Study of Nidan (Etiological Factors) Responsible For Manyastambha With Respect To Cervical Spondylosis in Present Era – A Study Protocol

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Authors’ contributions

This work was carried out in collaboration among all authors. Author SP designed the study, performed the statistical analysis, wrote the protocol and author MJ wrote the first draft of the manuscript. Authors MN and VA managed the analyses of the study. Author MN managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: In Ayurveda, Manyastambha is defined as Manyahakriyahani. It is the clinical entity in which the back of the neck becomes stiff, and the neck movement is impaired. Manyastambha is explained one of the Vataja Nanatmaja Vikara by Acharyas. Manyastambha occurs in Urdhwajatru pradesha. It can be correlated with cervical Spondylosis in modern medicine. Cervical Spondylosis is a condition in which degenerative changes are found in the cervical spine. The bony overgrowth of adjacent vertebrae is usually associated with age-related changes in intervertebral discs. In today's era, because of stressful and fast lifestyle, people suffering from various degenerative
1. INTRODUCTION

In today's era, people of all age groups are concerned about the increase in Vata Jnaya Vikara (Disorders of Vata Dosha). Disarray related to Muscles, bones, joints and ligaments forms a subgroup of Vata Jnaya Vikara, which causes harm to daily activity in human life. Human is very susceptible to degenerative disease in today's generation because of demanding and quick lifestyle. Manyastambha is a lifestyle disorder caused by Vehicle use, travelling to longer distances, continuous sitting and working late hours, lifting heavy weights, doing no exercise, and taking unhealthy and unhygienic foods. Manyastambha is explained as one of the Vata Vataprakopaka Nidanas. Amarkosha describes 'Manya' (Neck region) as Greeva paschat Sira (Nerves of Neck region). Due to its location and compound structure, and mobility, the cervical region gets injuries. By consuming Vata prakopaka Nidana, the Vata dosa gets aggravated along with acquiring localize to Manyapradesha (neck region), vitiating the Manyagata Siras (nerves of neck) leading to Stambha (stiffness or difficulty in mobility) and Ruja (pain) to neck that ultimately leads to Manyastambha. The Stambha is the resultant spasticity of neck muscles, which stretches and makes the neck stiff. Hence there is a lack of data and most negligible literature available for the management of Manyastambha. According to Acharya Sushruta, vitiating Vata and Kapha dosha localized in Manya Pradesh, the Manya Siras leading to Pain and Stiffness of the neck[1]. So it is evident that the disease occurs due to the vitiation of Vata. The prodromal symptom of Vata-Vyadh is Ayavakta. Once they are established, it is in their Atmaroopa. A few of the symptoms of Kupitoanilah (Vayu) is similar to signs and symptoms of Manyastambha [2].

Cervical Spondylosis is a persistent critical circumstance of the cervical area. It affects the vertebral bodies and intervertebral discs of the neck and the contents of the spinal cord. The degenerative changes in the facet joints, longitudinal ligaments, and ligament flavum are also affected. Spondylosis may increase with age and frequently develops at numerous interspaces.

Later on, stenosis of the spinal area, lateral recess, and foramina may occur. Myelopathy and
radiculopathy can be occurring due to Spinal canal stenosis. Intervertebral disks drop hydration and the suppleness with age, and these losses may lead to cracks and fissures. The adjoining ligaments lose their flexible property and develop the traction spurs. The disk afterwards collapses as the outcome of biomechanical incompetence, causing the annulus to bulge outwards. As the disk space gets narrower, the annulus bulge outwards, and the facets override. As disc destruction occurs, the unicate process overrides, compromising the ventrolateral segment of a foramen. Similarly, the dorsolateral aspect of the foramen decreases facet hypertrophy. This change contributes to the radiculopathy that is analogous to cervical spondylosis [5].

The prevalence of cervical Spondylosis was 13% in 3rd decade in the year 2018. It was rising to the nearly about 100% by the age of 70 yrs. The pervasiveness ranges from 5% in the 4th decade to 96% of women older than 70 years in females. An ache in the neck area may radiate to the allocation of the affected nerve root. Neck rigidity and neck movements may exacerbate pain. Paresthesia and sensory loss might be established in the exaggerated parts, and there may be lower motor neuron signs, with weakness, wasting and reflex impairment [6].

1.1 Rationale

The present-day world has more cervical problems as they are habituated with electronic instruments usage and occupational. Thus the avoidance is not possible, and a better curative area is to be identified.

Manyastambha is mentioned as vatavyadhi, which is correlated with cervical Spondylosis. Vata dosha is aggravated due to vataprapak ahar vihar (dietic and behavioral regime). Manyastambha has to be considered within Vaatvyadhi because of indulgence in day sleep, adopting improper positions, seats, etc., looking upward for a long time. Vata getting aggravated with Kapha gives rise to manyastambha.

The local Vayu, agitated through such as causes like as sleep in the daytime, reclining with the neck on an uneven place or pillow, gazing upward for a considerable length of time, or looking aside in a contorted way, and enveloped in the deranged Kapha, gives rise to the disease known as Manya-stambha (wry neck or torticollis).

