



MANAGEMENT OF CERVICAL SPONDYLOSIS THROUGH AYURVEDA – A CASE STUDY

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Article Received on 18/07/2024

Article Revised on 07/08/2024

Article Accepted on 27/08/2024

ABSTRACT

Cervical spondylosis is a degenerative condition affecting the vertebrae and vertebral discs in the neck region, leading to pain and decreased range of motion. This article presents the case of a 42-year-old female who experienced a four-month history of neck pain and vertigo exacerbated by changes in posture. Despite using analgesic medication, her symptoms persisted, leading her to seek ayurvedic treatment. The diagnosis revealed mild grade 1 cervical spondylosis without significant wear and tear of the vertebral disc. The patient's condition, attributed to the vitiation of *Vatadosha* and *Khavaigunya* in the neck region due to habitual weight-carrying on her head, resulted in pain and decreased range of motion. The treatment focused on preventing further degenerative changes and pacifying *Vatadosha*. *Nasya* with *Prasarini Taila* was administered, given its efficacy in treating *Urdhvajatrughat Vikar*, along with oral medications including *Yograj Guggulu*, *Dashmoola Kwath*, *Avipattikar Churna*, and a combination of *Gokshur Churna*, *Punarnava Mandur*, and *Muktashukti Bhasma*. The therapeutic approach aimed to alleviate pain, reduce inflammation, hydrate the cervical disc, and enhance blood flow in the head region. This case highlights the potential benefits of integrating *Ayurvedic* practices in managing cervical spondylosis by addressing both symptoms and underlying pathophysiological mechanisms.

KEYWORD: *Ayurveda*, cervical spondylosis, *Greevastmbha*, *Nasya*, *Urdhvajatrughat Vikar*.

INTRODUCTION

Cervical spondylosis arises from osteoarthritis affecting the cervical spine, characterized by intervertebral disc degeneration and the formation of bony outgrowths (osteophytes). It can lead to neurological dysfunction, most commonly affecting the C5/C6, C6/C7, and C4/C5 vertebral levels, which impact the C6, C7, and C5 nerve roots, respectively.^[1] Progressive spondylitis changes may cause narrowing of the spinal canal, lateral recess, and neural foramina. Spinal canal narrowing can lead to myelopathy, while narrowing of the lateral recess and foramina may cause radiculopathy. As age advances, intervertebral discs lose hydration and elasticity, developing cracks and fissures.

The prevalence of cervical spondylosis is approximately 13.76%, varying significantly among urban (13.07%), suburban (15.97%), and rural (12.25%) populations. It is more common in females (16.51%) than males (10.49%).^[2]

Treatment typically involves analgesics and physiotherapy, providing symptomatic relief but not a definitive cure. Surgical interventions are costly and may result in recurrence.

In *Ayurveda*, cervical spondylosis correlates with "*Greevastambha* (~Cervical spondylosis)," categorized under "*Vatavyadhi*"^[3] and "*Urdhvajatrugata Vyadhi*." Management in *Ayurveda* focuses on principles specific to these conditions, aiming to alleviate symptoms and improve patient outcomes through holistic care strategies.

Patient information

In January 2024, a 42-year-old female from a middle socioeconomic background in Jaipur presented with a four-month history of neck pain and vertigo associated with changes in posture. The patient reported an inability to flex her neck and move it side to side. Despite taking analgesic medication as needed for pain, she experienced no significant relief. Seeking alternative treatment, the patient visited the National Institute of Ayurveda for

ayurvedic medication. There was no history of diabetes, hypertension, or any systemic disease, and no relevant family or psychosocial history.

