

An Anatomical Exploration of *Manyastambha* W.S.R. to Cervical Spondylosis: A Review

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ABSTRACT

Manyastambha, a condition described in *Ayurvedic* literature, closely parallels the clinical presentation of cervical spondylosis in modern medicine. Characterized by stiffness and pain in the neck, *Manyastambha* is often attributed to vitiated *Vata* and *Kapha doshas* affecting the *Manya* (cervical) region. Cervical spondylosis, a degenerative disorder involving the cervical intervertebral discs and vertebrae, presents with similar symptoms including neck stiffness, radiating pain, and limited range of motion. This review aims to explore the anatomical and pathological correlations between *Manyastambha* and cervical spondylosis by examining classical *Ayurvedic* texts alongside contemporary anatomical and clinical findings. Through this integrative approach, the study highlights the potential of *Ayurvedic* diagnostics and therapeutic principles in understanding and managing cervical degenerative disorders. A comprehensive analysis reveals that the ancient descriptions of *Manyastambha* may serve as a foundational framework for early diagnosis and holistic treatment of cervical spondylosis, promoting a synergistic model of integrative healthcare.

Keywords: *Manyastambha*, Cervical Spondylosis, Ayurveda, Anatomy, Degenerative Disorders, *Vata Vyadhi*, Cervical Spine

INTRODUCTION

Manyastambha is listed among the eighty *Nanatmaja Vata* disorders.¹ According to Moenier Williams dictionary, *Manya* means the back or the nape of the neck. The meaning of the word *Stambha* is *Nischalikarana (Stambhana)*. *Stambha* refers to stiffness, rigidity, or lack of movement. Therefore, *Manyastambha* describes a clinical condition characterized by stiffness or rigidity at the back of the neck, resulting in restricted neck mobility.

According to *Sushruta Nidan Sthana*, due to day sleeping, sitting or standing in a particular position and gazing obliquely for a longer period, the *Vata* encroached by *Kapha* causes *Manyastambha*.² In this, the movement of the neck is impaired and causes stiffness.

cervical spondylosis is a degenerative disorder of the cervical vertebrae, in which the intervertebral disc deteriorates due to protrusion and bony overgrowth of surrounding vertebrae, narrowing the cervical canal and intervertebral foramina, causing compression of nerve roots, cords,

or both. It is sometimes achieved with non-compressive myelopathy as a result of vascular degeneration.³

Aims and Objective

- To explore Cervical Spondylosis (*Manyastambha*) from anatomical perspective.

MATERIAL AND METHODS

- Reviewed relevant *Ayurvedic* and contemporary anatomical literature.
- Referred to other print media, online information, journals, and magazines.

Greeva Sharira

The *Greeva* (neck) is an important anatomical structure that connects the head (*Sira*) to the torso. It is responsible for supporting the weight of the head, allowing for its movement, and protecting vital structures such as the spinal cord, nerves, and blood vessels. The *Greeva* is composed of various tissues and structures, including:

- ✧ ***Asthi* (Bones):** The cervical vertebrae form the bony structure of the neck.
- ✧ ***Sandhi* (Joints):** The joints between the cervical vertebrae provide flexibility and movement.
- ✧ ***Mamsa* (Muscles):** The muscles in the neck support its movement and stability.
- ✧ ***Snayu* (Ligaments and Tendons):** These provide additional support and stability to the neck.
- ✧ ***Sira* (Veins and Arteries):** The blood vessels in the neck supply blood to and from the head and brain.
- ✧ ***Dhamani* (Nerves):** The nerves in the neck transmit signals between the brain and the rest of the body.

Manyastambha

Manyastambha is a *Vataja Nanatmaja Vyadhi*. The symptoms may include *Ruk* and *Sthambha*, which can be correlated to

cervical spondylosis. The ICD (International Classification of Diseases) code for cervical spondylosis is ICD-9, 721.0. According to Ayurveda, the influence of *Vata* is more significant in association with *Dhatu Ksheenata*, i.e., debility of the tissues. This can be described as the acceleration of the degenerative process, ultimately leading to various spinal problems.

