

Ayurvedic Management of Cervical Spondylosis: A Case Study

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Abstract:

Cervical spondylosis is a degenerative condition and due to current life-style it is occurring in early to middle aged persons. A patient aged 44 years came to our institute with the complaints of pain and stiffness in the cervical region for one year and pain radiating to both upper limbs from seven months. Since one month she is having painful neck movements. She was diagnosed as a case of cervical spondylosis. MRI report suggested C4-C5 level asymmetrical disc protrusion, peridiscal osteophytes, and ligamentum flavum thickening causing thecal sac indentation and compression of bilateral exiting nerve roots. In this case study, effect of *Nasya*, *Manyabasti* and *Yogbasti krama* along with *shamana aushadhi*, *Yogaraja guggulu*, *Gokshuradi guggulu*, combination of *Devdaru* (*Cedrus deodara*), *Guduchi* (*Tinospora cordifolia*), *Gokshura* (*Tribulus terrestris*), *Punarnava* (*Boerhavia diffusa*), *Rasna* (*Pluchea lanceolata*), *Ashwagandha* (*Withania somnifera*), *Dashamoola kwatha*, *Mahavatavidhwans*, *Sameera pannag*, *Ekangweera ras*, *Sootshekhara*, *Lajari* (*Mimosa pudica*), *Khurasani owa* (*Hyoscyamus niger*) is evaluated. Patient got complete relief in neck pain and stiffness and radiating arm pain.

Key words: Cervical spondylosis, *Manyabasti*, *Nasya*, *Shaman aushadhi* *Yogabasti krama*

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Introduction:

Cervical spondylosis is degeneration of the intervertebral discs and osteophyte formation. [1] It is a degenerative condition and nowadays it's common due to current lifestyles like continuous sitting or standing postures, working on computers for hours and lack of exercise. It is becoming common in early to middle aged persons also. Cervical spondylosis or osteoarthritis of the cervical spine produces neck pain radiating to the shoulders or arms with headache

(posterior occipital region). Narrowing of the spinal canal by an osteophyte, ossification of the posterior longitudinal ligament or a large central disc may compress the cervical spinal cord. [2] Common causes of cervical spondylosis are bone spur, ie, overgrowth of bone, Dehydrated spinal discs, Herniated discs, Injury, Trauma, Ligament stiffness, overuse, etc. [3] Pathology starts at the intervertebral disc with degeneration of disc resulting in the compression of the cervical nerve along with

space reduction. It leads to pain ^[4], stiffness in the neck, pain radiating to shoulders, forearm, headache, vertigo, paresthesia at the base of the thumb, etc. ^[5] Age, gender, and occupation are the main risk factors for cervical spondylosis. ^[6] 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. ^[7] Analgesics and physiotherapy will help to a certain extent but are not the ultimate cure for cervical spondylosis. Surgeries are more expensive and again there are chances of recurrence as well. ^[8] In modern medicine treatment includes physical therapy (traction, exercise) NSAIDs, muscle relaxants, cervical collar, etc. ^[9] Cervical spondylosis can be correlated with *Griva Stambha* in an Ayurvedic perspective. ^[10] *Griva Stambha* is one of the eighty *Nanatmaj Vatavyadhi*. ^[11] 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* (horripilation), *Graham* (spasticity) of hands, back as well as the head, *Shosha* (atrophy) of body parts, *Spandana* (trembling of the body), *Gatrasuptata* (numbness), *Hundana* (shrinking) of head, nose, eyes, clavicles region and neck, *Bheda* (breaking pain), *Toda* (pricking pain), *Kampana* (trembling), *Bala Indriya Bhramsha* (loss of strength and sensory function), etc. ^[12] Cervical spondylosis may also be considered as *manyagata vata*, especially in degenerative condition. Pain during the movements, flexion-extension of a joint along with swelling and crepitation on joint movements is the typical clinical features of *sandhigatvata*. ^[13] We present a case that was successfully treated on the line of Ayurvedic management of *Vata Vyadhi*.

