



## POTENTIAL BENEFITS OF *GREEVA BASTI* IN CERVICAL SPONDYLOSIS – A CASE REPORT

Gopesh Mangal<sup>1</sup>, Dr. Neeraj Soni\*<sup>2</sup>, Pravesh Srivastava<sup>3</sup>, Gunjan Garg<sup>4</sup>

<sup>1</sup>Assistant Professor & Head (I/C), PG Department of Panchakarma, National Institute of Ayurveda, Jaipur-302002, Rajasthan.

<sup>2</sup>Pg Scholar, PG Department of Panchakarma, National Institute of Ayurveda, Jaipur-302002, Rajasthan.

<sup>3</sup>Pg Scholar, PG Department of Panchakarma, National Institute of Ayurveda, Jaipur-302002.

<sup>4</sup>Professor, Department of Swasthavritta, Mahatma Jyotiba Fule Ayurveda College, Chomu, Jaipur, India.

\*Corresponding Author: Dr. Neeraj Soni

Pg Scholar, PG Department of Panchakarma, National Institute of Ayurveda, Jaipur-302002, Rajasthan.

Article Received on 08/05/2019

Article Revised on 29/05/2019

Article Accepted on 19/06/2019

### ABSTRACT

**Purpose:** Cervical spondylosis is degenerative diseases with osteophytes formation results in narrowing of the space needed by the spinal cord and nerve root to pass. Treatment of cervical spondylosis includes steroids, muscles relaxant, cervical decompression, cervical laminectomy and foraminotomy, spondylectomy etc. Most of the treatments are cost worthy and have poor prognosis. Hence an effort has been made to evaluate the efficacy of *Greeva Basti* in the management of the cervical spondylosis. **Method:** This is single case study of 34 years old male driver suffering from pain and stiffness in neck region for past 13 years. It was diagnosed case of cervical spondylosis based on radiological investigation and clinical features. As per *Ayurveda* the case was diagnosed as *Greeva Stambha* and was admitted in the male ward of *Panchakarma*, NIA, and Jaipur. The treatment includes *Greeva Basti* with *Ashwaghandha Taila* for 14 days. Assessment was done on the basis of sign and symptoms. **Result:** The therapy provided marked relief in pain and stiffness along with improvement in head movement. **Conclusion:** On the basis of this case study it can be concluded that *Greeva Basti* with *Ashwaghandha Taila* is effective in the management of cervical spondylosis. Since the single case is not enough more rooted study in this is required.

### KEYWORDS:

### INTRODUCTION

Cervical spondylosis is degenerative diseases results in narrowing of the space needed by the spinal cord and nerve root to pass. Most often cervical spondylosis is asymptomatic but some time it lead to neck pain, stiffness, headache and other neurological symptoms. Incidence of the cervical spondylosis increases with age till the age of 50 and afterward goes on decreasing.<sup>[1]</sup> Due to disc degeneration they starts to fragment, lose water and collapse as a result of which the central annular lamellae bends inward and annular fibrosis bulges outward finally causing canal narrowing.<sup>[2]</sup> Treatment of cervical spondylosis includes steroids, muscles relaxant, cervical decompression,<sup>[3]</sup> cervical laminectomy and foraminotomy,<sup>[4]</sup> Spondylectomy,<sup>[5]</sup> etc.

On the basis of Signs and symptoms cervical spondylosis resembles with *Greeva Stambha*. *Acharaya Charaka* describes *Stambha* as one of the clinical manifestation of the *Vata Vyadhi*.<sup>[6]</sup> *Greeva Stambha* is a disorder of *Vata*

as mentioned in *Vata Nanatamaj Vyadhi*. Symptoms of *Greeva Stambha* are similar to those of *Greevahundana* where stiffness is stated as the chief factor.<sup>[7]</sup> As *Acharya Charaka* mentioned the *Snehana* and *Swedana* as the line of treatment for the *Vata* disorder,<sup>[8]</sup> *Greeva Basti* is chosen as the choice of treatment for the *Bahya Snehana* and *Swedana*. Since treatments of cervical spondylosis are having poor functional outcomes,<sup>[9]</sup> in long term periods and surgical treatments were found having neurological complications,<sup>[10]</sup> thus an effort is made to evaluate the efficacy of *Greeva Basti* in the management of the cervical spondylosis.

