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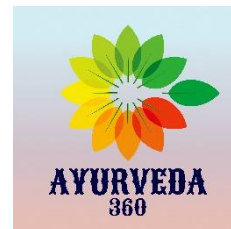
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Cervical Spondylosis as *Manyāstambha*: An Ayurvedic Review with Lifestyle and Yogic Recommendations

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ABSTRACT

Introduction: Cervical spondylosis is a common degenerative condition of the cervical spine, often characterized by neck pain, stiffness, and radiating sensations such as tingling or numbness from the shoulders to the fingers—typically due to nerve root compression. In the modern era, sedentary lifestyles, poor posture, prolonged computer usage, shift duties, irregular eating habits, and frequent travel contribute significantly to the development and progression of cervical spine disorders. In *Āyurveda*, a similar condition is described as *Manyāstambha*, one of the *Nānātmaja Vāta Vyādhi*. According to the *Suśruta Saṃhitā*, causes like daytime sleep, prolonged static postures, and continuous upward gazing disturb the balance of *Vāta* and *Kapha*, leading to stiffness and restricted movement in the neck. Clinically, *Manyāstambha* can be correlated with cervical spondylosis.

Methods: The present study is based on a thorough review of classical *Āyurveda* texts including *Caraka Saṃhitā*, *Suśruta Saṃhitā*, and *Aṣṭāṅga Hṛdaya*, alongside contemporary medical textbooks and published research articles. The focus was to explore the etiopathogenesis and symptomatology of *Manyāstambha* in light of cervical spondylosis and to understand the commonalities between *Āyurveda* and modern views on this condition


Results:

The literary analysis revealed that *Manyāstambha* closely resembles the clinical presentation


of cervical spondylosis. The involvement of *Vāta Doṣa*, especially *Vyāna Vāyu*, in the *Grīvā Pradeśa* (cervical region), is emphasized in *Āyurveda*. Additionally, *Śleṣaka Kapha* is often noted as an associated or supporting *doṣa* (*Anubandhī Doṣa*), contributing to the stiffness and reduced mobility of the neck.

Discussion : This study supports the conceptual correlation between *Manyāstambha* and cervical spondylosis, offering a dual understanding rooted in both classical *Āyurveda* principles and modern biomedical science. Recognizing this overlap opens pathways for integrative approaches in the management of cervical spondylosis, including *Āyurveda* therapies aimed at balancing *Vāta* and reducing stiffness. Further clinical studies are warranted to validate *Āyurveda* interventions in managing such degenerative spinal conditions effectively.

Keywords: Cervical Spondylosis, *Manyāstambha*, *Vātavyādhi*, *Grīvāstambha*, *Grīvāgatavāta Roga*, *Pathya* and *Apathya*

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Introduction

Cervical spondylosis is a degenerative disorder of the cervical spine, often referred to as “osteoarthritis of the neck.” It results from age-related changes in the intervertebral discs and adjacent vertebrae. As the intervertebral discs undergo dehydration and shrinkage, they may lead to disc protrusion and the formation of osteophytes (bone spurs) along the margins of the vertebral bodies. These structural alterations can cause narrowing of the spinal canal and intervertebral foramina, potentially resulting in cervical cord or nerve root compression [1].

Epidemiology

Cervical spondylosis is a highly prevalent condition, with radiographic evidence observed in approximately 13% of males by the third decade of life, increasing to nearly 100% by the age of 70. In females, the prevalence ranges from 5% in the fourth decade to 96% in women over 70 years of age. Radiographic changes are generally more severe in males than in females [2]. It is considered the most common cause of cervical cord and root compression in individuals over the age of 40, primarily due to degeneration of cartilaginous and ligamentous structures

of the cervical spine [3]. Hormonal factors also appear to play a role, with postmenopausal estrogen deficiency contributing to greater susceptibility in women [4].