Case report:

A 44-year-old female patient tuition teacher by occupation consulted in the outpatient department, with the complaint of pain and stiffness in the cervical region for one year and pain radiating to both upper limbs for seven months. Before one month, she had a painful neck movement. She was diagnosed as a case of cervical spondylosis. She consulted neurological and orthopedic doctors in Mumbai and surgical intervention was advised, which the patient refused. She was advised to take analgesics and anti-inflammatory medications for pain management by a previous consultant. There was no history of hypertension, diabetes mellitus, tuberculosis, and any other serious illness. No relevant hereditary, congenital and surgical illnesses were found. On physical examination, the general condition of the patient was good, her pulse was 82/min, regular; BP was 120/90 mm of Hg; the respiratory rate was 18/min regular and the patient was afebrile. The tongue was clean, the voice was clear, the bladder habits were normal and the bowel constipated. She 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). The patient had a normal gait. The active movements of the range of the cervical spine was restricted. Pain aggravated on the movement of the neck. On examination, tenderness was found over C3, C4, C5, C6, and C7 vertebrae. All cranial nerves were well intact. There was no significant finding on lab investigations. Magnetic resonance imaging (MRI) of the cervical spine that was done on (07/11/2020), suggested C4-C5 level asymmetrical disc protrusion,

peridiscal osteophytes, and ligamentum flavum thickening causing thecal sac indentation and bilateral exiting nerve roots. C5- C6 level disc osteophytic complex and ligamentum flavum thickening causes thecal sac indentation.

Treatment plan:

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. *Manya Basti* is a type of *Mridu Snehana* & *Swedana*, was adopted for the patient. Three *Panchakarma* interventions were adopted to treat this patient. *Manya Basti* with *Sahachara Taila* For 14 days and *Nasya Karma* by *anu taila* for 14 days were administered and *yogabasti krama*. Along with these *Panchakarma* interventions, combinations of oral medicines such as *Yograja guggulu* 250mg 2TDS, *Gokshuradi guggulu* 250mg 2BD, *Rasnadi ashwagandha churna* 1gm each TDS, *Dashamoola kwatha* 30ml TDS combination of *Mahavatvidhwans*, *Sameera pannaga*, *Ekanagweera rasa*, *Sootshekharas*, *Lajari*, *Khurasano owa* each 60 mg BD. These oral medications were continued for the following 15 days after the completion of the *Panchakarma* schedule.

Yogabasti:

One course of *yogabasti* was administered for 8 days. During this period *sthanik snehana* and *swedana* was done.

Preparation and Doses of Basti -

Niruha Basti –

Dashmool kwath -700 ml

Tila taila-40 ml Honey -20ml

Saindhav lavan -1 gm

Anuvasana Basti- *Tila taila* Dose -80ml

Manyabasti:

Manyabasti is an ayurvedic procedure that is done primarily to pacify aggravated *doshas* in the neck region. It was done for 15 days. *Sahacharadi taila* is used for *Manya Basti* which has been indicated in the different types of *vata vyadhi*.^[14]

Nasya karma:

14 Days *Nasya Karma* with *Anu Taila*

Assessment criteria:

1. Neck pain -

- 0 Absent
- 1 Mild and intermittent pain
- 2 Moderate and bearable pain 3-Severe and unbearable pain

2. Neck stiffness -

- 0- Absent
- 1- Mild stiffness
- 2- Moderate stiffness with partially restricted movements
- 3- Severe stiffness

3. Pain in arm-

- 0 Absent
- 1 Mild intermittent pain radiating to arms
- 2 Moderate pain radiating to arms
- 3 Severe pain radiating to arms