### CASE REPORT

This is a case study of 34 years old male driver who came to OPD of *Panchakarma* Department, NIA, and Jaipur (Reg. no. 16407022019) with complaints of pain and stiffness in neck region for past 13 years. Pain was progressive in nature, radiating to bilateral shoulder along with tingling sensation in bilateral arms. Pain was associated with severe headache and sleep of the patient

was disturbed. His condition gradually worsened and he was unable to continue his work. Symptoms were aggravated during morning hours and rainy seasons and got relieved by exercise. He visited to orthopaedic department where he was diagnosed as cervical spondylosis. Patient was taking analgesic regularly since 1 months. Then he came at *Panchakarma* Department, NIA for the *Ayurveda* treatment. There was past history of road traffic accident 3 years back. There was no any significant past history of DM, STDs, HIV, addictions etc. *Astavidha Pariksha* and Systemic examination was done. [Table 1, Table 2].

**Table 1: “Astavidha Pariksha”.**

<i>Astavidha Pariksha</i>	
<i>Nadi</i>	82 bpm
<i>Mala</i>	<i>Samayak</i>
<i>Mutra</i>	<i>Samayak</i>
<i>Jivha</i>	<i>Niram</i>
<i>Shabda</i>	<i>Spasta</i>
<i>Sparsha</i>	<i>Samshitoshana</i>
<i>Drik</i>	<i>Spasta</i>
<i>Akriti</i>	<i>Madhyam</i>

**Table 2: “Systemic Examination”.**

Systemic Examination	
<b>BP</b>	130/90 mm of hg
<b>Temp</b>	98.6 F
<b>Pulse</b>	82 bpm
<b>Resp. Rate</b>	18/min
<b>Wt.</b>	72 kg
<b>Ht.</b>	5'7''
<b>Sleep</b>	Disturbed
<b>Gait</b>	Unchanged
<b>ROM of neck</b>	Restricted
<b>Pain</b>	Present
<b>Stiffness</b>	Present
<b>Headache</b>	Present
<b>Numbness</b>	Occasionally in B/L upper limbs
<b>Tingling Sensation</b>	Present in B/L upper limbs

### Investigations

X-ray revealed normal study and other haematological investigations were within normal limit. Patient was admitted at male IPD, *Panchakarma* Department of NIA. The patient was treated on the line of management of *Greeva Stambha*.

### Interventions

*Greeva Basti* with *Ashwaghandha Taila* was done for 14 days. Detail procedure of *Greeva Basti* was explained to the patient. A thick malleable mixture of Black Gram flour with water was prepared so that it can hold the oil onto neck. Patient was advised to lie in the prone position. 250 ml *Ashwaghandha Taila* was made Luke warm in steel utensil. Mixture of the black gram was applied over the cervical area in the form of circular ring and is adhered well to the skin to prevent the leakage of

the oil. Luke warm oil is gently poured in the circular ring with the help of the cotton. Temperature was made constant and fall of temperature was managed by re-pouring of Luke warm oil over the area of circular ring. Procedure was done for 45 minutes. Afterward oil was removed with the help of cotton gauze. Flour was removed and neck area was massaged in circular pattern. *Greeva Basti* was continued for 14 consecutive days. *Pathya* diet was advised to the patient after treatment.

### Assessment Criteria

Assessment was done on the basis of subjective and objective criteria, signs and symptoms [Table 3]. Pain and stiffness was markedly reduced after *Greeva Basti* course. After completion of the treatment patient was able to move his head freely, sleep was improved, and working hours was increased [Table 4].

**Table 3: Grading of Subjective Parameters.**

S. N.	Symptom	Criteria	Grade	S.N	Symptom	Criteria	Grade
<b>Subjective Criteria</b>							
1.	Stiffness ( <i>Sandhigraha</i> )	No Stiffness	0	4	Headache	No headache	0
		Stiffness; no medication	1			Mild pain occasionally	1
		Stiffness, relieved by external application	2			Headache once in a week	2
		Stiffness, relieved by oral medication	3			Headache more than 5 times in a week	3
		Stiffness, not responded by	4			Daily severe headache	4

		medicine					
2	Loss of Sensation	No loss of sensation	0	5	Tingling Sensation	Absent	0
		Occasionally sensation loss	1			Occasionally	1
		Partial loss of sensation reversible	2			Up to 1hr	2
		Partial loss of sensation irreversible	3			Up to 2hr	3
		Complete loss of sensation	4				
3	Tenderness( <i>Sparsh asahyata</i> )	No tenderness	0	6	Tingling Sensation	More than 3hr	4
		Subjective experience of tenderness	1				
		Wincing of face on pressure	2				
		Wincing of face and withdrawal of the affected part on pressure	3				
		Resist to touch	4				