Concept of Cervical Spondylosis in Āyurveda

In Āyurveda, cervical spondylosis can be correlated with the condition known as *Manyāstambha*. The term is derived from two Sanskrit roots: *Manya*, referring to the region of the neck, and *Stambha*, meaning rigidity or stiffness. According to *Aruṇadatta*, the commentator of *Aṣṭāṅga Hṛdaya*, *Manya* denotes the two *Nāḍīs* (nerves) situated laterally on either side of the neck. *Amarasiṃha*, the commentator of *Bhāva Prakāśa*, interprets *Manya* as the *śīrā* (vessel) located posteriorly in the neck. As per *Monier-Williams Sanskrit Dictionary*, the word *Manya* refers to the "nape" or "back of the neck," while *Stambha* is defined as *niścalīkaraṇa*, indicating stiffness or immobility.

Cervical spondylosis represents a midlife degenerative condition associated with progressive deterioration of the *dhātus* (tissues). *Ācārya Suśruta* enumerates various causative factors (*nidāna*) for *Manyāstambha*, including *divāsvapna* (daytime sleeping), which

aggravates *Kapha doṣa*, *upaveśanam* (improper posture while sitting or sleeping), and *ūrdhvardarśana* (frequent upward gazing) [5]. Additionally, *rātrijāgaraṇa* (night vigil) is said to provoke *Vāta doṣa*. The interaction of aggravated *Kapha* and obstructed *Vāta*—termed *Kapha-āvṛta Vāta*—is understood to result in the development of *Manyāstambha*.

Gadānigraha and *Harita Saṃhitā* also describe similar etiological and pathological frameworks for this condition. *Dalhaṇa*, the commentator of *Suśruta Saṃhitā*, elaborates that continuous upward gazing with improper neck posture causes microtrauma, eventually manifesting as neck rigidity. *Ācārya Caraka* mentions *śirobhighāta* (trauma to the head) as another contributing factor.

Various causes for *Vāta* vitiation relevant to *Manyāstambha* include:

- *Sva-prakopakā* (natural aggravators)
- *Mārgāvaraṇakāra* (obstructive factors)
- *Marmaghatakāra* (trauma to vital points)
- *Dhātukṣayakāraka nidāna* (tissue-depleting causes)

Clinical Features (*Lakṣaṇa*) of *Manyāstambha*

The cardinal signs and symptoms of *Manyāstambha* include:

- *Śirḥśūla* (headache)
- *Stambha* (rigidity or stiffness) in the *Manya* (nape of the neck)

These symptoms closely align with the clinical presentation of cervical spondylosis, including pain, restricted range of motion, and discomfort radiating to adjacent regions.

Pathogenesis (*Samprāpti*)

By the age of 60 years, a majority of individuals exhibit signs of spondylotic degeneration. This age-related transformation corresponds with *Vāta*-predominance, leading to increased vulnerability to disorders involving structural deterioration. The causative factors (*nidānas*) discussed above suggest the pathological involvement of *Vyāna Vāyu* in the *Grīvā pradeśa* (cervical region). This may manifest as muscular contraction, neurological deficits, and *Asthi-kṣaya* (degeneration of bony tissue) in the cervical vertebrae, thereby reinforcing the conceptual link between *Manyāstambha* and cervical spondylosis.

