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# **Research Article**

# A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF *GREEVABASTI* WITH *PRASARINI TAILA* AND *NASYA KARMA* WITH *PARINITAKERIKSHEERA TAILA* AS *PRADHANA KARMA* IN *GREEVASANDIGATAVATA* W.S.R. TO CERVICAL SPONDYLOSIS

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#### ABSTRACT

The digitalization of the world has influenced people to have access on all the things through technologies like use of computers, mobiles etc and excess use of this has caused various problems and one among them is usage of these gadgets in improper position which is the causative factor for *Greeva Sandhigatavata* and shows *Sandhi Shoola, Sandhi Shotha, Vatapoorna Druti Sparsha* and *Prasarana Akunchana Vedana* which can be correlated to Cervical Spondylosis which also shows similar symptoms like pain in the neck, stiffness, radiating pain and tenderness. So the study was carried on 10 patients, 5 patients in each group to evaluate the efficacy of *Greeva Sandigatavata* w.s.r. to cervical spondylosis as *Pradhana karma* after *Poorava Karma* of *Snehana* and *Swedana* in both the groups. The study revealed that *Sandhishoola* (joint pain) and *Sandhishotha* (joint Swelling) where highly significant statistically and *Sandhishabdhata* was significant statistically in Group A, and in Group B *Sandhi Sthabdhata* shown highly significant results.

**KEYWORDS:** Greeva Basti, Prasarini Taila, Nasya Karma, Parinitakeriksheera Taila, Greeva Sandhigatavata Snehana, Swedana.

#### INTRODUCTION

In present day scenario, because of excess of computer work and over use of mobile technology by common man has led poor posture, constant abnormal pressure over neck region, has led to wear and tear of cervical spine causing joint subluxation. Hence there is increase in incidence of cervical spondylosis in all age group. Cervical spondylosis is a chronic degenerative condition of the cervical spine<sup>[1]</sup>. There is a degeneration of the intervertebral disc, with its protrusion and bony over growth of adjacent vertebrae, causing narrowing of the cervical canal and intervertebral foramina with resultant compression of roots, cords or both<sup>[2]</sup>.

The term spondylosisis used to define a generalized natural aging process that, involves a sequence of degenerative changes in spinal structures<sup>[3]</sup>. Pain and stiffness in the cervical regions are the primary symptoms and sometimes even associated with swelling, weakness, radiating pain and paraesthesia. This condition can be correlated to *Greeva Sandhigatavata*, which comes under *Vatavyadhi*. According to *Acharyas* the *Nidana Sevana* aggravates *Vata* the *Prakupita Vata* takes shelter where there is *Khavaigunyata*. One among the

*Vatakara Nidana* is *Mityayoga* of *Greevasandhi* which is mostly seen in desk workers, as a result of this, there will be pain, stiffness, weakness, radiating pain in *Greeva Sandhi*.

In Ayurveda, *Greeva Sandhigatavata* can be treated by *Shodhana Chikitsa* which includes both *Bahirparimarjana* and *Antarparimarjana*. In *Bahirparimarjana Snehana, Swedana, Mardana* and *Lepana*<sup>[4]</sup> can be performed. Hence in the present study, *Sarwanga abhyanga* with *Moorchita taila* followed by *Patrapinda sweda* and *Greevabast* with *Prasarini taila* was performed in group A and *Sarwanga Abhyanga* followed by *Patrapinda sweda* and *Nasya karma* with *Parinitakeri Ksheera Taila* was performed in group B in *Greeva Sandigatavata* w.s.r. to cervical spondylosis.

#### **AIMS AND OBJECTIVES**

- 1. To evaluate the efficacy of *Greevabasti* with *Prasarinitaila* in *Greeva Sandigatavata* with special reference to cervical spondylosis as *Pradhana karma*.
- 2. To evaluate the efficacy of *Nasya Karma* with *Parinitakeriksheera Taila* with special reference to cervical spondylosis as *Pradhana karma*.

3. To compare the procedural efficacy of both the groups.

# **Inclusion Criteria**

- 1. Patient of either sex with presenting symptoms of cervical spondylosis.
- 2. Patients of either sex with presenting symptoms of with *Greeva Sandigatavata*.

# Duration of the Study

3. Clinical symptoms with or without radiological changes.

### **Exclusion Criteria**

- 1. Patients with stenosis of the spinal canal
- 2. Patients suffering from any acute disease or any infectious disease or any metabolic disease which may interfere with the course of treatment.

