



## A CLINICAL STUDY OF POST MENOPAUSAL SYNDROME (RAJANIVRITTI) WITH SPECIAL REFERENCE TO ITS TREATMENT BY INDIGENOUS DRUGS

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### ABSTRACT

Menopause is an inevitable physiological transition in woman's life. It marks the end of the reproductive life. During this phase various manifestations are seen like depression, sleep disturbances, hot flushes, constipation etc. All these changes can be prevented by adopting various measures as mentioned in age old Ayurvedic classics. In this clinical study, hundred (100) numbers of case with classical sign and Symptoms of menopausal syndrome were treated with the combined formulation. The critical evaluation was done and it was observed that the formulation was found to have significant effect in reduction of the various manifestations of the post menopausal Syndrome (Rajanivritti)

**KEYWORDS :** Menopause, Depression, hot flushes, Rajanivritti

### INTRODUCTION

यत्र नार्यास्तु पुज्यन्ते रमन्ते तत्र देवता ।”

This quotation found in Sanskrit literature suggests that where ever women are worshipped, the God exists there. The real worship of woman is nothing else but to provide them good health by the removal of every type of diseases and make them happy. This reference clarifies that woman is the centre point of the family, society, nation and the world. So the health of the nation depends upon the health of a woman. It is only to be expected that any change involving the reproductive function in a woman will seriously affect her health and happiness, menopause is one such change in reproductive life causing untoward physical and mental agony. When this change is associated with certain disturbance it will attain more significance. Sometimes such disturbances attain the stage of a disease or syndrome. Menopausal syndrome is a common disorder among the women, which oftenly come across in Stri-roga practice Only few scattered references are available in ancient Ayurvedic literature on menopausal stage of a woman. In Susruta Samhita it has been described as:-

तद् वर्षाद् द्वादशात् काले वर्तमानमसुक पुनः ।

जरापक्क शरीराणाम् याति पञ्चाशतः क्षयम् ॥ (Su.Su.3/9)

This quotation includes the whole phenomena of the menarche and menopausal process. The first half of the quotation refers to causes of puberty and menarche, while in the second half the description of climacteric and menopause is given. The climacteric stage results due to Jara Avastha of the body. Menopause is the final menstrual period and occurs during climacteric. Rajanivritti starts at the age of 50 years as quoted in ancient literatures. Present estimation data of this at about 45 to 55 years of age, the average age being 47 years. The menopause is sometimes but not necessarily always associated with symptomatology. When it occurs it may be termed as menopausal syndrome. While coming to management point being an alarming problem woman with climacteric stage needs utmost care and effective treatment. Relief from the worst of the menopause even if not cured often be achieved by the proper treatment or drug administration with modern therapeutics like hormonal replacement therapy (HRT), through there is spectacular achievement in combating the disease, still a high risk exists due to serious side effects of the therapy. Therefore, wide scope of search for safest medicine from other pathies still exists.

On the contrary, in Ayurvedic system of Medicine through a specific reference about this particular disorder is not seen but

certain indigenous drugs are found to be very useful. Here in this proposed study, an effort has been made to assess the efficacy of certain indigenous drugs having Rasayana property in the management of the disorder arising during menopause.

### AIMS AND OBJECTIVES:-

The aim of the present work is to study the clinical profile of Post Menopausal Syndrome (Rajanivritti) with the spear reform to its treatment by indigenous drugs and the objectives are –

- (1) To study the physical and mental changes during the post menopausal period on general health and day to day life.
- (2) To evaluate the efficacy of indigenous drugs (having the rasayana property) on the management of menopausal syndrome (Rajanivritti) along with untowards effect of the drugs.

### MATERIALS AND METHODS

100 numbers of patients having the classical symptoms of menopausal syndrome were selected from OPD of Govt. Ayurvedic College Hospital for the study.