Clinical finding

During the general examination, the patient exhibited signs of anxiety likely due to cervical pain, which significantly affected her daily activities. The musculoskeletal examination revealed no observable erythema, atrophy, rashes, scars, muscle wasting, joint swelling, or deformities in both the cervical and hand regions upon inspection. Palpation did not elicit warmth, tenderness, or nodules. Range of motion in the cervical region was notably diminished due to pain, as indicated in Table 1. The Spurling test yielded negative results. X-ray imaging demonstrated Grade 2 degenerative changes. Laboratory findings were within normal ranges. Pain severity was assessed using the Visual Analog Scale (VAS), while functional impairment was evaluated with the Neck Disability Index (NDI). Neurological examination showed normal reflexes, intact coordination, and no abnormalities in sensory or motor functions. Systemic examinations of the cardiac, genitourinary, and

respiratory systems revealed normal findings. Vital signs recorded included pulse of 70 beats per minute, blood pressure of 120/84 mmHg, a respiratory rate of 16 breaths per minute, and a temperature of 98.4°F.

In *Ayurveda*, the patient underwent the *Ashtavidha Pariksha* (eight-fold examination in *Ayurveda*). The *Nadi* (pulse) was recorded at 70 beats per minute. *Mala* (stool) consistency was normal but unclear, and *Mootra* (~urine) frequency was normal and clear. The *Jivha* (~tongue) was uncoated. There were no abnormalities in *Shabda* (~speech), *Sparsh* (~touch), or *Drik* (~vision). The patient's body build was *Madhyama Sharira* (~moderate physique). According to the *Dashavidha Pariksha* (~ten-fold examination), the patient has a *Vatta-Kapha Prakriti* (~constitution) and *Madhyama Sara* (~medium purity of body tissues), *Madhyama Samhanana* (~medium body build), *Sama Pramana* (~equal body proportions), *Avara Satmya* (least homologation), *Madhyama Sattva* (medium mental strength), *Madhyam Vyayam Shakti* (Medium physical endurance), *Madhyama Abhyavarana Shakti*, and *Jaraanshakti* (medium food intake and digestive power).

Timeline discussed in Table no 2 before treatment

Table no 1

Time	Incident of disease	Intervention
September 2022	Mild on-off neck pain, pain increase after exercise	Analgesic medication
November 2022	Continuously mild neck pain	Allopathic medication
30 December 2023	Continues neck pain, patient unable to move her neck side by side, and also difficulty in flexion and extension of neck	Allopathic medication
17 January 2023	Same condition as above, no relief with allopathic medication	<i>Ayurvedic</i> medication and <i>Nasya</i> treatment
31 January 2023	Patient got relief in pain and also increase rang of motion of cervical spine.	<i>Ayurvedic</i> medication continue
2 March 2023	Follow up, Patient felt relief in pain and no any difficulty in range of motion of cervical region	

Diagnostic assessment

The condition was diagnosed based on the patient's clinical presentation, which included decreased cervical range of motion leading to the diagnosis of cervical spondylosis. Laboratory tests revealed a negative rheumatoid factor (RA - 8.6) but elevated levels of C-reactive protein (CRP - 40) and erythrocyte sedimentation rate (ESR - 13.57). Absence of generalized body stiffness and pain occurring after exercise ruled out rheumatoid arthritis. X-ray imaging showed Grade 1 cervical spondylosis without structural abnormalities. In *Ayurvedic* terms, this correlates with "*Greevastambha*," characterized by pain and reduced range of motion throughout the neck region.^[4] Differential diagnoses considered was "*Manyastambha*."^[5] involving stiffness limited to the posterior neck region. Given the patient's symptoms, "*Greevastambha*" was confirmed as the final diagnosis due to its manifestation across the entire neck region. Mild degenerative changes were observed, and the patient, a middle-aged individual with no

comorbidities, adheres to *Pathyaahara* (appropriate diet) and *vihara* (lifestyle), contributing to a favourable prognosis.

Therapeutic intervention

Based on the diagnosis, *Greevastambha* is classified under *Nanatmaj Vatavikar*. Consequently, the treatment protocol was prescribed according to the principles of *Nanatmaj Vatavikar*. Since *Greevastambha* is an *Urdhvajatrughat Vikar*, *Nasya* treatment is considered the most beneficial for *Urdhvajatrughat Vikar*.^[6] Therefore, *Nasya* treatment was selected for 14 days and 16 *Bindu* each nostril. Additionally, the following oral medications were prescribed: *Yograj Guggulu* 750 mg BD, after food; *Dashmoola Kwath* 40 ml BD, after food; *Avipattikar Churna* 3 gm at bedtime; and a combination of *Gokshur Churna* 2 gm, *Punarnava Mandur* 250 mg, and *Muktasukti Bhasma* 250 mg, BD, after food. For 14 days.

