

Short communication:**Management of *Sandhigata Vata* (Cervical Spondylosis) by Agnikarma with Lauha Shalaka - An Observational Pilot study****Harish Daga¹ Nilesh Jethava^{2*}, Hemant Toshikhane³**Assistant Professor¹, Associate Professor², Professor³

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Corresponding author: email: dr.neeljethava@gmail.com Mob: 09558779737*Abstract:**

Sandhigata vata is a clinical condition in which structural as well as functional disarrangement takes place in the joints. *Sandhigata Vata* can be identifying as a disease of *Sandhi* (Joint) with symptoms of *Sandhishoola*, *Sandhishotha* and *Akunchana Prasarana Pravrittiscavedana* and in the later stage *HantiSandhigatah*. In the context of *Ayurveda* some clinical condition mimics with *Cervical Spondylosis* like *Manyastambha*, *Manyagraha*, *Grivastambha*, *Viswachi*. But in these disorders no degenerative changes takes place. *Sandhigata Vata* is the only disease which can be strongly appropriate with *Cervical Spondylosis*. *Cervical Spondylosis* is a general term for age-related wear and tear affecting the cervical vertebrae in neck. As the discs dehydrate and shrink, bone spurs and other signs of osteoarthritis develop. *Agnikarma* having anti *Vata Kappa* property like *Ushna*, *Sukshma*, *Ashukarigunam* may be helpful to relieves pain and muscle spasm instantly so it can be used to treat cervical Spondylosis. It is a non-pharmacological, Para surgical technique which gives instant relief to the patients of *Sandhigata vata* – *Cervical Spondylosis*.

Key words: *Agnikarma*, *Cervical Spondylosis*, *Lauha shalaka*, *Sandhigata vata*, *Para-surgery*

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Introduction:

Sandhigata vata is a clinical condition in which structural as well as functional disarrangement takes place in the joints. As it is *vata Vyadhi* which is considered as a *Mahagada* because treatment may be prolonged and prognosis is uncertain. ^[1] Due to changes in lifestyle and occupational stress *Sandhigata Vata* has found in society as

prominent disease. *Sandhigata vata* can be defined as a disease of *Sandhi* (Joint) with symptoms of *Sandhishoola*, *Sandhishotha* and *Akunchana Prasarana Pravrittiscavedana* and in the later stage *Hanti Sandhigatah*.

Acharya Sushruta has described various types of *Sandhi* viz. *Peshi Sandhi*, *Snayu Sandhi* and *Shira Sandhi* etc. but in this perspective, we are dealing with *Asthi Sandhi*.^[2] The term *Gata* means “situated in”, directed to. Hence *Sandhigatavata* represents the site in which provoked *vata dosha* is situated. *Vata* is a biological force which governs and stimulates all the activity of Body and act as a receptor as well as stimulator.^[3] During the progression of pathogenesis of *Sandhigatavata* repeated *Nidana* causes vitiation of *vata* which gets localized to cervical joints and leads to neck pain, Stiffness with Restriction of range of motion in cervical region. Due to *kaphavritavyanvayu* normal circulation is obstructed than it affects cervical range of motion also.

Cervical Spondylosis is a general term for age-related wear and tear affecting the spinal discs in neck. As the discs dehydrate and shrink, bone spurs and other sign of osteoarthritis develops.^[4] Cervical spine is subjected to much more strains of mobility and weight bearing as compared to the lumbar. Pathology starts with the degeneration of intervertebral discs which leads to reduction of intervertebral disc space and peripheral osteophytes formation. Osteophyte impinging on the nerve root gives rise to Radicular Pain in the upper limb and neck, occipital headache, vertigo, giddiness. These changes can results in spinal canal stenosis. NSAIDS, Muscle Relaxant, Glucocorticoids, Antidepressants and Analgesics are widely available pharmacological management with many unwanted side effects. Decompression surgery is most practiced method to relieve

compression of nerve root but success rate is low because degenerative disease of spine is inevitable consequence of aging.