Ayurveda, the age-old Indian system of medicine, advocates for reliable disease management while protecting normal health. This is achieved using highly efficacious and easily accessible drugs based on the humoral theory. The *Ayurvedic* approach to managing *Manyastambha* focuses on retarding degeneration and strengthening the *Dhatu*s, with special importance given to pacifying the *Vata Dosha*.⁴

Background of *Manyastambha*:

- Charaka: Attributes *Manyastambha* to head injury (*Shiroabhighata*) and associates it with *Antharayama*.⁵
- Vagbhatt: Considers *Manyastambha* a symptom of *Antarayama* and recommends *Brimhana Nasya* for its treatment.⁶
- Sushruta: Describes *Manyastambha* as prodromal symptoms of *Apatank Vatavyadhi*, while Gayadasa views it as a separate disease due to its distinct causative factors.

Nidana:

The etiological factors with properties of *Vata* cause an increase in *Vata*. According to *Samanya Vishesh Siddhanta*, the principle is that the combination of similar properties leads to *Vridhhi* (increase), while dissimilar properties lead to *Kshaya* (decrease).⁷

Table no. 1 *Vishista Nidanas of Manyastambha*:

<i>Nidana</i>	S.S. ⁸	M.N. ⁹	B.P. ¹⁰	Y.R. ¹¹	V.S. ¹²
<i>Divasvapana</i>	+	+	+	+	+
<i>Asanasthana Vikriti</i>	+	+	+	+	+
<i>Urdhavanirikshana</i>	+	+	+	+	+

Roopa:

Ruk (pain) and *Stambha* (stiffness) are the primary clinical features of Manyastambha described in classical texts.

Table no 2 Samprapti Ghataka-

1. <i>Dosha</i>	<i>Vyana Vata, Shleshma Kapha</i>
2. <i>Dushya</i>	<i>Asthi, Majja, Sanyu, Mamsa</i>
3. <i>Agni</i>	<i>Agni Mandya Janya Ama, Asthi Dhatwagni Mandta</i>
4. <i>Srotas</i>	<i>Asthivaha Srotas</i>
5. <i>Srotodushti</i>	<i>Sanga</i>
6. <i>Udhhava Vyakta Avastha</i>	<i>pakvashaya</i>
7. <i>Sanchara Vyakta Avastha</i>	<i>Rasayani</i>
8. <i>Roga marga</i>	<i>Madhayama Rogamarga</i>
9. <i>Adhishthanam</i>	<i>Manya Pradesha</i>
10. <i>Vyakta Avastha</i>	<i>Manya Pradesha</i>

Vyavachedaka Nidana:

- *Avabahuka*
- *Vishwachi*
- *Amsashosha*

Manyastambha Chikitsa: ^{13,14}

Samprapti Vighatanam Eva Chikitsa - the methods or procedures which are used to break the chain of *Samprapti* is called as *Chikitsa*. *Chikitsa* is *Vyadhi Pratikara*. According to *Sushruta Nidana Parivarjana* is a form of *Chikitsa*.

Table no 3 Chikitsa of Manyastambha

<i>Chikitsa</i>	<i>B.P.</i>	<i>Y.R.</i>	<i>S.S.</i>	<i>B.R.</i>	<i>C.D.</i>
<i>Snehana</i>	+	-	+	-	-
<i>Swedana</i>	+	+	-	+	+
<i>Nasyakarma</i>	+	+	+	+	+
<i>Nasapanam</i>	+	+	-	-	-

Cervical Spondylosis

It is a degenerative disorder of the cervical vertebrae, in which the intervertebral disc deteriorates due to protrusion and bony overgrowth of surrounding vertebrae, narrowing the cervical canal and intervertebral foramina, causing compression of nerve roots, cords, or both. The vertebral levels C5/6, C6/7, and C4/5, as well as the C6-C7, and C5 roots respectively, are the most commonly impacted.¹⁵

Cervical Spine:¹⁶

The presence of foramina transversaria distinguishes the cervical vertebrae. Apart

from the coccygeal vertebrae, the bodies of cervical vertebrae are smaller compared to other vertebral bodies. There are three foramina in each cervical vertebra: one vertebral foramen and two transverse foramina.

The cervical spine has seven vertebrae:

- Typical - C3 to C6 Vertebrae
- Atypical - C1, C2, C7 Vertebrae

The atlas and axis, the topmost two vertebrae in the cervical spine, differ from the other vertebrae in that they are created specifically for rotation and are responsible for neck mobility in any direction.