**Cervical range of motion (CROM) values obtained using the goniometer-**

1	Flexion	No restriction i.e. able to touch the interclavicular line	0	4	Right Lateral Flexion	Normal i.e. the ear touches to the shoulder tip	0
		Able to touch interclavicular line, with slight difficulty	1			Ear touches to the shoulder tip with slight difficulty	1
		Up to 2 cms difference between the chin and inter-clavicular line	2			Up to 3cms difference between the ear and shoulder tip	2
		2-4cms difference between the chin and inter-clavicular line	3			3 – 5cms difference between the ear and shoulder tip	3
		More than 4 cms difference	4			More than 5cms difference	4
2	Extension	Normal i.e. able to extend the head up to the level when tip of nose and forehead becomes in horizontal plane approximately flexion to extension – 130°	0	5	Left Lateral Flexion	Normal i.e. the ear touches to the shoulder tip	0
		Movement up to 120° with slight difficulty	1			Ear touches to the shoulder tip with slight difficulty	1
		Movement up to 120°	2			Up to 3cms difference between the ear and shoulder tip	2
		Movement up to 110°- 120°	3			3 – 5cms difference between the ear and shoulder tip	3
		Movement less than 110°	4			More than 5cms difference	4
3	Lateral Rotation	Normal i.e. able to make complete rotation of neck (180°)	0	6			
		Rotation with little difficulty	1				
		Rotation side to side only	2				
		Rotation one side only	3				
		Complete restriction of movement	4				
7	Pain by VAS						

**Table 4: “Assessment before and after treatment”.**

	Before	After <i>Greeva Basti</i>	After 30 days of completion of procedure
Pain by VAS	5	4	3
Stiffness( <i>Sandhigraha</i> )	3	1	1
Tenderness( <i>Sparshasahyata</i> )	3	1	1
Headache	1	0	0
Tingling Sensation	3	2	2
Loss of Sensation	1	0	0
<b>Cervical range of motion (CROM) values obtained using the goniometer-</b>			
Flexion	3	1	1
Extension	3	2	2
Lateral Rotation	2	1	1
Right Lateral Flexion	3	1	1
Left Lateral Flexion	2	1	1

## DISCUSSION

In cervical spondylosis degenerative changes starts in intervertebral discs along with the soft tissue involvement and formation of the osteophytes.<sup>[11]</sup> Cervical Spondylosis is usually diagnosed clinically on the basis of sign and symptoms. Although neck pain is the common symptoms neurological complications and radiating pain to the bilateral upper limbs determines the severity of the diseases. As the disease progress functional outcomes goes on declining.<sup>[12]</sup> In *Ayurveda Greeva Stambha* is described under *Vata Vyadhi*. When *Vata* affects the *Greeva Sandhi* then the symptoms of *Sandhigata Vata* such as *Shoola*, *Parasarana Akunchana Savedana*, *Sotha* and *Vatapurnadirtisparsha* are manifested.<sup>[13]</sup>

*Greeva Basti* is one of the *Bahiparimarjana Chikitsa* through which external *Snehana* and *Swedana* is done. It is directly applied over the affected area. There is no direct reference of *Greeva Basti* in *Ayurveda* Classics. *Snehana* and *Swedana* are advised for the treatment of *Vata* disorders.<sup>[14]</sup> *Greeva Basti* provides local *Snehana* and *Swedana* at the affected area. *Snehana* provides nourishment to the *Dhatu* of the body and *Swedana* relaxes the muscles, increases the blood flow and reduces the inflammations. *Swedana* having *Ushna* property reduces the *Kleda* of the affected area causing relief in the *Gaurava* and *Stambha*. *Sulavyuparama* is the sign of *Samayak Swinna Lakshana* hence *Swedana* also reduces the pain and tenderness.<sup>[15]</sup>

Skin is one of the sensitive organs of the body and drugs applied to the skin are absorbed inside due to its permeability.<sup>[16]</sup> *Ashwagandha* Oil have anti inflammatory, analgesic.<sup>[17]</sup> and anti arthritis property.<sup>[18]</sup> The local application of *Ashwagandha Taila* through *Greeva Basti* helps in the relaxation of muscles, reduction of pain and inflammations through its *Vatahara* properties. Luke warm temperature of the oil acts as local *Swedana* and helps to reduce strain of the muscles and increases the blood flow. *Snigdha* and *Ushna Guna* helps to counter act the *Ruksha* and *Sheeta Guna* of *Vata*. Hence properties of *Ashwagandha Taila* along with the action of *Greeva Basti* helps to reduce the

symptoms like pain, stiffness and increases the movement of the neck.

