

# **RESEARCH ARTICLE**

#### A COMPARATIVE CLINICAL STUDY ON THE EFFECT OF KSHEERA VAITARANA AND DASHAMOOLA KSHEERA VASTHI IN THE MANAGEMENT OF KATIGRAHA W.S.R. TO LUMBAR SPONDYLOSIS – A PILOT STUDY.

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#### Abstract

..... Each and every human desires to live happy and comfortable life, but it is impossible owing to multiple factors related with changing lifestyle, environmental factors etc.lifestyle of modern human being has created several disharmonies in his biological system. The advancement of busy professional and social life, improper sitting posture in office, factories, continuous and over exertion, jerking movements during travelling and sports etc factors create undue pressure on the spinal cord and play an important role in producing katigraha.Likewise,progressive disorders affecting the pelvis and nearer structures are also precipitating this condition.In this way, this disease is now becoming a significant threat to the working population. The severity of pain makes an individual wretched.In this study lumbar spondylosis is correlated to katigraha. Even surgical intervention is not friutfull in the management of lumbar spondylosis. Such forlorn patients after taking allopathic treatement for sufficiently long period come to Ayurveda with great credence. So it is the need of the hour to direct the effort to re-establish the measures indicated for katigraha in the classic texts of Ayurveda by proving its efficacy on the parameters established by recent medical science. In current study, assessment of ksheera vaitarana vasthi, Dashamoola ksheera vasthi in vogavasthi pattern for a period of 8 days is attempted in management of katigraha. It provided highly significant results in improving range of movements and pain intensity.

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#### **Introduction:** -

*Kati Graha* as a separate disease has been described in the classical text *Gada Nigraha*. It has been correlated in the present study with Lumbar Spondylosis (LS) due to similarity of clinical manifestation and pathogenesis. Low Back Pain (LBP) affects approximately 60-85% of adults during some point in their lives. [1] LS is responsible for about 10% of all the back pain conditions. As of 2005, lower back pain ranks as number one cause of disability in individuals under the age of 45 [2] LS is defined broadly as degenerative condition affecting the discs, vertebral bodies, and/or associated joints of the lumbar spine [3] *Kati Graha* is *Shosha* (degeneration), *Stambha* (stiffness) and *Shula* (pain) predominant *Vyadhi* (disease). As correctly said by *Sushruta Acharya* without vitiation of *Vata, Shula* cannot be produced. *Gada Nigraha* clearly states that pain is produced due to stiffness which is produced by

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*Sama* (with *Ama*) or *Nirama* (without *Ama*) *Vayu* movement into *Kati* (lumbar region) hence this suggests of presence of *Dhatu Kshayatmaka* (degenerative) and *Marga Avarodhaka* (obstructive) type of *Samprapti* (pathology). Katigraha is one such condition in which the vitiated vata is localizing in the katipradesha and producing stiffness and pain there.Vasthi karma is one among the best treatment for vata disorders.Chakrapani on commenting explains that when we nourish the root whole plant will be nourished.In this regard the process of degeneration can be successfully treated by vasthi karma<sup>4</sup>.

# Materials and Methods:-

## Plan of Study:-

The present study has been carried out on 10 patients treated in two groups. The criteria of diagnosis was based upon the classical signs & symptoms of the disease and investigations like X-ray, MRI etc.

5 patients out of the total 10 patients of Katigraha underwent Yoga vasthi in which anuvasana with Sahacharadi tailam and niruha with ksheera vaitarana.

5 patients of Group B out of the total 10 patients of Katigraha underwent Yoga vasthi in which anuvasana with Sahacharadi tailam and niruha with Dashmoola ksheera kashayam.

Follow up was given for 16 days from next day after the treatment for both groups.

The improvement in the symptoms of the disease and the changes in the clinical tests before & after the treatment were the main criteria of assessment. The total effects of the therapies were also assessed in terms of Good relief, moderate relief, mild relief and no relief.

#### Diagnostic Criteria And Assessment Criteria:-

The main symptoms like pain, stiffness and piercing pain were considered as subjective parameters. The objective parameters included NPRS grading for tenderness.