### Selection of Cases: -

Female subjects aged between 45 to 55 years showing clinical features of menopausal syndrome (according to Shaw's text book of Gynaecology) where the main symptom is cessation of menstruation were included in this study. The associated symptoms like Hot flush, excessive sweating, irritability, sleep disturbance, depression, palpitation, joint pain, back ache, flatulance, constipation etc. were also taking into consideration.

### Exclusion Criteria: -

Patients with excessive bleeding and irregular bleeding per vagina have been excluded from the study.

### Diagnostic Criteria:-

To record the details, a clinical proforma has been prepared incorporating all the signs and symptoms based on menopausal syndrome.

### Preparation Of Trial Drug:-

The drugs Amlaki, Haritaki, Guduchi, Satavari procured from reliable source were washed thoroughly with plain water dried up in sunray and made fine powder in the State Ayurvedic Pharmacy, Guwahati - 14. The powder thus prepared was mixed with prawal pisti procured from Baidyanath Ayurved Bhawan Ltd. and kept in air tight

container. The combinable preparation was dispensed in sealed packet of 200gms each.

In each 5 gms. of Churna contains.

Amlaki	1.25gm
Haritaki	1.00gm
Guduchi	1.25gm
Satavari	1.25gm
Prawal pisti	0.25gm

Dose: 3 gms twice daily.

**Method Of Administration Of Drugs:-**

After proper diagnosis the patients were selected randomly irrespective of their age, clinical findings, investigations etc. All the Patients were given 'Haritaki Churna 3 gms at bed time with warm water for 3 days for kostha suddhi. During this period the investigations were carried out and there after the drug were administered.

**Anupan:-** Ushna Jal (warm water)

**Duration of study:-**

The treatment was continued for a period of 3 months.

**Diet And Regimen:-**

The patients were advised to take food which is of vatahara in nature. The patients were advised not to consume the diets that increase vata dosa like katu rasa pradhana and particularly, the use of lady's finger, Potato, peas etc. which are vata provocating in nature. patients were advised to avoid heavy exercise, day sleep, suppression of natural urges, mental tension etc. All patients were advised to take care of health, moderate exercises and rest.

**Follow Up Study:-**

The patients were examined once in a month, and the changes observed in symptoms were assessed and recorded. After the completion of the treatment a follow up study had been carried out after 3 months for any recurrence of the symptoms.

**Assessment Of Cases:-**

The cases were assessed by basing upon the subjective and objective signs and symptoms, before and after treatment.

1. Hot flashes, 2. Excessive sweating, 3. Irritability, 4. Sleep disturbance, 5. Depression, 6. Palpitation, 7. Joint Pain, 8. Back ache, 9. Flatulance, etc.

Results of the treatment were assessed on the criteria basing upon relief in signs and symptoms. Overall improvement in general condition has been taken into consideration.

Symptomatic relief caused by the treatment has been assessed periodically in terms of subjective feelings of well being and reduction in the symptoms complained by the patients.

**SCORE: (General):-**

- (a) No complain - 0
- (b) Mild complaints - +(1)
- (c) Moderate complaints but nod ifficulty in routine work - ++ (2)
- (d) Difficulty in routine work but subsides by rest - +++ (3)
- (e) Severe complaints - ++++ (4)

**Scoring Pattern: (Specific)**

**(1) Hot Flashes:**

**Grade i** - Daily once.

- Not aggravated by any emotional disturbance.
- Not disturbing the routine work.

**Grade ii** - More than once in day time.

- Feeling of discomfort due to it.

**Grade iii** - More than once in day time and feeling hot flushes in night causing disturbance in sleep.

**Grade iv** - Appearance of hot flushes every 1 -2 hourly.

Aggravated by emotional disturbances.

Enable the patient to be bed ridden.

**(2) Irritability:-**

**Grade i** - Irritability due to some reason and not otherwise.

Subsides after sometimes.

