

Research Paper



Cervical spondylosis: An Ayurvedic review

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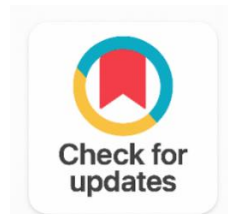
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ABSTRACT

Background: Cervical spondylosis is the common terminology for ageing related wear and tear of the neck that can cause pain, stiffness and tingling sensation with radiating pain etc. It is also called Neck Arthritis or Osteoarthritis of the cervical spine. It is characterized by bone spurs formation and Intervertebral disc degeneration.

Objective: It is often co-related with Manyastambha in Ayurvedic prospective.

Results: Manyastambha has been described in various Ayurvedic literatures. It is a Vataja nanatmaja vikara (disease) in which causes ruka (pain), toda, stambha (stiffness with restricted movements) occur in Manya Pradesh (Neck region).

Conclusions: Manyastambha (Cervical Spondylosis) is a degenerative disorder by which a greater population gets impacted in the present period. Both Manyastambha and Cervical Spondylosis are similar in their pathogenesis and clinical presentation. The Doshas involved are Sleshmaka Kapha and Vyana Vata. Nasya, Ruksha Swedana, Abhyang and Lepa have better results in the management of disease.

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1. INTRODUCTION

Cervical Spondylosis is the common terminology for ageing related wear and tear of the neck that can cause pain, stiffness and tingling sensation with radiating pain etc. It is also called Neck Arthritis or

Osteoarthritis of the cervical spine. It is the resultant of Osteoarthritis of cervical spine. It is characterized by bone spurs formation and Intervertebral disc degeneration [1]. It is often co-related with Manyastambha in Ayurvedic prospective. It has been described in various Ayurvedic literatures. The terminology Manyastambha is derived from two distinct words - Manya and Stambha. As indicated by Arunadatta, the commentator of Ashtang Hridaya significance of the word Manya is 2 Nadis, along the side to neck. While Amar Singh, the commentator of Bhava Prakash recommends that Manya is that Sira which lies on back side of the neck. It is a Vataja nanatmaja vikara (disease) in which causes ruka (pain), toda, stambha (stiffness with restricted movements) in Manya Pradesh (Neck region). Stambha is one of the clinical features of the vata vikara [2].

1.1. Cervical Spondylosis

It is characterized by the degeneration of intervertebral disc, cervical spine, resulting in formation of bony spurs, the thickening of ligaments and hypertrophy of adjoining joints. The commonest symptom is pain in the neck, which is deteriorating with physical exertion and within the beginning phases, relieved by rest. It is more common in males as comparison to females [3].

1.2. Epidemiology

The International incidence of cervical spondylosis is 2.5 cases per 1000 population. [4] While in India, incidence is 3.5 cases per 1000 population. [5] It is determined by the age of 70 approximately 100 percent of male, 96 percent of female will have some degree of Cervical spondylosis. [6] Most frequently occurs in office and computer users.

1.3. Causes

The exact cause of cervical spondylosis is not fully understood, but it is believed to be caused by a combination of factors, including age, genetics, lifestyle, and environmental factors. As people age, the intervertebral discs in the cervical spine begin to degenerate, leading to a loss of water content and a decrease in disc height. This condition is known as Dehydration of discs. Repetitive stress and trauma such as from heavy lifting on their heads or shoulders, gymnastic and sports injuries leads to Herniation of discs or Disc bulge. [7] Degeneration also results in Bone spurs (Osteophytes). Genetic factors also play a role in the development of cervical spondylosis, as some individuals may be predisposed to degenerative changes in the spine.

1.4. Signs and Symptoms

The symptoms of cervical spondylosis can vary depending on the severity of the condition and the location of the affected vertebrae. It is frequently occurred and radiological changes are commonly present in asymptomatic individuals above age of 50. The most common symptom is neck pain, which can range from mild to severe and may be accompanied by stiffness and muscle weakness. [8] Pain may also radiate to the shoulders, arms, and hands, and can be worsened by certain movements, such as turning the head or bending the neck. Tingling, numbness, and weakness in the arms and hands are also common, and may be indicative of nerve compression. In severe cases, cervical spondylosis can lead to spinal cord compression, which can cause symptoms such as difficulty walking, loss of bladder or bowel control, and loss of fine motor skills.

