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A Comparative Clinical Study on *Nasya Karma* with and without *Greevabasti* in *Manyastambha* (Cervical Spondylosis)



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^{1*}Rahul, ²Ketan Mahajan, ³Prabhat Kumar

¹M.D Scholar, Department of Panchakarma, Patanjali Bhartiya Ayurvedic and Research Institute, Haridwar, Uttarakhand, India.

² Professor, Department of Panchakarma, Patanjali Bhartiya Ayurvedic and Research Institute, Haridwar, Uttarakhand, India.

³Assistant Professor, Department of Panchakarma, Patanjali Bhartiya Ayurvedic and Research Institute, Haridwar, Uttarakhand, India.

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ABSTRACT

Background: *Manyastambha* is a *Vataja nanatmaja vikara* that causes *ruka, toda and stambha* in *Manya Pradesh*. It can be correlated with cervical spondylosis. *Nasya* is regarded as main line of treatment in *Urdhwajatrugata Vikaras* which does *Bruhmana* in *kshayaja avastha* as well as *Shamana* in *Prakopa avastha* and helps in calming both *Vata* and *Kapha*. *Greeva Basti* is the therapy in which both qualities of *Snehana* and *Swedana* are included that help in calming *Vata Dosha*. *Mahanarayan Taila* is an effective classical remedy that retains the *Vata* and *Kapha Doshas* balanced and it can be used externally as well as internally, helpful in alleviating pain and stiffness. **Objective:** To compare and ascertain the effect of *Nasya karma* with and without *Greeva Basti* with *Mahanarayan Taila* in the management of *Manyastambha* (Cervical Spondylosis). **Materials and Methods:** The study is carried out in 30 patients of age group 18-70 years, equally divided into two groups. In Group A, *Nasya karma* of *Mahanarayan Taila* & in Group B, *Nasya karma* with *Greeva Basti* of *Mahanarayan Taila* for 7 consecutive days had been administered. **Results:** Group A (*Nasya karma*) provided a marked improvement in 6.67% of the patients, moderate improvement in 40% of patients and 53.33% of patients got mild improvement. Group B (*Nasya karma* with *Greeva Basti*) provided marked improvement in 93.33% patients, moderate improvement in 6.67% patients and mild improvement in 0% patients. **Conclusion:** Group B (*Nasya karma* with *Greeva Basti*) provided better symptomatic result than Group A (*Nasya karma*).



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INTRODUCTION

Ayurveda is the Science of Life which is based on *Atharveda*. It is based on the three constituents of *sharir* i.e. *Doshas, Dhātu, and Mala*.¹ Three *Doshas* mentioned in *Ayurvedic Texts* are *Vata, Pitta and Kapha*.² *Vata* is described as '*tantra yantra dhara*'.³ *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*.

Manyastambha has been described in various *Ayurvedic Texts* including *Bhrughatries and Laghutries*. It is *Vataja nanatmaja vikara*.⁴ It is a *Vyadhi* that causes *rūka* (pain), *toda, stambha* (stiffness and restricted movements) in *Manya Pradesh*. Due to daytime sleeping, wrong sleeping area, looking downwards and upwards for a long time, causing over stretching of neck leading to *tridosha prakopa*. The vitiated *doshas* obstructs the channels of *Vata* leading to painful and restricted neck movements.⁵

It can be compared with cervical spondylosis. It is the general term for age-related wear and tear in cervical spine (neck) that can lead to pain, swelling and stiffness etc. Such wear and tear is extremely common and radiological changes are frequently found in asymptomatic individuals over age of 50. In some cases, this condition is called Arthritis or Osteoarthritis of the neck. It is the result of Osteoarthritis in the cervical spine. It is characterized by degeneration of the intervertebral discs and osteophyte formation.⁶

Administration of medication or medicated *taila* through the nose is known as *Nasya*.⁷ *Nasya Karma* is one of the important *Panchkarma* mainly for *Urdhwajatrugata vikara*.⁸

Snehan and Swedan has been described as the line of treatment for the *vata disorder*.⁹ *Greeva basti* is chosen for the *bahya snehan and swedan* which helps in relieving symptoms like pain, swelling and stiffness. Hence, *Nasya karma* and *Greeva basti* can be a better line of treatment for such diseases.