Figure No: 1 Showing Sampranti

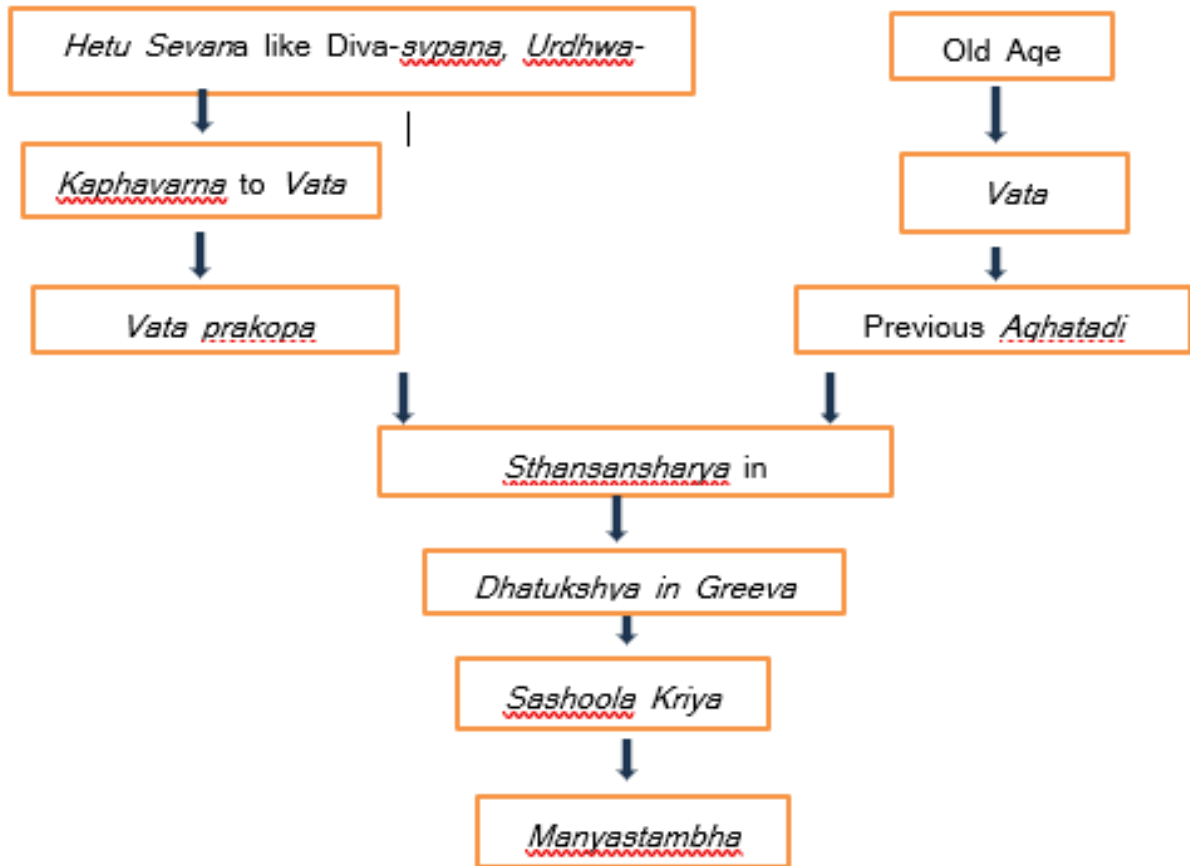


Table No 1: Differential Diagnosis of Manyastambha

<i>Parikshavidhi</i>	<i>Manyastambha</i>	<i>Avabahuka</i>	<i>Vishwachi</i>
<i>Nidana</i>	<i>Diwaswapna</i> (excessive sleeping during the day time) <i>Asamasthan</i> (sitting and standing in fixed position/uneven surface) <i>Urdhwa Neeriksha</i> (upward gaze in excess)	<i>Vata Doshaprakopaka</i> like- injury to the vital part of the body/carrying heavy load over the shoulders/over exertion in the joints etc.	<i>Vata Doshaprakopaka</i> like- injury to the vital part of the body/carrying heavy load over the shoulders/over exertion in the joints etc
<i>Purvaroop</i>	<i>Alpashula</i> in <i>Manya</i> (minor pain in the nape of the neck)	<i>Shoola</i> in <i>Manya Karna</i> (moderate to severe pain in the nape of the neck/Ear)	<i>Shoola</i> in <i>Talam Prutyanguli</i> (pain in palm and fingers)
<i>Roopa</i>	<i>Shoola & Stambha</i> in <i>Manya</i> (pain and stiffness in the nape of	<i>Shoola & Stambha</i> in <i>Prusta, Bahu Manya</i> (stiffness and pain in the nape of	<i>Kandara, Bahuprista</i> (constriction of tendon of palm & fingers, radiating pain

	the neck)	the neck/back of arm)	over the back of arm)
<i>Dosha</i>	<i>Vata kapha</i>	<i>Vata kapha</i>	<i>Vata</i>
<i>Adishthana</i>	<i>Manya pradesha</i> (the nape of the neck)	<i>Bahupradesha</i> (back of arm)	<i>Hastatalam</i> (tendon of palm & fingers)

Treatment Modalities in Āyurveda

According to Ācārya Suśruta, the foremost principle in the management of any disease is *Nidāna Parivarjana*—the avoidance of causative factors. *Manyāstambha* is classified under *Vātaja Vyādhi*, and hence, treatment principles applicable to *Vātavyādhi* are generally adopted.

