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## **Review Article**

## EVALUATE THE EFFICACY OF NASYA KARMA IN THE MANAGEMENT OF MANYASTAMBHA WITH SPECIAL REFERENCE TO CERVICAL SPONDYLOSIS

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## **ABSTRACT**

**Background:** In today's society, lifestyle has resulted in a plethora of diseases that, while not life-threatening, have a significant impact on everyday life. Neck soreness is one of them continuous working without rest on computers and mobile devices.

Aims and objective: To evaluate and compare the efficacy of Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashmoola Kwath and combined effect of Greeva Parisheka and Nasya Karma followed by Trayodashanga Guggulu in the management of Manyastambha with special reference to Cervical Spondylosis.

**Material and methods:** Source of information, Data gathering method, Criteria for inclusion, Criteria for exclusion Criteria for dropping out, drug selection criteria, and so forth. Criteria for diagnosis, Intervention, Research Design Procedure of *Panchakarma*, Assessment Criteria, Statistical research, Overall evaluation of the entire impact.

**Result:** The efficacy of *Greeva Parishek* with *Dashmool Kwath* in *Manyastambha* i.e. Group marked improvement in 01 (10%) patient and moderate improvement in 09 (90%) patients. *Nasya Karma* with *Mahamasha Taila* showed marked improvement in 05 (50%) patients and moderate improvement in 05

(50%) patients. The combined effect of *Greeva Parishek* with *Dashmool Kwath* and *Nasya Karma* with *Mahamasha Taila* i.e. Group C provided Marked improvement in 08 (80%) patients and moderate improvement in 02 (20%) patients after completion of treatment. No clinically adverse effect reported during the study.

**Conclusion:** Slowing deterioration, providing symptomatic relief, preventing future progression, and promoting a sense of well-being were all goals of therapy. *Mahamasha Taila Nasya Karma* and *Greeva Parisheka* with *Dashmoola Kwath* were researched in light of all of these considerations, since it is a very simple approach that is both cost-effective and practical in today's world.

Keywords: cervical spondylosis, Manyastambha, Nasya, Neck pain

## INTRODUCTION

In today's society, lifestyle has resulted in a slew of ailments that, although not necessarily life-threatening, on daily living. One of them is neck discomfort. With more desk-workers, unwholesome hectic life styles, unhealthy food habits, mental stress, improper sitting/standing or sleeping posture, long-distance travel, and continuous working without rest on computers and mobile devices, there is an increase in the incidence of this problem<sup>1</sup>. It is evident that this illness not only causes pain but also makes executing neck motions difficult, which is highly irritating and embarrassing for the patient<sup>2</sup>. Even though the sickness is in the neck, it disrupts the patient's daily routine and general existence. It's a condition that strikes at one's most productive years and gets worse as one gets older<sup>3</sup>. It is a common condition that affects both sexes in their middle and older years and is found all over the world.<sup>4</sup> Cervical spondylosis is reported to affect 40-60% of people at some point in their lives. Cervical spondylosis is more common in office employees who spend a lot of time sitting. Because it is a degenerative disease, it is most often seen in the elderly. Young and middle-aged people are being impacted as well. Degenerative alterations contribute to cervical spondylosis in 60-70 percent of females and 85 percent of males<sup>5</sup>.

The severity of neck problems worsens with time, especially after six months, and one's mental health suffers as a result.<sup>6</sup> Younger individuals are more affected by neck and referral arm problems than older ones.<sup>7</sup> It is generally known that the longer the discomfort lasts, the more likely it may become permanent, with up to 7% of individuals developing chronic neck pain.<sup>8</sup>

## AIM AND OBJECTIVE

**Aim-** To evaluate and compare the efficacy of *Nasya Karma* with *Mahamasha Taila* and *Greeva Parisheka* with *Dashmoola Kwath* and combined effect of *Greeva Parisheka* and *Nasya Karma* followed by *Trayodashanga Guggulu* in the management of *Manyastambha* with special reference to Cervical Spondylosis.

**Objective-** To evaluate and compare the efficacy of *Nasya Karma* with *Mahamasha Taila* followed by World Journal of Pharmaceutical Science & Technology Sep-Oct 2022 Issue V 64

Trayodashanga Guggulu in the management of Manyastambha. To evaluate and compare the efficacy of Greeva Parisheka with Dashamoola Kwath followed by Trayodashanga Guggulu in the management of Manyastambha. To evaluate and compare the combined efficacy of Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashamoola Kwath followed by Trayodashanga Guggulu in the management of anyastambha. To evaluate and compare the efficacy among Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashamoola Kwath and combined effect of Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashamoola Kwath followed by Trayodashanga Guggulu in the management of Manyastambha.

