



## Research Article

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### AYURVEDIC MANAGEMENT OF CERVICAL SPONDYLOSIS: A CASE STUDY

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#### ABSTRACT

Cervical spondylosis is a general term for age related wear and tear affecting the spinal disc in neck and caused by degenerative disc changes. Often, there may be referred symptoms in the upper limb. Radiation of pain from shoulder to digits along the course of the nerve indicates nerve root compression. The management available of medicine in the current era is not satisfactory. According to *Ayurveda* cervical spondylosis can be co-related with *Griva Stambha*, a type of *Vata Vyadhi*. Here, we are presenting a case of cervical spondylosis (CS) which was treated with *Panchakarma* procedures such as *Griva Basti* with *Dashmoola Taila* for 14 days, *Nasya Karma* with *Kshirabala Taila* for 14 days and *Ayurvedic* oral drugs *Ashwagandha Churna* (Powder of *Withania somnifera Dunal*) 3g, *Shatavari Churna* (Powder of *Asparagus racemosus Willd*) 2g, *Chopchini Churna* (Powder of *Smilax china Linn*) 1g with lukewarm water after meal, *Yograj Guggulu* 2 tablets (500 mg each tablet) with *Dashmoola Kwatha* 40 ml before meal. All these drugs were prescribed for twice a day. There was marked improvement in pain and full range of movement was reported. The case study shows that cervical spondylosis may be successfully managed with *Ayurvedic* medicine with *Panchakarma* treatment.

**Key words:** *Griva Stambha*, *Griva Basti*, *Dashmoola Taila*, *Nasya Karma* and *Ksheerabala Taila*

#### INTRODUCTION

Cervical spondylosis is a degenerative condition of the cervical spine.<sup>1</sup> Pain and stiffness are the primary symptoms. Often, there may be referred symptoms in the upper limb. Pathology starts at the inter-vertebral disc with degeneration of disc resulting in the compression of cervical nerve along with space reduction. It leads to pain<sup>2</sup>, stiffness in neck, pain radiate into shoulders, forearm, headache, vertigo, paresthesia at the base of the thumb etc<sup>3</sup> Age, gender, and occupation are the main risk factors for cervical spondylosis.<sup>4</sup> The cervical spondylosis commonly occurred in below 30 years of age.<sup>5</sup> Nearly 50% of people over the age of 50 and 75% of those over the age of 65 have typical radiographic changes of cervical spondylosis.<sup>6</sup> Analgesics and physiotherapy will help to certain extent but are not the ultimate cure for cervical spondylosis. Surgeries are more expensive and again there are chances of recurrence as well.<sup>7</sup>

Cervical spondylosis can be correlated with *Griva Stambha* in *Ayurvedic* prospective.<sup>8</sup> *Griva Stambha* is one of the eighty types of *Vatavyadhi*.<sup>9</sup> This type of case had been managed by *Ayurveda*, related cases are also reported in PubMed indexed journal.<sup>10,11,12</sup> The symptoms of *Vata Vyadhi* (~various neurological and musculoskeletal disorders) are *Sankocha* (contraction), *Stambhana* (stiffness) of joints and *Shoola* in the joints as well as in bones, *Lomaharsha* (horripulation), *Graham* (spasticity) of hands, back as well as head, *Shosha* (atrophy) of body parts, *Spandana* (trembling of body), *Gatrasuptata* (numbness), *Hundana* (shrinking) of head, nose, eyes, clavicles region and neck, *Bheda* (breaking pain), *Toda* (pricking pain), *Kampana* (trembling), *Bala Indriya Bhramsa* (loss of strength and sensory function) etc.<sup>13</sup> We present a case that was successfully treated on the line of *Ayurvedic* management of *Vata Vyadhi*.

#### CASE REPORT

A 59 year-old male patient consulted in outpatient Department of the National Institute of *Ayurveda*, jaipur, with the complaint of

pain and stiffness in cervical region since one year and pain radiating to both upper limbs since seven months. Before two months he had painful neck movement. He was diagnosed as a case of cervical spondylosis with radiculopathy. He consulted neurological and orthopedic doctors at jaipur and surgical intervention was advised, which the patient refused. He was advised to take analgesics and anti inflammatory medicine for pain management by previous consultant.