**Grade ii** - Irritability due to negligible causes and remain longer. Subsides after long time.

**Grade iii** - Frequently loosing tempers and shouts or expresses it vigorously.

**Grade iv** - Throwing of things here and there behaving unsociably due to it.

**(3) Disturbance Of Sleep:-**

**Grade i** - Delayed appearance of sleep but uninterrupted.

Prompt appearance of sleep with interruptions in between.

**Grade ii** - Delayed and Interrupted sleep (1 or 2 times)

**Grade iii** - Delayed with frequent interruption. Followed by delayed reappearance of sleep.

**Grade iv** - No sleep whole night and fatigue in morning due to it.

**(4) Fatigue:-**

**Grade i** - Fatigue occasionally on doing heavy work.

**Grade ii** - Fatigue in doing some extra work and not otherwise.

**Grade iii** - Fatigue in carrying out routine work.

**Grade iv** - Fatigue even without doing work.

**(5) Palpitation:-** (Combination of physical as well as mental cause)

**Grade i** - On climbing staircases. On getting irritated or fear.

**Grade ii** - On walking small distance. On Excitement.

**Grade iii** - Even on talking little loudly. On hearing loud voice.

**Grade iv** - Feeling of palpitation any apparent cause, may be just due to Some fearing, exciting or irritating thoughts.

**(6) Depression:-**

**Grade i** - Occasional depression of mood but able to carry out routine work and subsides itself - by minimum counseling.

**Grade ii** - Daily once at a particular time mainly in evening which keeps the Patients away from her routine work.

**Grade iii** - Whole day depression persists Patients is not enthusiastic in doing routine work as if pulls on the life. Interestlessness, but carries out personal activities of hygiene.

**Grade iv** - Patient is always at all times depressed, not interested in carrying out personal activities like bathing, brushing, combing etc. Not even perceiving sense objects properly.

**(7) Prickling Sensation In Palm And Sole: -**

**Grade i** - Occasionally/In one limb a hand or leg at a time.

**Grade ii** - Frequently/In two limbs at a time Both legs - Both hands, one hand and one leg.

**Grade iii** - Daily sensation of prick Pin and Needles in both limbs either legs or hands.

**Grade iv** - Daily, persisting for longer time in both hands and legs.

**(8) Joint Pain:-**

**Grade i** - Pain in any one joint.

**Grade ii** - Pain in two major joints of either legs or hands. Relief with time / minimum medicine.

**Grade iii** - Pain in all smaller as well as major joints (relieves by pain killers).

**Grade iv** - Persisting pain in joints. Patient is unable to move without painkillers.

**(9) Backache:-**

**Grade i** - Occasionally/ in morning occasionally.

**Grade ii** - Daily pain in morning and then patients are alright for the whole day.

**Grade iii** - Whole day and night pain persists but relieves on taking medicine.

**Grade iv** - Patients becomes dependent on pain-killer, without it patient cannot move.

**(10) Flatulence:-**

**Grade i** - Occasionally in the evening.

**Grade ii** - Everyday in the evening / any one time in the whole day.

**Grade iii** - Daily after taking meals. Feels fullness of abdomen and flatulence.

**Grade iv** - Whole day. Feels tensed abdomen. (Feeling of gases inside abdomen).

**(11) Constipation:-**

**Grade i** - Daily call but stools are hard and motions are unsatisfactory (Feeling of incomplete evacuation).

**Grade ii** - Motions every alternate day with hard stools. Feeling of incomplete evacuation.

**Grade iii** - Minimum medication or household remedy is required for motions to pass and takes longer time to evacuate, unsatisfactory.

