



A CRITICAL STUDY OVER THE ROLE OF DASAMULA IN DIFFERENT FORMS AND DIFFERENT ROUTES OF ADMINISTRATION IN THE MANAGEMENT OF SANDHIGATA VATA W.S.R. TO OSTEOARTHRITIS

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ABSTRACT

Disorders of the *vata dosa* are prevalent throughout the world, affecting all ages and ethnic groups. The principal manifestations are pain and impairment of locomotor function. This disorder may account for a quarter of all general practitioner consultations. In later life, *vata roga* are the single most important factor including disability and so have a major impact on health and social service resources. The lifestyle of man has become mechanical. The time and more desire have made the man unable to follow the *swasthya niyamas*, there by becoming victims of diseases. The man today even in his young adult age is suffering from the degenerative diseases like *Sandhivata* (Osteoarthritis) Prevalence of this disorder in certain elderly group is as high as 85%. World-wide osteoarthritis is the most common articular disease of people 65years and older. There is a steady rise in overall prevalence from age 30. The knee hip are the principal large joints affected and the principal sites of significant disability. Knee osteoarthritis is more prevalent than hip osteoarthritis but taken together they affect 10-25% of those aged 65years. Community survey data in rural and urban areas of India shows the prevalence of osteoarthritis to be in the range of 17-60.6%. Prevalence of osteoarthritis amongst elderly in rural areas of Amritsar was 60.6% while it was 17% amongst the elderly of rural areas of Wardha [Maharashtra]. In Aligarh the prevalence of osteoarthritis is 30.2%. Different texts of *Ayurveda* have claimed that *Dasmula* is a potent anti-inflammatory and has an analgesic property which is used in the treatment of degenerative diseases as *balya*, *vrisyas* and *vata hara* agent. Besides

this *Dasmula* have actions like *Vata hara*, *Vedana sthapana* (Analgesic) and *Sopha nasaka* (anti-inflammatory) actions. So, in present study *Dasmula kashaya* and *Dasmula tail* have been taken as remedies of *sandhivata* or osteoarthritis. To evaluate their efficacy on set problem. In the present research project, a clinical trial has been performed over establish case of *sandhivata* or osteoarthritis. Where group –A patients have been treated with *Dasmula kashaya* as a *kashaya pan* and along with *Abhyang* by *Dasmula tail*. Group- B, patients treated with *matra vasti* and *Abhyang* by *Dasmula tail*. Group-C, patients treated with *Dasmula kashaya* as *kashaya pan*, *Dasmula tail* as a *matra vasti* and *Abhyang*, simultaneously for 30 days. After observation and analysis of data a conclusion has been made on the efficacy of *Dasmula* in the form of *kashaya pan*, *matra vasti* and *abhyanga*.

Keywords: *Dasmula*, *matra vasti*, *sandhivata*, osteoarthritis.

INTRODUCTION

Vatavyadhi most frequently takes the form of *sandhivata*. It exhibits a clear correlation with ageing and is a significant contributor to pain and impairment in the elderly. Osteoarthritis, which is marked by joint discomfort, soreness, mobility restriction, crepitus, sporadic effusion, and varying degrees of local inflammation, shares several clinical characteristics with *sandhivata*. Although *Sandhivata* does not affect all small and large joints equally, it does target certain of them more than others.

NIDANA - *Nidana* is broadly classified into two¹- • *Abhyantara hetu* • *Bahya hetu*.

These *nidanas* are further again classified into 5 types²

- *Sannikrista*
- *Viprakrista*
- *Vyabhichari*
- *Pradhanika*
- *Utpadaka*

SAMPRAPTI- It is possible to refer to *Vata Vyadhi's Samanya Samprapti*, which is described in the classics, as the *Samprapti* of *Sandhigata Vata*³.

After settling in *Rikta Srotas*, *Vata* causes illnesses associated with those *Srotas*.

The *Samprapti* of *Vata Vyadhi*, such as *Dhatukshaya*, according to *Acharya Vagbhata*, aggravate *Vata*, which then travels throughout the body, settles in the *Rikta Srotas*, and further vitiates the *Srotas*, causing *Vatavyadhi* to manifest. The *Samprapti* of *Sandhi Vata* can be examined under three headings for comprehension.

