

## AN AYURVEDIC VIEW OF CERVICAL SPONDYLOSIS AND ITS MANAGEMENT WITH MOCHARASA-SIDDHA TAILA NASYA

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### ABSTRACT :

Cervical spondylosis is a common degenerative condition of the cervical spine. It is most likely caused by age-related changes in the inter-vertebral discs. According to Ayurveda, cervical spondylosis can be considered as *Vatavyadhi*. It can be correlated with *Manyastambha* & *Vishwachi*. Cervical spondylosis is one of the *jatrurdhwa vyadhi* (diseases above clavicle) and *Nasya* is explained as the best treatment for *jatrurdhwa vyadhi*. Efficacy of *Mocharasa-siddha tail nasya* was assessed in 20 patients showing classical symptoms of cervical spondylosis through single Arm, open labeled, randomized, prospective clinical trial. *Shalmali* helps to break the pathogenesis of cervical spondylosis. *Mocharasa Siddha Taila Nasya* showed significant subsides of symptoms in patients which were shown by percentage of relief in symptoms & by statistical analysis which was highly significant. It should be continued to furthermore, to reduce the risk of relapse & severity of cervical spondylosis.

**Key words:** Cervical spondylosis, *Mocharasa-siddha tail*, *Shalmali-Niryasa*

**INTRODUCTION:** Cervical spondylosis is a common degenerative condition of the cervical spine. It is most likely caused by age-related changes in the inter-vertebral discs. Clinically, several syndromes, both overlapping and distinct, are seen. These include neck and shoulder pain, suboccipital pain and headache, radicular symptoms, and cervical spondylotic myelopathy (CSM). As disk degeneration occurs, mechanical stresses result in osteophytic bars, which form along the ventral aspect of the spinal canal. Internationally incidence of cervical spondylosis is 2.5 cases per 1000 population<sup>1</sup> and door to door study conducted in India shows an incidence of 3.5 cases per 1000 population<sup>2</sup> Treatment of cervical spondylosis is usually conservative in nature; the most commonly used treatments are non-steroidal anti-inflammatory drugs (NSAIDs), physical

modalities, and lifestyle modifications. Surgery is occasionally performed. The basic principle of Ayurvedic treatment is to break the etiopathogenesis of the disease. So it is very necessary to explore or to explain pathogenesis of cervical spondylosis based on Ayurvedic Principles. According to Ayurveda, Cervical spondylosis can be considered as *Vatavyadhi*. It can be correlated with *Manyastambha*<sup>3</sup> & *Vishwachi*<sup>4</sup>. Cervical spondylosis is of the *jatrurdhwa vyadhi* (diseases above clavicle) and *Nasya* is explained as the best treatment for *jatrurdhwa vyadhi*<sup>5</sup> Ashtanghrudaya described *Gudmanjirikhapura* (resins or extract of *Shalmali* - *Salmalia malabarica*) nasya i.e. *Mocharasa Nasya* is the best treatment for *Skandha-Ansa-Bahu* pain<sup>6</sup> i.e. clinical picture of cervical spondylosis. So this study was planned to

explain Samprapti of Cervical spondylosis with Ayurvedic perspective and its management with *mocharasa-siddha tail nasya*.

**OBJECTIVES:** The objective of present study was to study etio-pathogenesis of cervical spondylosis with Ayurvedic perspective and to assess the clinical efficacy of *mocharasa-siddha tail nasya* in patients suffering from cervical spondylosis.

#### **MATERIALS & METHODS:**

**A.LITERATURE REVIEW:** Extensive literary review was done from standard Allopathic & Ayurvedic texts about disease and its treatment.

#### **A. CLINICAL STUDY:**

**Type of study:** Interventional/ Experimental study

**Study Design:** Single Arm, Open labeled, Randomized, Prospective Clinical Study

**Sample size:** Twenty patients of cervical spondylosis were randomly selected from OPD of D. Y. Patil Ayurvedic Hospital satisfying the following inclusion criteria.

#### **Inclusion criteria:**

1. Patients suffering from cervical spondylosis.
2. Patients of either sex of age between 16 to 70 years.
3. Clinical symptoms with or without radiological changes
4. Willing and able to participate in the study

#### **Exclusion criteria:**

1. History of any surgical /diagnostic intervention with reference to the cervical vertebrae
2. Patients who are incapacitated, bedridden or confined to a Wheel-chair
3. Persons contra-indicated for nasya
4. Patients suffering from malignancy.
5. pregnant and nursing females

#### **Preparation of drug (Mocharasa-Siddha**

**Tail):** 250 gm *Mocharasa (Salmalia malabarica Family: Bombacaceae)* was taken from local market, physical impurities were removed from it. Mocharasa was kept overnight in 4 liters of water and allowed to soak. Next day appearance of *Mocharasa* was very *picchil* (sticky), reddish and swollen. This *Mocharasa* along with water was taken in a steel vessel and 1 liter *Tila taila* was added in it and slow heat was given to it. *Taila Siddhi* was carried out according to criteria of *Sneha-murcchana*<sup>7</sup>.

