



## Research Article

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### EVALUATION OF THE EFFECT OF MAHANARYAN TAIL NASYA AND MAHAMASHA TAIL NASYA IN THE MANAGEMENT OF VISWACHI (CERVICAL SPONDYLOSIS WITH RADICULOPATHY)

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#### ABSTRACT

Viswachi is a disease classified under the broad spectrum of vata vyadhi, which hampers an individual's day-to-day activities, as vata dosha is responsible for all the body's movements. Viswachi, which affects kandara, runs to the tip of fingers from the root of the upper arm. This disorder can be compared to cervical spondylosis with radiculopathy due to the similarity in presenting symptoms. The prevalence of neck pain is 4.6%; cervical spondylosis accounts for 75% of cervical radiculopathy. Cervical spondylosis is caused by degenerative changes in the vertebrae and inter-vertebral discs that occur because of ageing due to injury or rheumatoid conditions. Aim: To evaluate the effect of Mahanaryan Tail Nasya in the management of Viswachi (Cervical Spondylosis with radiculopathy) compared with Mahamasha Tail Nasya. Objective: To compare the effect of Mahamasha Tail Nasya and Mahanaryan Tail Nasya's management of Viswachi (Cervical spondylosis with radiculopathy). Methods: It is an open-label, randomized, interventional and comparative study. In Group A, Mahanaryan Tail Nasya and Group B, Mahamasha Tail Nasya was given a dose of 16 bindu for 15 days. The assessment record was taken at 0, 7, 15 and 30 days. Result: The reduction in the severity of symptoms was statistically analysed, and significant improvement was found in all the patients. Conclusion: Both the Groups had statistically substantial results in the parameters, i.e. neck disability index, bahu karma and motor functions. But in inter-group comparison, not much difference was observed.

**Keywords:** Viswachi, Vata Dosha, Cervical spondylosis, Panchakarma, Nasya

#### INTRODUCTION

Viswachi is a disease classified under the broad spectrum of vata vyadhi. Acharya Charaka, Acharya Sushruta and Acharya Vagbhata have described vata vyadhi as one amongst ashta mahagada. While describing these mahagada, vata vyadhi has been explained as one of the most complicated disorders because it affects various systems, including neurological, musculoskeletal, connective tissues, bones and joints. The prime dosha involved in the pathophysiology of shool is vata. It is also said that ruja is impossible without vata. Ayurveda state that pain (ruja) is unimaginable without the involvement of vata dosha. Pain is a signal in the nervous system that indicates something is wrong inside the body. Vata is the predominant dosha responsible for this disease; however, the other dosha, i.e., kapha, can also modify the clinical presentation because shleshak kapha is the primary dosha indicated for proper joint movement <sup>1</sup>. This disorder can be compared to cervical spondylosis with radiculopathy due to the similarity in presenting symptoms. The disease is characterized by neck pain that radiates into the back of the head, shoulders, or arms or may be the source of headaches in the posterior occipital region <sup>2</sup>.

Cervical spondylosis is significantly higher among office workers with long sitting hours and those with a load on their heads. The roots affected mainly by spondylitis changes are C6 and C7 <sup>2</sup>. Bad posture, lifestyle, excessive stress and occupational strain also cause this condition. Treatment in other systems of medicine gives only temporary relief with side effects.

To find a better solution or safer, more effective and easily accessible treatment, people are approaching Ayurveda. In Ayurveda, there are three methods to cure the disease: nidana parivarjana (avoidance of causative factors by which disease is caused), sanshodhana (measure for counteracting the elements), sanshodhana (elimination therapy) <sup>3</sup>. Nasya karma (drug administration through the nose) is indicated especially for uttama anga; the shira pradesha, as the nasa (nose) is considered the gateway to shira pradesha <sup>4</sup> does not only cure the disease at the doshik level. It helps in shamana, shodhana, brihana, rechana, karshana, stambhana, sangya prabodhana, krimighna etc. The administration of aushadh (drugs) or sneha (oil, ghee etc.) is processed with drugs through the nostril, called nasya karma. Nasya is a term to be applied generally for medicines or medicated oils administered through the nose, or the nasa is supposed to be a pathway to the shira pradesha. Nasa is the nearest possible way to drain vitiated doshas.