3 VAS SCALE

Table 1: Treatment plan

Name of the Drug	Dose	Time
<i>Yograj guggulu</i>	250 mg	2TDS
<i>Gokshuradi guggulu</i>	250 mg	2BD
<i>Devdaru</i> (Cedrus deodara)	500 mg	3 gm TDS
<i>Guduchi</i> (Tinospora cordifolia)	500 mg	
<i>Gokshur</i> (Tribulus terrestris)	500 mg	
<i>Punarnava</i> (Boerhavia diffusa)	500mg	
<i>Rasna</i> (Pluchea lanceolata)	500 mg	
<i>Ashwagandha</i> (Withania somnifra)	1 gm	
<i>Dashamoola kwatha</i>	30ml	TDS
<i>Mahavatvidhwans</i>	Each 60 mg	BD
<i>Sameer pannag Ekangweer ras Sootshekhar</i>		
<i>Lajari</i> (Mimosa pidica)		
<i>Khurasani owa</i> (Hyoscyamus niger)		

Table 2: Type of Basti

Day	1	2	3	4	5	6	7	8
Type	A	N	A	N	A	N	A	A

Table 3: Observations:

Parameters	Before Treatment (17/11/2020)	After Treatment (05/01/2020)
Neck Pain	3	0
Stiffness	3	0
Pain In Arms	3	0
VAS	80	10

Discussion:

According to Ayurveda, the main etiological factor of *Manyastambha* is vitiated *Vata* and *Kapha Dosha*. In the present case study, treatment has been planned to manage cervical spondylosis with a prime focus to alleviate *Vata* and *Kapha Dosha*. *Snehana Karma* (Massage) Lubricates the *Srotansi* (microcirculatory channels) displaces exudates and thus may relieve tension and pain. Softens muscles, ligaments, and tendons. Thus, correct stiffness and rigidity and induces elasticity in the body. Prepares smooth passages (microchannels) for the elimination of vitiated *Doshas* during *Swedana* therapy. *Swedana Karma* (Sudation

fomentation heat), Induces sweating and removes body toxins. Induces *Srotoshuddhi* (cleanses microchannels), Liquefies morbid *Doshas* and expels them out with sweat. Recovers vascular insufficiency of the joints and muscles. Causes relaxation of muscles and tendons. Activates the local metabolic processes which in turn produce relief of pain, swelling, tenderness, and stiffness, etc. ^[15] Basti is very useful in painful disorders predominant of *vata*, *anuvasana*, and *niruhabasti* is advised for the management of pain. *Asthapanabasti* i.e., *Niruh Basti* with decoction removes vitiated *vata* thus relieves pain. ^[16]

Nasya used in *Urdhwajatrugata Roga*. Oil

poured in *Nasya* enters the head region and pacifies the *Dosha*.^[17] *Nasya* with *Anu Taila* helps in the elimination of *vata- Kapha dosha* and clears obstruction in the channels. *Manya Basti* is a procedure in which both the properties of *Snehana* and *Swedana* are incorporated. *Manya Basti* comes in direct contact with the affected region. *Vata Dosha* is *Sheeta*, *Ruksha*, and *Manya Basti* being opposite to *Vata Dosha Guna* i.e., *Snigdha* (unctuous) and *Ushna* in nature alleviates the disease. *Swedana* removes *Kleda* along with the sweat from body resulting in the reduction of *Gaurav* (heaviness) and *Stambha* (stiffness). Application of therapeutic heat causes vasodilatation, because of which the blood circulation improves, resulting in the removal of catabolic waste such as lactic acid. Heat increases the local metabolism of the cell and increases 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 the matrix decreases, consequently, connective tissue such as tendon tissue and ligament will also become more elastic. Because of *Manya Basti*, the muscles supporting the cervical spine get strengthen. So, pressure gradient on the cervical spine gets reduced. *Yograj guggulu* is very effective in *Vata Vyadhi* and *Asthi-Majjagata Vata Roga*. It increases the *Agni* (digestive power) and *Bala* (strength).^[18] *Yograj Guggulu* is superior for its *Amadoshaghna* property. It regulates the *Pachakagni* and digest the *Sanchitha ama* and stops the formation of new *ama*. *Gokshuru* is having *Mutrvirechniya* (diuretics) and *Shothahara* property. It is used in *jeerna sandhigata vata*. *Devadaru* due to its *tikta rasa* and *Ushna Virya* it is *Kaphashamaka* and *Snigdha Ushna Guna* it is *Vata Shamana* and hence it relieves pain (*Vedanasthapana*). *Guduchi* is

