

ROLE OF AGNIKARMA & KARPASASTHYADI TAILAM ON CERVICAL SPONDYLOSIS - A CLINICAL STUDY

Vandna¹, Kalanidhi Hota², Mridula Singh³

¹M.S. (Ayu) Scholar, ²Assistant Professor, ³Professor, (Post Graduate Department of Shalya Tantra, Vaidya Yagya Dutt Sharma Ayurveda Mahavidyalya, Khurja, Bulandshahr, Uttar Pradesh, India

Email: Vandnasingh79.vs@gmail.com

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ABSTRACT

Abstract: Cervical spondylosis is described a degenerative condition of the cervical spine. Pathology starts at the intervertebral discs and degeneration of discs results in reduction of intervertebral disc space and peripheral osteophytes formation. It leads to pain, stiffness in the joints, pain radiates into shoulder, forearm, headache, vertigo, giddiness, paresthesia at the base of the thumb etc. According to Ayurveda cervical spondylosis can be correlated with *Sandhigata vata*, *Sandhigata vata* is a clinical condition in which structural as well as functional degeneration takes places during the process of pathogenesis when the vitiated *Vayu* gets into the cervical joints. Human being is unable to do normal work. When *Vyan Vayu* is covered by *kapha* (*kapha avrita Vyan Vayu*) normal circulation is obstructed, then the normal function of cervical joint is hampered. In modern aspect there is no permanent cure developed for cervical spondylosis, only symptomatic treatments are available. So by keeping all aspect in mind we choose this study. Total 34 number of patients were registered, out of these 24 patients completed the treatment, in which 14 patients treated under *Agnikarma* & 10 patients treated under *Karpasasthyadi Tailam Nasya*. Study reveal that *Agnikarma* provide significant relief in cardinal symptom of cervical spondylosis and *Karpasasthyadi Tailam Nasya* therapy provided significant relief in associated symptom of cervical spondylosis.

Keywords: Cervical spondylosis, *Agnikarma*, *Karpasasthyadi*, *Sandhigata Vata*.

INTRODUCTION

Cervical spondylosis is usually age related condition in which degeneration of cervical column especially that resulting in abnormal fusion and immobilization of vertebral bones. While it is largely due to age, it can be caused by other factor as well. Alternative names for it include cer-

vical osteoarthritis and arthritis. Cervical spondylosis often develops as a result of changes in the neck joint. In the advancement of age, spinal discs can become dry and begin shrinking, resulting restriction in the mobilization of neck. Other than ageing many other causes can

leads to cervical spondylosis like neck injuries, work related activities that put extra strain on neck from heavy lifting, holding, smoking and inactive life style. In Ayurveda cervical spondylosis comes under *Sandhigata vata*.

Sandhigata vata is a common vata predominant disorder due to changes in life style unsuitable sitting, sleeping, standing, looking upwards or some other certain posture lead to cervical spondylosis in a prominent disease.

Spondylosis is a term suggested for degenerative Osteoarthritis of the joints between the centre of the spinal vertebrae and or neural foramina resulting in pain, paresthesia etc. If it occurs on cervical vertebrae it is called cervical spondylosis. So it's a disease affecting more of elderly (more than 40 years) where there is degeneration of the apophysial joints and intervertebral disc joints with osteophyte formation and associated with or without neurological signs.

In present scenario joint disorder is the main causes of distress after 40 year of age, and for it there are lots of analgesic and surgical procedures are generally in trend, but due to demerits of these procedures and side effect of analgesic, there is wide scope of alternate therapies like

Agnikarma and Nasya karma.

Agnikarma is a unique Chikitsa (treatment) modality described in *Veda* as well as *Ayurvedic* literatures. In Vedic period, application of *Agni* has been found as a remedy for different disorders like *Yoni Roga* (disorder of Vulva), *Arsha* (Piles) etc. and to kill *Krimies* (bacteria/ Virus). This treatment modality is prescribed in Ayurveda for management of musculoskeletal pain (MSP), various non-specific swelling, to achieve the hemostasis etc. In this technique heat is transferred in to the affected body parts with the help of various devices including *Louha* (Metal) *Shalaka* (Rod like Instruments). For easy transfer of heat and to produce *Samyak Dugdha Vrana* (Therapeutic Burn), Acharya's have men-