#### Inclusion criteria:-

- 1. Patients were selected irrespective of sex, caste, religion.
- 2. Diagnosed cases of Lumbar Spondylosis having sign and symptoms mentioned in texts.
- 3. Patients of age group above 15 and below 65.
- 4. Patients eligible for Yogavasthi with proper anorectal health.

#### **Exclusion Criteria:-**

- 1. Patients of age group below 15 and above 65.
- 2. Proven cases of malignancy.
- 3. Congenital abnormalities of lumber spine.
- 4. Known cases of Tuberculosis.
- 5. History of trauma causing fractures.
- 6. Surgical indications such as progressive neurological deficit, bilateral signs, symptoms of bowel and bladder involvement.
- 7. Amavata.

#### **Investigations:-**

- 1. Routine investigations were done invariably to all the patients like CBP, ESR, RBS, CUE.
- 2. Digital X ray AP and Lateral view were taken.

#### Ingredients of the Vasthi karma:-

	Dravya	Quantity
i)	KSHEERA VAITARANA VASTHI⁵:	
	Saindhava lavanam	15gms
Guda		25gms
	Panchatikta ghrtam	80gms

	Amlika kalkam	50gms
	Go ksheeram	300ml
ii)	DASHAMOOLA KSHEERA VASTHI:	
11)	Saindhava lavanam	15gms
	Madhu	160ml
	kshirabala tailam	200ml
	shatapushpa kalkam	20gms
	Dashamoola ksheera kashayam	300ml
iii)	Sneha /Anuvasana vasthi:	
,	Sahacharadi tailam	120ml
	Saindhava lavanam	5gms
	Shatapushpa kalkam	15gms

# Methodology:-

#### Anuvasana Vasti Matra:-

Acc. to Sushruta- Sneha Vasthi matra is 1/4th of Niruha matra & that of Anuvasana Vasthi is  $\frac{1}{2}$  to that of Sneha Vasthi.

#### Purva Karma:-

#### Preparation of the patient:-

It includes *Snehana and Swedana*. Local *Abhyanga* and *Nadi-swedana* over the Abdomen, Groin and Buttocks should be done and if possible *Sarvanga abhyanga* and *Swedana* can be performed before administering *Asthapana* or *Anuvasana Vasthi*.

#### Preparation of the vasthi:-

#### Preparation of Niruha Vasthi involves following steps:-

The ingredients should be mixed by triturating in the order of *Madhu*, *Saindhava*, *Sneha*, *Kalka*, *Kwatha* and then *Avapa dravya* one by one gradually until it becomes a homogeneous mixture.<sup>8</sup> Then it should be churned further to make it more fine and homogeneous. It is to be heated in water bath to make it *Sukhoshna* i.e. near to the normal body temperature.

#### Pradhana Karma:-

It includes advice to the patient, Vasthi Pranidhana, Vasthi Pratyagamana and observing the Samyaka Yoga, Ayoga and Atiyoga Lakshana.

#### Advise to The Patient:-

Patient is to be asked to pass his natural urges before *Vasthi Pranidhana* and not to laugh, cough, sneeze and take the yawning while administering *Vasthi*.

# Basti Pranidhana:-

#### Niruha vasthi:-

*Vasthi* is to be administered when the patient is having the symptoms of *Jirna Ahara* and is not very much hunger. The patient is asked to keep his left hand below the head as a pillow, to extend the left leg completely and to flex the right leg at the knee joint, keeping on the left leg by flexing the hip joint. Then *Sukhoshna vasthi Dravya* is to be applied in the anal region and on the *vasthinetra*, remove the cotton piece and the air bubble if any and keep the thumb on the *netra* while introducing it. Then introduce the *vasthinetra* gradually in the parallel direction to that of the vertebral column up to part of the *netra* until the nearer *karnika* fixes over the anus. Then hold the *vasthiputaka* in the left hand and keep the right hand on the *putaka*. After this press it gradually with the constant pressure, neither too fast nor to slow without tremoring the hand. By asking the patient to breath in, push the *vasthidravya* into the *netra* gradually. Then patient is asked to lie down in the supine position gradually and *sphiktadhana* is to be done slowly and softly 3-4 times. After this, the patient is asked to lie in a comfortable position with a pillow below the hips till he gets the urge for defecation and when he/she gets the urge ask him/her to sit in *Utkatasana* and pass the urge.