Mahanarayan taila has *Vatakaphaghna* property. It is a classical formulation that sustains the *Vata* and *Kapha doshas* in a balanced state. It is very useful in *Vattaj Rogas*.¹⁰

MATERIALS AND METHODS

It is a randomized comparative, single-blind, interventional clinical study. The study is carried out in 30 patients of *Manyastambha* of age group 18-70 years, equally divided into two groups excluding dropouts with pre-test study design.

Intervention

- **Group A (*Nasya karma*)** - Patients of this group have been administered *Nasya karma* with *Mahanarayan Taila* once daily in the dosage of 8 *bindus* (4 *bindus* in each nostril) for 7 days in the morning.
- **Group B (*Nasya karma* with *Greeva Basti*)** - Patients of this group have been treated with *Nasya karma* along with *Greeva Basti* of *Mahanarayan Taila* for 7 consecutive days in the morning.

ASSESSMENT CRITERIA

Both subjective and objective parameters have been employed for the assessment of the impact of the treatment-induced in respective groups.

SUBJECTIVE PARAMETERS

- Neck pain (*Greeva Shoola*)
- Radiation of Pain
- Neck Stiffness (*Greeva stambha*)
- Weakness
- Paraesthesia
- Vertigo (*Bhrama*)

OBJECTIVE PARAMETERS

- Tenderness over Cervical Region
- Restricted Movements of Neck
- Sensory Loss

1. GREEVA SHOOLA (NECK PAIN)

- No pain (0)
- Pain in the neck, mild aggravates with movement (1)
- Pain in the neck, severe aggravates with movement (2)
- Pain mild or severe with radiation to arm (3)
- Pain in neck, radiation and disturbed speech (4)

2. RADIATION OF PAIN

- No radiation of pain (0)
- Pain at shoulder joint (1)
- Pain radiates up to elbow joint (2)
- Pain radiates up to forearm (3)
- Pain radiates up to hand and fingers (4)

3. GREEVA STAMBHA (NECK STIFFNESS)

- No Stiffness (0)
- Stiffness relieved without medication (1)
- Stiffness relieved by external application (2)
- Stiffness relieved by medication (3)
- Stiffness is not responded to by medication (4)

4. WEAKNESS

- No weakness (0)
- Weakness in upper extremity (1)
- Weakness present in both upper extremity (2)

5. PARAESTHESIA

- Absent (0)
- Present (1)

6. BHRAMA (VERTIGO)

- No vertigo (0)
- Present on neck movements or occasionally (1)
- Present constantly (2)

7. GREEVA SPARSHA AKSHAMATVA (TENDERNESS IN NECK REGION)

- No Tenderness (0)
- Complains pain (1)
- Complains pain with Winching of face (2)
- Does not allow touching the region (3)

8. GREEVA HUNDANA (RESTRICTED MOVEMENT OF NECK)

- Normal movement of neck (0)
- Restriction of lateral movement of neck (1)
- Restriction of extension, flexion of neck (2)
- Restriction of lateral, extension & flexion of neck (3)

9. GREEVA SHOTHA (NECK SWELLING)

- No Swelling (0)
- Swelling present (1)

10. LOSS OF SENSATION

- No loss (0)

- Reduced sensation (1)
- No sensation (2)

The statistical analysis of the total effects of therapies was based on the ‘t-test application. The significance was discussed on the basis of Mean score, Standard Deviation, Standard Error, ‘t’ value and P value. The effects of therapies of individual signs and symptoms were analyzed and the obtained results were interpreted as:

(P value summary = *)

- Ns P > 0.05 Not Significant
- S P < 0.05 Significant
- MS P < 0.01 More Significant
- HS P < 0.001 Highly Significant

Statistical analysis used: The statistical analysis was based on ‘t-test’, Wilcoxon and Mann-Whitney's application. The significance was discussed on the basis of Mean score, Standard Deviation, Standard Error, ‘t’ value and P value.