**Grade iv** - Regular medicine or strong purgative is required to pass the motions. (At times not even passing motion with medicines)

**(12) Excessive Sweating:-**

**Grade i** - Occurs only on working in hot or doing hard work.

**Grade ii** - More in day time and when associated or following hot flushes only.

**Grade iii** - Occurs even at night and or following hot flushes.

**Grade iv** - Excessive Sweating to the extent that patient feels like taking bath or changing clothes.

**(13) Dry Vagina:- (+ve or -ve)**

**Grade i** - Subjective feeling of dryness due to lack of mucoid secretion.

**Grade ii** - On Examination also one may find decrease in local secretions and painful examination.

**Grade iii** - Patients may feel dyspareunia due to dryness of Vagina.

**Grade iv** - Patients require some lubricant for symptomatic relief.

Assessment of overall effect of therapy was done by following the below mentioned criteria:

**Marked Improvement:-**

Relief in more than or equal 75% signs and symptoms of

menopausal syndrome.

**Improvement:-** Relief in more than or equal 50% signs and symptoms of menopausal syndrome.

**Mild Improvement:-** Relief in more than or equal 25% signs and symptoms of menopausal syndrome.

**No Improvement:-** Less than 25% signs and symptoms of menopausal syndrome.

**OBSERVATION AND RESULT**

Showing The Cardinal Sign & Symptoms Of Patients Of Menopausal Syndrome.

Sl. No.	Symptoms of Menopausal Syndrome	No. of Patients	Percentage
1	Hot Flushes	96	96%
2	Excessive Sweating	50	50%
3	Irritability	85	85%
4	Sleep Disturbance	50	50%
5	Fatigue	76	76%
6	Depression	60	60%
7	Palpitation	84	84%
8	Joint Pain	60	60%
9	Backache	70	70%
10	Prickling sensation in Palm & Sole	60	60%
11	Flatulence	65	65%
12	Constipation	70	70%

N = 100

The above table shows that 96% of patients having the symptom of Hot Flushes, Irritability 85%, Palpitation 84%, Fatigue 76% were observed. Back ache & Constipation were 70%. Flatulence, Depression, Joint pain, Prickling Sensation in Palm & Sole were observed in 65%, 60%, 60%, and 60% of patients respectively. Excessive Sweating and sleep disturbance were observed in 50% of patients in each.