Group A	Duration	No of days	Group B	Duration	No of days
Sarwanga Abhyanga	30 mins	8 days	Sarwanga Abhyanga	30 mins	8 days
Sarwanga Patrapinda			Sarwanga Patrapinda		
Sweda	15 mins	8 days	Sweda	15 mins	8 days
Greeva Basti	30 mins	8 days	Nasya	30 mins	8 days

# Assessment criteria

Assessment was done on Subjective Parameters and Graded as in below table.

- 1. Greeva Sandhi Shoola
- 2. Greeva Sandhi Shotha
- 3. Greeva Sandhi Sthabdhata

#### **Gradation of Subjective Parameters**

Greeva Sandhi Shoola	Greeva Sandhi Shotha	Greeva Sthabdhata
No Pain - 0	No Swelling - 0	No Stiffness - 0
Mild Pain - 1	Mild Swelling - 1	Mild Stiffness -1
Moderate Pain -2	Moderate Swelling - 2	Moderate Stiffness - 2
Severe Pain -3	Severe Swelling - 3	Severe Stiffness - 3

#### **Materials and Methods**

This is a comparative clinical study in which 10 patients (including both groups) will be selected on the basis of simple randomized sampling procedure according to inclusive criteria, on the basis of simple random sampling.

#### Greeva Basti Procedure

- 1. The patient was asked to attend to his natural urges before starting the treatment.
- 2. Next, *Mashapishti* was made by adding sufficient quantity of water.
- 3. Patient was then asked to lie down in prone position and *Greevapradesha* was well exposed.
- 4. A pit is constructed with *Masha* paste on the back of *Greeva* of about 3 *Angula* height.
- 5. The *Mashapishti* was sealed carefully on *Greeva Pradesha* so as to avoid any leakage.
- 6. The *Prasarini Taila* was indirectly heated by keeping it in hot water pot and the *Sukhoshana Taila* was gently poured slowly and carefully on the inner surface of *Mashapali* and was retained in the pit.
- 7. As and when the time passes oil used to get cooled and it was replaced by warm oil and temperature was maintained constant as sufficient enough to tolerate by the patient.

- 8. The same procedure was done for 30 minutes duration and there after the *Prasarini Taila* was removed and *Mashapishti* was also removed.
- 9. Later gentle massage was given on *Greeva Pradesha* in circular passion to the patient and the remaining oil was wiped with piece of cloth and patient was instructed to relax and take rest.
- 10. The oil was stored in the air tight bottle after cooling and the *Mashapishti* was also stored in air tight polythene cover. The same *Mashapishti* was used for 4 days and replaced on 4<sup>th</sup> day.

#### Nasya Karma Procedure

- 1. *Nasya Karma* was done with *Parinitakeriksheera Taila* 8 drops to each nostril.
- 2. Firstly, Patient was asked to attend all his natural urges prior to entry of treatment room.
- 3. Then, patient was made to lie in supine position and *Mukha Abhyanga* was done with *Moorchitha Taila* which included *Shiras, Mukha* and *Greevapradesha.*
- 4. *Mrudu Sweda* was given to *Shiras, Mukha* (eyes were avoided by keeping cold cotton pads) and *Greeva Pradesha*.
- 5. Then *Parinitakeri ksheera Taila* was indirectly heated and was instilled in the patient's nose by slightly drawing the nose upwards by left thumb

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to both the nostrils and head kept at an angle of 45 degrees.

6. Patient was asked to relax in supine position for about 15mins and asked to spit the phlegm as and when it comes to the spittoon.

Table No. 1: Effect of Treatment (Group A)								
BT - AT	Mean		МЪ	Paired t - test				
	(BT)	(AT)	MD	SD	SE	t - value	p - value	Remarks
Sandhi Shoola	3.2	2.1	1.4	0.3	0.09	10.00	< 0.001	H.S
Sandhi Shotha	2.4	1.2	1.2	0.4	0.12	13.32	< 0.001	H.S
Sandhi Stabdhata	1.66	0.77	0.89	0.92	0.30	2.01	< 0.05	S

### **OBSERVATION AND RESULTS**

In Group A, on *Sandhi shoola*, and *Sandhi Shotha* P value has shown highly significant values and on *Sandhi Stabdhata* the P value has shown significant result statistically.

Table No. 1: Effect of Treatment (Group B)									
BT - AT	Mean		MD		Paired t - test				
	(BT)	(AT)	MD	SD	SE	t - value	p - value	Remarks	
Sandhi Shoola	2.6	1.2	1.4	0.58	0.18	18.88	< 0.001	H.S	
Sandhi Shotha	2.6	1.5	1.1	0.30	0.09	10.00	< 0.001	H.S	
Sandhi Stabdhata	2.6	1.4	1.2	0.40	0.12	13.33	< 0.001	H.S	

In Group B, on all the parameters that is on *Sandhi Shoola, Sandhi shotha* and *Sandhi Stabdhata*. The P value has shown highly significant result statistically.