The literal meaning of the word Nasya karma is a procedure which is beneficial to the nose. Nasya karma is the primary therapeutic procedure of urdhwa jatrugata roga <sup>5</sup>. Snehan nasya is a type of nasya which provides strength to the neck, shoulder and chest and improves eyesight. Snehan nasya can be given in the following conditions vatika shirahshula, keshapata, dantapata, shmashrupata, tivra karna shula, timira, nasa roga, mukhashosha, avabahuka, akalaja valita, akalaja palita, daruna prabodha and vata pittaja mukharoga. It also strengthens all dhatus through its dhatu poshaka property. In this condition, dhatu poshana can be best done by instilling vata shamaka aushadha through the nostril. Keeping this phenomenon in mind, Mahanaryan Tail Nasya and

Mahamasha Tail Nasya are compared in randomly selected 52 clinically diagnosed and confirmed cases of Viswachi (Cervical Spondylosis with radiculopathy) from OPD of Chaudhary Brahm Prakash Ayurved Charak Sansthan, India.

## MATERIALS AND METHODS

Research is essential for diagnosing diseases, developing new treatments, and giving the latest information. It often leads to effective treatment that helps people improve their quality of life. Keeping this in mind, the present study was taken into consideration. A case study was planned to evaluate the effect of Mahanaryan Tail Nasya in the management of Viswachi (Cervical spondylosis with radiculopathy) in comparison with the effect of Mahamasha Tail Nasya in randomly selected 52 clinically diagnosed and confirmed cases of Viswachi (Cervical spondylosis with radiculopathy) from OPD of Chaudhary Brahm Prakash Ayurved Charak Sansthan, India. The study was carried out as per the declaration of Helsinki guidelines.

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**Pre-Clinical screening:** Patients' complete medical history and related diagnostic tests were done.

**Clinical screening:** A detailed case history proforma was specially prepared for this purpose. All the following points were recorded in this proforma before the initiation of the trial. Fifty-three patients suffering from Viswachi (Cervical spondylosis with Radiculopathy) fulfilling the inclusion criteria were taken for the study, and 52 patients completed the trial.

### Inclusion criteria

1. Patients of both genders between the ages of 30-60.
2. Radiological evidence of Cervical spondylosis essentially having a lesion in C5, C6, and C7.
3. Patients having signs and symptoms of Viswachi.
4. Patients indicated for Nasya.

### Exclusion criteria

1. Acute or chronic infection of the spine.
2. Cancer of the cervical spine.
3. Any other form of arthritis like Rheumatoid arthritis or SLE.
4. Patients contraindicated for Nasya.

### Withdrawal criteria

1. Patients willing to quit in between were allowed to quit and were replaced.
2. If the patient developed any acute illness during the study, the patient was treated accordingly and was excluded from the study.

**Grouping:** The selected patients were grouped into two categories using the Simple Random Sampling Method.

**Group A:** Mahanaryan Tail Nasya

**Group B:** Mahamasha Tail Nasya

**Duration of administration:** 15 days

**Time of administration:** In ushna kaal – in the morning; in sheet kaal – in the afternoon

**Frequency of administration:** Once a day

**Dosage of nasya:** 16 bindu in each nostril

**Note:** All aseptic precautions, like sterilized gokarna yantra, were adopted.

**Table 1: Details of preparatory procedures for Nasya Karma**

Procedures	Ingredients	Dose	Duration
Local snehana	Mahanaryan Tail / Mahamasha Tail	Quantity sufficient	Every day before Nasya
Local swedana	Dashmoola kwath	Quantity sufficient	Every day before Nasya
Nasya	Mahanaryan Tail/ Mahamasha Tail	16 Bindu (8ml), each nostril	15 days
Kaval	Ushnodaka	Quantity sufficient	Every day after Nasya
Dhoom pana	Dhooma varti	3 times, 3 Gusps each nostril	Every day after Nasya
Local swedana	Dashmoola kwath	Quantity sufficient	Every day after Nasya