## MATERIAL AND METHODS

## PREPARATION OF MEDICINES

The drugs *Mahamasha Taila*, *Dashmoola Kwath* and *Trayodashanga Guggulu* were prepared in GMP certified pharmacy of N.I.A., Jaipur.

## SOURCE OF DATA

The patients attending the OPD and IPD of Post-graduate department of *Panchakarma*, National Institute of Ayurveda, Jaipur and from other referral hospital having *Manyastambha* (Cervical Spondylosis) fulfilling the inclusion criteria were selected irrespective of race, cast and religion for research study.

## METHOD OF COLLECTION OF DATA

A clinical study of patients attending the OPD and IPD, fulfilling the criteria of diagnosis and inclusions were selected for the study. A clinical evaluation of patients was done by collection of data through information obtained by history, physical examination and laboratory tests including radiological investigations (X-ray Cervical Spine). Review of literature was conducted from books, Authentic Research Journals, Websites and Digital Publications etc. The data obtained by the clinical trial were summarized and analyzed through statistical tools. Follow up in each case was planned for a minimum of 30 days after completion of treatment. During the follow up each case was evaluated according to the scoring criteria, which includes intensity of symptoms levels before and after treatment.

**INCLUSION CRITERIA**; Patients presenting with classical features of *Manyastambha* with radiological investigation suggestive of Cervical Spondylosis, explained in texts were subjected for this study. Patients with age group between 30-60 years. Patients of any socio-economic status, either gender and any ethnic origins. Patients willing and able to participate in the study for entire period. Patients fit for *Nasya Karma* and *Greeva Parisheka*. Fresh and treated cases were selected for the study.

**EXCLUSION CRITERIA;** Age below 30 or above 60 years. Patients suffering from any acute World Journal of Pharmaceutical Science & Technology Sep-Oct 2022 Issue V 65

diseases/infectious diseases/metabolic diseases/chronic diseases (like rheumatoid arthritis, DM, Gout, TB, SLE, Ankylosing spondylitis etc.) Patients with major systemic disorders that may interfere with the course of treatment. Stenosis of Spinal canal, Myelopathy. Patients unfit for *Nasya Karma* and *Greeva Parisheka*. Patients having any cut/any skin disease over nape of neck.

**DROP OUT CRITERIA;** Voluntary withdrawal of consent – If patient is not willing to continue his participation in the study and expressed his desire to withdraw consent at any time in the study period. Moved out of study area – If the patient expressed his desire to discontinue the study and is not willing to follow up because he shifted from his current residing place and moved out of the study area. Lost to follow up - Any patient who do not turn up at the study center on schedule visit and cannot be traced on home visit/cell phone contact is considered as lost to follow up. If any serious adverse events happen. Other difficulties or aggravation of symptoms – During the course of trial, if any serious condition or any serious adverse effects happen which require urgent treatment.

**DIAGNOSTIC CRITERIA;** An elaborate patient case report format incorporating the points of history, presenting complaint, physical examination, laboratory and radiological investigations was prepared. It mainly emphasized on signs and symptoms (subjective criteria and Objective parameters) of *Manyastambha* (Cervical Spondylosis).

Local examination; Inspection: Cervical spine curvature: normal/ abnormal, Shape of spine: normal/ kyphosis / lordosis/scoliosis, Length of the cervical spine: normal/ webbed, Swelling- Present/ Absent, Wasting of Hands, Palpation: Tenderness, repetition during flexion and extension: present / absent

**Laboratory Investigations** – ESR, Blood Sugar (FBS), Serum Uric Acid, , RA factor **Radiological Investigations** – Each patient was evaluated with X-ray Cervical Spine (Anterior-posterior view & Lateral view).

## RESEARCH DESIGN

It is open labelled randomized parallel group comparative clinical study. Patients were registered and selected for the study after getting voluntary consent. The patients were assigned in three groups consisting of 10 patients each excluding dropouts with pre, mid and post-test study design.

## **INTERVENTION**

**Group A -** *Nasya Karma (Marsha Nasya*- 6 drops in each nostril) with *Mahamasha Taila* was administered for duration of 14 days followed by *Trayodashang Guggulu* 1gm BID orally for 30 days.

**Group B -** *Greeva Parisheka* with *Dashamoola Kwath* for 30 minutes for duration of 14 days followed by *Trayodashang Guggulu* 1gm BID orally for 30 days.