1.4.1. Diagnosis

- **X-Ray:** It describes curvature of the spine, space between the vertebral bodies and bone spurs.
- **CT scan:** It gives more illustrated imaging, especially of bones.
- **MRI:** It can assist with recognizing the region where nerve may be squeezed.
- **Myelography:** A tracer dye is infused into the Spinal Canal to give more illustrated X-Ray or CT imaging.
- **Electromyography (EMG) and Nerve Conduction Studies (NCS):** These can also be used to evaluate nerve function and detect any abnormalities.

1.4.2. Treatment

The management of cervical spondylosis depends on the severity of the condition and the presence of symptoms. Common treatments protocols for cervical spondylosis include: - [9]

- **Take Rest:** To relieve from the muscle spasm and acute pain, individual should take complete rest for the specific duration.
- **Conservative Treatment:** Over-the-counter pain relievers, such as acetaminophen or Non-steroidal anti-inflammatory drugs (NSAIDS), can help relieve pain and reduce inflammation.
- **Neck Collars:** It immobilizes the neck and provides support during the healing process.
- **Cervical Traction:** It aids to distract the cervical bones and regain the lost intervertebral space.
- **Cryo Therapy:** Initially the first 24 - 48 hours, Ice is ideally considered to relieve spasm and pain.
- **Surgery:** In severe cases, surgery may be necessary to remove bone spurs or herniated discs that are putting pressure on the spinal cord or nerves. Eg. Cervical laminectomy, Cervical discectomy etc.
- **Physiotherapy:** It plays vital role in both acute and chronic condition.
- **Exercise:** Some Isometric strengthening exercises are done to prevent the muscles of neck from atrophying such as Forward, Backward and Sideward etc.

1.5. Concept of Cervical Spondylosis in Ayurveda

As per Monier William, 'Manya' signifies the back or nape of the neck. The word significance of Stambha is Niscalikarana. Stambha implies stiffness or inflexibility. Acharya Charak has explained Manyastambh as Vataja nanatmaja vikara in Sutrasthana. [10] As Vayu is responsible for all the activities in the body and hence it is an active principle of the body but pathology is generated in its vikrit awastha. [11] Acharya Sushruta has also described in Chikitsasthana and Nidanasthana. The Nidana of Manyastambha are Diwaswapna (Due to day time sleeping), Upaveshanam (wrong sleeping area), Urdhwaneerikshna (watching downwards and upwards for the long time) causing over stretching of cervical area resulting into tridosha prakopa. The imbalanced doshas obstructs the passage of Vata leading to ruka (pain), toda, stambha (stiffness with restricted movements) in Manya Pradesh (Neck region) [12].

1.5.1. Factors Causes Vitiation of Vata

- Swaprakopaka Nidana
- Margavrodhaka Nidana
- DhatuKshyakara Nidana
- Marmaghatkara Nidana

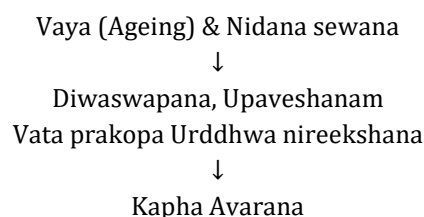
1.5.2. Differential Diagnosis of Manyastambha

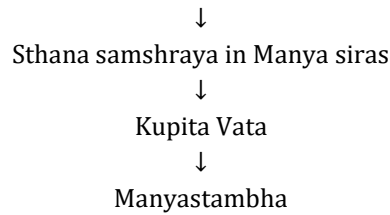
- Vishvachi (Radio-ulnar neuritis)
- Avabahuka (Frozen shoulder)

1.5.3. Lakshana of Manyastambha

- Ruka (pain)
- Bhrama (vertigo)
- Shirashoola (headache)
- Hasta chimchimayan (numbness and tingling sensation in hands)
- Stambha (stiffness with restricted movements)

