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EFFICACY OF SALVANA UPANAHA SWEDA WITH AND WITHOUT ABHYANGA IN JANU SANDHIGATA VATA W.S.R. TO OA.

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ABSTRACT
Sandhigata Vata is one among the Vata Vyadhi affecting the locomotor system by deranging the major joints of the body presenting with Sandhi Shoola, Sandhi Shotha, Prasarana Akunchana Vedana and Sandhi Atopa. In modern parlance, it simulates Osteoarthritis, the prevalence of which is 80% at the age of 65 years. Bahya Snehana and Swedana are two important treatment modalities of choice in diseases pertaining to Vata. Upanaha is mentioned as the specific line of treatment in the context of Sandhigata Vata Chikitsa. Salvana Upanaha is a form of Sweda performed using Amla, Snigdha, Gandha pradhana Vatahara Dravyas which is mentioned to be beneficial in Vata vyadhi. So, the present study was planned to evaluate the therapeutic efficacy of Salvana Upanaha Sweda with and without Abhyanga in Janu Sandhigata Vata w.s.r. to OA of Knee Joint. The present study is a single blind comparative clinical study with pre - test and post - test design where in 40 patients of either sex diagnosed as Janu Sandhigatavata w.s.r. to OA were randomly assigned into two groups comprising of 20 patients in each. The patients in Group A were subjected to Sthanika Abhyanga with Ksheera Bala Taila followed by Salvana Upanaha where as the patients in Group B were subjected to Salvana Upanaha alone without Abhyanga which was retained for 12 hrs over night and the same was done for 7 Consecutive days. The overall observation in the study revealed that the maximum patients were of VataKaphaja Prakruti, females in the age group of 51 – 60 years belonging to middle class presenting with Bilateral Osteoarthritis of the Knee Joint. The overall effect of treatment in Janu Sandhigata Vata w.s.r. to OA has shown statistically highly significant result with in both the groups. But, by taking into account the t value of both the groups which revealed that the patients in Group A treated with Sthanika Abhyanga and Salvana Upanaha showed comparatively better results than the patients in Group B treated with only Salvana Upanaha without Abhyanga. The present study revealed that the combined effect of Bahya Snehana in the form of Sthanika Abhyanga and Swedana in the form of Salvana Upanaha is found beneficial in treating Sandhigata Vata.

KEYWORDS: Sandhigata Vata, Salvana Upanaha, Sthanika Abhyanga, Osteoarthritis.

INTRODUCTION
Good Health is the foundation of righteous acts, wealth, fulfillment of aspirations and finally, the liberation. Disease is the destroyer of Health, Wealth and Life. From time immemorial, Ayurveda has revealed many secrets to overcome this obstacle so that the path of life remains uninterrupted in its locomotion towards the ultimate goal. Locomotion is one of the important needs of the living beings in order to fulfill the personal needs, to carry out daily activities and is essential for the survival. There are certain set of disorders which affects the locomotion, thereby affecting the quality of life.

Sandhigata Vata is one among such crippling disorders affecting the locomotory system by deranging the major joints of the body presenting with Sandhi Shoola, Sandhi Shotha, Prasarana Akunchana Vedana and Sandhi Atopa. In modern parlance, it simulates Osteoarthritis which is characterized by Pain, Stiffness, Swelling in joints, Difficulty in movement and Crepitus.

Janu, identified as the knee joint, owing to its complexity of articulation and its major weight bearing capacity is vulnerable to wear and tear because of daily routine activities. Obvious age changes in the joint has a major role in the prevalence of Janu Sandhigata Vata in the elderly, and sedentary urban life style has brought about

steep increase in the prevalence of the disease amongst younger generation as well. There is a steady rise in prevalence from the age 30 such that by 65 years, 80% of people have radiographic evidence of OA. Hence, Osteo-arthritis of Knee Joint has silently occupied a major place among the gamut of degenerative diseases, the existing treatment of which is only palliative involving analgesics, anti-inflammatory and topical applications.

Bahya Snehana and Swedana are two important treatment modalities of choice in diseases pertaining to Vata. Swedana is said as the therapy which removes the stiffness, heaviness, coldness of the body by producing perspiration. Although, this process is mainly counted under purvakarma, but the same can be successfully employed as Pradhana karma in treating many disorders, specially pertaining to Vata. Upanaha is mentioned as the specific line of treatment in the context of Sandhigatavata Chikitsa. Hence, the same has been employed in the present study.

