (FSH and LH)

As described earlier, gonadotropins i.e FSH and LH are increased in menopausal stage.

FSH: (Follicle Stimulating Hormone)

An elevation of serum FSH levels is the most consistent finding in the menopausal transition. In menstruating women, FSH on the 3rd day of cycle should be 5-10 IU/l with normally functioning ovaries. After Menopause, rise in FSH is about 10-20fold. FSH levels > 40 IU/l are consistent with complete cessation of ovarian function. However, ovarian function can wax and wane over several years.

LH: (Luteinizing Hormone)

Prior to Menopause, LH levels are usually in the range of 5-20 IU/l. Following Menopause, it raises about 3fold. LH is also significantly elevated during the midcycle surge and in cases of chronic anovulation.

Inhibin and Prolactin

During Menopause, Inhibin, which is peptide secreted by the granulose cells of the ovarian follicle, also decreased due to degeneration of the granulose cells and theca cells. The level of Prolactin hormone also falls during Menopause. Ultimately, due to physiologic aging, GnRH and both FSH, LH decline along with decline of estrogen in later age.

Changes during Menopausal stage[7]

Physical changes

Ovary

The ovaries shrink in size and show wrinkled by their grooved and furrowed white surfaces. The microscopic examination shows only occasional atretic follicles with abundance of stromal cells, which have got secretary activity. The cortex is thinned and the medulla relatively thickened due to increased connective tissues. The blood vessels are sclerotic.

Fallopian tubes

The fallopian tubes show feature of atrophy. The muscle coat becomes thinner by their plain muscles atrophy & the cilia disappear from the tubal epithelium.

Uterus

The uterus gradually gets smaller in size. The ratio between the body and the cervix reverts to the 1:1 ratio. In women of 60 years and over, it is barely one inch in length. The walls of the uterus become thin and fibrous due to atrophy of the muscle fibres and relatively increase in the fibrous connective tissues.

Cervix

The cervix becomes smaller in size and finally, the portio vaginalis is almost flush with the vaginal vault. In older women, it is represented by a small prominence in the upper part of the vagina. The cervical secretion becomes scanty. The cervical canal becomes narrow and in some of the cases gets obliterated by surrounding fibrosis. Senile haematometra or pyometra may then occur due to deficient drainage.

Vagina

The vagina becomes narrower and smaller due to gradual loss of elasticity. It is found to be conical with the apex of the cone in the situation of the cervix. The vaginal pH becomes alkaline.

fornices

The fornices gradually disappear as the cervix regresses.

Vulva

The Vulva atrophies and the vaginal orifice become smaller, which leads to dyspareunia. The vestibule and the skin of the labia minora becomes pale, dry, thin atrophic and more prone to infections. Labia majora and mons become flattened due to gradual reduction of fat contained by them. The pubic hair is reduced in amount & becomes grey.

Bladder and Urethra

Bladder and urethra undergo similar changes to those of the vagina. The epithelium becomes thin as is more prone to damage and for infections.

Breasts

The mammary glandular tissue atrophies and the deposition of fat frequently make the breasts more pendulous. The breasts lose their fullness and become soft, flat and ultimately shrivel. The nipples get smaller in size and are non-erectile.

General Changes

She develops features suggestive of a mild degree of acromegaly. The shoulders become flat and the waistline is lost. The skin becomes wrinkled, thin, and more prone to damage and infection as skin collagen context is reduced in Menopause. A slight growth of hair can be seen on the face especially round the lips and chin. Body hair become spares later in life and this is a part of senile changes affecting all organs. Axillaries and pubic hair are not much

shed because these depend on the adrenal rather than the ovary. Fat is deposited around the breasts (in fatty women), hips and abdomen so increase in weight is common at the climacteric, but it is not inevitable as it generally believed.

