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A COMPARATIVE STUDY ON THE EFFECT OF NASYA KARMA AND GREEVA BASTI WITH PRASARINI TAILA IN GREEVA HUNDANAM W.S.R. CERVICAL SPONDYLOSIS

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ABSTRACT

Background: Greeva Hundanam is a Vatavyadhi which can be correlated to cervical spondylosis due to signs and symptoms like pain, swelling, tenderness, stiffness and restriction of neck movements. Greeva Basti is the procedure in which both properties of Snehana and Swedana are incorporated that helps in subsiding Vata Dosha. Nasya karma is considered as prime line of treatment in Urdhwajatru Vikaras which does Bruhmana in kshayaja condition as well as Shamana in Prakopavastha and helps in pacifying both Vata and Kapha Dosha. Objective: To compare and ascertain the effect of Nasya Karma and Greeva Basti with Prasarini Taila in the management of Greeva Hundanam w.s.r. Cervical Spondylosis. Materials and Methods: The

study is carried out in 30 patients of *Greeva Hundanam* of age group 20-70 years, equally divided into two groups. In Group A, *Nasya* with *Prasarini Taila* between 7am-9am empty stomach & in Group B, *Greeva Basti* with *Prasarini Taila* for 7 consecutive days had been administered. **Results:** Group A provided marked improvement in 13.33% of the patients, moderate improvement in 66.66% patients and 20% of patients got mild improvement. Group B provided marked improvement in 6.66% patients, moderate improvement in 73.33% patients and mild improvement in 20% patients. **Conclusion:** Group B i.e. *Greeva Basti* provided better symptomatic result than Group A i.e. *Nasya* group.

KEYWORDS: Greeva Hundanam, Cervical Spondylosis, Nasya Karma, Greeva Basti,

Prasarini Taila.

INTRODUCTION

Ayurveda is a way of living disciplined life. For the attainment and execution of its four purposes i.e. Dharma, Artha, Kama and Moksha, health must be maintained well. Changing life style of modern human being has created several disharmonies in their biological system. Hectic schedule, professional and social life, improper sitting postures at working places, continuous work in same position, some occupations or hobbies involve repetitive movements or heavy lifting such as construction work, overexertion, jerking movements during travelling and sports can put extra pressure on the spine, neck injury that can accelerate the aging process resulting in early wear and tear of spine that play an important role in inducing disease like Cervical Spondylosis. Greeva Hundanam, as the name itself indicates, is a clinical condition occurring in which Vata gets localized in the neck region which is one of the disorders caused by vitiated Vata. It produces constriction of Siras resulting in the symptoms like Greevashoola (Neck pain), Greevastambha(Neck stiffness), Greevahundanam (Restricted movements of neck), Greevashotha (Swelling) that resemble to that of the signs & symptoms of Cervical Spondylosis.

Greeva means the back part of the neck or tendon of the trapezium muscle. [2]

Hundanam is derived from the root 'Hudi Sanghate' or 'Hudi Majjane' which means to dive, sink, collect, or to be submerged.^[3]

Administration of medicine or medicated oils through the nose is known as Nasya. [4]

Nasya karma is considered as prime line of treatment in *Urdhwa jatru vikaras* which does *Bruhmana* in *kshayaja* condition as well as *Shamana* in *Prakopavastha* too, helps in pacifying of both *Vata* and *Kapha dosha*. *Greeva Basti* is an external procedure in which warm medicated oil is retained with in a specially formed frame in the *Greeva Pradesha* (Cervical Region) for a prescribed time. It performs the combined action of *Snehana* and *Swedana*.

Prasarini Taila has *Vatakaphaghna* property. It is a classical formulation that keeps the *Vata* and *Kapha doshas* in a balanced state.

MATERIALS AND METHODS

It is a randomized comparative, single blind, interventional clinical study. The study is carried out in 30 patients of *Greeva Hundanam* of age group 20-70 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* with *Prasarani Taila* once daily in the dosage of 8 *bindus* in each nostril for 7 days (*sharangdhara madhyama khanda* 9/119-124) empty stomach in the morning (7am - 9am).

Group B

Greeva Basti: Patients of this group have been treated with *Greeva Basti* of *Prasarani Taila* in the morning on empty stomach. The duration of the *Greeva Basti* was 30 minutes daily upto 7 consecutive days.