**Procedure:** As per standard operative procedure of nasya<sup>6</sup>.

**Instruction regarding Pathya–Apathya:** All the patients were advised to follow the guidelines regarding pathya-apathya as per described in the classics.<sup>7,8</sup>

**Duration of study:** 30 days for each patient, including follow-up.

**Study design:** Single centre, open-label, randomized, interventional and comparative study.

**Assessment Criteria:** The improvement was assessed based on relief in signs and symptoms of Viswachi (Cervical spondylosis with radiculopathy). All the signs and symptoms were evaluated depending on their severity to determine the effect of treatment objectively and subjectively.

### Subjective Parameters

**Neck Disability Index:** Observations were made on pain intensity, personal care (washing, dressing, etc.), lifting, reading, headache, concentration, driving, work, sleeping, and recreation of patients.<sup>9</sup>

**Table 2: Interpretation of Neck Disability Index**

Neck Disability Index Score	Percentage	Degree of Disability
0-4	(0-8%)	No Disability
5-14	(10 – 28%)	Mild Disability
15-24	(30 – 48%)	Moderate Disability
25-34	(50 - 64%)	Severe Disability
35-50	(70 -100%)	Complete Disability

**Bahu karm kshyakar (Loss of function of arm)**

- Grade 0: no loss of function
- Grade 1: mild loss of function
- Grade 2: moderate loss of function
- Grade 3: severe loss of function

**Objective Parameters:** Following Japanese Orthopaedic Association<sup>10</sup>

**Motor function**

- Grade 0: impossible to eat with chopsticks or spoon
- Grade 1: possible to eat with a spoon but not with chopsticks
- Grade 2: likely to eat with chopsticks but inadequate
- Grade 3: likely to eat with chopsticks, awkward
- Grade 4: normal

**Sensory function**

- Grade 0: apparent sensory loss
- Grade 1: minimal sensory loss
- Grade 2: normal

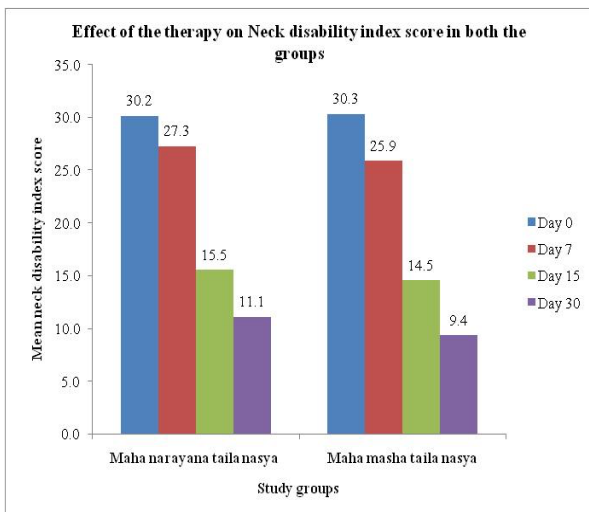
**Routine Examination and Assessment**

Complete details of the history and physical examination of the patients were recorded as per the performa. Clinical assessment was done and recorded on the 0<sup>th</sup> day, 7<sup>th</sup> day, 15<sup>th</sup> day and 30<sup>th</sup> day.