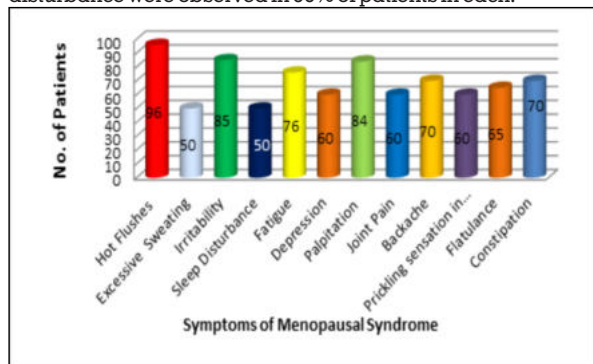


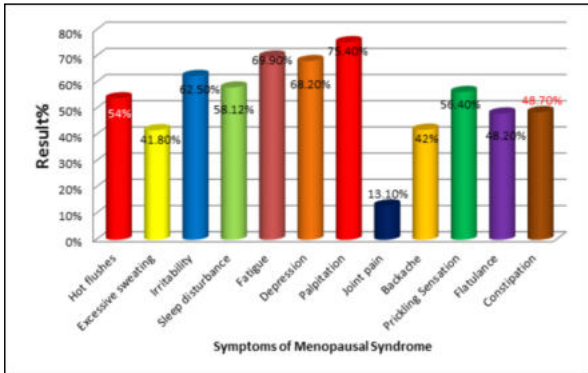
Fig. - 1

**Table No. 1 Effect Of Trial Drug On Menopausal Syndrome (Rajanjivritti) N = 100**

Sl. No.	Symptoms	No. of patients	Mean (BT)	1 <sup>st</sup> Month	2 <sup>nd</sup> Month	3 <sup>rd</sup> Month	Mean (AT)	Result%	SD	SE	t	p at 0.001	Remarks
1	Hot flushes	96	2.42	1.97(18.3%)	1.59(34.21%)	1.11(54%)	1.11	54%	0.87	0.09	14.63	less	Significant
2	Excessive sweating	50	2.56	2.31(9.74%)	1.86(27.5%)	1.49(41.8%)	1.49	41.80%	1.02	0.02	52.3	less	Highly Significant
3	Irritability	85	2.34	1.94(17.2%)	1.21(48.2%)	0.88(62.5%)	0.88	62.50%	0.76	0.08	17.61	less	Significant
4	Sleep disturbance	50	2.8	2.17(22.4%)	1.46(47.8%)	1.17(58.12%)	1.17	58.12%	1.08	0.15	10.65	less	Significant
5	Fatigue	76	2.26	1.51(33.4%)	0.96(57.5%)	0.68(69.9%)	0.68	69.90%	0.83	0.09	16.71	less	Significant
6	Depression	60	2.98	2.12(29.1%)	1.29(56.7%)	0.94(68.2%)	0.94	68.20%	0.88	0.11	17.85	less	Significant
7	Palpitation	84	2.19	1.52(30.42%)	0.91(58.3%)	0.54(75.4%)	0.54	75.40%	0.84	0.09	17.92	less	Significant
8	Joint pain	60	2.93	2.71(7.6%)	2.65(9.5%)	2.55(13.1%)	2.55	13.10%	0.96	0.12	3.09	more	Insignificant
9	Backache	70	2.84	2.31(18.64%)	1.94(31.63%)	1.64(42%)	1.64	42%	1.05	0.13	9.54	less	Significant
10	Prickling Sensation	60	2.87	2.20(23.4%)	1.65(42.3%)	1.24(56.4%)	1.25	56.40%	0.95	0.12	13.2	less	Significant
11	Flatulence	65	2.63	2.11(19.63%)	1.69(35.6%)	1.36(48.2%)	1.36	48.20%	1.12	0.14	9.15	less	Significant

12	Constipation	70	2.76	2.26(18%)	1.79(35%)	1.41(48.7%)	1.41	48.70%	1.04	0.13	10.72	less	Significant
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The above table reflects the affects of trial drug as a whole on menopausal syndrome. It is observed that there were highly significant result in Excessive Sweating. Whereas result was significant in Hot flushes, Irritability, Sleep Disturbance, Fatigue, Depression, Palpitation, Backache, Prickling sensation in Palm & Sole, Flatulance and Constipation. Only in Joint pain the result is found insignificant.



**DISCUSSION**

Menopause is a significant landmark for women. It marks the closure of reproductive life. It is a universal event for all women. However, this period of life is engulfed in controversy i.e. is menopause a normal process or is it a disease?

The view that menopause is a disease dominates medicine. Menopause has been considered as an oestrogen deficiency disease and more recently it has been characterized as an endocrinopathy. This view is a result of the scientific stereotype of menopausal women as asexual, engulfed with hot flushes and facing postmenopausal years with decaying bones. The definition of menopause as disease has its origin in patriarchal views and belief about women as defective and imperfect as related to men. This view of Menopause has been socially constructed and has over shadowed the concept of menopause as a normal biological event.

According to Ayurveda Rajanivritti is a physiological process occurring in the female body in the later stage of life. It is one of the swabhabika prakriya indicating the change in life style of women due to Jarawastha. This is a natural phenomenon like hunger, thirst and sleep. But when this stage causes discomfort either to the mind or body, it attains vyadhishwarupa.

The pathogenesis of Rajanivritti or Menopause points towards an organic or functional ageing process with derangement of the female reproductive system. Even the chronicity of the disorder has been to produce chronic ill health all over the body. The impact of the modern life style and food associated with mental stress has been lead to early ageing.