tioned various *Dahana Upakaran* (Cauterizing agents) considering different body parts, constitution of patients and disease. But, the use of *Pancha Dhatu Shalaka*, an innovated device by late Prof. P. D. Gupta, has become routine practice. *Agnikarma* modality of treatment can be observed in most of the Ayurveda institutions of India. *Agnikarma* is known as *Tau-Dam* among the rural Himalayan people and it is in routine practice for many diseases related to liver, stomach, spine etc. This therapy is practiced by the elder persons of the village and it is compulsory for every child of 6 month to 1 year old age group. A 45-60 cm long iron rod is called *Tau*, which is curved and pointed at one end and after heating that end, one or two spots are made over the skin of affected part and number of spots may be more as per the severity of the disease. In *Dam* technique, a fresh seeds of *vibhitaki* (*Terminalia chebula*) is burnt on fire and touches directly over the diseased part of the body for a moment. A significant Indian population experiences heavy burden of illness and finance due to musculoskeletal pain and its inevitable consequences. Now-a-days, the disorders like *Gridhrasi* (sciatica), *Sandhigata Vata* (lumbar spondylosis, cervical spondylosis), *Katisoola* (ankylosing spondylitis, lumbago), *Sandhi Vata* (osteoarthritis), *Snayu gata Vata* (Tennis elbow), *Mansagata Vata* (myofascial pain), *Jirna Vatika Vedana* (chronic fatigue pain), *Kandaragat Vata* (tendonitis) etc. are found in routine clinical practice The prime factors for those disorders are *Vata vardhaka Ahara* and *Vihara*, degenerative changes, trauma leading to fracture, dislocation, tendon / ligament injury, repetitive stress, prolonged immobilization, postural strain etc. Irrespective of these disorders, pain, tenderness, swelling, stiffness of joints and muscles are the common features. *Sushruta* has mentioned clear instruction of *Agnikarma* for such disorders which involves structures like *Asthi* (bone), *Sandhi* (joint) and *Snayu*.

The *Nasya Karma* is considered as the best and the most specific procedure for diseases of the head and neck “*Urdhwa Jatru-Vikaresu Visesannasyamisyate*”. Because as stated by *Vagbhata* the nasal passage is considered as the portals of the head “*Nasa hi Siraso Dwaram*” and accordingly all drugs measures introduced through the nose spread throughout the head and its constituent parts and may accordingly due to its anatomical structure, the neck is highly vulnerable to injury and some other pathological conditions that produce pain, spasm, weakness of muscles and restriction of movement etc. In *Ayurvedic Samhita*'s different siddha Taila has described to treat *Sandhigata vata*. *Karpasasthyadi Taila (Sahasrayogam)* is one of them.

Due to increase prevalence of this disorder it has become a major problem and burden for society, as it directly reduces the working potency resulting in dependency. All the above factors inspired to study the role of *Agnikarma & Karpasasthyadi tailam* on cervical spondylosis “A clinical study”

Aim & objectives:

1. To study the influence of modern life style on cervical spondylosis (*Sandhigata Vata*) in the light both Ayurveda and Modern medicine along with its Aetiopathogenesis.
2. To assess the efficacy of *Agnikarma* in cervical spondylosis.
3. To assess the efficacy of *Karpasasthyadi Tailam Nasya* in cervical spondylosis (*Nasya Karma*).

Material & Methods:

For the clinical research work 34 patients of cervical spondylosis (*Sandhigata Vata*) were randomly selected from O.P.D. and I.P.D. of Shalya department Vaidya Yagya Dutt Sharma Ayurveda Mahavidyalya & Associated Hospital Khurja Bulandshahr and divided into the two groups according to the therapy schedule.

Selection of Patients:

All patients of *Sandhigata vata* (cervical spondylosis) who attended opd of Vaidya Yagya Dutt sharma were selected irrespective of sex religion economic status education, occupation etc.

Inclusion Criteria:

- (1) Patients having textual symptoms of cervical spondylosis (*Sandhigata vata*)
Sandhi Soola (pain)
Sandhi Shotha (swelling)
Graha (Restricted Movement)
- (2) Sex: Male & Female
- (3) Age: 40 to 70years
- (4) Patients who had given written consent.