To pacify the vitiated *Vāta* and associated *Kapha*, classical texts recommend a combination of therapies including *Snehana* (oleation), *Nasya* (nasal administration of medicated oils), *Rūkṣasvedana* (dry fomentation)(6) and *Kvātha* (herbal decoctions) prepared using formulations like *Daśamūla* and *Pañcamūla*.

External Therapies

- *Abhyanga* (therapeutic oil massage) with medicated *Taila* and *Ghr̥ta* is considered beneficial in reducing stiffness and improving mobility.
- *Kukkutāṇḍa Sveda* (fomentation using boiled hen's eggs) is specifically indicated. *Bhāvaprakāśa* describes a formulation where the entire egg is

heated with *Saindhava* (rock salt) and *Ājya* (clarified butter), and then applied over the *Grīvā pradeśa* (neck region) followed by *Mardana* (gentle massage) to alleviate *Manyāstambha*.

- *Rasōna Taila* (garlic-infused medicated oil), mentioned in *Caraka Saṃhitā*, is particularly effective as a *Vātahara* application.

Internal Therapies and Panchakarma

In cases where *Vāta* is obstructed by *Kapha*, *Caraka Saṃhitā* advises dietary modifications such as consumption of barley, and the meat of animals and birds dwelling in arid regions. Additionally, classical detoxification therapies like:

- *Snehana* (internal oleation)
- *Swedana* (fomentation)
- *Nirūha Basti* (medicated decoction enema)
- *Vamana* (therapeutic emesis)
- *Virecana* (therapeutic purgation)

are recommended to eliminate the aggravated *doṣas* and restore balance.

Medicated Formulations

1. *Nasya* (Nasal Medications): *Nasya* is particularly indicated in

Manyāstambha to relieve cervical rigidity and promote circulation to the head and neck region. Useful formulations include:

- *Gudādi Nasya*
- *Māśabalādi Nasya*
- *Kṣīrabala Taila*

2. *Guṭikā* (Medicated Pills):

- *Yogarāja Guggulu* – a classical *Vātahara* formulation widely used in *Vātavyādhi* including *Manyāstambha*.⁽⁷⁾

3. *Kvātha* (Decoctions):

- *Daśamūla Kaṣāya*
- *Pañcamūlī Kvātha*
- *Māśabalādi Kvātha*

These decoctions serve anti-inflammatory and analgesic purposes, supporting tissue regeneration and *doṣa* balance.

4. *Rasakalpa* (Mineral-Metallic Preparations):

- *Vāta Gajāṅkuśa Rasa*⁽⁷⁾
- *Vāta Vidhvaṃsa Rasa*
- *Vāta Kūlāntaka Rasa*

These *rasa* medicines are potent in pacifying chronic *Vāta*-induced disorders with neuromuscular involvement.

5. *Taila Kalpanās* (Medicated Oils):
Used for both *abhyanga* and *basti*, the following oils are therapeutically beneficial in *Manyāstambha*:

- *Nārāyaṇa Taila*
- *Prasāriṇī Taila*
- *Māśabalādi Taila*
- *Mahāmāṣa Taila*

• *Gandha Taila*

Topical Applications

According to *Bhaiṣajya Ratnāvalī*, *Aśvagandhā Lepa* (paste) is advised as an external application over the *Grīvā pradeśa* for its anti-inflammatory and *balya* (strengthening) properties.