In samprapti of Rajanivritti Vikara, Vata dosha is found to be predominant. Vata along with pitta produces its different clinical symptoms likewise – Hot flushes, excessive sweating, sleep disturbances, constipation, backache, etc. This occurs chiefly due to improper Agni, is in terms of Jatharagni and Dhatwagni. Even manasik factors like Soka, Cinta, Bhaya have direct effect on Agni, as well as on Vata, and due to Jara and Pakwa leading Dhatukshaya. So that it aggravate to disease stage.

As the disease goes chronic reduction of Kapha, Pitta and Dhatus can be observed. In relation to that of Bala is also diminished simultaneously. It leads to further vitiation of vata which may produce more trouble. Hence heralds for an energetic treatment. Reduction of Bala or immunity occurs in different Dhatus. So, the drugs having the Rasayana

properties can give relief to the patients. Rasayana is also known for its curative effect on ageing Samprapti as a vayasthapana. So, we select the trial drug having the Balya Rasayana and Vayasthapana Rasayana properties for the present study.

Observation recorded of 100 nos. of patients, who were given treatment for Rajanivritti Vikara. (Menopausal Syndrom) had been presented on previous pages.

In the present study it is observed that the maximum number of patients (76%) was found under the age group of 45 – 50 years, with a range of 45 to 55 years. (Sidhu Shardha et. al.)

In present study it is observed that the majority of patients i.e. 70% were Hindus. Here the sole cause of the majority of Hindu may not be assigned to any particular reason as this figure is just reflection of geographic predominance of particular sector that Hindus being dominated in this area.

In present study it is observed that maximum number of cases under study was belonging to urban area i.e. 75%, and only 25% were from rural areas. It does not reflect upon any specific impact on urban and rural division of the land on Rajanivritti Vikara. But it reflects upon the general trend of the patients reporting to the Hospital and awareness of the urban population regarding quick hospital reporting for any ailment which quite often is not seen in the rural area. This report suggesting the high incidence of disease in urban citizens may be due to their sedentary life and mental instability due to various tensions and emotional stress on them.

From the study it can be inferred that majority of cases were housewife i.e. 60% probably for Indian women this is for being a house wife sharing the family problems, stress and also having social restrictions to her may be the reason.

From our study it is observed that majority of the patients were educated, giving own hint that education play an important role in growing awareness towards this particular problem and attained to the clinic.

While screening the socio-economic status 45% of the patients were from middle socio-economic status and 40% were from higher socio-economic status of the society, while 15% of the patients were found to be poor economic status.

The higher percentage of middle class indicates the insufficient income of these persons were more prone to set this disease because they are not able to make even correct nutritious diet. The higher class which was found in good number may be due to their health awareness while the less percentage of lower class indicates that they don't have enough time to spend for their health rather than doing their routine works.

Diet wise distribution shows that 75% of patients were non-vegetarian. The diet has an impact on disease and abuse of dietary code, if it becomes a habit may lead to disease but whether the vegetarian or non-vegetarian diet can play a role in Rajanivritti is still a query and needs further study.

However, this higher percentage is based on the patients who reported at the hospital and they mostly came from those families. Who were from such castes which were non-vegetarians.

Regarding the family planning measures adopted it is observed that the highest number of cases adopted different contraceptive methods. Maximum number of patients used oral contraceptive pills. i.e. 35%, IUCD adopted by 15% cases,

12% adopted sterilization and 28% cases were not used any type of contraceptives. It shows that the knowledge of family planning methods are known by almost all the patients. That may be because of the continuous efforts taken by the Govt. for introducing and developing the family planning methods among society on time to time.

The patient who had oral contraceptives in a very past years of their lives, and the patients who had not taken oral contraceptives made no difference by showing their menopausal syndrome. Observation can be drawn that there is no relation in between the menopausal syndrome and the tubectomy among the patients.

In the present study maximum number of cases i.e. 50% the menstrual cycle was ceased since less than 1 year of duration, followed by 25% of the cases were ceased 1 to 2 years duration, while 14% of the cases were ceased 2 to 3 years, 7% were ceased within 3 to 4 years and remaining 4% of menstrual cycle was ceased since above 4 to 5 years.