Salvana Upanaha is a form of Sweda performed using Amla, Snigdha, Gandha pradhana Vatahara Dravyas in the form of Poultice which is mentioned to be beneficial in Vata vyadhi. Since Snehana and Swedana are mentioned in the treatment of Vata vyadhi, the same was employed in the study to evaluate the efficacy of Salvana Upanaha Sweda with and without Sthanika Abhyanga in Janu Sandhigata Vata w.s.r. to OA.

OBJECTIVES OF THE STUDY

- To study the effect of Sthanika Abhyanga and Salvana Upanaha Sweda in JanuSandhigata Vata w.s.r. to OA.
- To study the effect of Salvana Upanaha Sweda without Sthanika Abhyanga in JanuSandhigata Vata w.s.r. to OA.
- To compare the effect in both the groups and assess the effect of Salvana Upanaha as a single treatment modality in JanuSandhigata Vata w.s.r. to OA.

SOURCE OF DATA

- 40 patients diagnosed as Janu Sandhigata Vata w.s.r. to OA were randomly selected for the study from the OPD &

IPD of SKAMCH & RC, Bangalore - 104.

METHOD OF COLLECTION OF DATA

- It is a comparative clinical study conducted on 40 patients of either sex diagnosed as Janu Sandhigata Vata w.s.r. Osteoarthritis of Knee joint in order to evaluate the therapeutic efficacy of Salvana Upanaha Sweda with and without Abhyanga.
- The patients were randomly assigned into 2 groups viz.,Group A and Group B.
- The patients in Group A were subjected to Sthanika Abhyanga and Salvana Upanaha whereas the patients in Group B were subjected to Salvana Upanaha alone without Sthanika Abhyanga.
- A special case proforma was designed containing all the details of history taking, physical examination and necessary investigations as mentioned in classics and allied science.
- The parameters of signs and symptoms were scored as per standard procedures.
- The results were statistically analyzed by employing the following statistical tests – paired 't' test for assessment within the groups and unpaired 't' test for assessment between the groups.

STUDY DESIGN

- This is a single blind comparative clinical study with pre-test and post-test design where in 40 diagnosed JanuSandhigata Vata patients of either sex were randomly assigned into two groups comprising of 20 patients in each.
- Duration of treatment – 7 consecutive days (everyday retained for 12 hours)
- Follow-up – First Follow-up – 14^{th} day.
- Second Follow-up – 21^{st} day.
- Total duration of the study – 21 days.

DIAGNOSTIC CRITERIA

- Signs and symptoms of Janu Sandhigata Vata.
- Signs and symptoms of Osteoarthritis of Knee Joint.
- Radiological evidence of OA in Knee joint.

INCLUSION CRITERIA

- Patients presenting with the clinical features of Janu Sandhigata Vata.
- Patients presenting with the clinical features of OA of Knee Joint.
- Patients presenting with radiological evidence of OA in Knee joint.
- Patients of either sex between the age group of 30 and 70 years.

EXCLUSION CRITERIA

- Patients with other connective tissue disorders and secondary arthritis.
- Patients with congenital bony deformity of Knee joint.

ASSESSMENT CRITERIA

- The assessment was done before treatment, after treatment, at first follow up and at second follow up based on the grading and scoring given to subjective and objective parameters of Janu Sandhigata vata w.s.r. OA of Knee Joint.
- The subjective and objective parameters involve Sandhi Shoola, Sandhi Shotha, Sandhi Stambha, Prasarana Akunchana Vedana, Sandhi Sphutana and WOMAC Score (Westren Ontario And McMaster Universities Index).
- The effect of Upanaha was assessed based on Samyak, Ayoga and Atiyoga lakshanas of Swedana.

INTERVENTION

In Group A,

- Patients were first subjected to Sthanika Abhyanga with Ksheera Bala Taila for 15 minutes.
- After Sthanika Abhyanga, Salvana Upanaha Sweda was performed by applying the paste prepared out of following drugs - 5gms each of dry powder of Mulika Dravayas viz., Vacha, Kinva, Shatapushpa, Devadaru, Rasna, Eranda, Gandhadravyas (Tagara, Agaru, Kushta, Tulasi) are taken, mixed with 5gms of Dhanya (Atasi), 10 gms of Saindava Lavana, 30 ml of Sneha (Tila Taila) and 30 ml of Dhanya Amla.
- Thick paste of the above mixture was applied all over the affected knee joint region in the consistency of 1 cm thickness and the applied part was wrapped with Eranda patra. Over this, bandaging was done which was asked to retain for 12 hrs in night and the same procedure was done for 7 consecutive days.