Psychological changes

Psychological changes in menopausal stage vary considerably and depend largely on the make-up of an individual and on her previous outlook on the Menopause and its significance. A menopausal or climacteric woman may experience varied types of emotions ranging from mild concern to frank denial due to following factors:

1) End of Reproductive era / loss of Child bearing capacity:
2) Loss of Youth:
3) Skin Aging
4) End of Sexual life

Symptoms of Menopausal Syndrome[8]

Menopausal symptoms can be described under the main headings:

(A) Disturbance in menstrual pattern

(B) Symptoms with Acute / Sub acute onset

1) VASOMOTOR
2) GENITAL AND SEXUAL
3) URINARY
4) PSYCHOLOGICAL
5) GESTRO - INTESTINAL
6) LOCOMOTOR
7) OTHERS

(C) Symptoms with long onset:

1) CARDIOVASCULAR
2) OSTEOPOROSIS

(A) Disturbances in menstrual pattern

During the menopausal transition, it has been estimated that menstrual irregularities occur in more than half of all women. The manner in which the menstrual bleeding finally ceases varies widely. Just prior to Menopause, menstruation ceases by following classical ways. Sudden cessation of menstruation Gradual hypomenorrhoea in which diminishing amount of

blood loss occurs with each regular period until menstrual stops. Gradual oligomenorrhoea (infrequent cycles) in which gradual increases in the spacing of the periods occurs with pale coloured scanty flow until they cease for at last an interval of minimum of six months. Irregular with or without excessive bleeding. In this pattern, bleeding can be irregular, profuse, heavy or prolonged. Anovulation is one of the most common causes of abnormal uterine bleeding. This disruption of menstrual patterns has been attributed to a gradual decrease in the number of normally functioning follicles reflected by gradually increasing follicular phase – FSH levels.

A period of minimum of 6 consecutive months and maximum of 12 consecutive months of amenorrhoea assures cessation of cyclic ovarian functions in older women.

(B) Symptoms with Acute / Sub acute onset

(1) Vasomotor

Vasomotor symptoms include mainly hot flushes, excessive sweating, night sweats, and waking episodes in early morning, cold hands & feet etc.

(a) Hot flushes

The term hot flush is descriptive as a sudden onset of reddening of the skin over the head, neck and chest, accompanied by a feeling of intense body heat and concluded by sometimes profuse perspiration. It is often accompanied by palpitations, feeling of anxiety and sometimes followed by chills. The duration of entire episode varies from few seconds to several minutes (generally 1 -3 minutes) and rarely, for an hour. There is an increase in skin conductance, which increases the skin temperature reflects as hot flushes.

Probable Etiological factors

1. Estrogen deficiency:
2. Psychosomatic origin:
3. Relation with LH Surge:
4. Enhanced noradrenaline activity:

(b) Excessive sweating

Excessive sweating is also a part of Vasomotor instabilities that are occurring in this stage. Excessive sweating is a counterpart of hot flushes expressed by excessive perspiration affecting specially face, neck, chest and back. When it occurs in night, it is called as night

sweats, which alters patient's rest and sleep.

(c) Sleep disturbances

Sleep disturbances include both difficulties; in falling asleep and frequent waking episodes. Again, the cause remains Vasomotor disturbances include vicious cycle of hot flushes, which are more frequent in night times resulting into night sweats and ultimately alter the sleep patterns and often may lead to insomnia also. Sometimes, Psychological changes such as anxiety, depression, tension, fear, and headache also cause sleep disturbances.

(2) Genital and Sexual[9]

In climacteric woman, both genital and sexual symptoms are interrelated.

(a) Genital

Atrophic changes take place in genitalia, due to waning ovarian function, which are already mentioned previously. Vaginal symptoms include dryness, stenosis, dyspareunia, recurrent vaginal infections, atrophic vaginitis etc. Vaginal relaxation with cystocele, rectocele and uterine prolapse are also reported shortly after Menopause due to laxicity of pelvic cellular tissue and loss of tone of the ligaments and tissues that support the uterus and vagina. The laxicity is thought to be due to reduction in muscular strength as a part of aging in both men and women irrespective of sex. Uterine symptoms include endometritis and senile pyometra due to obliteration of cervical canal by surrounding fibrosis. Sometimes, pruritus vulva is also occured more frequently in menopausal women due to genital skin atrophy and dryness.

(b) Sexual

Symptoms regarding sexual function concerned with Menopausal Syndrome are manifested as dyspareunia and decreased desire of sexual activity, which is also called as decreased libido. However, sexual activity remains relatively stable in some women before and after Menopause. In many women, sex urges may even temporarily increase by Menopause especially if it has been inhibited previously by fear of pregnancy. The determinants of sexual behaviour are mainly related to Interpersonal, Psychological, Social, Cultural and Physiological factors in menopausal stage.

(3) Urinary

Following Menopause, changes occur in urethra and periurethral tissues, which lead to various symptoms like dysuria, urgency, recurrent urinary tract infection, supra pubic discomfort, stress incontinence, urge incontinence, urethral caruncle etc. All these urinary

symptoms are clubbed together under the term urethral syndrome.