Exclusion Criteria:

Patients having uncontrolled diabetes mellitus, tuberculosis of spines, carcinoma of cervical vertebrae and history of injury to cervical spine were excluded from the study .The study was cleared by ethical committee of the institute .Written consent was taken from the patients willing to participate before the start of the study. For those patients who were unable to read or write consent of their relatives was taken. Patient was free to withdraw their name from the study at any time without giving any reason.

Investigation:

To rule out other pathology before treatment routine Blood, urine, stool analysis was carried out.

‘X’ Ray of Cervical vertebrae - A. P. / Lateral view.

Grouping and Management:

After selection, patients were randomly divided into two groups.

Group A (*Agnikarma Group*): In this group *Bindoo type Dahana vishesa* was made at the most painful area of neck and other areas also.

Each patient was given four sittings of *Agnikarma* at the interval of seven days. Total Duration of the treatment was one month.

Group B (*Karpasasthyadi Tailam Nasya*): According to the *Sahasrayogam Karpasasthyadi Tailam* is used for *Navana*. In this group of *Karpasasthyadi Tailam Navana* was given two times in day for one month.

Total 34 patients were registered on the basis of clinical presentation irrespective of age, sex; religion in this study, out of them 24 patients successfully completed their treatment schedule. In *Agnikarma* group, total 14 patients completed the course of treatment and in *Karpasasthyadi Tailam Nasya* group, 10 patients completed the course of treatment. Every patient was assessed after the completion of therapy.

Agnikarma Vidhi:

Like other therapeutic procedure *Agnikarma chikitsa* divided into three phases according to *Trividha upakarma*.

Poorva karma (Preoperative procedure)

Pradhan karma (Operative procedure)

Paschat karma (Post-operative procedure)

Poorvakarma:

Selections of patient: All the patients were selected based on their clinical findings as well as relevant investigations according to the prepared research Proforma.

Written consent: It is an important part of any surgical and Para surgical procedure. Patient should know about this procedure, what is going to be done.

Advised to take *Snigdha, Pichhila Ahaara* prior to this procedure.

Preparation of *Triphala kasaya Yastimadhu churna, Kumari swarasa*.

Pancha dhatu Shalaka was heated up to red hot.

Preparation of local part -Local part (Neck area) was washed with *Triphala Kashaya* and wiped

with dry sterilized gauze piece and covered this area with a cut sheet.

Pradhana Karma:

Kumari swarasa was hold by a sponge holding forceps and *Samyak dagdha vrana* was made in *Bindoo Dahana vishesa* by red hot *Pancha dhatu Shalaka*. Simultaneously *Kumari swarasa* was applied to relieve burning sensation. Minimum space was given between two point and care was taken that *Samyak dagdha Vrana* was produced.

Paschat Karma:

Application of *Kumari swarasa:*

Immediately after doing *Agnikarma Kumari swarasa* applied to relieve burning sensation. Then *Kumari swarasa* was completely wiped out by sterilized gauze piece.

Dusting of *Yastimadhu Churna:*

Yastimadhu churna was applied over the *Samyak dagdha Vrana* and *Vrana* was completely filled to prevent contamination

1. Advised to apply paste of *Haridra powder* and *Coconut oil* at night period.
2. Restricted to touch water for 24 hr.
3. Advised to avoid dietic regimen like Rice, Shigru, Brinjal, Ground nut, Potato, Beans etc. 4-7 days gap was kept between two sittings.

Post *Agnikarma* scar healing:

In *Agnikarma Chikitsa* total 14 patients completed treatment schedule and *vrana* was completely healed within two week and scar mark was completely disappeared within two month. There was no complication observed in this study.

Nasya Karma Vidhi:

Like other therapeutic procedure *Nasya* of *Karpasasthyadi Tailam* divided into three phases according to *Trividha upakarma*.

Poorva karma (Preoperative procedure)

Pradhan karma (Operative procedure)

Paschat karma (Post-operative procedure)

Poorva karma (Preoperative procedure)

This includes all the preparations and events that are to be done up to instillation of medicine.