In Group B,

- The same procedure of Salvana Upanaha Sweda was employed but was done without Sthanika Abhyanga.

SALVANA UPANAHA SWEDA VIDHI

MATERIALS REQUIRED

- **Heating apparatus** – for heating oil
- **Vessels** – 3
- **Weighing machine** – 1
- **Measuring Jar** - 1
- **Eranda Patra –** 3 in number
- **Cora Cloth for Bandaging –** 1 in number
- **Scissor for removal of bandaging –** 1
- **Stool –** for comfortable seating

MEDICINES REQUIRED

A) Ksheera Bala Taila – For Abhyanga in Group A – 30 ml per Joint per Sitting

B) Salvana Upanaha Drugs – In both Group A and Group B

- **Mulika Dravyas –** Vacha, Kinva, Shatapushpa, Devadaru, Rasna, Eranda, Gandha dravyas (Tagara, Agaru, Kushta, Tulasi) **–** Each 5 gms.
- **Dhanya –** Atasi – 5 gms
- **Lavana –** Saindhava Lavana – 10 gms
- **Sneha –** Tila Taila – 30 ml
- **Chukra (Amla Dravya) –** Dhanya Amla – 30 ml.

PURVA KARMA

ONLY IN GROUP A: Sthanika Abhyanga was performed for 15 minutes over the affected knee joint region with indirectly heated luke warm Ksheera Bala Taila.

IN GROUP B: No specific Purva Karma was employed.

PRADHANA KARMA

- The same procedure of Salvana Upanaha Sweda was done in Group A following Sthanika Abhyanga and in Group B without Abhyanga.
- The patient was asked to sit in a stool in comfortable position exposing the affected joint region**.**
- The mixture of above drugs were taken in specified quantity to obtain a semisolid paste of neither too thick nor too thin consistency which was applied without heating, over the affected knee joint region in the consistency of 1 cm thickness.
- The paste applied part was wrapped with Eranda patra.
- Over this, bandaging was done using cora cloth.
- Upanaha was asked to retain for 12 hrs in the night.
- Next day morning, the coverings and paste was removed.
- **Time of administration of treatment** – Evening at 7 PM
- **Duration of the treatment** – retained for 12 hours overnight
- **Course of the treatment** – 7 consecutive days

PASCHAT KARMA

- After removing the coverings and Upanaha dravya, the patient was advised to wash the knee part with Luke warm water**.**
- Patient was advised to avoid exposure to cold, breeze, hot sun rays, AC, heavy food intake, skipping night sleep, day sleep, etc.

OBSERVATION

Age

In Group A, 8 (40%) patients belonged to the age group of 51 – 60 yrs and 6 (30%) patients belonged to the age group of 61 – 70yrs whereas in Group B, 8 (40%) patients belonged to the age group of 51 – 60 yrs and 6 (30%) patients belonged to the age group of 41 – 50yrs.

Sex

In Group A, 14 (70%) patients were Females and 6 (30%) patients were Males whereas in Group B, 11 (55%) patients were Females and 9 (45%) patients were Males.

Religion

In Group A, 18 (90%) patients were Hindu and 2 (10%) patients were Muslim where as in Group B, all the 20 (100%) patients were Hindu.

Marital Status

In Group A, 19 (95%) patients were married and 1 (5%) patient was unmarried where as in Group B, all the 20 (100%) patients were married.

Educational Status

In Group A, maximum of 8 (40%) patients had studied up to High school followed by 6 (30%) patients who were Graduates whereas in Group B, maximum of 8 (40%) patients had studied up to Graduation followed by 6 (30%) patients who studied up to High school.

Socio Economic Status
In Group A, maximum of 16 (80%) patients belonged to middle class and 2 patients (10%) belonged to upper middle class whereas in Group B, maximum of 14 (70%) patients belonged to middle class and 5 (25%) patients belonged to upper middle class.

Occupation
In Group A, maximum of 12 (60%) patients were Housewives, 3 (15%) patients were Farmers, and 2 (10%) patients were teachers whereas in Group B, maximum of 10 (50%) patients were housewives, 4 (20%) patients were Teacher and 3 (15%) patients were Engineers.