This data directly suggests that the climacteric is the counter part of puberty and is a transitional phase lasting from 1 to 5 years, during which period those women who require more explanation of the ageing phenomena and encouragement with treatment.

#### Cardinal Sign And Symptoms:-

Cardinal symptoms predominantly observed in 100 cases of menopausal syndrome were cessation of menstruation.

The vasomotor symptoms – the hot flushes is a sensation of intense heat felt most commonly on the face, the arms and the upper part of the body. This is intern followed by profuse sweating. These symptoms are often accompanied by palpitation and fatigue together, they represent vasomotor instability. These symptoms are often earliest and most common of climacteric symptoms. Present study seems to indicate that in 96% of menopausal women complaining of hot flushes, where as 84% of cases in this series having the symptoms of palpitation and 76% of cases having fatigue. If left untreated, these symptoms persist for over five years (Sanja M. Mekklay and Margot Jefferys). The average duration of the hot flushes is about 2 to 4 minutes and frequency of the flushes varies from a few episodes per week to several per hour.

#### Psychological Symptoms:-

These are some symptoms manifested by irritability, sleep disturbances, depression, and there may be prickling sensation in palm and sole. All are most common just before the onset of menopause. These are observed in present data 60% of cases had prickling sensation in palm and sole, while 85%, 50%, 60% of cases had symptoms of irritability, sleep disturbance and depression respectively.

Sex steroids have been shown to have a modulatory role on brain monoamine receptors. Falling oestrogen levels may therefore contribute directly to mood changes and psychosomatic symptoms. Vasomotor symptoms with night sweats often lead to chronic fatigue, sleep disturbance and hence it directly to psychological symptoms.

Social factors like children away from home, with bereavement of children and changing life style may contribute maximum to psychological effect on menopausal women.

Cultural factors lead to differences in personal attitudes towards menopause. In our Society, menopause is accompanied by the lifting of so many social taboos. These lead to a positive attitude towards climacteric changes and possibly favour of psychological symptoms in women.

#### Symptoms Of Digestive System:-

Effect on digestive system is that hypochlorhydria develops, motor activity of entire alimentary tract diminishes resulting in constipation, flatulence in menopausal stage. Present study shows complaints of cases i.e. 70% of constipation and 65% cases have flatulence.

#### Symptoms Of Musculoskeletal System:-

These appear as backache, pain in joints due to lacking of ligaments and muscles. These are observed in study 70% cases had backache and 60% cases had joint pain.

#### Genito-urinary Symptoms:-

Urinary problems are common in aging women and may occur in the perimenopause. The relative contributions of menopause, obstetric history and ageing to these problems have yet to be assessed. Symptoms of urgency of micturition, dysuria, stress incontinence, prolapsed of genito-urinary are reported by the menopausal women. According to population surveys, vaginal symptoms may cause dyspareunia and limit intercourse. Local symptoms include vaginal dryness and itching vulva, these symptoms are due to hypoestrogenic state of menopausal women.

Biophysical parameters, Haematocrit values and Biochemical values there was no effect of the trial drug before and after treatment and statistically insignificant as such they have not been presented.

During the trial it was observed that the improvement rate of the sign and symptoms were as follows –

Hot flushes 54%, excessive sweating 41.80%, irritability 62.50%, sleep disturbance 58.12%, Fatigue 69.90%, Depression 68.20%, Palpitation 75.40%, Joint pain 40.10%, Backache 42%, Prickling pain in palm and sole 56.40%, Flatulence 48.20%, and Constipation 48.70%.

A remarkably good quick relief was marked in maximum symptoms beginning from the initial stage i.e. 1<sup>st</sup> Month and gradually the relief increased in 2<sup>nd</sup> and 3<sup>rd</sup> Month.