#### Anuvasana vasthi:-

The *Sneha* prescribed for *Anuvasana* may be taken in the *Vasthi-putaka* and tied well placing the *Vasthi-netra* in position. The trapped air in *Vasthi-yantra* is expelled by gently pressing the *Vasthi-putaka*. Procedure of administration same as Niruha vasthi.

#### Paschat karma:-

Evacuation time of vasthi material and untoward effects if any were observed and noted.

#### For Niruha:-

One *Muhurta* (48 minutes) is the maximum time for *vasthi pratyagamana* (come out). If it does not occur then it causes untoward consequences like *vatapratilomata, vishtambhata, shula, arti, jvara* and even death. Hence if it does not come out within the stipulated time period certain measures are to be undertaken for the *vasthi pratyagamana* like administration of the *tikshna vasti, phalavarti, swedana* over the pelvic region, *utrasana* and administration of *Virechana Aushadhi*. Until the *Pratyagamana* takes place; the physician should observe the patient. For Anuvasana - *Vasthi* remains inside the body for 3 *prahara* i.e. 9 hours. But it can remain inside for maximum 1 day i.e. 24 hours. After *Vasthi* comes out *Vasthi yogayoga lakshana* i.e. *Samyak yoga, Ayoga, Atiyoga* must be looked for.

#### Pathya Ahara-Vihara and Administration of Anuvasana Vasthi:-

After observing the *Samyaka nirudhita Lakshana* the patient is advised to take hot water bath and light diet in accordance with the dominance of *Dosha*. i.e, *Yusha, Kshira* and *Mamsarasa* in *Kapha, Pitta and Vata* dominance conditions respectively or in general, *Mamsarasa* with rice is to be taken. The hot water bath and food taken prevents the occurrence of diseases produced by agitated and moving *Mala* caused by *vasthi*.

#### Parihara Vishaya:-

Certain things are strictly prohibited, both during the *vasthi* course. Even after the *vasthi* course for a time period twice the time *vasthi* has been given (*Parihara Kala*). The things to be avoided are as follows-Atyasana, Adhyasana, Ativachana, Diwaswapna, Yanagamana, Atapsevana, Shoka, Krodha, Atibhojana.

#### **Observations:-**

In the present study, a total number of 10 patients were registered, and completed the treatment. During treatment all patients were observed for following points:

- 1. No patients developed complications during vasthi karma.
- 2. Vasthi pratyagamana kala was observed and found correctly.
- 3. During treatment routine examination carried out and found regression in symptoms day by day.
- 4. During treatment, burning sensation, radiating pain is reduced for all patients.

#### Demographic data:-

In the present study, maximum number of patients were in age group of 45-55 years (60%), females (50%), Hindu (86.96%), married (86.96%), house wives (47.83%), uneducated (43.48%), having physical as well as mental work load (52.17%), having physically active life style (73.91%), chronicity 1-3yr (50%),3-6 yr (50%).

### **Overall Effect Of Therapies:-**

The assessment of the results was made by adopting the standard methods of scoring the signs and symptoms of katigraha. It included assessment for objective and subjective criteria by means of various tests and all signs and symptoms as per Ayurvedic classics with grading of parameters.

#### Effect of Yoga vasti-A therapy on objective criteria after treatment:-

On examination, the effects of Yoga vasti therapy on objective parameter before and after the treatment in 5 patients of katigraha are documented. The statistical analysis of NPRS in group A is extremely significant by 73.91%.

#### Effect of Yoga vasti-A therapy on Subjective criteria after treatment:-

By Observation, among 5 patients on Ruk (shoola) 61.1% improvement, on sthambha (stiffness) 66.6%, on Toda (piercing pain) 66.6% improvement is noted.

#### Effect of Yoga vasti-B therapy on objective criteria after treatment:-

The effects of Yoga vasti therapy on objective parameter before and after the treatment in 5 patients of katigraha are documented. The statistical analysis of NPRS is extremely significant by 82.3%.