1.5.4. Samprapti





1.5.5. Samprapti Ghatakas

- **Dosha:** Vyana vata, Sleshma kapha
- **Dushya:** Asthi, Majja, Sanyu, Mamsa
- **Agni:** Manda Agni
- **Srotas:** Asthi Vaha Srotas
- **Srotodusthi:** Sangha
- **Udhhbhvasthana:** Pakwasaya
- **Roga marga:** Madhayama Marga
- **Adhishthana:** Manya Pradesha
- **Sadhyasadhya:** Naveena - sadhya / kricchassadhya, Jeerna - yapy / asadhya

1.6. Treatment Modalities in Ayurveda

Acharya Sushruta has mentioned the Nidana Parivarjana is the primary line of treatment. While, Acharya Charaka has expanded the extent of Chikitsa by explaining: The aim of Chikitsa is not just the less exposure to the pathogenesis factors, but also the regaining of Doshas Samyawastha. Initially, just inflammation is seen and later on, degeneration changes are seen. Ruksha Sweda is applicable just in the inflammatory stage, while in degenerative stage, Vata calming medicines and Brumhana Nasya are more valuable. Nasya Karma is one of the significant Panchkarma basically for Urdhwajatrugata vikara. [13] Acharya Charaka referenced the Snehan and Swedan as the prime treatment for the vata disorders. [14] Greeva basti is done for the bahya snehan and swedan which assists in alleviating lakshana such as ruka, toda, shoth, stambha. [15] Both Nasya and Greevabasti can be the better options for treatment purpose. Especially Vatakapha nashaka Nasya and Ruksha Sweda are used in treatment. [16] Manyastambha is depicted as Vataja vyadhi, Treatment of Vatavyadhi are frequently choosen. To keep Vata and Kapha in balance, Snehana, Nasya, Rukshaswedana and Kwatha made up of Dashamoola, Panchamoola are administrated. [17] Abhyanga with Ghrita and Taila, Abhyanga with Kukkutanda Drava Sweda. In Bhava Prakasha, Kukkutanda dravdi yoga is mentioned which has Kukkutanda with its ingredients is warmed with Saindhava and Aajya (Ghritha) and directly applied to the Greeva and the Mardana is performing to relieve the Manyastambha [18].

1.6.1. Indication of Some Formulations in Manyastambha [19]

- **Lepa:** Ashwagandha Lepa
- **Nasya Yoga:** Mashabaladi Nasya, Gudadi Nasya, Ksheerabala Taila, Mahanarayana Taila
- **Guggulu:** Yogaraja Guggulu
- **Kashaya:** Mashabaladi Kashaya, Dashamoola Kashaya, Panchamoola Kashaya
- **Rasakalpas:** Vata Kulanatak Rasa, Vata Gajankusha Rasa, Vata vidhwamsa Rasa
- **Taila Kalpanas:** Gandha Taila, Mashabaladi Taila, Narayana Taila, Prasarini Taila, Mahamasha Taila.

2. CONCLUSION

Manyastambha (Cervical Spondylosis) is a degenerative disorder by which a greater population gets impacted in the present period. Both Manyastambha and Cervical Spondylosis are similar in their pathogenesis and clinical presentation. The Doshas involved are Sleshmaka Kapha and Vyana Vata. This problem impacts the financial state of individual and family and furthermore hampers the personal life.

Margavrodhjanya Vata Prakopa leads to Kshaya (degeneration) of Snayu, Asthi bringing about physical changes in Manya pradesha (Cervical area). Generally, Snehan and Swedana are mainly utilized as a Chikitsa of Vata Vyadhi. Nasya, Ruksha Swedana, Abhyang and Lepa have better results in the management of disease.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Rahul	✓	✓	✓	✓		✓		✓	✓	✓	✓		✓	
Palak Chaudhry	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓

C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Informed Consent

All participants were informed about the purpose of the study, and their voluntary consent was obtained prior to data collection.

Ethical Approval

Not Applicable.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

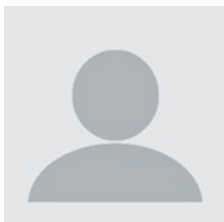
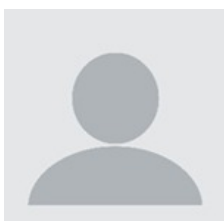
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