In Ayurvedic literature several methods like *Shehana*, *Upanaha*, *Agnikarma*, *Bandhan*, *Unmardan*, has been described in the treatment concerning *Sandhigata vata*. *Agnikarma* having anti *vata kapha* property like *Ushna*, *Sukshma*, *Ashukariguna* was chosen to manage *Sandhigatavata*. As *Agnikarma* may be effectively helpful to relieve the pain and muscle spasm instantly so it is used to treat cervical Spondylosis.

From the review of previous work on *Sandhigatavata* it becomes clear that most of the work has been carried out in regards to *Shodhanachikitsa* and *Samanachikitsa* and very few works have been carried out in regards to Para-surgical procedure like *Agnikarma*. Hence it creates a scope to explore the problem in the light of scientific background for better treatment. *Shushruta* has mentioned so many *dravya* for *Agnikarma* procedure but in this study *Lauhadhatu shalaka* and *Tamra Dhatu Shalaka* is selected to evaluate the comparative efficacy of *Agnikarma*.

Keeping all these points in mind the study has been conducted to evaluate the efficacy of *Agnikarma* with *Lauhashalaka* in the management of *Sandhigatavata- (cervical Spondylosis)*.

Material and Methods:

Patients of *sandhigata vata- cervical spondylosis* were selected from OPD of Parul Ayurveda hospital, Vadodara.

Diagnostic Criteria:-

- *Shoola (Pain)* in cervical region.
- *Stambha (Stiffness)* in cervical region.

- *Graha* (Restricted movement) of neck.
- Disease Confirmed by X-Ray.

Associated Symptoms

- *Bhrama* (Giddiness)
- *Shirashoola* (Headache)
- *Suptata* (loss of sensation)

Inclusion Criteria

1. Patients fulfilling the diagnostic criteria.
2. Patients between the ages of 40- 70 years.

Exclusion Criteria

1. Pregnant/lactating woman.
2. Patients group of age below 40 years and above 70 years.
3. Patients suffering from pathological condition like Bone tumor, Tuberculosis spine etc.
4. Uncontrolled diabetes mellitus.
5. History of injury to cervical spine.

Study was cleared by the institutional ethical committee. Written informed consent was taken from each individual patient willing to participate before the start of the study. Patients were free to withdraw their name from study at any time without giving any reason. In this research work total 20 patients of *Sandhigata Vata* (Cervical Spondylosis) were registered among them 18 patients completed the course of treatment and 2 patients left against medical advice. An assessment was made on the changes in clinical features before and after treatment. Suitable scoring was given to each symptom while range of motion was measured by goniometer.

criteria was made to assess the effect of therapy i.e. cured 100% relief of the complaints, no recurrence in follow-up, marked improvement more than 75% and less than 100% relief in complaints, moderate

improvement more than 50% and less than 75% relief in the complaints, mild improvement 25% and less than 50% relief in the complaints and unchanged 0-25% relief in the complaints.

Investigations:

1. Pathological -hematological analysis of T.L.C., D.L.C., Hb, R.B.S, H.I.V, Hb_s Ag
2. Routine examination of urine.
3. Radiological -X-Ray of cervical spine - A.P. & lateral view.

Procedure of Agnikarma:**Purva Karma-**

- Informed written consent was taken at the time of registration of the patient for study.
- Information sheet was provided to all patients at the time of registration.
- Required various investigations were done.
- *Snigdha*, *Picchila* *Annapanasevana* advised before procedure.
- *Ghrita-kumaripulp* collection.
- *LauhaShalaka* heated up to red hot time approximately 5-8 minute minimum.
- Preparation of local part: Local part was washed with *Triphala Kwatha* and wiped with dry sterilized gauze and covered this area with a drape sheet.

Pradhan karma:

- Type of Karma: *Bindu* type of Agnikarma was done with *lauhaShalaka*.
- In *Cervical Spondylosis* *Prone* position was adopted as it was comfortable to the patient.
- In the disease of *Cervical Spondylosis* irrespective of specific site in this study Agnikarma has been done at the

maximum painful/tender site at affected neck area.