#### Effect of Yoga vasti-B therapy on Subjective criteria after treatment:-

By Observation, among 5 patients on Ruk (shoola) 66.6% improvement, on sthambha (stiffness) 75%, on Toda (piercing pain) 75% improvement is noted.

Overall assessment of therapies, yogavasthi in Group-B is more significant than Group -A.

#### Follow up:-

Maximum (73.53%) patients reported no recurrence of disease during one month follow up while 26.47% of patients noticed recurrence.

#### **Discussion:-**

#### Mode of action of Ksheera vaitarana:-

Vaitarana vasthi works by the virtue of action of ingredients present in it. The ingredients are Chincha, Saindhava, Guda, Tailam, Ksheeram. The action of each ingredient can be described as follows.

**Saindhava:** Due to its sukshma and Tikshna properties, it helps to pass the drug molecule in systemic circulation through mucosa. Thus, it helps the vasthi dravya to reach up to molecular level. It also helpful for the elimination of waste due to irritant property. It is capable of liquefying the viscid matter and breaking into minute particles.

#### Guda:-

In this vasthi instead of madhu jaggery is used. It along with saindhava makes homogenous mixture, to form a solution having properties to permeable the water easily. The retention of the irritative substances may be favoured by making its solution as nearly isotonic as possible by using colloidal fluids. Here, Purana guda should be taken as it is Laghu, pathya, anabhishyandi, agnivardaka and vatapittaghna. It also helps in carrying the drug up to microcellular level.

#### Panchatikta ghritam:-

*Tikta Rasa, Ushna Virya, Madhura* and *Katu Vipaka*. The *Tikta Rasa* increase the *Dhatvagni* (metabolic stage). As *Dhatvagni* increase, nutrition of all the *Dhatus* will be increased. As a result, *Asthi Dhatu, Majja Dhatu* may get stable and *Asthi Dhatu* and *Majja Dhatu Kshaya* will be decreased. So degeneration in the *Asthi Dhatu* may not occur rapidly. It can be said, it slows down the degeneration processes. *Tikta Rasa* has got *deepana, pachana* and *rochana* properties. So it helps in the improvement of the general condition of health and thus strengthen the whole body as well as joints. On other hand *Tikta Rasa* possess *lekhana, jwaraghna* and *daha prashamana* properties that it may act as anti-inflammatory agent and can reduce the pain and swelling.

*Ghrita* is *Vata-pittashamaka, balya, agnivardhaka, madhura, saumya, sheeta Virya, shula, jwarahara, vrishya* and *vayasthapaka* also. Thus, it pacifies Vata, improve the general condition of the body and acts as a rejuvenator of the body. Thus, helps in the *samprapti vighatana* of the *Katigraha*. *Ghrita* is having property like *Yogavahi* which is helpful in increasing bio-availability of other drugs without loosing its own property. *Ghrita* also contains vitamin D which plays an important role to utilize calcium and phosphorous in blood and bone building.

#### Chincha:-

Chincha is having Vata-Kaphashamaka, Ruksha and Ushna properties. These properties of the chincha make it useful for the disease Katigraha.

**Ksheeram:**-In Ksheera Vaitarana vasthi, GO Ksheeram is chief content, which is owing to its Madhura rasa, madhura vipaka, sheeta virya, snigdha guna. Milk contains all the elements necessary for the growth and nutrition of bones, nerves muscles and other tissues. It is rich in proteins, fats, carbohydrates, vitamins, and minerals.

Milk is cooling nutritive, strengthening and vitalizing jeevanam, brmhanam, balyam, medhya, vayasthapanam, ayushyam, vrishya, sandhikari rasayanam. It cures aggravation of vayu. Moreover they have rasayana property helping in Dhatu vardhana or proper nourishment of the affected area.