**Group C** - Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashamoola Kwath for 30 minutes duration and for 14 days duration followed by Trayodashang Guggulu 1gm BID orally for 30 days.

**DURATION OF THE TREATMENT -** All three groups' patients got the above mentioned *Panchakarma* treatment for 14 days duration followed by oral medication for 30 days. Follow up was done after 30 days of completion of the treatment.

CRITERIA FOR SELECTION OF DRUG; Mahamasha Taila (Bharat Bhaishajya Ratnakar / Taila Prakaran- 5304) has been mentioned in the treatment of Vatavyadhi. It is used in paralysis, tinnitus, lumbar and cervical spondylosis treatment. It is used for both external and internal administration, Dashmoola Kwath (Bhava Prakash Chikitsa Prakarana-2/78) Dashmoola kwath pacifies all the Doshas mostly Vata Dosha and has potent anti-inflammatory, analgesic and anti-rheumatic actions, Trayodashang Guggulu (Bharat Bhaisajya Ratnakar-Part-2, Shloka No.- 2419) It is effective in neurological and musculoskeletal disorders. It has anti-inflammatory, anti-arthritic, carminative, analgesic, muscle relaxant and antioxidant properties.

## **PROCEDURE**

NASYA KARMA: The procedure of Nasya Karma can be divided into three stages such as - Purva Karma, Pradhana Karma and Pashchat Karma. Purva Karma: Atura Pareeksha - The patient is examined with reference to Prakriti, Vikriti etc. ten factors by applying Pratyaksha, Anumana and Aptopadesha, which will assess Vyadhibala and Dehabala (Ca.Sa.Vi.8/94-96). Sambhara Sangraha - Materials required for smooth conduction of Nasya Karma procedure were collected. It includes – medicine (Mahamasha Taila), stainless bowl, vessels, Nasya yantra (Gokarna), dropper, cotton, induction plate. Atura Siddhata - The procedure was briefly explained to the patient and having confirmed, he has passed the stool and Vegas properly, the patient was asked to lie down in supine position. Patients were intimated, not to take any food immediately before taking Nasya Karma. Then, patients were taken to a comfortable room, devoid of without dust, extreme breeze and sunlight. Bahya Snehana in the form of Mukha Abhyanga and mild Swedana with Nadi Sweda were done. Pradhana karma: Patients were made to lie down in supine with head low position. The position of head was not be excessively extended. Eyes of the patients were covered with a clean cloth; the tip of patient's nose was drawn upward. Then the *Mahamasha Taila* which was slightly warmed was taken in Gokarna and 6 drops of oil was instilled into each nostril. The other nostril was closed while administering themedicine. The medicine was instilled slowly as Avicchinna Dhara i.e. as an uninterrupted stream. After instillation soles, neck, palms, ears etc. were massaged mildly and then patients were asked to turn to sides and spit out the phlegm. The same procedure was repeated in either of the nostrils and care was taken not to shake the head during the procedure. After the administration of the medicine, patients were advised not to swallow the medicine but should spit it out. It was done till the smell and taste of the medicine disappears. Then, the patients were allowed to relax in same posture for 100 *Matra* without going to sleep. *Paschat karma*: Mild fomentation was done on forehead, cheeks and neck. Thepatients were asked to expel out the drug which comes in oropharynx. Medicated *Dhumpana* by *Dashmoola Kwath Churna* and *Gandusha* with *Shuddh Tankan* were advocated to expel out the residue mucous lodged in Kantha. Patients were advised to stay in a windless place. A light meal and lukewarm water were advised. Patients should avoid dust, smoke, sunshine, hot bath, anger, riding, day sleep, excessive intake fat and liquid diet. Patients were advised to avoid cold water for any purpose like *Pana, Snana* etc. *Laghu Aahara* and *Sukhoshna Jala* was allowed.

GREEVA PARISHEKA: The whole procedure of Greeva Parisheka was divided in three steps such as Purva Karma, Pradhan Karma and Pashchat Karma. Purva Karma: This includes preparatory measures like; preparation of patient, preparation of medicine and collection of materials required for the smooth conduction of the procedure. The patients were informed about the whole course of the treatment. The all required materials for Greeva Parisheka were arranged. Pradhan Karma: After the evacuation of natural urges, patients were asked to comfortably lie in prone position on the table with properly exposed Greeva Pradesha. Sthanika Abhyanaga over Greeva Pradesha was done for 10 minutes. The Parisheka Yantra was filled with Sukhoshna Dashmoola Kwath and poured from the height of 13 Angul (about 9 inches) over Greeva Pradesh for continues 30 minutes. The Kwath was reused by recollecting and reheating during the procedure. After refilling the Parisheka Yantra with heated Kwath, the temperature had been tested and confirmed with patients each time before starting the procedure. Paschat Karma: The whole Dashmoola Kwath was wiped out from patient's body. The patients were asked to take a bath with warm water after the procedure. During the course of treatment, patients were recommended to take moderate, mild, easily digestible diet for 14 consecutive days, and asked to observe the regimens for about 30 days after treatment.