They are –

1. *Dhatukshaya janya*
2. *Avarana janya*
3. *Abhighata janya*

Samprapti Ghataka:

Dosha⁵:

Vata – Vyana – Vriddhi.

Kapha– Shleshaka – Kshaya.

Doosha: Peshi, Snayu, Asthi, Majja, Sandhi.

Srotas: Majjavaha, Asthivaha, Medovaha, Mamsava-ha.

Agni: Jataragni, Asthi-Dhatvagni.

Ama: Jataragni Mandya Janya.

Roga Marga: Madhyama.

Udbhavasthana: Pakvashaya.

Sancharasthana: Sarvasharira.

Adhishtana: Sandhi.

Vyaktasthana: Janu Sandhi.

ROOPA⁶-

• *Vatapurna driti sparsha*

• *Sopha*

• *Prasaran aakunchan pravritti vedana*

• *Sandhi sula*

AIMS AND OBJECTIVES:

1. A conceptual study of etiopathogenesis of *sandhigata vata*. This includes the etiopathogenesis of *sandhigata vata*, etiological classifications, pathogenic evolutions will be discussed.

2. To study *Janusandhi vikrithi* in relation to osteoarthritis of knee joint. Since osteoarthritis of knee joint is more prevalent the emphasis is made towards understanding *Janusandhi vikrithi samprapti* in relation to knee joint abnormalities.

3. Clinical observational study of *sandhivata* in relation to osteoarthritis knee joint. The patients of osteoarthritis knee joint will be thoroughly screened and keenly observed for the changes seen in *Janu sandhi* through different *Pareekshas* using *pratyakshadi pramana*.

CLINICAL STUDY-

1. **STUDY AREA:** The study has been performed at the Institute of Post Graduate Ayurvedic Education and Research, Shyamadas Shastra Vidyapith Hospital, Kolkata-700009. The majority of urban patients came from Raza bazar and other areas of Kolkata. However, other patients came from different corners of the country which include patients from sub-urban, rural and remote places.

2. **STUDY SETTING:** Clinically study has been done in O.P.D and I.P.D of Clinical Study A CRITICAL STUDY OVER THE ROLE OF *DASAMULA* IN DIFFERENT FORMS AND DIFFERENT ROUTES OF ADMINISTRATION IN THE MANAGEMENT OF *SANDHIGATA VATA W.S.R. TO OSTEOARTHRITIS* 172 Kayachikitsa Department, I.P.G.A.E & R. at S.V.S.P. Hospital, Kolkatta-700009.

3. **STUDY PERIOD:** 1 and ½ years

Trial period- 8weeks for each patient.

4. **SAMPLE SIZE:** 90 Patients

5. **SAMPLE DESIGN:** The total number of participating patients was divided into three groups as per their treatment schedule. The groups are as follows-

GROUP-A: *Dasmula kasayam + Abhyanga*

GROUP-B: *Matra basti by Dasmula taila + Abhyanga*

GROUP-C: *Dasmula Kasaya pana + Abhyanga + Matra basti*

INCLUSION CRITERIA –

Both sex group has been selected

Patients of age group of 30 – 70 years.

Patient presenting with signs and symptoms of *sandhigata vata* as mentioned in classical texts of Ayurveda-

Vata purna driti sparsh - Air filled in touch.

Sopha –Inflammation

Prasarana aakunchan pravrutti vedana-Pain during flexion and extension of the joint

Sandhi sula- Joint pain, *Atopa*-Crepitation

Patients suffering from primary osteoarthritis of knee joint.

EXCLUSION CRITERIA – Patient below 30 and above 70 years of age

Patients suffering from fractures and dislocation of knee joint.

Patients suffering with knee joint tuberculosis and tumors.

Patients suffering with secondary osteoarthritis such as rheumatoid arthritis.

Those who were not willing.

Those who are under Hormonal and steroidal therapy.