There was no history of hypertension, diabetes mellitus, tuberculosis and any other serious illness. No relevant hereditary, congenital and surgical illness was found. On physical examination, the general condition of the patient was good, his pulse was 80/min, regular; BP was 130/90 mm of Hg; respiratory rate was 18/min regular and patient was a febrile. The tongue was clean, the voice was clear, bladder habits were normal and constipated bowel. He had *Vata-Kapha Prakriti* with *Madhya Vayah* (Medium age), *Madhyama Sara* (medium purity of body tissue), *Madhyama Satva* (Medium mental strength), *Madhyama Satmya* (homologation), *Sama Pramana* (equal body proportions), *Avara Vyayama Shakti* (least physical endurance), *Madhyama Ahara Shakti* (medium food activity and digestive power). Patient had normal gait. The active movement of range of cervical spine was restricted. Pain aggravated on the movement of neck. On examination, tenderness was examined over C6-C7 vertebrae. The patient was right handed. All cranial nerves were well intact. There was no any significant finding on lab Investigation done on NIA Central Lab. Magnetic resonance imaging (MRI) of cervical spine that was done on 20 May 2016, suggested diffuse disc bulge and postero-central protrusion of C6-C7 inter-vertebral disc along with posterior osteophyte, obliterating anterior subarachnoid space encroaching bilateral neural foramina causing bilateral exiting nerve root compression.

#### Treatment plan

*Griva Stambha* comes under *Urdhwajatrugata Roga*<sup>14</sup> and *Nanatmaja Vata Vyadhi* (various musculoskelton and

neurological disorder). In *Ayurveda* general line of management of *Urdhwajatrugata Roga* and *Nanatmaja Vatavyadi* such as *Snehana* (oleation), *Swedana* (sudation), and *Nasya* (drug administration through the nose) were adopted for the case. *Greeva Basti* is a type of *Mridu Snehana* & *Swedana*, were adopted for the patient.

Two *Panchakarma* interventions were adopted to treat this patient. *Griva Basti* with *Dashmoola Taila* For 14 days and *Nasya Karma* by *Ksheerabala Taila* for 14 days were administered.<sup>15</sup>

[Table 1] Along with these *Panchakarma* intervention combinations of oral medicines such as *Ashwagandha Churna* (Powder of *Withania somnifera* Dunal) 3g, *Shatavari Churna* (Powder of *Asparagus racemosus* Willd) 2g, *Chopchini Churna* (Powder of *Smilax china* Linn) 1g with lukewarm water after meal, *Yograj Guggulu* 2 tablets (500 mg each tablet) with *Dashmoola Kwatha* 40 ml before meal, were prescribed. [Table 2] These oral medications were continued in following 3 months after the completion of *Panchakarma* schedule.

**Table 1: Panchakarma Procedures**

Panchakarma Procedures	Drugs	Method of application	Days of treatment
<i>Griva Basti</i>	<i>Dashmoola Taila</i>  Ingredients- <i>Bilva (Aegle marmelos)</i> , <i>Shyonaka (Oroxylum indicum)</i> , <i>Gambhari (Gmelina arborea)</i> , <i>Patala (Stereospermum suaveolens)</i> , <i>Agnimantha (Premna mucronata)</i> , <i>Shalaparni (Desmodium gangeticum)</i> , <i>Prishniparni (Uraria picta)</i> , <i>Brihati (Solanum indicum)</i> , <i>Kantakari (Solanum xanthocarpum)</i> , <i>Gokshura (Tribulus terrestris)</i>	The person undergoing <i>Griva Basti</i> is made to lie face down on the massage table. The dough is prepared out of black gram flour or whole wheat flour. It is then made into a small ring of four to five inches in diameter which is placed over the neck to cover all the vertebrae of the neck and 2-3 vertebrae of the thoracic region. After it is glued with some water to make it leak proof, lukewarm medicated <i>Taila</i> is slowly poured into it. When this cools down it is squeezed out and replaced with warmer one. At the end of the procedure the dough is removed; a gentle massage is given over the area. The person is made to take rest for a while.	14 Days
<i>Nasya Karma</i>	<i>Ksheerabala Taila</i>  Ingredients- <i>Balamoola (Sida cordifolia)</i> , <i>Tila Taila (Sesame Taila)</i> , <i>Ksheera (Cow's milk)</i>	Massage with <i>Dashmoola Taila</i> over face followed by <i>Mridu Swedana</i> . 6 drops of <i>Ksheerabala Taila</i> administered in each nostrils followed by <i>Dhoomapana</i> .	14 Days