(4) Psychological

Majority of women experiences mild to moderate degree of psychological manifestations during climacteric. These include depression, anxiety, excitability, irritability, tension, nervousness, dizziness or giddiness, mood swings or emotional instabilities, dysphoria, crying, loss of confidence, crying spells, worry needlessly, attacks of panic, difficulty in concentrating, palpitations, loss of interest in most things, feeling unhappy, fatigue, melancholia, headache, paraesthesia of the hands and feet, noises of the ears, pseudocyesis etc.

(5) Gastro - Intestinal

Gastro-intestinal symptoms like disturbed appetite (which can either increase or decrease), various forms of dyspepsia, intestinal distension, constipation and flatulence associated with colonic spasm etc. are most important in menopausal women. These all symptoms occur probably due to diminished motor activity of alimentary tract. Hypochlorhydria is also thought to be a causative factor.

(6) Loco - Motor

These include menopausal arthropathy (Joint pains) osteoarthritis, fibrositis and myositis, backache, vertebral disc lesions, arthralgia, myalgia, etc. The studies have not reached to a firm & final conclusion regarding the etiology behind these symptoms, but the factors like Vascular or Endocrinal are thought to be behind them.

(C) Symptoms with long onset

(1) Cardiovascular

Risk factors

I. Deficiency of estrogen/loss of ovarian function:

estrogen deficiency significantly increases that risk of cardiovascular diseases and this risk can be reduced by estrogen replacement.

II. Hypertension

Studies suggest that hypertension increases the risk of cardiovascular diseases by 10 fold

III. Cigarette Smoking

Cigarette smoking increases the risk by at least threefold.

IV. Other risk factors

Diabetes mellitus, hypercholesterolemia, stress, obesity, sedentary life style etc. have also an increased risk.

(2) Osteoporosis[10]

Osteoporosis is a single most important health hazard associated following the Menopause. Osteoporosis is characterized by decrease bone mass and increased susceptibility to fracture in the absence of other recognizable causes of bone loss. The primary factors associated with osteoporosis include heredity, age, estrogen status and dietary calcium intake. Other factors that increase the risk of osteoporosis include less physical activity, slim build, cigarette smoking, ethnic origin, Drugs like Heparine, Corticosteroids and various diseases like Thyroid disorders, malabsorption and multiple myeloma etc. are also thought as risk factors for osteoporosis.

Diagnosis of Menopause

Diagnosis of Menopause can be done according to following criteria:

(A) Clinical criteria:

1) Cessation of menstruation for consecutive 6 months during climacteric.
2) Appearance of subtle menopausal symptoms like 'hot flushes' or 'night sweats' etc.

(B) Vaginal cytology:

(C) Hormonal Assessment:

interval

1) Serum estradiol level is < 20 pg/ml and
2) Serum FSH and LH is > 40 ml U/ml for this assessment, minimum three values at weeks
3) Progestin Challenge test:

DISCUSSION

Range of symptoms in menopause are wide, and these symptoms vary with each dosha and express their own physiological and psychological symptomology which can be classified according to doshic theory as follow:

Vaat imbalance disturbs the nervous system and emaciate bodily tissues by virtue of its Ruksha, Laghu and shita properties. Hence in vaat dominated menopause female are prone to vaginal dryness, loss of skin tone, backache, joint aches, pains, constipation, tingling and numbness in body and degeneration of cervical spine. Along with these, feeling cold, insomnia, mild or moderate hot flushes, palpitation, bloating and lack of concentration,

restlessness, fear, depression, confusion, nervousness, anxiety, mood swings and memory loss.

In Pitta dominated menopause female are prone to urinary tract infections, skin rashes and acne, inability to adjust to warm temperatures along with hot flushes, short temper, anger, irritability, feeling hot, night sweats can be seen.

In Kapha dominated menopause female are prone to weight gain for no reason, fluid retention, slow digestion, fungal infections, excess cholesterol and mucus, edema in joints, feeling of mental and physical heaviness, sluggishness, lethargy, lazy, sleepiness, depressed and lacking motivation.