Role of Yogic Practices and Diet in the Management of *Manyāstambha* (Cervical Spondylosis)

Yogic Practices Beneficial in Cervical Spondylosis

Yogasana and related practices have been shown to improve flexibility, enhance muscular strength, increase endurance, and reduce stiffness and pain in individuals with cervical spondylosis. Regular practice, when performed mindfully and under supervision, can contribute to both prevention and rehabilitation. It is advisable to begin with *Sūkṣma Vyāyāma* (subtle joint movements) to prepare the body.

1. Neck and Spinal Exercises:
Gentle neck movements—such as flexion, extension, lateral bending, and rotation—help in mobilizing the cervical joints, reducing stiffness, and improving blood circulation. These should be practiced slowly and consciously to avoid any strain.
2. Selected *Āsanās* for Cervical Spine Health:

The following postures are particularly recommended:

- *Tāḍāsana*, *Ūrdhva Hastottānāsana*, *Kati-chakrāsana*, *Ardha-chakrāsana*, *Koṇāsana*
- *Vajrāsana*, *Uṣṭrāsana*, *Vakrāsana*, *Ardha Matsyendrāsana*, *Mārjarī-āsana*
- *Gomukhāsana*, *Uttāna Maṇḍūkāsana*, *Sarala Matsyāsana*, *Bhujāṅgāsana*
- *Śalabhāsana*, *Dhanurāsana*, *Makarāsana*, *Śavāsana*

These postures promote spinal alignment, muscular balance, and release of muscular tension in the cervical region.

3. Prāṇāyāma (Breathing Practices):

- *Nāḍī Śuddhi* (alternate nostril breathing)
- *Sūryabhedana* (right nostril breathing)
- *Bhrāmarī* (humming bee breath)

These techniques assist in calming the nervous system, balancing *doṣas*, and improving oxygenation.

4. Meditation (*Dhyāna*):

- Breath awareness
- *Oṃ* chanting
- *Oṃ* meditation

Such practices enhance mental relaxation and are known to reduce the perception of pain and stress associated with chronic conditions like cervical spondylosis.

5. Special Yogic Techniques:

- *Yoganidrā* (yogic sleep)
- *Antarmauna* (inner silence meditation)

These are deep relaxation techniques that help in resetting the autonomic nervous system, reducing muscular tension, and improving overall wellbeing.(8)

Pathya-Apathya in the Management of Manyāstambha

While there are no *specific* dietary regulations prescribed solely for *Manyāstambha* in the classical texts, it is categorized under *Vātavyādhi*, and thus, the general dietary guidelines for *Vāta* management apply.

Table No 2: Pathya-Apathya for Manyāstambha(9)

Factor	Pathya(wholesome)	Apathya(unwholesome)
<i>Sneha</i> and others	<i>Sarpi</i> (old cow's ghee) <i>Vasa</i> (fats) <i>Taila</i> (oils) <i>Majja</i> (bone marrow) <i>Gritha</i> (cow's ghee) <i>Dugdha</i> (cow's milk) <i>Dadhi</i> (curd) <i>Kurchika</i> (cheese like substance derived from curd)	-