## STATISTICAL ANALYSIS

The statistical analysis of the total effects of treatment was based on –

In intra-group comparison for nonparametric data; "Wilcoxon Wallis with Dunn's multiple signed ranks test" and "ANOVA Test" was used. In calculating the inter-group comparison Unpaired 't' test was used. The obtained results were interpreted as -P > 0.05-Not Significant, P < 0.05-Significant, P < 0.01-More significant, P < 0.001-Highly significant. Overall percentage of improvement of each patient was calculated by the formula – (Difference in score \* 100) / Total BT score.

## **RESULT & OBSERVATION**

30 patients selected from the OPD & IPD of Post-graduate department of *Panchakarma*, National Institute of Ayurveda, Jaipur. The 30 patients were divided in three groups (10 patients each), irrespective of any socio-economic status, all ethnic origins, fulfilling the criteria of diagnosis and inclusion. All patients were diagnosed based on signs and symptoms of *Manyastambha* (Cervical Spondylosis). Clinicalexaminations & investigation of each patient were performed.

All the patients were examined at baseline, during and after the trail. Findings were noted in Clinical research (proforma attached). The data recorded are presented under the following headings. Demographic data, Evaluating disease Data, Result of the Treatment, Statistical analysis of the clinical parameters

Total 45 numbers of patients of *Manyastambha* (Cervical Spondylosis) were screened for the study, out of which 39 patients met the inclusion criteria. Among these 39 patients, 05 patients expressed their desire to withdraw from the study. A total of 30 patients, 10 patients in each group have completed the present study,

Rasa dominant, 23.33% Ati Ruksha, 26.67% Ati Laghu, 46.67% Ati Sheeta guna dominant diet. Maximum 30% patients practicing were Vishamasana. 6.67% Adhyasana, 26.67% Alpasana. 3.33% patients had Ativayavaya, 50% patients had Ratri Jagarana, 6.67% patients had Divaswapna, 6.67% patients had Visham chesta, 36.67% patients had Adhovata Vegasandharana as Viharaja Nidana. 40% patients had Chinta as Mansika Hetu, 6.67% had Bhaya, 26.67% had Shoka, 30% had Kama and 33.33% had Krodha as Mansika Nidana. [Fig. 1].

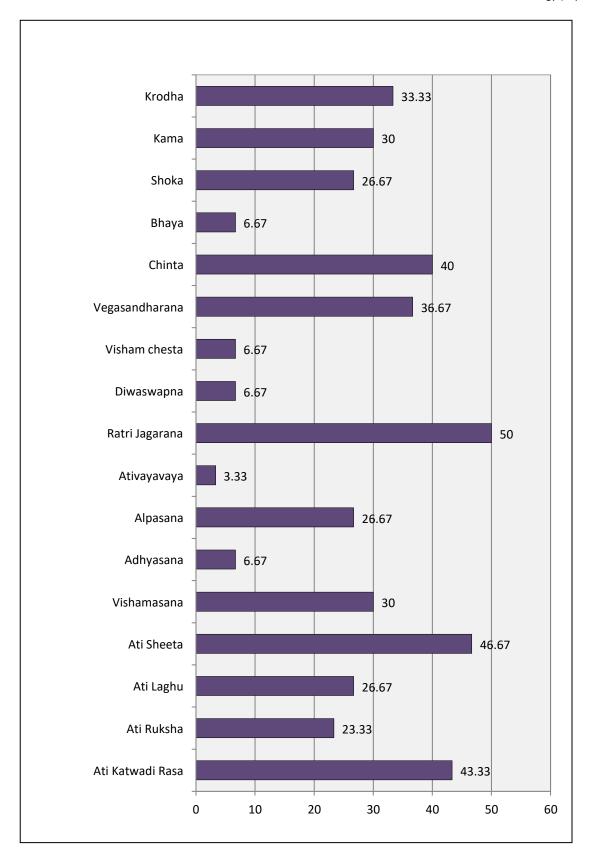


Fig 1: Nidan (Causative Factors) in 30 Patients of Manyastambha

The observation reveals that, pain, stiffness, lateral rotation and left lateral flexion were observed in all 100% patients. Vertigo was observed in 60%, flexion and right lateral flexion in 50%, extension in 66.67%,

left lateral flexion, sleeplessness, heaviness in 53.33%, tingling sensation in 73.33%, headache and weakness in 46.67% and myopathy in 43.33% patients. [Fig. 2].