Diet
In Group A, 15 (75%) patients were of mixed diet and 5 (25%) patients were of vegetarians whereas in Group B, maximum of 17 (85%) patients were of mixed diet and 3 (15%) patients were of vegetarian diet.

Addictions
In Group A and Group B, 19 (95%) and 16 (80%) patients were not having any addictions respectively.

Sleep
In Group A and Group B, 16 (80%) and 15 (75%) patients were getting sound sleep where as 4 (20%) and 5 (25%) patients were getting disturbed sleep respectively.

Family History
In both the Groups, 9 (45%) patients had the family history of similar complaint.

Built
In Group A, 16 (80%) patients were well built and 4 (20%) patients were moderately built whereas in Group B, 15 (75%) patients were well built and 4 (20%) patients were moderately built and 1 patient was poorly built.

Affected Joints
In Group A and Group B, maximum of patients presented with Bilateral Osteoarthritis of Knee Joint.

Bala Pramana Pareeksha
Prakruti
In Group A, 15 (75%) patients belonged to VataKaphaja prakruti and 5 (25%) patients belonged to VataPittaja Prakruti where as in Group B, 14 (70%) patients belonged to VataKaphaja prakruti and 6 (30%) patients belonged to VataPittaja prakruti.

Vikruti
In Group A, all 20 (100%) patients gave the history of Ati Vyayama where as in Group B, 17 (85%) patients gave the history of Ati Vyayama and 3 (5%) patients gave the history of Abhigata.

Sara
In Group A, all the 20 (100%) patients were of Madhyama Sara where as in Group B, 14 (70%) patients were of Madhyama Sara and 6 (30%) patients were of Avara Sara.

Samhanana
All patients in both the Groups belonged to Madhyama Samhanana.

Pramana
a) Height
An average Height of patients in Group A was 160 cms where as in Group B, it was 162 Cms.

b) Weight
An average Weight of patients in Group A was 70 kgs where as in Group B it was 74 kgs. By considering the mean height and weight of patients in both the groups, the Pramana can be taken as Madhyama.

Satmya
All patients in both the Groups belonged to Madhyama Satmya.

Satva
In Group A, 19 (95%) patients belonged to Madhyama Satva and 1 (5%) patient belonged to Pravara Satva where as in Group B, all the 20 (100%) patients belonged to Madhyama Satva.

Ahara Shakti
a) Abhyavarna Shakti
In Group A, 19 (95%) patients were having Madhyama Abhyavarana Shakti and 1 (5%) patients were having Avara Abhyavarana Shakti whereas in Group B, 11 (55%) patients were having Madhyama Abhyavarana Shakti and 5 (25%) patients were having Avara Abhyavarana Shakti and 4 patients were having Pravara Abhyavarana Shakti.

b) Jarana Shakti
In Group A, 19 (95%) patients were having Madhyama Jarana Shakti and 1 (5%) patients were having Avara Jarana shakti whereas in Group B, 11 (55%) patients were having Madhyama Jarana shakti and 5 (25%) patients were having Avara Jarana Shakti and 4 patients were having Pravara Jarana Shakti.

Vyayama Shakti
In Group A, 17 (85%) patients belonged to Pravara Vyayama Shakti and 3 (15%) patients belonged to Madhyama Vyayama Shakti where as in Group B, 15 (75%) patients belonged to Pravara Vyayama Shakti and 5 (25%) patients belonged to Madhyama Vyayama Shakti.

Vaya
In Group A, 14 (70%) patients belonged to Madhyama Avastha and 6 (30%) patients belonged to Vruddha

Avastha where as in Group B, 16 (80%) patients belong to Madhyama Avastha and 4 (20%) patients belong to Madhyama Avastha.

RESULT

Effect of Treatment on Sandhi Shoola

On Sandhi Shoola, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (**< 0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**,** (**16.62**)**,** (**16.62**) in Group A is higher when compared with the t value (**10.18**)**,** (**11.00**)**,** (**7.28**) in Group B. Hence, the result on the effect of treatment on Sandhi Shoola in Group A was better than Group B.

Though both the groups proved good result on Sandhi Shoola, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Sandhi Shotha

On Sandhi Shotha, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (**< 0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**, (16.62), (13.52)** in Group A is higher when compared with the t value (**8.75**)**,** (**9.20**)**,** (**7.28**) in Group B. Hence, the result on the effect of treatment on Sandhi Shotha in Group A was better than Group B.