**Statistical Analysis**

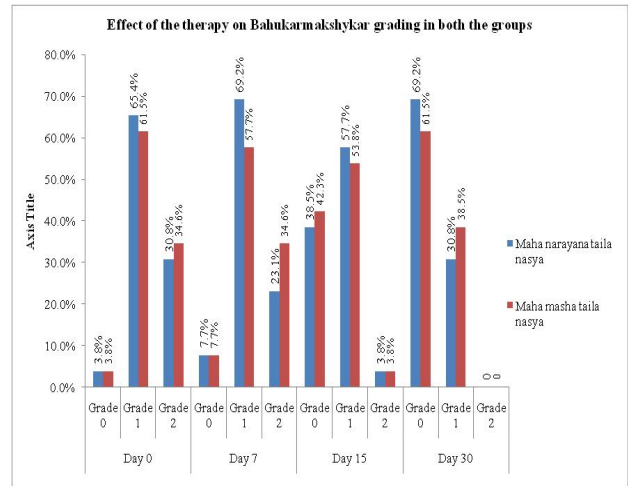
- The level of significance was prescribed in the following manner:
- Non-significant (NS):  $p > 0.05$
- Significant (S):  $p < 0.05$
- Highly significant (HS):  $p < 0.001$
- Extremely significant (ES):  $p < 0.001$

**OBSERVATION AND RESULTS**



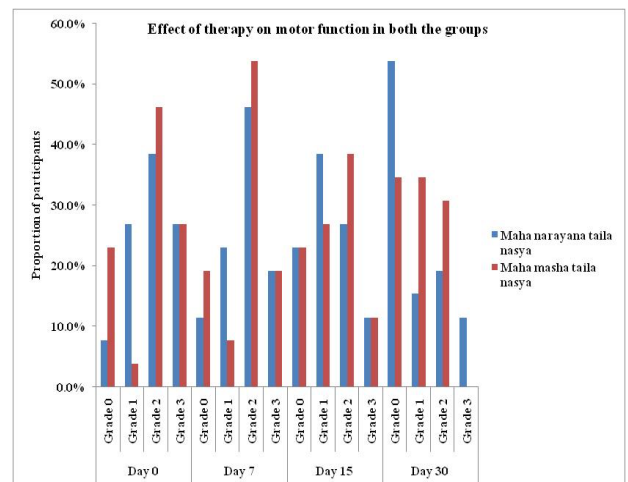
**Graph 1: Effect of Nasya on Neck Disability Index**

The neck disability index score decreased significantly in both groups. However, no significant difference was observed in the mean neck disability index score between the groups at any assessment visit. The mean score at day 0 in the Mahanarayan tail nasya group was 30.2, which was reduced to 11.1 at day 30 ( $p$ -value  $< 0.001$ ). Similarly, the mean score at day 0 was 30.3 in the Mahamasha tail nasya group, which reduced to 9.4 at day 30 ( $p$ -value  $< 0.001$ ). (Graph 1)



**Graph 2: Effect of Nasya in Bahukarma in both groups**

Within-group analysis using the Friedman test revealed a significant difference in grading bahukarma kshyakar in both groups ( $p$ -value  $< 0.00$ ). However, no significant difference was observed between the groups at any assessment visits. It was observed that 30.8% of patients had grade 2, which on day 30<sup>th</sup> was resolved in all the Mahanarayan tail nasya group patients. Similarly, 34.6% of patients in the Mahamasha tail nasya group had grade 2 in bahukarma kshyakar, which resolved in all the patients by day 30. (Graph 2)



**Graph 3: Effect of Nasya on motor functions in both the groups**

Within-group analysis using the Friedman test revealed a significant difference in the grading of motor functions in both groups ( $p$ -value  $< 0.00$ ). However, no significant difference was observed between the groups in grading motor functions at any assessment visits. It was observed that 26.9% of patients had grade 3 on day 30, reduced to 11.5% in the Mahanarayan tail nasya group. Similarly, 26.9% of patients in the Mahamasha tail nasya group had grade 2 motor functions, which resolved in all the patients by day 30. (Graph 3)