- During *Agnikarma Ghritakumari* was applied to relieve burning sensation.

Paschat Karma:

- After wiping of *Kumari* pulp local application of *Madhu* and *Sarpiwas* done on *Samyaka Dagdha Varna*.
- After *Agnikarma* patient was observed for 30 minute, and advised *Pathyapathya* as per *Sushruta Acharya's Varna Rogadhikara* till the healing of *Samyaka Dagdha Varna*.
- Patients were strictly advised, “don’t touch water at *Dagdha Varna* site for one *Ahoratra* (24 hours).”

Observation and Result:

All selected 18 patients were treated by *Agnikarma* in 2 sittings at 15 days of interval. In this study *Agnikarma* was done with *Lauha Shalaka*. The relief in signs and

symptoms were observed after treatment and noted in the proforma specially prepared for this study. Paired ‘t- test’ was applied for assessment of the result.

Effect of Agnikarma on symptoms:

Agnikarma was done with the help of *LauhaShalaka* and 68.8% result was found in pain relief , 64.10% improvement was found in stiffness which was highly significant (Table-1).

In flexion 32.63% improvement while in extension was 16.94% improvement was noted. 26.59% relief was observed in Right side flexion and 30.20% relief was observed in left side flexion. 21.28% improvement while 24.59% improvement was observed in right and left side rotation respectively. Insignificant result was found in case of *bhrama* and *suptata* while 69.23% improvement in *shirashoola* after *agnikarma* (Table-2).

Table-1: Symptomatic effect of *Agnikarma* by *lauha shalaka*: n=18 [‘paired ‘t’ test]

Symptoms	Mean		Diff.	S.D. ±	S.E. ±	‘t’	‘P’	%	Remarks
	B.T	A.T.							
Pain	2.50	0.78	1.72	0.75	0.17	9.71	<0.001	68.8%	H.S.
Flexion	41.67	55.28	13.6	7.63	1.79	7.56	<0.001	32.63%	H.S.
Extension	49.17	57.50	8.33	5.94	1.40	5.95	<0.001	16.94%	H.S.
Right Side Flexion	38.61	48.89	10.27	8.6	2.04	5.03	<0.001	26.59%	H.S.
Left Side Flexion	42.28	53.06	10.78	9.11	2.14	5.95	<0.001	25.49%	H.S.
Right Rotation	60	72.78	12.77	9.73	2.29	5.56	<0.001	21.28%	H.S.
Left Rotation	53.06	66.11	13.05	10.31	2.43	5.37	<0.001	24.59%	H.S.

Table-2: Effect on Associated symptoms with Agnikarma: n=18

Symptom	Mean		Diff.	S.D. ±	S.E. ±	X ² value	P	%	Remarks
	B.T	A.T.							
Bhrama	0.44	0.11	0.33	0.48	0.11	2.81	>0.05	75%	N.S.
Shirashoola	0.39	0.11	0.28	0.46	0.10	3.53	>0.05	71.79%	N.S.
Suptata	0.67	0.22	0.45	0.51	0.12	2.57	>0.05	67.16%	N.S.

Table-3: Overall Effect of Therapy-

Assessment	Patients cured	
	N	%
Marked improvement (75-100%)	0	0
Moderate improvement 50-75%	5	14.70%
Mild improvement 25-50%	13	38.23%
Unchanged	00	00

Discussion:

In the context of *Ayurveda* many clinical condition mimics with *Cervical Spondylosis* like *Manyastambha*, *Manyagraha*, *Grivastambha*, *Viswachi*. But in these disorders no degenerative changes takes place. *Sandhigata Vata* is the only disease which is strongly appropriate with *Cervical Spondylosis*. *Sandhigata Vata* is one of *Vata Vyadhi* described by all the *Acharyas* of *Ayurveda* having vitiated *Vata Dosha* in the *Asthi Sandhi* (joints). It is characterized by the symptoms like *Sandhishoola*, *Sandhishopha*, etc. ^[5] There is relation between *Dosha* and *Dushya* because of their *Bhautika* constitution. Augmentation of *Vata* due to its properties will lead to decrease in the *Asthi* and viceversa. Interrelation between *dosha* and *dushya* is called *Ashraya Ashrayi*