Though both the groups proved good result on Sandhi Shotha, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Sandhi Stambha

On Stambha, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**,** (**16.62**)**,** (**13.52**) in Group A is higher when compared with the t value (**6.24**)**,** (**6.28**)**,** (**4.77**) in Group B. Hence, the result on the effect of treatment on Stambha in Group A was better than Group B.

Though both the groups proved good result on Sandhi Stambha, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Prasarana Akunchana Vedana

On Prasarana Akunchana Vedana, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**,** (**16.62**)**,** (**13.52**) in Group A is higher when compared with the t value (**10.18**)**, (11.92), (7.28)** in Group B. Hence, the result on the effect of treatment on Prasarana Akunchana Vedana in Group A was better than Group B.

Though both the groups proved good result on Prasarana Akunchana Vedana, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Sandhi Sphutana

On Sandhi Sphutana, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value **(**< **0.001)** revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**,** (**16.62**)**,** (**13.52**) in Group A is higher when compared with the t value (**10.18**)**,** (**11**)**,** (**7.28**) in Group B. Hence, the result on the effect of treatment on Sandhi Sphutana in Group A was better than Group B.

Though both the groups proved good result on Sandhi Sphutana, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Pain Scale of Womac Score

On Pain scale score in Womac Score, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**16.62**)**,** (**16.62**)**,** (**16.62**) in Group A is higher when compared with the t value (**13.78**)**,** (**8.72**)**,** (**7.55**) in Group B. Hence, the result on the effect of treatment on Pain scale score in Womac Score in Group A was better than Group B.

Though both the groups proved good result on Pain scale of Womac Score, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as

purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Stiffness Scale of Womac Score

On Stiffness scale score in Womac Score, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and B.

But, t value (**22.58**), (**22.58**), (**22.58**) in Group A is higher when compared with the t value (**13.78**), (**8.72**), (**8.72**) in Group B. Hence, the result on the effect of treatment on Stiffness scale score in Womac Score in Group A was better than Group B.

Though both the groups proved good result on Stiffness scale of Womac Score, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Disability Scale of Womac Score

On Disability Scale score in Womac Score, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and B.

But, t value (**22.61**), (**22.61**), (**22.61**) in Group A is higher when compared with the t value (**13.78**), (**8.72**), (**7.55**) in Group B. Hence, the result on the effect of treatment on Disability Scale score in Womac Score in Group A was better than Group B.

Though both the groups proved good result on Disability scale of Womac Score, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

Effect of Treatment on Total Womac Score

On Total Womac Score, before treatment and after treatment, before treatment and at first follow up, before treatment and at second follow up, the p value (< **0.001**) revealed statistically highly significant result in both Group A and Group B.

But, t value (**22.61**), (**22.61**), (**22.61**) in Group A is higher when compared with the t value (**13.78**), (**8.72**), (**7.55**) in Group B. Hence, the result on the effect of treatment on Total Womac Score in Group A was better than Group B.

Though both the groups proved good result on Total Womac Score, Group A showed better result which could be because of the added effect of Sthanika Abhyanga with Ksheera Bala Taila employed as purvakarma before Salvana Upanaha employed in Group A.

DISCUSSION

Discussion On Procedure

Swedana Karma, by virtue of its ability to induce Sweda, thereby relieving the Stambha (stiffness), Gaurava (heaviness), Sheeta (coldness) brings about the desired effect in the management of Vata Vyadhi's and hence, it is found to be beneficial in treating Sandhigata Vata.

Upanaha is a mode of Swedana in the form of application of medicinal drugs. Upanaha sweda has been taken up for the study as one among the Niragni Sweda, the action of which is on Kapha Meda Avrutha condition. Vata vyadhi can manifest either because of Dhatukshaya or Margavarana. In this regard, Upanaha Sweda was performed in one group employing Sthanika Abhyanga as poorva karma and in other Group, it was performed without the intervention of Sthanika Abhyanga.