Tridoshashamaka, *Snigdha Ushna Guna*. It is *Vata Shamaka*, *Tikt Kashaya Rasa*. It is *Kapha Pitta Shamaka*. *Gokshura* is a *Vata-Pitta Shamaka* and pain reliever (*Vedanasthapana*). *Punarnava* is *Tridoshashamaka* and helps to reduce swelling. Due to *Madhura Tikta Kashaya Rasa* it is *Pittashamaka*. *Ushna Virya* it is *Vata Shamaka*. *Rasna Ushna Virya* is *Kaphavatashamaka*. It is the superior drug in *vatashamana* hence it is the best pain reliever (*Vedanasthapana*) *Amapachaka Rasayana Balavardhaka*. It reduces swelling. *Ashwagandha* is giving strength to the muscles and ligaments and promotes health. *Ashwagandha* possesses *Rasayana* (immuno-modulator) and *Brihana* (nourishes the bone and muscles) properties, so it is useful in all types of *Dhatukashya* (diminished body tissue).^[19] *Dashmoola kwath* is *Tridoshara* (alleviating all deranged doshas), *Vedanasthapana* (pain killer), and *Shothahar* (subside inflammation).^[20] *Mahavatavidhwansana rasa* is effective in vitiated *vata dosha*, and in neuritis (*vatavahini kshobha*) it brings equilibrium in *vata dosha*. It is mainly used in throbbing pain where the aim is to relieve the pain without *ama dosha sangrahana*. *Ekgaveer Rasa* is effective in *Vata kaphaj disorders* and *Pakshaghata* (hemiplegia).^[21] *Mahavatvidhwansa rasa* improves metabolism of CNS and PNS, co-ordinates neuromuscular activity *Sameerpannag rasa* is used in *Ardhangvata* and *Amavata*. *Sameerpannnaga rasa* is *kapha* and *kaphavataghna*. It is used in *Jeernavastha* like *Jeerna Pakshaghata*, *Apatanaka*, *Apatantrak*, *Jivhastambh*, *Hanugrah*, *Ardit*, *Dhanushkampa*. It is also used in the *vatavikar* where pain and stiffness are there. *Ekgaveer Ras* promotes healing of damaged nerves and blood vessels recanalize and activates a sensory and motor function. *Chopachini* is *Vedanahara* (pain relief), *Shothanashaka* (subside inflammation),

very effective in *Vata Vyadhi*, and able to carry drugs in *Sukshma Srotasa* (microchannel). So, it helps in decreasing the pain and facilitates the penetration of drugs to deeper tissues like *Asthi Dhatu*.¹²² *Sameerpannaga* improves tissue oxidation overcomes anoxia normalizes neuromuscular metabolism. *Sameerpannaga rasa* is *kaphavataghna* and it acts in *rasarakta* and *mansa*. It works on *vatavahini* (nerves). *Lajjalu* is *laghu* and *ruksha kashaya tikta rasa katu vipaka* and *sheeta virya*. It is used in *kapha pitta vikara*. It is used in *kapha pitta vicar*. It is used to reduced inflammation. It is a bone healing drug(*sandhananiya*). *Lajjalu*-regenerative effect on neuro lesions *Khurasani owa* is *Madak* and *Vedanasthapak Kapha Vata Shamaka* used to reduce pain and inflammation. *Khurasani Owa* checks neural irritation. *Sutshekhar* provides nutritional support for the faster healing of damaged organelles.

Conclusion:

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

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