**Table 2: Oral Medications**

Name of the drugs	Dose	Anupana	Days
<i>Ashwagandha Churna (Withania somnifera</i> Dunal) (3g), <i>Shatavari Churna (Asparagus racemosus</i> Willd) (2g), <i>Chopchini Churna (Smilax china</i> Linn) (1g)	6g bid (twice in a day)	With Luke warm water after meal	Two months from first day of admission
<i>Yograj Guggulu</i> 500 mg	2 tablets twice in a day in the crushed form	With 40 ml <i>Dashmoola Kwatha</i> (decoction of ten herbs) before meal	Two months from first day of admission

**Assessment criteria**

1. VAS scale
2. Range of movement (ROM)

**RESULTS**

After completion of *Panchakarma* procedures and *Ayurvedic* management, he had no any stiffness and marked improvement was present in VAS scale and cervical Range of movement (CROM). [Table-3]

**Table 3: Assessment VAS Scale & ROM in degrees**

VAS Scale											
Pre						Post					
70						30					
ROM in degrees											
Flexion		Extension		Lateral flexion (LT)		Lateral flexion (RT)		Lateral rotation (LT)		Lateral rotation (RT)	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
20	45	15	40	15	35	15	35	20	45	25	45

**DISCUSSION**

In this disease *Samprapti* (pathogenesis) is at *Griva Pradesh* and is mostly associated with changes in cervical vertebral column. There is degeneration of inter-vertebral disc and lubrication function of *Shleshaka Kapha* is affected which results in compression, irritation or inflammation in *Griva Pradesh* resulting in pain. Therefore local *Snehana* and *Swedana* are very

effective and give quick result because they act at the site of *Samprapti*. *Griva Basti* is a procedure in which both the properties of *Snehana* and *Swedana* are incorporated. *Griva Basti* comes in direct contact with painful region. *Vata Dosha* is *Sheeta*, *Ruksha* and *Griva Basti* being *Snigdha* (unctuous) and *Ushna* in nature alleviates the disease. *Swedana* increases sweat and brings out *Mala Dravyas* along with sweat. It decreases *Kleda* in the body resulting in the reduction of *Gaurava* (heaviness), and

*Stambha* (stiffness). Application of therapeutic heat causes vasodilatation, because of which the blood circulation improve, resulting in the removal of catabolic waste such as lactic acid. As the blood circulation improves the anabolism increases as tissue receives the nutrients and oxygen promptly. Heat results in an increase in the local metabolism of the cell and increase transport through the cell membrane. For every increase in one degree Celsius within the physiological limits the metabolic activity increase by about 10%. Heat can improve the elasticity of fibrous tissue. The viscosity of matrix decreases, consequently connective tissue such as tendon tissue and ligament will also become more elastic. Because of *Griva Basti* the muscles supporting the cervical spine get strengthened. So pressure gradient on cervical spine gets reduced. *Dashamoola Taila* used for *Griva Basti* may help to lubricate the joints. Thus *Griva Basti* relieves pain and stiffness in the back, relieves swelling and inflammation in the back. *Griva Basti* with *Dashamoola Taila* may have nourished the joints of the neck region, pacified the *Dosha* causing pain or discomfort. *Nasya* used in *Urdhwajatrugata Roga*. *Nasya* enter in head region and pacify the *Dosha*.<sup>16</sup> *Nasya* with *Kshirabala Taila* helps in elimination of *Vata- Kapha Dosha* and clears obstruction in the channels. *Ashwagandha* gives strength to the muscles and ligaments and promotes the health. *Ashwagandha* possess *Rasayana* (immuno-modulator) and *Brahmana* (nourishes the bone and muscles) properties, so it is useful in all types of *Dhatukashya* (diminished of body tissue).<sup>17</sup> *Shatavari* is a promoter of the muscle strengths and health.<sup>18</sup> *Chopchini* is *Vedanahara* (pain relief), *Shothanashaka* (subside inflammation), very effective in *Vata Vyadhi* and able to carry drugs in *Sukshma Srotasa* (micro channel). So, it helps in decreasing the pain and facilitates the penetration of drugs to deeper tissues like *Asthi Dhatu*.<sup>19</sup> *Yograj Guggulu* is very effective in *Vata Vyadhi*. *Yograj Guggulu* increases the *Agni* (digestive power) and *Bala* (strength).<sup>20</sup> *Dashmoola Kwatha* is *Tridoshara* (alleviating all deranged *Doshas*), *Vedanasthapana* (pain killer) and *Shothahara* (subside inflammation).<sup>21</sup>

## CONCLUSION

The case report shows clinical improvement in cervical spondylosis with *Panchakarma* and *Ayurvedic* medicinal interventions.

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