Table No. 3: Comparison between Group A and Group B								
BT - AT	Mean		MD	Paired t - test				
	(BT)	(AT)	SMID	SD	SE	t - value	p - value	Remarks
Sandhi Shoola	1.4	1.1	1.3	0.14	0. <mark>15</mark>	10.03	< 0.001	H.S
Sandhi Shotha	1.1	1.2	1.2	0.35	0.17	4.35	< 0.001	H.S
Sandhi Sthabdhata	1.2	0.89	1.1	0.42	0.05	2.15	< 0.05	S

In comparison between Group A and Group B, Sandhi Shoola, and Sandhi Shotha has shown highly significant result and Sandhi Sthabdhata has shown significant results.

# DISCUSSION

According to Achraya Charaka, Sneha Sweda is beneficial in treating poorvaka Sandhigatavata, so Sarwanga Abhyanga was done with *Moorchita Taila* followed by *Sarwanga* Patrapinda Sweda. Then Greeva Basti was done, one among the Snigdha Sweda from Prasarini Taila. *Greeva Basti* is *Swedana (Snigdhassweda)*, which falls under Shadvidha Upakrama<sup>[6]</sup>. By its Snigdha action Shoola Prashamana is seen and by Ushna Guna *Shotha* and *Stabdhata* are relieved. The drugs used in Prasarini Taila are Prasarini, Meda, Manjishta, Kushta, Mishi, Rasna Jeevaka Vrshabaka, Kakoli, Ksheera and *Tila Taila* as base ingredient<sup>[5]</sup>. The nature of these drugs has Vatahara property, Ushna Snigdha Guna pacifies Vata Dosha there by Sandhi Shoola, Sandhi Shotha and Sandhi Sthabdhata are relieved in Group A patients.

Probable mode of action by transdermal effect-transport of most drugs is a passive thermodynamic process. The epidermis contains a

variety of enzyme systems capable of metabolizing drugs that reach these compartments. The absorption rate is also influenced by dosage, regional anatomical variations, and altered barrier functions in diseases, vehicle, age, application, intralesional administration and systemic administration<sup>[7]</sup>.

Where as in Group B according to Acharya Sushrutha, Nasya Karma is a best modality of treatment for Jaturdhwa Vikara<sup>[8]</sup> especially in treating Urdwatrika Sandhi and according to Yogarathnakara Abhyanga, Swedana and Nasya<sup>[9]</sup> is advised in Vataraoga and Sandhigatavata (Greeva Sandhigata vata) comes under this umbrella. So, Sarwanga Abhyanga with Moorchita taila was done followed by Sarwanga Patrapinda Sweda. Then Poorvakarma for Nasya Mukhabhyanga and Mridu Bashpa Sweda was given. Then Nasya Karma speacially with *Parinetakeri Ksheera Taila* was administered which has Parinitaksheera, Jambeera Swarasa, Tila Taila Guggulu and Haridra, has given good Snehana action along with Shodhana benefits. When compared to Greevabasti, Nasya Karma has given better results, this may be because of Bahuatikartavyata action of Nasya Karma in Dosha Nirharana. The Nasya Dravya reaches the Shiras and

draws out the morbid *Doshas*. The *Parinitakeeri ksheera taila*<sup>[6]</sup>. Imparts *Snehana* and *Brimhana* property exhibits *Vatahara* activity and by enriching the *Kapha* degenerative process can be restricted.

Probable mode of action of *Nasya*: The drug administered have to be absorbed through the mucous layer of the nasal cavity which is easy to small drug particles or facilitated by change in pH and temperature. The mechanism for lipophilic action of drugs through transcellular process and cell membrane (by active transport via carrier- mediated transport) gives good absorption. As mentioned by Acharya Sushrutha, *Nasya Dravya* when administered its *Veerya* reaches the *Shringataka Marma* formed by the union of *Siras* of nose, ear, eye and tongue and other *Marmas* and removes the morbid *Doshas*<sup>[10]</sup>.

# CONCLUSION

In Ayurvedic literature Sandhigatavata or Greeva Sandhigatavata comes under Vataja Nanatmaja Vyadhi. Due to Vata Prakopa, the treatment is also Vatasya Upakrama. Here, on the basis of above study the Nasya Karma performed as Shodhana procedure has given better relief than Bahirparimarjana Chikitsa. So seeing Bahudosha Avastha condition, a wise physician should judiciously decide the course of treatment.

A study in large number may be conducted to confirm the results of the present study along with longer follow up.

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