This stage is further divided into three steps:

Collection of material

Deciding the exact time for the procedure Preparation of the patient

Collection of materials:

A separate well ventilated room with adequate light is to be selected. It should flourish following needy things-*Nasya Peeta* or *Nasya Shayya*, *Nasya* medicine, *Nasya Yantra* i.e. *Gokarna Yantra*, cotton or dropper for instillation, spittoon, cloth, attainers, etc.

Ideal Time:

After considering the prevailing season and *Dosha Pradhanyata*, the time of administration should be decided. In general *Pravrut*, *Sharad* and *Vasanta Ritu* are good. In *Varsha Ritu* uncloudy day, in *Greeshma Ritu* before *Madhyanha* and in *Sheeta Ritu* during *Madhyanha Nasya* should be performed.

Preparation of patient:

Person to be administered with *Nasya karma* was kept in *Nirvata Pradesha*, light food was given, after resting for a short duration *Danta dhavana* and *Dhoomapana* was given and he should comfortably lie down relaxed on a cot in supine position, hands and legs stretched straight. *Snehana* and *Swedana* to face are done. *Swedana* is contraindicated to *Sheersh* as it is a *Marma*. Even then for liquification of *Dosha* and to facilitate easy expulsion of them *Mridu Swedana* is performed over *Shira*, *Manya*, *Nasa*, and *Greeva*. Eyes are covered with a cloth to avoid any spilling of medicine.

Pradhana Karma:

Patient was made to lie down in supine position on *Nasya* table. The head of the patient was lowered (*Pravilambita*). Eyes were covered with a clean cloth. The tip of patient's nose was drawn upward by the left thumb, at the same time with the right hand 8 drops (*Partham Matra*) of lukewarm oil (*Karpasasthyadi Taila*) was instilled in both the nostrils, alternately, with the help of proper instrument like *Pichu*, dropper or *Gokharan Yantra*, The drug was proper in dose and temperature. The patients was advised to remain relaxed at the time of administration of *Nasya* and asked to avoid speech, anger, sneezing, laughing and shaking his head.

The obtained data on the basis of observations was subjected to statistical analysis in term of mean, standard deviation, standard error and unpaired 't' test were conceded at the level of $P < 0.001$, as highly significant, $P < 0.05$ or $P < 0.01$ as significant, and $P < 0.010$ or $P > 0.01$ as insignificant to carry out the results.

Observation & Results:

Maximum patients 50.00% were found in age groups of 41 to 60 years. 55.88% patients were male. 44.11% patients were from middle class, maximum numbers of patients 76.47% were married. 73.50% patients of cervical spondylosis were educated, 55.88% patients from urban area, 73.52% patient had taken treatment before coming to our O.P.D. 50.00% patients having smoking addiction, maximum 44.11% patient were having chronicity 0-1yr, 50.00% patients were having *madhyama Kosta*, and 73.53% patients were taking *Ahara* of *Rukhsa Guna* followed by *Sheeta Guna Ahara* 41.17%. & 61.76% patients were taking *Tikta rasa ahara* followed by *Katu rasa ahara* 58.82%. In the present study referred pain was observed in various sites like shoulder 62.50%, In *Prishta* 45.80% and in *Hasta* 41.66%. In 58.30% patients observed disturbed sleep due to pain. Neck stiffness was observed in 45.83%.

Overall Effect of therapy in Agnikarma group:

This group was treated with *Agnikarma Chikitsa*. Out of 14 numbers 3 patients were cured without recurrence within one month. 06 patients were improved and Mild improvement observed in 05 cases. No patients showed unchanged result.

Overall Effect of therapy in Karpasasthyadi Tailam Nasya group:

This group was treated with *Karpasasthyadi Tailam Nasya*. Out of 10 patients total 2 patients was cured without recurrence within one month. 3 patients were improved and Mild improvement observed in 04 cases. A single patient showed unchanged result.