Intervertebral disc (IVD):

The nucleus pulposus, annulus fibrosus, and cartilaginous endplate are the three anatomical regions that make up the IV disc. The outer fibrous ring contains fibrocartilage known as annulus fibrosus and an inner, smooth, pulpy, highly elastic matter called as nucleus pulposus. The nucleus is situated in the centre of the disc and enclosed laterally by the annulus and vertically by the endplate.¹⁷ The discs act as solid joints, allowing the vertebral spine to undergo several movements and absorb vertical shock.

Etiology:

Improper posture, anxiety, neck pressure, and occupational behaviours are also examples of etiological causes.

Clinical features:¹⁸

The majority of the time, there are no symptoms, but trauma can cause symptoms in certain people. Symptoms vary from person to person based on the location and severity of nerve pressure. Localised neck pain or neurological symptoms can be caused by protrusions.

- ✓ Neck region Pain
- ✓ Shoulder region Pain
- ✓ Medial scapular region pain
- ✓ Stiffness
- ✓ Radiculopathy (Root compression)
- ✓ Myelopathy (Cord compression)
- ✓ Combined root and cord compression
- ✓ Vascular insufficiency

Table no 4 Physical signs in Cervical Root Compression:¹⁵

Root value	Muscle weakness	Sensory loss	Reflex loss
C5	Biceps, Deltoid, Spinatus	Upper lateral arm	Biceps
C6	Brachioradialis	Lower lateral arm, Thumb, Index finger	Supinator
C7	Triceps, Finger & extensors Wrist	Middle finger	Triceps

Diagnosis

X-ray, CT scan, MRI, Myelography etc.

RESULT

The review of classical Ayurvedic literature reveals that *Manyastambha* is characterized by stiffness and restricted movement of the neck, often associated with pain and muscular rigidity. The condition is prominently discussed in texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, where it is described as a *Vatavyadhi* (disorder caused predominantly by aggravated Vata dosha).

On anatomical and clinical correlation, *Manyastambha* shares significant similarities with the modern medical condition cervical spondylosis, which involves degenerative changes in the cervical spine, including intervertebral disc degeneration, osteophyte formation, and facet joint arthropathy. These changes lead to neck pain, stiffness, limited range of motion, and in some cases, neurological symptoms due to nerve root compression.

DISCUSSION

Manyastambha (Cervical Spondylosis), a condition predominantly manifesting as stiffness, pain, and reduced range of motion in the neck region, as described in classical Ayurvedic texts. The disease is classified under *Vata Vyadhi* (Vata disorders) and is considered a *Vataja Nanatmaja Vikara*. The principal pathophysiologic process involves vitiation of *Vata*, frequently in association

with *Kapha*, which subsequently results in blockage of its normal movement (*Vata Gati*), causing stiffness (*Stambha*) and pain (*Ruk*) in the neck.

This understanding resonates with modern pathophysiologic mechanisms of cervical spondylosis, which predominantly involves age-related degenerative changes of the intervertebral discs, vertebrae, and associated structures. Furthermore, lifestyle factors, including poor posture, sustained sitting, heavy physical activity, stress, and faulty habits, contribute to the manifestation and progression of this condition.

Margavarodhaka Nidana refers to factors that block the normal movement of *Vata* within the body. This includes suppression of natural urges (*Vegadharana*), accumulation of *Ama* due to poor digestion, and excessive *Kapha* influence.

Marmaghata Nidana, or traumatic factors contribute substantially to the onset of *Manyastambha* direct injury to the neck, improper sleeping positions, or carrying heavy loads overhead can lead to damage of *Manya Siras* (neck veins) and disruption of cervical vertebrae, causing stiffness and restricted movement.

Cervical spine

The atlas (C1) and axis (C2) are particularly noteworthy due to their specialized structures. The atlas forms a bony ring with large lateral masses that enable extensive range of motion- especially forward, backward and side to side, while safely

retaining the spinal cord. The axis, meanwhile, is distinguished by its odontoid process (dens), which forms a pivot for rotation alongside the atlas. This arrangement underpins much of the rotation of the head.

Other cervical vertebrae (C3–C7) exhibit a typical structure with small, broad bodies, transverse foramina for vertebral arteries, and specialized processes for muscle attachments. The seventh cervical vertebra (C7) stands out due to its long, non-bifid spinous process, frequently called vertebra prominens.