Follow up and outcomes

After undergoing a 14-day course of *Nasya* treatment and medication, the patient experienced a reduction in neck pain and improvement in cervical range of motion, as documented in Table 2 after treatment. The Visual Analog Scale (VAS) score improved from 8 before treatment to 2 after treatment, indicating significant pain relief. The Neck Disability Index (NDI) score decreased from 23 (indicating moderate disability) before treatment to 4 (indicating no disability) after treatment, reflecting improved functional status.

The patient reported subjective well-being and expressed satisfaction with the treatment outcomes. Compliance with the comprehensive treatment regimen, which included dietary adjustments and lifestyle modifications, was strictly maintained. No adverse effects were reported, and overall, the patient expressed contentment with the therapeutic process.

DISCUSSION

The patient presented with no wear and tear in the vertebral disc, but an X-ray showed mild grade 1 cervical spondylosis. As a housewife engaged in household chores, she often carried weight on her head. In September 2022, she began experiencing mild neck pain, which worsened with exercise and became continuous during the winter. According to *Ayurveda*, this pain was attributed to the vitiation of *Vatadosha*.^[7] The habitual weight-carrying on her head caused *Khavaigunya* (structural weakness) in the neck region, leading to stress and the localization of *Vatadosha*, producing symptoms such as pain and decreased range of motion. The primary aim of treatment was to prevent further degenerative changes in the neck region and to pacify *Vatadosha*. *Nasya* with *Prasarini taila* was chosen as the main treatment, as *Nasya* is beneficial for *Urdhvajatrughat vikar*.

Although the exact mechanism of action of *Nasya* in reducing signs and symptoms is not well understood, an attempt was made to analyse its possible mode of action. Shaman *Nasya* is *Vatahar*, thus reducing pain. *Prasarini taila*, referenced in *Vaytavaydhiadhikar*, contains drugs with *Vatahar* properties and specific actions such as *Shoolhara* (pain relief). Due to *Vata*, the cervical disc becomes dehydrated, and *Prasarini taila* helps hydrate the dehydrated cervical disc.^[8] The reclined head position during *Nasya* increases blood flow in the head region, spreading the active principles of the drug above the clavicle region. *Prasarini taila*, instilled into the nose, stimulates the olfactory nerves and, through the olfactory pathway, stimulates the limbic system, thus activating neuropeptide pathways and relieving pain.^[9]

The mode of action of *Nasya* is explained in *Ayurveda* as follows: the instilled medicine moves up the channels to the *Shringaataka*, spreading all over the head, and channels of the eyes, ears, and throat, thereby removing doshas and curing diseases affecting the *Urdhva Jatru*.^[10]

Yograj Guggulu, described for *sandhimajjagat vataroga*.^[11] is a *vatashamak* medication and is therefore useful in painful conditions. *Dashmool Kwath* acts as a *shoolahara* (pain reliever) and *shothahara* (anti-inflammatory).^[12]

Avipattikar works as a *Vatanulomak* (regulating *Vata*) and purgative medication.^[13] The combination of *Gokshur Churna*, *Punarnava Mandur*, and *Muktashukti Bhasma* also addresses the pathophysiology due to their *Vatashamak* properties, *Shothahara* effects, and ability to nourish the vertebral disc. Consequently, this medication and *Nasya* are useful in breaking down the pathogenesis of cervical spondylosis.

Informed consent Taken

Table no 2

Assessment criteria	Before treatment	After treatment
Visual analogue scale	8	2
Neck disability index	23	4
Range of motion of cervical spine		
Extension	28	38
Flexion	42	68
Right lateral flexion	30	40
Left lateral flexion	33	40
Right rotation	50	68
Left rotation	55	70

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