Table 1: Effect of Agnikarma chikitsa on cervical spondylosis symptoms

Cardinal symptom	N	Mean B.T.	Mean A.T.	D	Result (%)	S.D. (±)	S.E. (±)	t Value	P Value
<i>Soola</i>	14	3.21	0.720	2.214	77.75%	1.050	0.281	7.907	<.00001
<i>Stambha</i>	7	2.28	0.570	1.714	75.00%	0.488	0.189	9.315	<.00001
<i>Graha</i>	10	2.30	0.400	1.850	82.60%	0.994	0.299	5.910	0.0032
<i>Bhrama</i>	4	1.50	0.438	1.063	70.60%	0.315	0.157	6.770	0.0013
<i>Sira soola</i>	4	1.65	0.825	0.800	51.56%	0.356	0.178	4.490	0.0103
<i>Chimchimayana Hasta</i>	10	1.60	0.650	0.950	59.00%	0.599	0.189	5.026	0.0035
<i>Suptata</i>	4	1.50	0.680	0.813	54.13%	0.375	0.188	4.340	0.0110

Table 2: Effect of Karpasasthyadi Tailam Nasya on cervical spondylosis symptoms

Cardinal symptom	N	Mean B.T.	Mean A.T.	D	Result (%)	S.D. (±)	S.E. (±)	t Value	P Value
<i>Soola</i>	10	2.70	0.950	1.750	64.81%	0.589	0.186	9.400	<.0001
<i>Stambha</i>	4	1.75	0.700	1.050	60.00%	0.667	0.333	3.125	0.0250
<i>Graha</i>	9	1.78	0.720	1.056	60.20%	0.635	0.212	5.040	0.0005
<i>Bhrama</i>	3	1.33	0.330	0.667	75.18%	0.289	0.167	4.018	0.0280
<i>Shira Soola</i>	3	1.66	0.500	1.167	69.50%	0.577	0.333	3.530	0.0360
<i>Chimchimayana Hasta</i>	7	1.28	0.490	0.857	66.48%	0.378	0.143	6.035	0.0004
<i>Suptata</i>	3	1.33	0.667	0.667	50.15%	0.289	0.167	3.990	0.0287

Table 3: Overall effect of Agnikarma therapy

Effect	No. of patients	% Percentage
Cured	03	21.42%
Markedly Improvement	06	42.85%
Improved	05	35.71%
Unchanged	00	00.00%

Table 4: Overall effect of Karpasasthyadi Tailam Nasya therapy

Effect	Total	% Percentage
Cured	02	20.00%
Markedly Improvement	03	30.00%
Improvement	04	40.00%
Unchanged	01	10.00%

DISCUSSION

Sandhigata Vata (Cervical Spondylosis) seems to be more problematic from the days of *Sushruta* and appears to have remained a challenge for physician. *Sushruta* has given foremost place to *Vata Vikara* as a '*Vatavyadhi Nidan*' in *Nidan Sthana*.

Though it is no fatal disease initially but it causes more and more complication as the diseases progress. The *vata* vitiated diet regimen and activities like *Dukhasan*, *Dukhsayya*, occupational trauma & routine work in a particular posture are the main causative factor of cervical spondylosis. Modern medical science provides various types of medical and surgical therapy but none of therapy is available to cure cervical spondylosis completely, all are just for symptomatic relief. *Vatavyadhi* is disease of old age condition. In this age group patients cannot bear pain. So, selected drug should have good analgesic action with *vata kapha har* property also. For this study *Karpasasthyadi Tailam* (*Sahasrayogam*) is taken for *Nasya Karma*. *Agnikarma* is a simple effective Para surgical procedure for local *Vata Kaphaja* disorder, so due to its instant relief properties *Agnikarma* was selected.

Procedure *Agnikarma* was done at the cervical spine level 5, 6, and 7th, considering the maximum tenderness point by *Panch Dhatu Shalaka* in the manner of *Bindoo Dahana vishesa*. Various *Dahana* upakaran are mentioned to perform *Agnikarma* in *Asthi Sandhi gata vata*. *Panch Dhatu Shalaka* is most convenient to maintain constant temperature and once heated it can produce a range of 10-12 *Bindoo*. Four sitting of *Agnikarma* procedure were given to each patient with interval of 7 days for one month.

Nasya Karma Route of administration always has its own importance in management of any disease. *Nasya* is a term to be applied generally for medicines or medicated oils administered through the nasal passage as stated by *Acharya Sushruta*. According to Ayurvedic classics in *Urdhwajatrugata Vikara Nasya* therapy is most favorable. Cervical Spondylosis is one among them. Majority of the drug in *Karpasasthyadi tailam* are having *Ushna Veerya*, *Vata har* and *vata kapha Shamaka* proper-

ties so their virtue, they help in breaking the *Samprapti* of cervical spondylosis (*Sandhigata vata*).