The joints of the cervical spine include the atlanto-occipital, atlanto-axial, zygapophyseal (facet) joints, and intervertebral discs. These enable a range of movements- forward, backward, side bending, and rotation - while preserving stability under mechanical stress. The intervertebral discs act as shock absorbers and enable a degree of flexibility, while their structure - a tough annulus fibrosus surrounding a gelatinous nucleus pulposus - helps to evenly distribute pressures.

The anterior and posterior longitudinal ligaments, the ligamentum flavum, and the ligamentum nuchae support spinal stability by limiting excessive motion and safeguarding neural elements.

Cervical spondylosis

cervical anatomy emphasizes the structural vulnerability of the cervical region, particularly the intervertebral discs and foramina. The degeneration of these structures, combined with osteophyte formation, leads to progressive narrowing of the cervical canal and foramina, resulting in neurological symptoms like radiculopathy and myelopathy.

The anatomical differentiation of cervical vertebrae, particularly between atypical and typical vertebrae, sheds light on structural adaptations that influence mobility and vulnerability to degeneration. The existence of transverse foramina also introduces unique vascular implications that may complicate the disease process.

Blood Supply and Degeneration of Intervertebral Discs

The intervertebral disc (IVD) is a unique structure in the human body, characterized by its avascular nature, which fundamentally impacts its physiological function and degeneration. Unlike other tissues, adult discs lack a dedicated blood supply, relying on diffusion from surrounding capillaries to receive nutrients and eliminate metabolic waste.

Nutritional Transport and Degeneration

The cartilaginous endplate serves as a critical gateway for nutrient exchange, allowing substances to diffuse into the disc's nucleus pulposus. However, calcification of the endplate can impede this process, leading to decreased oxygen transport, accumulation of metabolic byproducts like lactic acid, and eventual disc degeneration.

The presence of nerves within the disc, particularly in the outer annular lamellae, suggests a sensory role that could be linked to disc related pain.

Biomechanical Consequences of Disc Degeneration

This loss of disc integrity has profound effects on adjacent spinal structures, including:

- Ligamentum flavum hypertrophy, contributing to spinal canal stenosis.
- Increased mechanical stress on epiphyseal joints, accelerating osteoarthritic changes.
- Decreased tensile forces in supporting ligaments, potentially worsening spinal instability.

Ligaments and Structural Support

Ligaments provide mechanical stability and restrict excessive spinal movement. Among these, the longitudinal ligaments located anteriorly and posteriorly are crucial in reinforcing the vertebral column and maintaining the positioning of intervertebral discs. The transverse ligament plays a specialized role in stabilizing the odontoid

process, preventing excessive displacement that could compromise with functions of spinal cord.

Physical and Neurological Examination

Clinical examination is essential for evaluating the extent of neurological deficits. The presence of tenderness, limited range of motion, positive cervical compression tests, and neurological signs such as Hoffman's sign and Spurling's test assist in determining nerve root involvement. Radiculopathy commonly manifests as pain that travels from the cervical region to the arms, while myelopathy is linked to progressive motor dysfunction and spasticity.

Radiological and Laboratory Assessments

Imaging techniques are fundamental in establishing the diagnosis of cervical spondylosis.

- X-ray helps detect disc space narrowing, osteophytes, and loss of cervical lordosis.
- CT scans provide detailed assessment of bony changes and stenosis.
- MRI is the gold standard, offering superior visualization of spinal cord compression and disc degeneration.
- Myelography is useful for detecting nerve root compression and canal narrowing.

CONCLUSION

The comparative review of Manyastambha and cervical spondylosis reveals a significant correlation between the Ayurvedic understanding of neck stiffness and its modern anatomical and pathological interpretation. Manyastambha, as described in classical Ayurvedic texts, provides a comprehensive explanation of the symptoms, doshic involvement, and probable etiological factors that align with the clinical features of cervical spondylosis. Anatomically, both conditions involve dysfunction and degeneration of the cervical spine, particularly affecting muscles,

ligaments, intervertebral discs, and nerve roots. By exploring these connections, it becomes evident that traditional Ayurvedic concepts can effectively complement modern diagnostic approaches. This integrative understanding not only enhances clinical insight but also opens avenues for holistic management strategies that address both the structural and functional aspects of cervical spine disorders. Further interdisciplinary studies are essential to validate and optimize the therapeutic potential of Ayurvedic principles in managing cervical spondylosis.