Overall Assessment

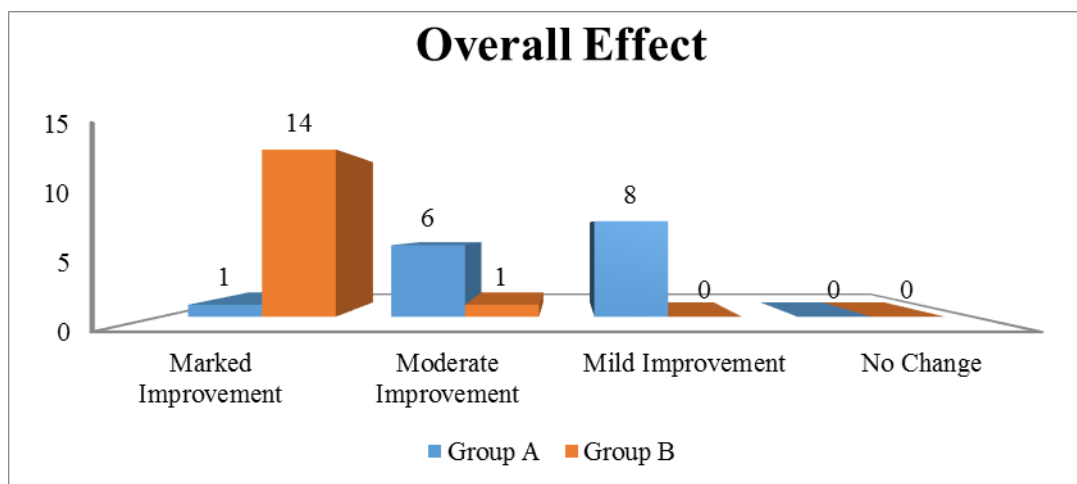
The conclusion has been made on the basis of the observation which is done on subjective and objective parameters. The result has been analyzed statistically.

Assessment	Score
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Group A (*Nasya karma*) provided Marked Improvement in 6.67 % of the patients, moderate improvement in 40.00 % of the patients and 53.33 % of the patients got mild improvement after completion of 7 days of treatment.

Group B (*Nasya karma with Greeva Basti*) provided Marked Improvement in 93.33 % of the patients, moderate improvement in 6.67 % of the patients, and not any patients got mild improvement after the completion of 7 days treatment. (Graph 1)

No patient was found getting complete remission after treatment and no patient was found unchanged in both the groups.



Graph 1.

DISCUSSION

On Chief Complaints

In Group A (*Nasya karma*) in symptom *Greevashool*, Radiation of Pain, *Greeva stambha*, *Greeva Sparsha Akshamatva*, *Greeva Hundana*, the total effect of treatment provided statistically extremely significant ($P < 0.05$) result.

In Group B (*Nasya karma with Greeva Basti*) in symptom *Greevashool*, Radiation of Pain, *Greeva stambha*, *Greeva Sparsha Akshamatva*, *Greeva Hundana*, the total effect of treatment provided statistically extremely significant ($P < 0.05$) result.

On Associated Complaints

In both groups in associated symptom *Bhrama*, the total effect of treatment provided statistically extremely significant ($P < 0.05$) result.

