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 Vatavayadhi. 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 and door to door study conducted in India shows an incidence of 3.5 cases per 1000 population. 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 Vatavayadhi. It can be correlated with Manyastambha & Vishwachi. Cervical spondylosis is of the jatrurdhwa vyadhi (diseases above clavicle) and Nasya is explained as the best treatment for jatrurdhwa vyadhi. Ashtanghrudaya described Gudmanjirikhapura (resins or extract of Shalmali - Salamalia malabarica) nasya i.e. Mocharasa Nasya is the best treatment for Skandha-Ansa-Bahu pain 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:**
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* 7.

**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 preprocedure, snehan (oleation) and nadi swedan (fomentation) at nasa (nose), kapal (forehead), Manya (neck), & affected region was done. For nasya, 2 drops of mocharasa-siddha taial were instilled in each nostril in head low position followed by gargling with Luke warm water. The do’s and don’ts 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 to severity grades as –mild, moderate, and severe.

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

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

The symptoms of weakness of arm and vertigo were assessed according to 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

| 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. |

<p>| <strong>Table.1 Showing Statistical analysis of Symptoms in 20 patients of Cervical Spondylosis</strong> |</p>
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Symptom</th>
<th>Mean Difference</th>
<th>‘p’ Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pain in the neck</td>
<td>3.35</td>
<td>&lt; 0.0001</td>
<td>Extremely Significant</td>
</tr>
<tr>
<td>2</td>
<td>Pain in upper extremities</td>
<td>1.00</td>
<td>&lt; 0.0001</td>
<td>Extremely Significant</td>
</tr>
<tr>
<td>3</td>
<td>Numbness / Tingling sensation in arm</td>
<td>0.45</td>
<td>0.0078</td>
<td>Very Significant</td>
</tr>
<tr>
<td>4</td>
<td>Pain with neck movement</td>
<td>0.55</td>
<td>0.0020</td>
<td>Very Significant</td>
</tr>
<tr>
<td>5</td>
<td>Headache</td>
<td>0.75</td>
<td>&lt; 0.0001</td>
<td>Extremely Significant</td>
</tr>
<tr>
<td>6</td>
<td>Weakness of arm</td>
<td>0.40</td>
<td>0.0078</td>
<td>Very Significant</td>
</tr>
<tr>
<td>7</td>
<td>Vertigo</td>
<td>0.70</td>
<td>0.0005</td>
<td>Extremely Significant</td>
</tr>
</tbody>
</table>
Table No. 2 showing Relief in Percentage in Symptoms of 20 patients of Cervical Spondylosis

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

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 Vatavyadhi is of two types Margavarodhajanya (obstructive pathology) and kshayajanya (diminished strength of body elements). Both types of patients are seen in practice. 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.\(^{10-12}\) 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 Siddhanta.\(^{13}\) Rasayana guna controls the degenerative changes in vertebrae & disc. As shalmali is also known as supurni\(^{10}\) 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).\(^{14}\)

Nasya karma is best treatment for Jatrudhwa vyadhi. Hence nasya karma is first choice of treatment for cervical spondylosis as it is Jatrudhwa 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 subside 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 vatadosha 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.

REFERENCES:
1. Human Resources for Health, Available from URL www.human-resources-health.com/content/3/1/6
7. Sharangdhara Samhita by Sharangdhara with Jeevanaprada Hindi Vyakhyya by Dr. Shailaja Shrivastava, Madhyamakanda chapter no. 9, verse no. 13-14, Choukhambha Orientalia, Varanasi, Reprinted 2009
10. Bhavaprakashanighantu of Bhavamishra edited by Dr. Gangasahay Pandey, Vatadivarga, verse no.54, page no.528, Choukhambha Bharati Academy Varanasi Reprinted 2010
14. Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala with
Ayurveda Dipika Commentary by chakrapanidatta, edited by Vaidya Jadavaji Trikamji Acharya, Sutra sthana chapter 04, verse no.18, page no. 34, Choukhambha Surbharati Prakashan Varanasi, reprinted 2005

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