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REFERENCES

1. Pt. Kashinath Shashtri, Dr. Gorakhnath Chaturvedi. Charaka Samhita. Ch.1 Part 2. Varanasi: Chaukhambha Vishvabharati; Edition 2017. P.399.
2. Kaviraj Dr. Ambikadatt Shashtri. Sushruta Smhita. Su.1, Part 1. Nidana Sthan. Varanasi: Chaukhambha Sanskrit; Edition 2009. P.63.
3. API Textbook of Medicine, edited by Sainani G.S. published by Association of Physicians of India, Mumbai, 6th edition, Section 12, neurology 28; 829
4. Sharma, P.V. "Charaka Samhita," Chaukhambha Orientalia, 1981.
5. Pandey Gangasahay, editor. Pt. Kashinath Sastri Vidhyotini Hindi commentary on Caraka Samhita of Agnivesha- 2 nd volume, Chikitsa Sthan Vatavyadhi Chikitsadhayay chapter 28 verse 43. Varanasi: Chaukumba Bharti Academy; Reprint: 2013. P. 784
6. Pt Harisadashiva shastri paradakara, editor. Sarvang sundar commentary by Arundatta and Ayurveda rasayan commentary by Hemadri of Astanga Hridaya of Vagbhata, Nidana Sthan Vatavyadhinidana Adhayay chapter 15 verse 22. Varanasi: Choukhambha Surbharati Prakashan Reprinted; 2017. P.533.
7. Vriddha Vagbhata.Ashtanga Samgraha– with the Shashilekha Sanskrit commentary

- by Indu, 1st ed. Varanasi: Chowkamba Sanskrit Series Office; 2006. Sutra Sthana1/32.
8. Sushruta, Sushruta Samhita, the Nibandha Sangraha commentary by Dalhanacharya and the Nyayachandrika Panjika of Sri. Gayadasacharya on Nidana Sthana, edited by Vaidya Jadavji Trikamji Acharya and Narayanarama Acharya, Kavyatirtha, Varanasi:Chaukambha Sura bharti; reprint 2003. Nidana Sthana 1/67.
 9. Bhavamishra. Bhava Prakasha with Vidyotini Hindi commentary edited by Bhishagratna Pandit Shri Brahma Sankara Misra, 9th edition, Chaukhambha Sanskrit Bhavan, Varanasi, Madhyama khanda chapter 24/75.
 10. Yogaratnakara. With Vaidhya Prabha Hindi commentary, by Asha Kumari & Dr. Premvati Tewari, Chaukhambha Vishvabharati, Varanasi, 1st edition 2010, Verse 25/64
 11. Vangasena Samhita – with Hindi commentary, edited by Pt. Hariharprasad Tripathy, Chaukhambha Krishnadas Academy, Varanasi, 1st edition 2009, Verse 60/107.
 12. MadhavakaraMadhava Nidana with Madhukosa commentary by Vijayarakshita and Srikanthadatta– edited by Vaidya Yadavaji Trikamji Acharya, 6th edition 2001, Chaukhambha Orientalia. Varanasi, chapter 22 sloka 51.
 13. Govind Das. Bhaishajya Ratnavali with Vidhyotini Hindi Commentary by Shri Ambikadatta Shastri 18th edition, Varanasi, Chaukamba Sanskrith Bhavan, 2005, Vata Vyadhi.
 14. Bhavamishra. Bhava Prakasha with Vidyotini Hindi commentary edited by Bhishagratna Pandit Shri Brahma Shankara Mishra, 9th edition, Chaukhambha Sanskrit Bhavan, Varanasi, Madhyama Khanda chapter 25/75.
 15. College NR, Walker BR, Ralston SH (Editors), Allen CMC (author), Davidson's Principles & practices of medicine, Chapter 26th; neurological disease, 21st edition, Churchill Livingstone Elsevier publication, 2010; p. 1221.
 16. Brody A. Frost, Sandra Camarero-Espinosa, E. Johan Foster. Materials for the Spine: Anatomy, Problems, and Solutions. Materials (Basel) 2019 Jan;12 (2): 253. [PubMed]
 17. Balkover C, Adams M A, Dolan P, McGill, S. M. Annulus Fibrosis Can Strip Hyaline Cartilage End Plate from Subchondral Bone. A study of the Intervertebral Disk in Tension. Glob. Spine J. 2015,5, 360-365
 18. McRae Ronald, Clinical Orthopaedic Examination, Chapter 3; the cervical spine, 5th edition, Churchill Livingstone Elsevier publication, 2003; p. 34

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