PROBABLE MODE OF ACTION OF PROCEDURES

NASYA KARMA

The mode of activity of *Nasya Karma* can be described as follows:-

Ayurvedic point of view: -

In *Ayurvedic* books, the mode of activity of *Nasya Karma* is not referenced directly. As per *Charaka Samhita*, the drug given through the nose goes into the *Uttamanga* and removes the morbid *Doshas* occupying there. *Nasa* is the gateway to *Shiras*. When the drug is administered through the nostrils. It reaches *Shringataka Marma* where it spreads in the *Murdha* along with *Marmas* of *Netra*, *Shrotra*, *Kantha* and *Shiramukhas*. Then, the morbid *doshas* are expelled from *urdhwajathru pradesha*.

Modern point of view: -

There is no immediate pharmacological relationship between cranial organs and the nose. Anyway the olfactory region is the main spot in the entire human body where there is immediate contact between the external surface and Central Nervous System. The nose is utilized as a course of administration for inhalation of sedative medications.

The absorption of the dravya is performed in 3 pathways:-

- By directly merge to the venous sinuses of the brain through inferior ophthalmic veins.
- By direct absorption into CSF fluid.
- Besides the small emissary veins entering the cavernous sinuses of the brain, a pair of venous branches appearing from the *alae nasi* will empty into the facial vein.

These ophthalmic veins further empty into the cavernous sinuses. Additionally, neither the facial vein nor the ophthalmic veins have any valves. So, there is a higher possibility of the blood emptying from the facial vein into the cavernous sinus in the lower head posture.

GREEVA BASTI

This is *Bahirparimarjana Chikitsa* (external modalities of treatment) and holding type of methodology included under *Shadvidha Upkarma* which does *Sthanika shamana* (localised physical therapy) in which both the qualities of *Snehana* and *Swedana* are included. It

essentially acts against the *Ruksha Guna* due to *Vata* and furthermore decreases. *Samyaka Lakshana* of *Greeva Basti* is not referenced in Classics. As it performs both *Snehana* and *Swedana*, *Samyaka Snehana* and *Samyaka Swedana Lakshanas* can be considered.

Action of Snehana:-

Vata Dosha is the chief factor in the result of *Manyastambha*. *Sneha dravyas* are predominant of *Sara* , *Drava* , *Snigdha* , *Guru* , *Picchila* , *Sheeta* , *Manda* and *Mridu Guna* promotes in mitigating *Vata* as they are inverse to the quality of *Vata Dosha* i.e *Laghu* , *Sheeta* , *Chala* , *Sukshma* . In addition, *Sneha dravya* have a similar quality to that of *Kapha dosha*. In the case of *Samyaka Snigdha Lakshana*, *Mridu Gatratva* and *Snigdhta Gatratva* can be taken for evaluation.

Action of Swedana:-

Among *Samyaka Swedana Lakshana Shooloparam*, *Stambhanigraha*, *Sheetoparam* and *Gauravnigraha* can be considered for evaluation. In Cervical Spondylosis, the neck firmness is generally because of the compression of the muscles, which are liable for neck motion. Elevation in temperature brings about muscle relief by expanding blood supply enhancing the proficiency of muscle activity. *Swedana* eases the pain, heaviness, coldness and stiffness of the body and it also transmits sweat out of the body.

CONCLUSION

Manyastambha can be positively correlated with Cervical Spondylosis because of its etiology, clinical manifestation, pathogenesis and complications. It is described under *Vata vyadhi* in all the *Ayurvedic* Texts and *Sangraha grantha*. The samprapti of *Manyastambha* is mainly of two type's viz. *Dhatukhayajanya* and *Avaranjanya*. The *Mahanarayan Taila* is described in *Bhaishajya Ratnavali* for the treatment of *Vatavyadhi*. It is very effective in the management of *Manyastambha* (Cervical Spondylosis). The administration of *Mahanarayan Taila* as an internal application in the form of *Nasya karma* and external application in form of *Greeva Basti* is found markedly beneficial in management of *Manyastambha*. Statistically significant changes were observed in the symptoms like pain, stiffness and restricted movements in both the groups. Meanwhile, Group B (*Nasya karma* with *Greeva Basti*) provided better symptomatic result than Group A (*Nasya karma*).

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