<i>Harita, Shakha, Shimbhi and Phala varga</i>	<i>Kulatha(chickpea) Masha(black gram) Godhuma(wheat) Raktashali(red rice) Patola(pointed gourd) Vartaka(brinjal) Dadima(pomegranate) Parushaka(falsa) Badara(jujube) Lashuna(garlic) and Draksha(grapes)</i>	<i>Chanaka(gram) Kalaya(pea) Shyamaka (Echinochloa frumentacea) kuravinda, mudga(green gram) rajamasha(special black gram) Guda(gegry) Jambuka(Syzygium cumini) Kramuka(betel nut) Mrinala(leaf-stalke of blue totus) Nishpava(flat bean) Taalaphala(palmyra palm) Shimbi(pulses) Shaka(green vegetabels) Udumbara(cluster fig)</i>
<i>Mansa verga</i>	<i>Kukkuta (cock)</i>	<i>All jangala mamsa varga</i>
<i>Raspradhan</i>	<i>Madhura(sweet) Amla(sour) Lavana (salt)</i>	<i>Kashaya(astringent) Katu(pungent) Tikta(bitter)</i>
<i>Manasika</i>	<i>Sukha (Happiness)</i>	<i>Chinta(anxiety) Prajagaran (staying awake at night)</i>
<i>Vihara</i>	<i>Snehana(medicated oleation therapy) Swedana(medicated steam therapy) Snehapana(intake of medicated ghee) Snana(medicated bathing) Abhyanga(medicated oil massage) Rechana(purgation) Mardana(pressure massage) Basti (the introduction of herbal decoctions and medicated oils into the colon through the rectum) Avagahana(tub bath) Samvahana(external oliaition therapy) Agni-karma(therapeutic heat burn) Upanaha(poultice) Tailadroni(specialized wooden bed) Shiobasti(intensive herbal oil bath for head) Nasya(administration of herbal oil/medicated powders/decoction through the nasal passage) Santarpana(process of nourishing the body) and Brimhana (nourishing/strengthening the body)</i>	<i>Vyavaya(sexual intercourse) Ativyayama(over exercise) Basti(the introduction of herbal decoctions and medicated oils into the colon through the rectum) Ashvayana(horse riding) Chankramana(walking) Vegadharana(forceful suppression of natural urges) Chardhi(vomiting) Shrama(exhausation)</i>

Figure No 2



Discussion

Cervical spondylosis is a degenerative disorder of the cervical spine and does not correspond exactly to a single disease entity in Ayurveda. However, it can be closely associated with conditions such as *Grīvahundana*, *Grīvāstambha*, and *Viśvācī*, based on overlapping symptomatology.

From the Ayurveda perspective, multiple causative (*nidāna*) factors contribute to the aggravation of *doṣas* and subsequent development of *Manyāstambha*. These include:

- **Dietary factors** such as the regular intake of *kaṭu* (pungent), *kaṣāya* (astringent), *tikta* (bitter), *rūkṣa* (dry), *laghu* (light), and

śītavīrya śuṣka āhāras (cold and dried foods), as well as irregular eating habits like *ādyāśana* and *viśama āśana*.⁽¹⁰⁾

- **Physical factors** such as prolonged study or desk work (*adhyayana*), falls (*prapātana*), excessive running (*pradāvaṇa*), undue pressure on the neck (*prapedana*), night shifts (*rātrijāgaraṇa*), heavy lifting (*atibhāraṇa*), and frequent travel.⁽¹⁰⁾
- **Psychological factors** including *krodha* (anger), *bhaya* (fear), and *śoka* (grief or emotional stress), all of which disturb the doshic balance [10].

The cervical region is considered the *sthāna* of *kapha doṣa*, characterized by qualities such as *snigdha* (unctuous), *śīta* (cold), *guru* (heavy), *ślākṣṇa* (smooth), and *sthira* (stable), associated with the dominance of *prthvī* and *jala mahābhūtas*. When *vāta*—possessing opposite properties—gets aggravated due to the aforementioned factors, it vitiates the *kapha sthāna*, leading to rapid degeneration of cervical tissues. Clinically, this manifests as *karṣṇya* (discoloration from disc dehydration), *balahāni* (muscle weakness), *nidrāhāni* (disturbed sleep), *indriyabhramśa* (sensory and motor deficits), *bhrama* (dizziness), *asthiśūla*

(bone pain), and *majjāśoṣa* (degeneration of bone marrow).

Further degenerative changes such as *śraṁsa* (disc prolapse), *pāruṣya* (loss of disc elasticity), *śaukṣīrya* (osteophyte formation), and *śyāva-arūṇa varṇatva* (dark discoloration due to disc dehydration) are corroborated by radiological findings [11][12].