## CONCLUSION

*Greeva Basti* with *Ashwagandha Taila* shows remarkable symptomatic relief and functional improvement in cervical spondylosis. Improvement was found in the most of the symptoms of *Vata* such as pain, Stiffness and restricted range of movements. This case indicates that when treatment is done on the base of *Ayurveda* guidelines cervical spondylosis can be effectively managed and patient's quality of life can be enhanced. The results need to be studied in more numbers of populations for the better assessment.

## FINANCIAL SUPPORT AND SPONSORSHIP

Nil.

## CONFLICT OF INTEREST

There is no conflict of interest.

## REFERENCES

1. Wang C, Tian F, Zhou Y, He W, Cai Z. The incidence of cervical spondylosis decreases with aging in the elderly, and increases with aging in the young and adult population: a hospital-based clinical analysis Clinical interventions in aging, 2016; 11: 47. [PubMed]
2. Baron EM, Young WF. Cervical spondylotic myelopathy: a brief review of its pathophysiology, clinical course, and diagnosis. Neurosurgery, 2007 Jan 1; 60(suppl\_1): S1-35.
3. Emery SE, Bohlman HH, Bolesta MJ, Jones PK. Anterior cervical decompression and arthrodesis for the treatment of cervical spondylotic myelopathy. Two to seventeen-year follow-up. JBJS, 1998 Jul 1; 80(7): 941-51.
4. Snow RB, Weiner H. Cervical laminectomy and foraminotomy as surgical treatment of cervical spondylosis: a follow-up study with analysis of failures. Journal of spinal disorders, 1993 Jun; 6(3): 245-50.

5. Seifert V, Stolke D. Multisegmental cervical spondylosis: treatment by spondylectomy, microsurgical decompression, and osteosynthesis. *Neurosurgery*, 1991 Oct 1; 29(4): 498-503.
6. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted, Charaka Samhita. Chikitsa Sthana Adhyay- 28th Sholaka- 20<sup>th</sup>, Hindi Commentary, 2018; 733.
7. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted, Charaka Samhita. Chikitsa Sthana Adhyay- 28th Sholaka- 22<sup>th</sup>, Hindi Commentary, 2018; 733.
8. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted 2018, Charaka Samhita. Chikitsa Sthana Adhyay- 28th Sholaka- 81<sup>st</sup> -82<sup>nd</sup>, Hindi Commentary, 754.
9. McCormack BM, Weinstein PR. Cervical spondylosis. An update. *Western Journal of Medicine*, 1996 Jul; 165(1-2): 43. [PubMed].
10. CRANDALL PH, GREGORIUS FK. Long-term followup of surgical treatment of cervical spondylotic myelopathy. *Spine*, 1977 Jun 1; 2(2): 139-46.
11. Binder AI. Cervical spondylosis and neck pain. *Bmj*. 2007 Mar 8; 334(7592): 527-31. [PubMed]
12. McCormack BM, Weinstein PR. Cervical spondylosis. An update. *western Journal of Medicine*, 1996 Jul; 165(1-2): 43. [PubMed].
13. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted, Charaka Samhita. Chikitsa Sthana Adhyay- 28th Sholaka-37<sup>th</sup>, Hindi Commentary, 2018; 734.
14. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted, Charaka Samhita. Chikitsa Sthana Adhyay- 28th Sholaka- 80<sup>th</sup>, Hindi Commentary, 2018; 754.
15. Vd. Harish Chandra Singh Kushwaha, editor. 1<sup>st</sup> ed. Chaukhambha Sanskrit Sansthan Varanasi, reprinted, Charaka Samhita. Sutra Sthana Adhyay- 14<sup>th</sup> Sholaka- 13<sup>th</sup>, Hindi Commentary, 2018; 222.
16. Scheuplein RJ, Blank IH. Permeability of the skin. *Physiological reviews*, 1971 Oct 1; 51(4): 702-47.
17. Srivastav AK, Das P. Phytochemical extraction and characterization of roots of *Withania Somnifera* for its Anti-Bacterial, Anti-Oxidant, Anti-Inflammation and Analgesic activity. *Int J Innov Res Develop*, 2014; 3: 22-33.
18. D'Souza J. Relieve It With A Herb: Ashwagandha For Arthritis.