Bhava. *Sandhigata Vata* comes under *sthanagatavyadhi*. Here in the *prakupitavayu* comes under *sthanagatavyadhi* and results in the *vyadhi* which is called *Sandhigata Vata*. *Gatatva* is one such a complex phenomenon mentioned in all *Ayurvedic* classics. *Gatatva* of *Dhatu*, *Updhatu*, *Ashaya*, *Avayava*, And *Indriya* etc. have been described in classics. *Cervical Spondylosis* is preferable as it is a progressive degenerative condition rather than *inflammatory* or *dissolution* condition.^[6] It is a condition in which progressive degenerative changes takes place in inter vertebral discs leading to changes in the surrounding normal anatomical structures associated with osteoarthritis of spinal *Apophyseal* joints. Neck pain *Stiffness*, *Parasthesia*, *Restricted Range* of

Motion, Sleep Disturbance, Bhrama, Shirashoola, Vertigo, Radiculopathy, Myelopathy are main clinical features of *Cervical Spondylosis*. The discussion is made on the *Agnikarma*, performed in this study. Various types of treatment principle like *Abhyanga, Panchakarma, Para surgical procedures (Raktamokshana and Agnikarma)* etc. are available for the management of *Vata Vyadhi*.^[7] *Agnikarma* is an asset of Ayurvedic surgeon which has been widely used in the clinical practice since time immemorial. It gives immediate relief to the patient from local *Vata* and *Kapha* disorders without producing any untoward effect. *Agnikarma* described in *Sushruta* along with its priority, Indication, Contraindication, Materials used for that as well as methodology were reviewed.^[8] The detail relevant descriptions of *Agnikarma* are also reviewed from all the *Ayurved Samhitas*. On the basis of the review, it can be said that the therapeutic value of *Agnikarma* is superior to *Kshara karma*. It is a potent and minimal Invasive non Pharmacological Para surgical procedure without having any untoward effects if it is performed as per the specific indications given and in proper way.

Probable mode of action of Agnikarma:

One theory of pain relief due to *agnikarma* is pain causes anywhere in the body is due to *Vata Dosha*, *Agni-karma* being *Ushna chikitsa* pacifies *Vata*, thus the pain is relieved immediately after *Agnikarma*.

Another theory is every *dhatu* have its own *dhatvagni* which is responsible for the nourishment and changes in *dhatu*. *Agnikarma* works by giving external heat there by increasing the *dhatvagni* which

helps to digest the aggravated *Doshas* & cures disease.

Third theory is according to *Scientist Vent haff*, the place when therapeutic heat is transferred from heating object to biological system it increases the *Metabolism* of that system. Various metabolic changes take place at the site of heat burns which leads to increase demand of oxygen and nutrition.^[9] Superficial sensory nerves get stimulated by *Agnikarma* and leads to local *Dilatation* of blood vessels, resulting in the increased blood circulation. Increase in blood circulation & metabolism are helpful to wash away *Pain* substances and *metabolic* toxins. Fourth theory is *Agnikarma*, Stimulates the *lateral Spinothalamic* tract that descends the *Pain Inhibitory* pathway.^[10] Releases of *Endogenous & Opioid* peptide, inhibits of *P-substances* that blocks the transmission of *Pain*.^[11] Last theory is *Pain* receptors of the skin and motor end plate stimulated at 45 degree centigrade.^[12] Pathway for pain and thermal signals run parallel and ends in to same area but only stronger one can felt. Heat appears to reduce the excitability of nerves. Therefore complete exclusion of pain impulse by heat take place.

Conclusion: *Agnikarma* is a non-pharmacological, Para surgical & reliable technique which gives instant relief to the patients of *Sandhigatavata* (Cervical Spondylosis).

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