ASSESSMENT CRITERIA

Both subjective and objective parameters have been employed for 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
- Parasthesia
- Vertigo (*Bhrama*)

OBJECTIVE PARAMETERS

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

1. GREEVA SHOOLA (NECK PAIN)

- 0- No pain
- 1- Pain in neck, mild aggravates with movement 2- Pain in neck, severe aggravates with

movement 3- Pain mild or severe with radiation to arm

4- Pain in neck, radiation and disturbed speech

2. RADIATION OF PAIN 0- No radiation of pain 1- Pain at shoulder joint

- 2- Pain radiates upto elbow joint 3- Pain radiates upto forearm
- 4- Pain radiates upto hand and fingers

3. GREEVA STAMBHA (NECK STIFFNESS)

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

4. WEAKNESS

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

5. PARASTHESIA

- 0- Present
- 1- Absent

6. BHRAMA (VERTIGO)

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

7. GREEVA SPARSHA AKSHAMATVA (TENDERNESS IN NECK REGION) 0- No

Tenderness

- **1-** Complains pain
- **2-** Complains pain with Winching of face
- **3-** Does not allow to touch the region

8. GREEVA HUNDANAM (Restricted movement of neck)

- 0- Normal movement of neck
- 1- Restriction of lateral movement of neck 2- Restriction of extension, flexion of neck
- 3- Restriction of Lateral, extension & Flexion of neck

9. GREEVA SHOTHA (NECK SWELLING) 0- No Swelling

1- Swelling present (with measurements/ in cm)

10. LOSS OF SENSATION 0- No loss

- **1-** Reduced sensation
- 2- Complete loss

The statistical analysis of the total effects of therapies was based on '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 Asseessment

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

Complete remission: 100% relief in signs, symptoms & clinical tests. Marked improvement: 75% to 99% relief in signs, symptoms & clinical tests. Moderate improvement: 50% to 74% relief in signs, symptoms & clinical tests. Mild improvement: 25% to 49% relief in signs, symptoms & clinical tests. Unchanged: <25% relief in signs, symptoms & clinical tests.

RESULTS

Assessment of overall effects of Therapies of 30 patients of *Greeva Hundanam*

Nasya i.e. Group A provided Marked Improvement in 13.33% of the patients, moderate improvement in 66.66% of the patients and 20% of the patients got mild improvement after

completion of 7 days treatment. (Graph 1)

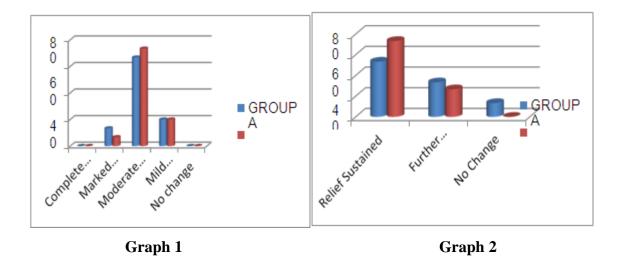
Greeva Basti i.e Group B provided Marked Improvement in 6.66% of the patients, moderate improvement in 73.33% of the patients and 20% of the patients got mild improvement after completion of 7 days treatment.

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

Follow up Assessment of 30 Patients of Greeva Hundanam

After 30 days of placebo (both group), in *Nasya* i.e. Group A, the follow up assessment of 30 patients of *Greeva Hundanam* showed relief is sustained in 53.55% and further improvement was seen in 46.66% and no change is seen in 6.66% patients.

In *Greeva Basti* i.e. Group B, the relief is sustained in 73.33%, 26.66% patients showed further improvement after follow up. (Graph 2)



DISCUSSION

On Chief Complaints

- In Group A in symptom Pain, Pain with radiation, Stiffness, Tenderness, the total effect of treatment provided statistically extremely significant (P < 0.001) result.
- In Group B in symptom Pain, Pain with radiation, Stiffness, Restricted movements, the total effect of treatment provided statistically extremely significant (P < 0.001) result.

On Associated Complaints

In Group A in associated symptom Vertigo, the total effect of treatment provided statistically

extremely significant (P < 0.001) result.

CONCLUSION

On the basis of the study, following conclusions can be drawn-

- *Greeva Hundanam* can be positively correlated with Cervical Spondylosis due to its etiology, clinical manifestation, pathogenesis and complications.
- Greeva Hundanam is described under Vatavyadhi in all the Samhita and Sangrahagrantha.
- Samprapti of Greeva Hundanam has two types viz. Dhatukhayajanya and Avaranjanya.
- The *Prasarini Taila* described in *Sharangdhara Madhyama Khanda* for the treatment of *Vatavyadhi* is very effective in the management of *Greeva Hundanam* w.s.r. Cervical Spondylosis. The administration of *Prasarini Taila* as internal application in the form of *Nasya* and external application in form of *Greeva Basti* are found markedly effective in management of *Greeva Hundanam*.
- Statistically significant changes observed in the symptoms like pain, stiffness, restricted movements in both the groups.
- The procedural differences that it possesses, with *Greeva Basti* have brought a better resolution on comparison between the procedures.

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