Probable Mode Of Action

Both Abhyanga and Upanaha come under the category of Bahir Parimarjana Chikitsa. Hence, the mode of action of both has to be viewed on the same line as mentioned in Sushruta Samhita Shareera Sthana – Out of the four Tiryak Dhamanis, each divides gradually into hundred and thousand times and thus become innumerable. These cover the body like network and their openings are attached to Romakoopa. Through them, only Veerya of Drugs applied on the skin as like that of Upanaha and Abhyanga enters the body after undergoing Paka with Bhrajaka Pitta (Su.Sa.Sh.St. 9/9, Dalhana). This highlights the absorption of the drug applied over the skin.

Sushruta in Sutra Sthana explains that Lepa like Bahir Parimarjana treatments yield result by entering into Romakoopa thereby circulating through Swedavaha Srotas (Su.Sa.Su.18/4).

Application of medicaments, heat and massage definitely helps in eliminating the number of noxious elements through skin. The application of heat in different forms of Swedana promotes local circulation and metabolic activities and also opens the pores of the skin to permit transfer of medicaments and nutrients towards the needed sites and elimination of vitiated Doshas and Malas through skin and perspiration. Probably, the Upanaha containing ushna veerya dravya exhibits similar action by enhancing circulation to affected joint and thereby helps in restoring its normal functioning.

The dravyas used in Upanaha are ushna, teekshna, vatakaphashamaka, vedanasthapaka and shothahara in nature which inturn helps in alleviating the signs and

symptoms of Sandhigata Vata as well as checks the rate of pathogenesis.

Abhyanga which is exclusively a vatahara modality of treatment has significantly benefited in preventing the rate of degeneration and helps in restoring the joint mobility. Ksheera Bala Taila, as the name itself indicates its way of imparting bala to the affected joint which is very essential in Sandhigata Vata.

Trans-dermal absorption depends upon the lipid solubility of the drug. Drugs of lipid soluble carriers can penetrate the epidermis, as it is a lipid barrier. The movement is slow, particularly through the layers of cell membranes in the stratum Corneum. Rate of absorption is directly proportional to concentration of drug in vehicle, partition co-efficient, diffusion co-efficient and thickness of the stratum corneum. However, once the drug reaches the underlying tissues, it will be absorbed into the circulation.

The combined effect of Abhyanga and Upanaha is very much beneficial in treating Sandhigata Vata as it involves the application of snehamishrita ushna veerya dravyas following tailabhyanga and it is made to stay over the affected part for longer period of time which in turn facilitates better absorption of the drug into the deeper tissues.

CONCLUSION

Sandhigata Vata is one among the Vata Vyadhi presenting with Sandhi Shoola, Sandhi Shotha, Sandhi Stambha, Sandhi Atopa and Prasarana Akunchana Vedana.

Janu is the most frequently affected Sandhi as it has to bear the body weight. Janu Sandhigatavata is generally correlated to Osteoarthritis of Knee Joint, the prevalence rate of which is 80% at the age of 65 years.

Snehana and Swedana, as a general line of treatment of Vata Vyadhi and Snehana in the form of Abhyanga as well as Upanaha Sweda, as one among the specific line of treatment of Sandhigata Vata were adopted in the present study. Salvana Upanaha Sweda, the ideal most choice of Upanaha in Vata Vyadhi was employed in the present study.

The present study is a single blind comparative clinical study with pre - test and post - test design where in 40 patients of either sex diagnosed as Janu Sandhigatavata w.s.r. to OA were randomly assigned into two groups comprising of 20 patients in each. The patients in Group A were subjected to Sthanika Abhyanga with Ksheera Bala Taila followed by Salvana Upanaha where as the patients in Group B were subjected to Salvana Upanaha alone without Abhyanga which was retained for 12 hrs over night and the same was done for 7 Consecutive days.

The overall observation in the study revealed that the maximum number of patients were of VataKaphaja Prakruti, who were females in the age group of 51 – 60 years belonging to middle class and were house wives. Majority of the patients presented with Bilateral Osteoarthritis of the Knee Joint.

The overall effect of treatment in Janu Sandhigata Vata w.s.r. to OA has shown statistically highly significant result with p value < 0.001 in both the groups. But, by taking into account the t value of both the groups which revealed that the patients in Group A treated with Sthanika Abhyanga and Salvana Upanaha Sweda showing comparatively better results than the patients in Group B treated with only Salvana Upanaha Sweda without Abhyanga.

Hence, the present study revealed that Salvana Upanaha Sweda along with the added effect of Sthanika Abhyanga is more effective and beneficial in the management of Janu Sandhigatavata w.s.r. to OA.