Patient was made to lie down in supine position on *Nasya* table. The head of the patient was lowered (*Pravilambita*). Eyes were covered with a clean cloth. The tip of patients nose was drawn upward by the left thumb, at the same time with the right hand 8 drops (*Partham Matra*) of lukewarm oil (*Karpasasthyadi Taila*) was instilled in both the nostrils, alternately, with the help of proper instrument like *Pichu*, dropper, The drug should be proper in dose and temperature. The patients was advised to remain relaxed at the time of administration of *Nasya* and asked to avoid speech, anger, sneezing, laughing and shaking his head.

Mode of Action of Agnikarma:

Agni possesses *Ushna*, *Tiksna*, *Sukshma*, *Aashukari Guna*, which are anti *Vata* and anti *Kapha* properties. *Agnikarma* was done by red hot *Pancha dhatu Shalaka*. The character of Physical heat of Red hot *Shalaka* transferred as therapeutic heat to *Twak dhatu* by producing *Samyak dagdha vrana*. From *Twak Dhatu*, therapeutic heat acts in three ways. Due to *Ushna*, *Teekshna*, *Sukshma*, *Aashukari Guna* removes the *srotavarodha* and pacify the vitiated *Vata* and *Kapha Dosa* and maintain equilibrium. Increase the *Rasa Rakta Sambandha* (Blood circulation) to *Griva Pradesha*. Due to more blood circulation flush away the pain producing substance and patient relieve from symptoms.

Therapeutic heat increase the *Dhatwagni*, so metabolism of *Dhatu* is proper and digest the *Aama Dosh*. *Griva Sandhi* gets proper nutrition from *Purva Dhatu* and *Asthi*, *Majja Dhatu* become more stable. Patients relieve from all symptom. Therapeutic heat goes to deeper tissue like *Mansa Dhatu* and neutralized the *Seeta Guna* of *Vata* and *Kapha Dosa*. Vitiated *Dosa* becomes comes to equilibrium phase and patient relieve from symptom.

Mode of action of Karpasasthyadi Taila Nasya:

Karpasasthyadi Taila comprises mainly *Karpasa*, *Masha*, *Kulattha*, *Bala*, *Pippali Moola*, *Shigru*, *Nagara* etc. *Taila* having the properties like *Snigdha Guna*, *Ushna Veerya* and *Vata-Kapha*

Shamaka acts as *Vedana Shamaka*, *Sothahara* and *Brumhana*. Thus provides significant effect on symptoms of cervical spondylosis. Cervical spondylosis (*Sandhigata Vata*) is *Vata* predominant disease. *Karpasasthyadi Tailam* is having *Vatahara* property. Most of the contents of *Karpasasthyadi Tailam* has *Katu Rasa*, this *Katu Rasa* even though aggravates *Vata Vyadhi*, but with the influence of *Snigdha*, *Guru Guna* of *Tailam*, *Ushna Guna* and *Veerya* of the ingredients it subsides the aggravated *Vata* in Cervical Spondylosis (*Sandhigata Vata*). The *Ushna Guna* of the ingredients of *Karpasasthyadi Tailam* subsides the *Sheeta Guna* of *Vata* to subside the *Shoola* and *Sthabthatha* in Cervical spondylosis.

In *Agnikarma chikitsa*, significant relief of pain (77.75%), stiffness (75.00%), restricted movement (82.60%) and head reeling (70.60%) were found. Results of headache (51.56%), loss of sensation (54.13%), tingling sensation (59.00%) in hand were statistically less significant.

Karpasasthyadi Tailam nasya provided good result in head reeling (75.18%), headache (69.50%), pain (64.81%) and Tingling sensation (66.48%). Result of loss of sensation (50.15%), restricted movement (60.00%), and stiffness (60.22%) were statistically less significant.

CONCLUSION

Agnikarma gives instant relief to the patient in cardinal symptom and *Karpasasthyadi Tailam Nasya* show better efficacy in associated symptom so these are reliable procedures for the management Cervical Spondylosis (*Sandhigata vata*).

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