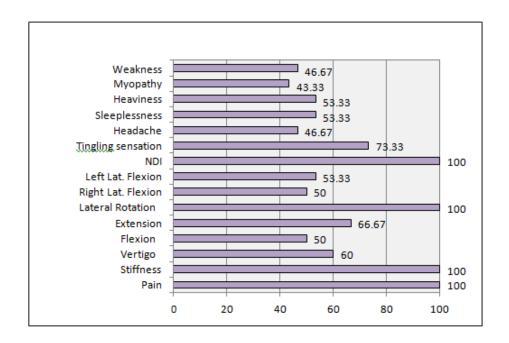


Fig 2: Relief Percentage of Individual Parameters in 10 Patients of Group A

The comparative effect of treatment of total symptom score and percentage of each symptom of all patients of three groups were evaluated after 15 days of treatment. The relief percentage in individual symptoms of *Manyastambha* revealed a better therapeutic efficacy of treatment after 15 days in pain, vertigo, extension, left lateral flexion, headache and weakness of Group C as compared to Group A & B. [Fig. 3].

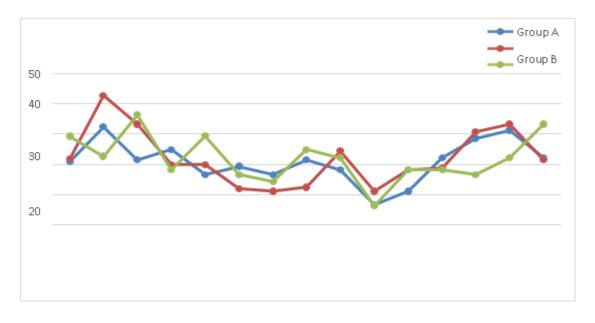


Fig 3: Relief Percentage of Individual Parameters of Group A and B

The efficacy of *Greeva Parishek* with *Dashmool Kwath* in *Manyastambha* i.e. Group A provided marked improvement in 01 (10%) patient and moderate improvement in 09 (90%) patients. The efficacy of *Nasya Karma* with *Mahamasha Taila* i.e. Group B provided marked improvement in 05 (50%) patients and moderate improvement in 05 (50%) patients. The combined effect of *Greeva Parishek* with *Dashmool Kwath* and *Nasya Karma* with *Mahamasha Taila* i.e. Group C provided Marked improvement in 08 (80%) patients and moderate improvement in 02 (20%) patients after completion oftreatment. No patient was found unchanged in all three groups. There was no need to take any other medication during the treatment. No clinically adverse effect reported by patients or observed by the researcher during the study [Fig. 4].

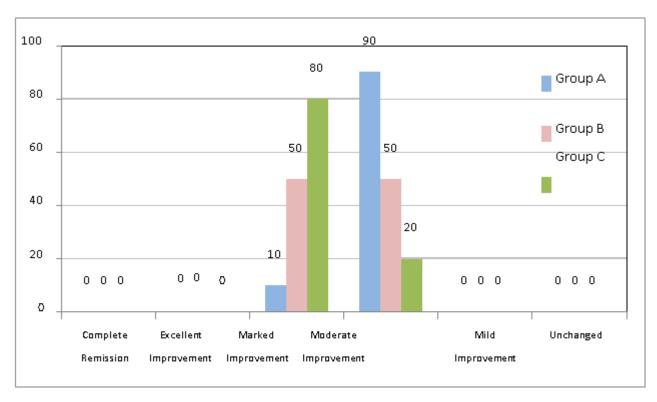


Fig 4: Assessment of Overall Effects of Treatment of 30 patients of Manyastambha

## **DISCUSSION**

Effects of Treatment on Symptom Pain – The total effect of therapies on Pain in each patient was evaluated before and during every intervention of the treatment. In Group A, the initial mean score of patients was 6.7 which was reduced to 5.3 after 15 days and 4.2 after treatment. The reduction in mean score remains continued 4.1 after one month follow up of completion of treatment. In Group B, the mean before treatment was 6.9 which was reduced to 5.4 after 15 days, 4.2 after treatment and 4 after follow up of completion of treatment. In Group C, the mean before treatment was 6.5 which was reduced to 4.6 after 15 days, 2.8 after treatment and remains constant 2.8 after follow up of completion of treatment. In all the three groups, patients showed highly significant improvement after completion of treatment.