After completion of the study the statistical evaluation showed that clinically almost all the cases showed improvement. ( $p < .001$ )

#### SUMMARY AND CONCLUSION

The present study entitled "A clinical study of Post Menopausal Syndrome (Rajaniivritti) with special reference to its treatment by indigenous drugs". Comprises - review of literature, materials & methods, observation & results, discussion, summary and conclusion.

1. The subject is introduced in brief under the caption of Introduction at the beginning of the thesis.

At the onset, a general introduction of the subject outlining the incidence, reasons and rationality behind the selection of this problem has been given.

2. In literary review brief description about the different stages of life span and specific epochs of women's life are given. Then the Anatomy and Physiology of female reproductive system which includes ancient as well as modern aspect. After that derivation of Artava, definition, characteristics of Suddha Artava, followed by description of Ritu-cakra and menstrual cycle are depicted from both modern and Ayurvedic Texts. Relation between hormones and menstrual cycle, hormonal influence in different stages of female life have been explained in detail.

In the second section of literary review devoted to the phenomenon of 'Rajaniivritti' an elaborate account of the Ayurvedic literature on subject, concurrently with the modern

literature is given. This section started with a general description of disease leads to the etymology, nidān, samprapti, lakshana, Dosa Avastha, Dhatu Avastha during Rajonivritti have been dealt in detail. The conceptual part was prepared after carefully going through the stage of Rajonivritti, which is found as a physiological process in women due to ageing process. When this stage causes a discomfort either to the mind or body it attains Vyadhiswarupa. A correlation and co-ordination of the ancient and modern aspects have been done in the same place whenever needed.

3. The drug review is presented in the fourth section of literary review and it includes the reason for selection of drugs. Five drugs are collectively used having Balya and Vayasthapana Rasayan property. Individual description i.e. latin name, family, Rasa, Guna, Virya, Vipaka, action are given and the probable mode of action of drugs are discussed in the same chapter.

4. In clinical study which commenced with materials & methods and the observations & results made have been presented in tabular form with explanatory notes along with the statistical analysis.

5. The fifth chapter presents the critical discussion of each of the clinical findings, where the justification for the cause of particular symptoms and in the last chapter summary & conclusion of the present work is given.

6. It was observed that these drugs showed significant effect in stipulated three months time. However, it may become necessary to continue the treatment for long duration.

Present work provided promising results in the management of menopausal syndrome in contrary to the conventional hormonal therapy. However, it is suggested that extensive clinical with hormonal assessment and experimental study is necessary to present it as a complete management of menopausal syndrome, so that patients will have smoother transition into the later decades of life.

## CONCLUSION

After scrutinizing our study following conclusions be drawn: - The predominance of Vata in old age is universally stated in all the classical text book, a surplus increase in the Vata occurs during senile state. The progression of ageing with dhatuksaya again add to the increase in the Vatadosa. However, considerable increase Vata and decrease in Kapha is evident in Rajanivritti, as we have shown through the features of Rajanivritti. The frequency of such features differ from person to person. Agnimandya and Rasa-Raktadi dhatuksaya is again an important cause in creating Rajanivritti Vikara. Majority of the diseases are having a limited number of symptoms, whereas Rajanivritti has got a vast field of its manifestations. Rajanivritti has got different effects on different systems of the body. In short, Rajanivritti requires a careful and early attention. This period may manifest short term symptoms and long term complications. While the short term symptoms must be treated, the long term complications must be prevented. Considering the samprapti of Rajanivritti it is observed that the drugs having Rasayana - Balya and Vayasthapana properties are helpful at this stage which is reflected in the present study.

It is hoped that the results of this thesis well estimate the thinking of the Ayurvedic scholars, interested in this field to find out a care for this disorder and thus Ayurveda may contribute in the relief to the suffering humanity and glory of the science can be maintained.

Further study is necessary for definite conclusion on the problem of genesis of Post Menopausal Syndrome (Rajanivritti) and its treatment by indigenous drugs.

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