1.2 Aim

Studying of Nidan (etiological factors) responsible for Manyastambha with respect to cervical Spondylosis in the present era.

1.3 Trial Design

Case control study.

1.4 Study Setting

Mahatma Gandhi Ayurveda Hospital Research Centre, Salod (H), Wardha.

1.5 Eligibility Criteria

1.5.1 Inclusion criteria

- Patients came already diagnosed with X-Ray for cervical Spondylosis.
- Patients of both the gender.
- Patients between the ages of 20-70 years suffering from previously diagnosed cervical Spondylosis.

1.5.2 Exclusion criteria

- Stenosis of the spinal canal.
- Patients below 30 years and above 80 years of age are not considered for the study.
- The patients suffering from major systemic disorders such as gouty arthritis, Rheumatoid arthritis, diabetes, spinal stenosis, Ankylosing hyperostosis, kissing spine, fracture.
- Entrobacterial Spondylosis, Neuropathic spondylopathy, Collapsed vertebra in disease.
- Myelopathy of spine
- The patients who are not willing to give consent.
- Patient with other health illness like Potts spine.

2. METHODOLOGY

The 100 Patient of Manyastambha or diagnosed with Cervical Spondylosis will be enrolled from the OPD of Kayachikitsa and Panchakarma, MGACH&RC. Consent of the patients will be taken after giving them detailed information about the project. The nidanas of the Manyastambha of the patient will be assessed based on pre-designed questionnaires. The
questionnaire will include personal, daily routine and dietary history. The questionnaire will be revalidated first and, then it will be implemented.

2.1 Primary Outcome
This project will find the exact cause of cervical Spondylosis in the present era.

2.2 Statistical Analysis
The statistical analysis is done by using descriptive statistics.

2.3 Data Management
The principal investigator will do data coding.

2.4 Dissemination Policy
Data will be disseminated in the form of paper publication and Monograph. Authorship eligibility guidelines and any intended use of professional writers.

2.5 Implementation
Principe invigilator will allocate and enrol the patient.

3. DISCUSSION
Manyastambha is one of the most ordinary daily activities hampering disorder broadly described under Vatavyadhi by Acharyas.

Many acharya’s of Ayurveda describes the reason. Symptoms of vatavyadhis like aharaaj and viharaj reason mentioned in Samhita. According to Acharya Bhawprakash Mishra, Aharaaj reason is indulge in food which are astringent, pungent and bitter, very less in quantity, very dry and light reason use of cold food at all. Viharaaj is excess of copulation, depletion, a decrease of tissue, suppression of urges, bunch of the desire of sex, grief, worry and fear, letting large quantity of blood, too much reduction of mamsa(muscle) that due to disease, excess of emesis and purgation, production of aam(toxin) in the body during Varsha Ritu (rainy season), during the evening the greatly aggravated Vata fills into the empty channels and gives rise to many kinds of diseases in any one part of the whole body.

Manyastambha affects the musculoskeletal system of the body, particularly the senior group, as this age group is more vulnerable to Dhatukshaya (reduction in muscle, bone marrow). Still, we can find cervical spondylosis patients of middle age or younger generation due to daily regimen, diet, no exercise. The Vata dosha becomes more provoked due to kshaya or Avarana (covering) and produces various types of disorders. As per modern medicine, Cervical Spondylosis is an age-related degenerative disorder of the intervertebral disc and bodies of the cervical spine. It commonly occurs at the lowest three cervical intervertebral joints (C5-C6) [7]. Acharya Sushruta says Nidana Parivarjana (avoiding etiological factors) is the first line of treatment. But Acharya Charaka says that less exposure to causative factors will help prevent the disease and the restoration of Doshika equilibrium [8].

Prolonged standing, forward bending, sitting for a longer duration. More related to housewives is more prone to degenerative changes in cervical spine. Clerk, tailor having long time sitting type of daily work. The patient has to keep the neck continuous in one position. Farmer also laborious work, thus pressure over cervical spine develop wear and tear resulting into cervical Spondylosis.

Sushrutacharya has mentioned Diwaswapa (sleeping in day time) to cause Tridosha Prakopa[9]. Kapha prakopa is dominant in Diwaswaapa [10]. Thereby leading to Agnimandya and Ama. Margavrodhajaniya(obstruction) Vata Prakopa is the result of such Samprapti (pathogenesis) [11]. Taking day sleep was common in housewives. Every structure included in the musculoskeletal framework of the back of the neck can be a potential cause of Manyastambha. Studies on cervical Spondylosis were reported by Parwe et al. [12,13] and Jain et al. [14]. Few of the related studies were reviewed [15-18].

4. CONCLUSION
Conclusion will be mentioned after the deliberate and analyzing data.

CONSENT
Before starting the study, subjects will be given detailed information regarding the investigation and regarding study in his /their language. Then written consent will be taken from patients.

ETHICAL APPROVAL
After critical evaluation and presentation in front of SRC and then IEC, the ethical committee has approved the research topic.
COMPETING INTERESTS

Authors have declared that no competing interests exist.

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