**Method for Nasya:** In every patient, the *nasya* process was performed for 15 days. It includes three steps viz. preprocedure, procedure and post procedure. In pre-procedure, *snehan* (oleation) and *nadi swedan* (fomentation) at *nasa* (nose), *kapal* (forehead), *Manya* (neck), & affected region was done. For *nasya*, 2 drops of *mocharasa-siddha taila* were instilled in each nostril in head low position followed by gargling with Luke warm water. The do's and don'ts<sup>8</sup> related with *nasya karma* were properly instructed to the patients before the enrollment and repeated after every two days.

#### **Criteria for Assessment:**

The following symptoms of disease were observed in the patients:

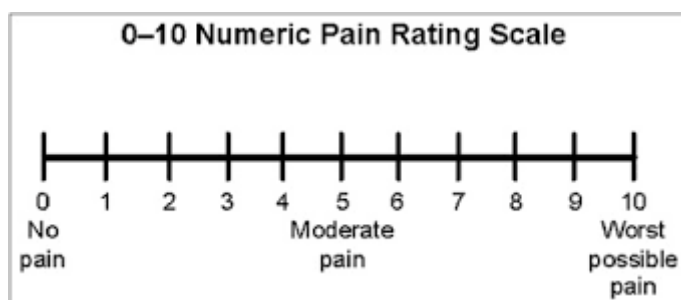
1. **Pain in the neck:** on the basis of visual analog scale (VAS)
2. **Pain in upper extremities:** on the basis of visual analog scale (VAS)
3. **Numbness / Tingling sensation in arm:** on the basis of visual analog scale (VAS)
4. **Pain with neck movement:** on the basis of visual analog scale (VAS)
5. **Headache:** on the basis of visual analog scale (VAS)

**6. Weakness of arm:** assessed according severity grades as –mild, moderate, and severe.

**7. Vertigo:** assessed according severity grades as –mild, moderate, and severe.

The result were assessed before and after treatment on the basis of visual analog

**VAS:**



The symptoms of weakness of arm and vertigo were assessed according severity grades as –mild, moderate, severe. Mild indicates symptoms causing no or minimal interference with usual social & functional activities, moderate indicates symptoms causing greater than minimal interference with usual social & functional activities, severe indicates symptoms causing inability to perform usual social & functional activities.

- 0 - Absent
- 1 - Mild
- 2 - Moderate
- 3 - Severe

scale (VAS) for pain in the neck, pain in upper extremities, numbness / tingling sensation in arm, headache. For pain assessment the one end of VAS was marked as 0 which represented “No pain” other end marked with 10 representing “Worst possible pain”.

**OBSERVATIONS AND RESULTS:** The patients suffering from Cervical Spondylosis, which were included in the trial had to undergo clinical examination at the end of the study for clinical assessment of the improvement in symptoms. For the assessment of patients, the specific criteria was used which has been already described in Materials & Methods. Data collected were rendered to Master sheet and tables were constructed. On the basis of those criteria the statistical analysis of improvement in symptoms & signs was done.

**Table.1 Showing Statistical analysis of Symptoms in 20 patients of Cervical Spondylosis**

Sr. No.	Symptom	Mean Difference	‘p’ Value	Significance
1	Pain in the neck	3.35	< 0.0001	Extremely Significant
2	Pain in upper extremities	1.00	< 0.0001	Extremely Significant
3	Numbness / Tingling sensation in arm	0.45	0.0078	Very Significant
4	Pain with neck movement	0.55	0.0020	Very Significant
5	Headache	0.75	< 0.0001	Extremely Significant
6	Weakness of arm	0.40	0.0078	Very Significant
7	Vertigo	0.70	0.0005	Extremely Significant

**Table No. 2 showing Relief in Percentage in Symptoms of 20 patients of Cervical Spondylosis**

Sr. No.	Symptom	Relief in Percentage
1	Pain in the neck	57.76%
2	Pain in upper extremities	29%
3	Numbness / Tingling sensation in arm	20.45%
4	Pain with neck movement	42.30%
5	Headache	26.32%
6	Weakness of arm	57.14%
7	Vertigo	50%

**DISCUSSION:** Cervical spondylosis is a common degenerative condition of the cervical spine. Cervical spondylosis is considered as *Vatavyadhi*. Combined picture of *Manyastambha* & *Vishwachi* can be considered as cervical spondylosis. *Samprapti* of *Vatvyadhis* is of two types *Margavarodhajanya* (obstructive pathology) and *kshayajanya* (diminished strength of body elements). Both types of patients are seen in practice.<sup>9</sup> In *kshayajanya samprapti* of cervical spondylosis, *Vata* and *pitta* are mainly responsible for *kshaya*. *Rukshadi guna* of *vata* results in to *Asthi-Majja shoshana* while *Ushnadi guna* of *pitta* causes *Asthi ksharan* and *Majja Pak*. Due to such type of changes in *Asthi-Majja dhatus*, *dhatus* can't perform their basic function of *Dharana* and *Purana* respectively. It directly results into degeneration in vertebrae & disc. Due to compression of nerve root, there is neck and shoulder pain, sub occipital pain and headache, etc. In case of *Margavarodhajanya* Cervical spondylosis, there is *avarodha* to *Asthi-Majjavaha srotasa* due to various causes. It results in to improper nourishment of *Asthi-Majja* and further degenerative changes. In both type of *samprapti* there is lack of nourishment of *Asthi-Majja* which finally results into symptomatology.