Vaat dominated phase of life is not respected well in advance and taken care of. If a woman already has a significant Pitta or Vaat imbalance in the years before menopause due to an accumulation of imbalances that have built up over a women's life time, including diet, lifestyle and emotional imbalances, things are likely to get worse during menopause.

discussion on prakriti and menopausal symptoms prakriti and hot flushes

Pitta pradhan prakriti shows sever hot flushes, due to Ushna, tikshan guna of pitta. Ushna guna produces more amount of heat in the body, tikshna guna induces tikshanagni (BMR) in the body, hence pitta pradhan prakriti may shows severe hot flush compared to vaat pradhana prkriti. Kapha pradhan prakriti individuals shows mild to no hot flush, due to sheeta guna of kapha. Ushna guna opposite to sheeta guna so sheeta guna having ushna subsiding properties hence kapha prakriti may show mild to no hot flush.

Prakriti and sleep problems

Vaat pradhan prakriti individuals shows severe sleep problems, may be due to rajo, ruksha guna of vaat. Rajo guna produces chanchalata (awakening during sleep) and vaat prakriti individual normally have alpa nidra, jagruk due to ruksha guna. Pitta pradhana prakriti shows moderate sleep problems and kapha pradhan prakriti individuals shows mild sleep problems due to tama, snigdha, guru guna. Naturally tama guna produce sleep.

Prakriti and depression

Vaat pradhan individuals shows severe depression, may be due to rajo, shigra, laghu guna of vaat. Shigra guna produces shigra trasa raga viraga (quickly gets angry mood, sadness), laghu guna produces chapalata gati i.e chesta. Kapha pradhan prakriti individuals shows mild

depression may be due to manda, sthaimitya guna of kapha. Manda guna produces manda chesta, decrease in mental activities, sthimitya guna produce ashigra aarambha kshobha vikar (slowly get angry, mood sadness).

Prakriti and irritability

Pitta pradhan prakriti individuals show severe irritability, may be due to tikshana, kshipra kopa prasad guna. Tikshana guna produces kleshaasahishnutva (cannot tolerate difficulties), kshipra kopa prasad guna (short tempered) hence, pitta pradhan prakriti individuals easily get irritated. Kapha pradhan prakriti individuals shows mild irritability, due to klesha kshama guna, sthaimitya guna of kapha. Klesha kshama guna produces tolerating capacity to any situation, sthaimitya guna produces ashigra aarambha kshobha vikara (slowness in irritating actions) hence kapha pradhan prakriti individuals exhibits mild irritability.

Prakriti and anxiety

Vaat pradhan prakriti individuals shows severe anxiety, may be due to shigra guna, krodhi guna of vaat. Shigra guna produce shigra aarambha kshobha vicar (quickly gets angry), krodhi guna produces short temper hence pitta pradhan individuals get easily anxiety. Kapha pradhan prakriti individuals shows mild anxiety may be due to manda, sthaimitya, soumya guna, dhrutiman of papha. Manda guna produces ashigra aarambha kshobha vikara, soumya guna generates coolness in the body hence kapha prakriti individuals are having cool minded, kapha pradhan prakriti individuals are self- controlled.

Prakriti and physical and mental exhaustion

Vaat pradhan prakriti individuals shows severe physical and mental exhaustion, may be due to ruksha, rajo, laghu, alpa bala. Ruksha guna produces dryness in the body and it does apachita of the body, by this person become weak. Laghu guna produces chapala chesta by this person get early physical exhaustion. Rajo guna produces chanchalata in thinking so person get early mental exhaustion. Because of alpa bala they cannot do heavy work hence vaat pradhan prakriti individuals have early physical and mental exhaustions. Pitta pradhan prakriti shows moderate physical and mental exhaustion, may be due to madhyam bala. Kapha pradhan prakriti individuals shows mild physical and mental exhaustion, due to snigdha, saandra guna, balawanta, ojasvina. Snigdha guna produces snigdhta in body, it inhences the streangth of the body as well as mind, saandra guna does the upachita paripurna sarvanga so they are balavantha and ojasvina hence not get easily exhausted.

CONCLUSIONS

1) The study revealed that there is a significant association between Deha Prakriti and Menoausal symptoms.
2) Vaat pradhan prakriti shows severity in symptoms like heart discomfort, insomnia, nervousness, depression, anxiety, vaginal dryness, constipation, physical and mental exhaustion.
3) Pitta pradhan prakriti shows severity in angry out-brust, irritability, short temper, night sweats, hot flushes, UTIs, skin rashes.
4) Kapha pradhan prakriti shows severity in Fugal infection, weight gain, oedema, sleepiness and sluggishness.

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