OBSERVATIONS & RESULT-

Showing the effect of therapy on 5 major subjective parameters

Total Effect of the Treatment

Excellent Percentage Good Percentage Moderate Percentage Poor Percentage

Group-A

N=30 13 43.3 12 40 2 6.66 3 10

Group-B

N=24 10 41.6 6 25 4 16.6 4 16.6

Group-C

N=26 14 53.8 6 23.07 4 15.38 2 7.69

DISCUSSION

The study has been conducted with the trial drugs are *Dasamula* as the main ingredient viz., *BILWA-Rasa-Kasaya, Tikta, Guna- Laghu, Ruksa, Virya- Usna, Vipaka- Katu, Karma- Vata, Kapha hara, Grahi, Dipana, Pacana*, Chemical Constituent- Xanthotoxin, Umbelliserone marmin, marmesin, use- *Atisara, grahani, prameha, sothhara, agnimandya. AGNIMANTHA - Ras -Tikta, katu, kasaya, mudhura, Guna - Ruksha, laghu, Virya- Usna, Vipaka -Katu , Karma- Kapha vata hara, Sothahara, Dipana, use -Solha, pundu, vasameha, sitapitta, udara, kotha sthoulya* Chemical composition linalool, linoleic acid. *SHY-ONAKA- Rasa- Mudhura, Tikta, Kasaya, Guna- Laghu, Ruksa, Virya -Usna Vipaka -Katu, Karma -*

Kapha-vata hara, Dipana, Grahi, use -amavata, Atisara, Aruci Vataroga, Sutha Basti Vikara. Chemical composition -Tannins, flavonoids, saponins. **PATALA** -Rasa-Tikta, Kasaya, Guna- Laghu, Ruksa, Virya -Anusna Vipaka-Katu, Karma -Tridosahara, Hridya, Kanthya, use -Aruchi, Svasha, Sotha, rakta vikar, Chardi, Hikka, Trisna, Rakta-pitta. Chemical composition -Naphthoquinone, n-triacontanol. **GAMBHARI**-Rasa-Tikta, Kasaya, Madhura Usna, Virya-Ushna, Vipak-katu, Karma-Vata pitta hara, Bhedana, Sothahara, Dipana, Pacana, use-Bhrama, Sotha, Trisna, Amasula, Daha, Jvara, Chemical composition-Lignan, iridoid glycosides. **BRIHATI** -Rasa-Katu, tikta, Virya-Usna, Vipaka-Katu, Karma-Kapha-vata hara, Sukra rechak, use-Svasa, Hrdroga, Sula, Jvara Chardi, Kustha, Kandu, Krimi. **KANTAKARI**- Rasa- Katu, Tikta, Virya- Usna, Vipaka-Katu, Karma-Kapha, Vata hara, Dipan-pacana, use-Kasa, Svasa, Sotha, Hikka, Pratisya, Chemical composition-steroid, saponins, flavonoids. **SHALAPARNI** -Rasa-Madhura, Tikta, Virya-Usna, Vipak-Madhura, Karma-Tridosahara, Balya, Vrsya, Rasayana, use-Sotha, Avasa, Kasa-svasa, Jvara, Atisara, Chardi, Krimi, Chemical composition-onoid glycosides, lactones, lipid, glycolipid. **PRISHNAPARNI**-Rasa-Madhura, Tikta, Virya-Usna, Vipak-Madhur, Karma-Tridosahara, Grahi, Vrsya, Dipaniya, use-Jvara, Svasa, Raktatisara, Trisna, Chardi, Daha, Chemical composition-Tanin, saponin. **GOKSHURA** -Rasa-Madhura, Virya Sita, Vipak-Madhura, Karma-Vata pitta hara, Vrsya, Mutrala, Rasayan, Mutrakrucchra, Asmari, prameha, use-Hrdroga, Arsa, Svasa-kasa, Klaibya, Chemical composition-Phytosterol, ter-restrinin has been taken as ingredient for preparation of kwath and oil.

30 number of patients in Group-A treated with *Dasamula kasayam* 30 ml daily in empty stomach for 30 days along with *abhyanga* by *Dasamula taila* applied locally once daily for 30 days. Group -B to treat then by using *Dasamula taila* as *matra basti* and *abhyanga*. *Matra basti* was given as the dose of 60 ml, just after lunch for 30 days followed by *Abhyanga* was also done in the morning for 30 days. Last 30 number of patients have been randomly included into