**Sensory function:** All the patients in both groups had grade 0 sensory function throughout the study.

## DISCUSSION

Data were then analysed statistically to draw interference. In both the group for neck disability index, there was not so much difference in mean on days 0 and 30, but group b was found to be better in reducing neck disability index score than group A, so it can be concluded that Mahamash Tail Nasya was better in reducing neck disability index score than Mahanaryan Tail Nasya in the management of Viswachi (Cervical spondylosis with radiculopathy). For bahu karmkshaya, when both groups were compared, group A's treatment was slightly more effective than group B's. It shows that Mahanaryan Tail Nasya was more effective than Mahamasha Tail Nasya in Viswachi (Cervical spondylosis with radiculopathy) in increasing bahu karma. For a change in motor functions, when a comparison was made, group A's treatment was slightly more effective than group B's. It shows that Mahamasha Tail Nasya reduced the neck disability index score more effectively. Mahanaryan Tail Nasya was more effective in increasing bahu karma and improving motor function in Viswachi. For the change in sensory functions parameter, it was observed that all the patients in both groups had grade 0 sensory functions throughout the study period. Mahanaryan tail <sup>11</sup> is medicated oil prepared using Til taila as a base and then processed with different medicated decoctions and aromatic drugs. It contains 56 drugs like Ashwagandha, Brihati, Bilva, Gokshur, Bala, Paribhadra, Punarnava, Atibala, Devdaru, Kushta, Shalparni, Shatavari etc. Most drugs are snigdha, guru in guna, ushna virya, balya, and brihmana. As Viswachi is one of the 80 types of vataj nanatmaj vikar. In Ayurveda, it is mentioned that vata is vitiated either by avarana or dhatu kshaya <sup>12</sup>. In the initial stage, when vata gets accumulated in kapha sthan, there is anubandha of kapha in the disease, but in the later stage, it becomes kevala vata disorder. Nasya is considered the best treatment for urdhwa jatra gata vikara, so brihana nasya with Mahanaryan Tail is used in this condition. Drugs present in Mahanaryan Tail are antagonists to gunas of vata dosha, so it pacifies the vata and helps break the samprapti of the disease and probably helps decrease the degenerative changes in cervical spondylosis with radiculopathy along with vata shamak and brihana property. Mahamasha tail <sup>13</sup> is medicated oil prepared by Tila taila as a base and then processed with different drugs. It contains 50 drugs, and masha is the main content; balya, brimhana, dhatu vardhak, and vatahar in the property. Vishwachi is a disorder of the upper limb in which kandara gets affected due to an increase in khara property of vata, which results in disability in the functions of Bahu. It is anti-inflammatory and nourishes sira, snayu, asthi, sandhi and kandara and helps obtain significant results in neck disability index.

## CONCLUSION

Viswachi is a disease due to the vitiation of vata dosha and hampers an individual's day-to-day activities. It can be compared with cervical spondylosis with radiculopathy due to the similarity in presenting symptoms as vata is the primary dosha, so vatahara drug is administered in the form of nasya in Viswachi. Both the groups had statistically significant results in the parameters, i.e. neck disability index, bahu karma and motor functions. But in

inter-group comparison, not much difference was observed. Group B (69.1%) reduced the neck disability index score better than group A (63.3%). Group A (65.3%) was found to be better than group B (57.6%) in increasing the bahu karmas parameter, and in group A (46.1%), subjects noticed changes in motor functions while in group B, it was (11.5 %). The administration of Nasya karma was effective in Viswachi (Cervical spondylosis with radiculopathy). The groups observed no significant adverse reactions or side effects during the study. There is further scope for a new researcher to compare only Nasya karma against shaman chikitsa with physiotherapy as adjuvant therapy or in comparison to physiotherapy alone. Present work could be conducted with more sessions of Nasya karma which might give better results.

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