Clinical Efficacy of ' Mocharasa Siddha Taila Nasya' in 20 patients of Cervical Spondylosis

[1] Effect of therapy on Symptoms of Cervical Spondylosis

The percentage relief of ' Pain in the neck ' proved to be 57.76% after completion of trial. The symptom ' Pain in upper extremities ' improved by just 29%. The trial drug gave 20.45% relief in ' Numbness / Tingling sensation in arm ' symptom while percentage relief in ' Pain with neck movement ' & ' Headache ' was 42.30% & 26.32% respectively. The percentage relief in 'Weakness of arm ' & ' Vertigo ' was 57.14% & 50% respectively. ilcoxon-matched-pairs signed-ranks test was applied for statistical analysis (Non-Parametric test), which is as follows.

1) Pain in the neck: There was significant relief in ' Pain in the neck ' after completion of trial. The ' p ' value comes less than 0.0001 which is extremely significant statistically.

2) Pain in upper extremities: It was relieved with 'P' value < 0.0001, which is extremely significant.

3) Numbness / Tingling sensation in arm: After completion of trial, this symptom showed significant relief as ' P ' value is 0.0078 which is statistically very significant.

4) Pain with neck movement - Pain with neck movement was relieved with ' p ' value 0.0020, which is very significant statistically.

5) Headache - There was significant relief in Headache after completion of trial. The ' P ' value comes less than 0.0001 which is extremely significant statistically.

6) 'Weakness of arm - This symptom is relieved by ' p ' value is 0.0078 which is very significant statistically.

7) Vertigo - After completion of trial, this symptom showed significant relief as ' p ' value is < 0.0005 which is extremely significant.

Thus the drug proved beneficial in all the symptoms of cervical spondylosis & the values are statistically significant.

*Mocharasa* is nothing but *Niryasa* of *Shalmali*. It has property like *madhur vipaki, sheet, Picchil, Snigdha, guru, brumhana* and *rasayana*.<sup>(10-12)</sup> In brief it does *vata-kapha shamana* and *asthi-majja poshana*. *Kashaya rasa* inhibits *pitta dosha*, *Snigdha guna* of it helps to reduce *ruksha guna* of *Vata*. It improves quality as well as quantity of *Shleshak kapha*.

*Mocharasa* comes out from the *Shalmali* tree and it shows similarity to *Majja dhatu* with *picchiladi guna*. It provides nourishment to intervertebral disc according to *Samanya Vishesha Sidhanta*.<sup>13</sup> *Rasayana guna* controls the degenerative changes in vertebrae & disc. As *shalmali* is also known as *supurni*<sup>10</sup> it enhances the *Puran karma* of *Majja dhatu*. In this way, *shalmali* helps to break the pathogenesis of cervical spondylosis. *Mocharasa* also works as analgesic (*Vedanasthapana*).<sup>14</sup>

*Nasya karma* is best treatment for *Jatrurdhwa vyadhi*. Hence *nasya karma* is first choice of treatment for cervical

spondylosis as it is *Jatrurdhwa vyadhi* according to Ayurved. *Purvakarma* of *nasya* includes *snehan* and *nadi swedan* at *nasa, kapal, Manya*, region. These processes play very important role in pain relief. It helps to boost the result in this study.

Pain in neck, pain in upper extremity and headache were the most prominent symptoms present in the patients included in this study. *Mocharasa Siddha Taila Nasya* was given to the patients which showed significant subsidence of symptoms which were shown by percentage of relief in symptoms & by statistical analysis which was highly significant. *Pratimarsha nasya* is a part of *Dinacharya* (daily regime) which is to be followed throughout the life. The onset of action of this drug was seen in seven days, symptoms started to fall from the first week & improvement was noticed in the further week of treatment. Hence it should be continued to furthermore, to reduce the risk of relapse & severity of cervical spondylosis.

**CONCLUSION:** Cervical spondylosis is one of the *vatavyadhi* which is of two types - *Margavarodhajanya* (obstructive pathology) and *kshayajanya* (diminished strength of body elements). In both type of *samprapti*, there is lack of nourishment of *Asthi-Majja* which finally results into symptomatology. *Shalmali* helps to break the pathogenesis of cervical spondylosis as it alleviates *vata dosha* and nourishes *Majjadhatu*. *Mocharasa* also works as analgesic (*Vedanasthapana*). *Mocharasa Siddha Taila Nasya* relieves symptoms and thus helps in recovery. Similar study could be planned with large sample size, with long duration of study.

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