Group-C and they have been treated with *Dasamula kashaya* 30 ml daily at morning in empty stomach for 30 days along with *matra basti* of *Dasamula taila* in dose of 60 ml given after lunch for 30 days followed by *abhyanga* with *Dasamula tail* in morning for 30 days. Assessment of result have been done through the relief of sign and chief complaint (sign and symptoms). The all data, records and information of all patients had been recorded before starting of treatment and relief as well biochemical changes has also been preserved. Lastly mathematical calculation as well as statistical analysis has been performed to judge the effectiveness, demographic finding has been drawn on 90 patients. In above incident it is evidently clear that I Group-C we have found best effect, Group-A show better and Group -B is good. Group-C patients got *Dasamula kashaya* orally, *Dasamula tail abhyanga* and *matra basti* is show best effect because *Dasamula* have the potent vata hara effects and when it taken in tail form then it effectively become more high either in local application or per rectal application. As *Dasamula kashaya* enhance *agni* as well as rectification of dhatu pak (proper metabolism). As *Dasamula tail* is a potent agent to pacify rukshata, Kharata, laghuta of *vayu* and *kati* is the main site of *vayu* so application of *matra basti* *vayu* become pacified and gives nutrition to the emaciated *Rikta* channel. In Group-B only *matra basti* & *abhyanga* was given but for enhancements of *agni* nothing given orally. So, patients of that group has not shown good effect in comparison to Group C patients. In Group-A *Dasamula kashaya* has been introduced orally and *abhyanga* with *Dasamula tail* as it is a *vatahara kashaya* possess the properties like *dipan*, *pachan* and *srota sodhan*. So, it has shown good effect but in comparison to Group-C. It has shown lesser relieving effect because there was no *snehan* therapy for direct pacification of *vata* either in per rectal use or in locally used. Before treatment some laboratory investigation was done to assess the function of kidney and liver. After the course of therapy again KFT and LFT has been performed no significant results were shown. During the therapy clinically no adverse effect has been found. So, the regiment of

trail drugs as well therapy (*Matra basti & Abhyanga*) has no such side effect.

CONCLUSION

1. Based on the relative number of patients, the patients in Group-A who received treatment with *Dasamula kashaya pan* 30 ml daily orally and *abhyanga with Dasamula tail* showed 43.33% great response, 40.0% good response, 6.6% moderate response, and only 10.0% poor response, respectively. Along with statically discovering *Vata purna driti sparsa, Soph, Prasaran akunchana pravritti vedana, Sandhi sula, and Atopa* similar complaints have been relieved by 49.9%, 41.15%, 49.5%, 41.2%, and 46.2%, respectively, and statically p value appears. This group has also shown the relief of features. Respectively, 0.01, 0.01, 0.05, 0.01, 0.001, 0.005, 0.001, 0.005, 0.001, 0.001, 0.02, 0.001.
2. *Dasamula tail matra basti* 60 ml twice day, followed by *abhyanga*, was administered to the patients in Group-B. Of these, 41.6% reported great results, 42% reported fair to moderate results, and 16.6% reported poor results. Along with the statically determined *vata purna driti sparsa, Soph, Prasaran akunchana pravritti vedana, Sandhi sula, and Atopa* like complaints being relieved by 62.68%, 14.00%, 65.82%, 73.20%, and 43.82%, respectively, and the statically determined p valve coming in at 0.001, 0.005, 0.001, and 0.005, respectively.
3. The patients in Group-C who were given *Dasamula kashya* orally 30ml daily on an empty stomach, *Dasamula tail abhyanga, and matra basti* demonstrated outstanding results in 53.8% of patients. This group has also shown the relief of features along with statically finding *vata purna driti sparsa, Soph, Prasaran akunchana pravritti vedana, Sandhi sula, and Atopa* like complaints have been relieved by 61.22%, 73.20%, 70.82%, 79.45%, and 63.15% respectively. Only 7.6% of patients show poor response.

4. The best therapy regiment for patients of *Sandhi-vata is Dasamula kashya pan* 30 ml daily, *Dasamula tail abhyanga, and Dasamula tail matra basti* 60 ml daily. A good therapy is only *kashya pan* 30 ml and *abhyanga*. Through the current study, it can be concluded that *abhyanga with Dasamula taila and matra basti* of 60 ml of *Dasamula tail* daily (per rectal) have a positive impact on *sandhigatavata* patients. Everyday 60 ml of *matra basti and kashya pan. Dasamula kashaya* 30 ml daily, *abhyanga with Dasamula tail, and matra basti with Dasamula tail* 60 ml daily may be referred to as the greatest regiment since they have the best effects on patients with *sandhigatavata*.

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