The Ayurveda line of treatment primarily aims to reverse or arrest *vāta* aggravation, enhance lubrication (*snehana*), and reduce degeneration. These principles are in line with modern research, which emphasizes the role of oxidative stress in intervertebral disc degeneration. The inhibition of RANKL receptor activation and TNF-α expression has emerged as a promising approach to delay or prevent bone degeneration. Antioxidant supplementation, therefore, plays a critical role in neutralizing free radicals and reducing oxidative stress.[13] In Ayurveda, therapeutic formulations and procedures that possess antioxidant properties, *vāta-hara* (*vāta*-pacifying), and *prthvī-jala* dominant attributes are ideal choices. *Snehana*—both internal and external—is considered the first line of management in such *vāta-vyādhis*.

Conclusion

Manyāstambha, which aligns closely with cervical spondylosis in modern medical understanding, is a degenerative

condition increasingly prevalent in the present era. The disease process involves the vitiation of *Vāyu*—specifically *Vyāna Vāyu*—often associated with *Śleṣaka Kapha*. The chronic nature of this condition affects not only physical health but also the socioeconomic and psychological well-being of individuals.

The pathology involves *mārgāvarodhaja vāta prakopa* (obstruction-induced vāta aggravation), leading to the degeneration (*kṣaya*) of *asthi* and *snāyu*, manifesting as structural and functional

abnormalities in the cervical spine. Management involves a multidimensional approach: internal and external *snehana*, *swedana*, *nāsyakarma*, *abhyanga*, *rūkṣa sweda*, and the application of medicated *lepas* have all shown effectiveness in clinical practice.

Holistic integration of Ayurveda treatments, yogic practices, and dietetic modifications may provide a sustainable and individualized approach in the long-term management of *Manyāstambha*.

References:

1. McCormack B, Weinstein P. Cervical spondylosis - An update. The Western journal of medicine, Nov 30, 1995; 165: 43–51.
2. BD Chaurasia's Human Anatomy, Garg K. 8th ed. Vol. volume 3. New Delhi: CBS Publishers and distributors Pvt Ltd.
3. Brain WR, Northfield D. Wilkinson M: The neurologic manifestations of cervical spondylosis. Brain, 1952; 75: 187-225.
4. Riggs BL. The mechanisms of estrogen regulation of bone resorption. J Clin Invest, Nov, 15, 2000; 106(10): 1203-4.
5. *Sushrutasamhit,a Nidansthana Vatavyadhi nidana* 1/67 Available from: <https://niimh.nic.in/ebooks/esushruta> (Accessed April 15 2025)
6. *Sushrutasamhita, Chikitsa Sthana Maha-vata-vyadhi* 5/20 Available from: <https://niimh.nic.in/ebooks/esushruta> (Accessed April 15 2025)
7. Baishajya Ratnavali by Sri Govinda Das Volume 2, edited by Brahma Shankar Misra, Commented by Ambikadutta Shastri, Varanasi, Chaukhamba reprint 2023, Vatavyadhi, Chapter 26/102 -115
8. Yogic management of cervical spondylosis- Morarji Desai National Institute of Yoga.
9. Bhavaprakash Nighantu's Madhyam Khanda, Dravya verga Chapter 24 /77, Available from: <https://niimh.nic.in/ebooks/>

- [e-Nighantu/bhavaprakashanighantu](#)(
Accessed April 15 2025)
10. Priyavrat Sharma, Susrutha Samhita with English translation and Dalhana's commentary). 2020th ed. Vol.2, Varanasi: Chaukhamba Visvabharati Sutrastana 21/19, p.- 231.
11. *Astangahridaya* Vagbhata Sutrastana Doshadi vijnaniya adhyaya 11/5,6 Available from: <https://vedotpatti.in/samhita/Vag/ehrudayam> (Accessed April ,15 2025)
12. *Astangahridaya* Vagbhata Sutrastana Doshabhediya 12/ 49-50 Available from: <https://vedotpatti.in/samhita/Vag/ehrudayam> (Accessed April 15 2025)
13. Sendur OF, Turan Y, Tastaban E, Serter M. Antioxidant status in patients with osteoporosis: a controlled study. Joint Bone Spine, Oct, 2009; 76(5): 514–8