The aggravated vata when localised in kati brings stiffness this is Katigraha.Due to vata vitiation and pain aggravation here brmhanam type of vasthi has to be adopted i.e., Ksheera vaitarana vasthi.Snigdha,guru property of goksheeram mitigates vata dosha and inturn decreases the signs and symptoms of the disease condition.The Amla-lavana-snehayukta vaitarana vasthi acts as vatashamaka & there by reduces the symptoms in Katigraha. The Goksheera Vaitarana vasthi has got the more lipid contents in it.The rectum has a rich blood and lymph supply and drugs can cross the rectal mucosa like other lipid membranes.The unionized and lipid soluable substances are rapidly absorbed from the rectum.In the rectum, in the upper portion the absorption is via the upper rectal mucosa and is carried to the superior haemorrhoidal vein into portal circulation.Where as that absorbed in the lower rectum enter directly into systemic circulation via middle and inferior haemorrhoidal vein. These factors – the probable mode of action and probable mechanism of action may be responsible for the relief in the signs and symptoms of the disease.

Thus, vasthi dravya when administered reaches up to the micro and macro level due to its virya (potency) helps first to disrupt the pathogenic process and carries out the morbid matter toward Pakwashaya for the elimination. Thus it works as curative as well as purificative measure.

#### Importance of ingredients of Dashamoola ksheera Vasthi: -

The importance of each of the ingredient for the preparation of *Niruha Vasthi dravya* in general can be explained as follows:

#### Madhu (Honey):-

Honey along with salt makes homogenous mixture to form a solution easily permeable into the colon. Due to its hygroscopic property, it speeds up the healing, growth of healing tissue & dries it up. Honey has antibacterial property due to its acidic nature & enzymatically produced hydrogen peroxide. Constant use of honey strengthens the white blood cell to fight against bacteria & viral disease.

#### Saindhava Lavana:-

Lavana in general are having the properties like vyavayi, sukshma, teekshna & ushna which promotes the evacuation of bladder & rectum. Saindhava mixed with madhu is capable of liquefying the viscid kapha dosha & breaking into minute particles for their easy elimination. It is also helpful for the pratyagamana of vasthi due to its irritant property.

#### Sneha:-

Sneha in general vatahara, mrdukara, & softens the compact mala & removes the obstruction in the channels produced by mala i.e., Malanam Vinihanti Sangam. Apart from these function, it protects the mucous membrane from the corrosive effect of irritating drugs.

#### Kalka dravya:-

It serves the function of *Utkleshana* or *Dosaharana* or *Samshamana* depending upon its contents are selected accordingly. It gives required thickness to the *Vasthi* material.

#### Dashamoola Ksheera kvatham:-

The drugs used for the preparation of *Kalka* and *Kwatha* are selected on the basis of *Dosha*, *Dushya* and *Srotas* involved in the pathogenesis of the disease. Madhura, Tikta, Kashaya Rasa, Guru, Snighda Guna, Ushna Veerya, Madhura & Katu, Vipaka, and Tridoshanashaka Karma of Dashamoola *acts* on Katigraha by its Dravya, Guna, and Prabhava. It has being proven that *Dashamoola* has anti-inflammatory, analgesic, and antipyretic actions.

Milk contains all the elements necessary for the growth and nutrition of bones, nerves muscles and other tissues. It is rich in proteins, fats, carbohydrates, vitamins and minerals.

Milk is cooling nutritive, strengthening and vitalizing jeevanam, brmhanam, balyam, vayasthapanam, ayushyam sandhikari, rasayanam. It cures aggravation of vayu. Moreover they have the rasayana property helping in Dhatu vardhana or proper nourishment of the affected area.

This clinical study is a sincere effort to add newer combinations of Panchakarma treatment with proved efficacy to the list already present. The present work is carried out with the hope that the treatment adopted here may have some edge over the other combinations prescribed in routine practice.

# **Conclusion:-**

Overall, group B is having good improvement when compared with group A i.e., Yogavasthi with dashamoola ksheera vasthi is highly efficient in reducing Ruk, stambha, toda of katigraha. Thus, it can be said that Dashamoola ksheera vasthi works as a curative as well as purifying measure. The procedure helps in breaking the pathogenesis of the disease katigraha.when used properly with scientific methods, Dasamoola ksheera vasthi can help in decreasing significant load on healthcare system due to lumbar spondylosis & provide the patients a better & healthier life with lesser complications.

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