Dashamoola Parisheka having Swedan like effects reduces the excitability of the muscle spindle. Heat due to Dashamoola Parisheka acts as a counter irritant, which is the thermalstimulus, may affect the pain sensation as explained by the gate theory of Melzack and Wall. Nasya having Vatahara properties and Trayodashanaga Guggulu having Shoolahara, Shothahara and Vata-Kaphahara properties provided relief in pain.

Vata and Kapha doshas involved in Manyastambha produce pain and stiffness. Swedana is indicated in Vata-Kapha disorder. In this study, Greeva Parishek with Dashmoola Kwath was given. The application of heat through Parisheka promotes circulation on affected part and associated metabolic activities by its Ushna Guna. Ushna and Teekshna qualities of Dashamoola Parisheka stimulate metabolism. The Parisheka dilates the capillaries, boosting circulation. More waste materials are eliminated as a result of increased circulation. It also activates muscles and nerves, and reduces pain and stiffness.

## PROBABLE MODE OF ACTION OF DRUGS -

Mahamasha Taila<sup>9</sup> (Bharat Bhaishajya Ratnakar / Taila Prakaran- 5304) has been mentioned in the treatment of *Vatavyadhi*. It is used in paralysis, tinnitus, lumbarand cervical spondylosis treatment. It is used for both external and internal administration. Dashmoola Kwatha<sup>10</sup> (Bhava Prakash Chikitsa Prakarana-2/78) Dashmoola Kwath pacifies all the Doshas mostly Vata Dosha and has potent anti-inflammatory, analgesic and anti-rheumatic actions. *Trayodashang Guggulu*<sup>11</sup> (*BharatBhaisajya Ratnakar*-Part-2, *Shloka* No.- 2419) It is effective in neurological and musculoskeletal disorders. It has anti-inflammatory, antiarthritic, carminative, analgesic, muscle relaxant and antioxidant properties. In this research, an attempt was made to evaluate the efficacy of Nasya Karma with Mahamasha Taila and Greeva Parisheka with Dashmoola Kwath followed by Trayodashanga Guggulu in the management of Manyastambha with special reference to Cervical Spondylosis. Mostof the ingredients of Mahamasha Taila are having Laghu Ushna Snigdha Gunas and Kapha vata hara properties. Manyastambha being a Vataja Vyadhi with kapha Avaranagets regressed by the usage of this Mahamasha Taila as Nasya. The Balya Guna of Masha helps in correcting degeneration of bones in Cervical Spondylosis. *Tila*due to its *Guru* and *Snigdha Guna* pacifies the Vata. Due to Ushna Veerya it acts against both Vata and Kapha. Tila have Vedanasthapana action and it reduces the pain. Balya action of Tila provides strength to the muscles thus restricted movement in Manyastambha is relieved. It also helps to prevent excess Rookshatha induced by other drugs of the combination. When assessing the properties of drugs in Dashmoola Kwath Greeva Parishek, it shows Guna which help in removing the Kapha Avarana of Vatain Manyastambha. Ushna veerya helps in alleviating vitiated Vata. Laghu and Rooksha Guna together with Ushna Veerya make a drug of Vata Kapha hara property. Greeva Parishek by its Ushna Guna reduce the Sheeta Guna of both Vata and Kapha. Ushna itself has Vata Kapha Hara property.

In the condition of *Stambha*, involvement of *Kapha* together with *Vata* is to be considered. *Sheeta* is common in *Vata* and *Kapha* and is responsible for the *Sthambha*. *Greeva Parishek* have *Ushna Guna*. More over ingredients of *Dashmoola Kwath* are having *Ushna Veerya* and are *Vata Kapha Hara* in action.

Hence produce better relief in *Stambha*. *Trayodashanga guggulu* act as *Vata-kaphashamaka* and *Vata Shamaka*. It is indicated in the management of *Vatavyadhi* by *Vangsena*, *Bhavaprakasha* and *Bhaisajya Ratnavali*.

## **CONCLUSION**

Slesaka Kapha are main culprits for the production of Manyastambha. Vyana Vayu and Manyastambha is one of the Vataja Nanatmaja Vyadhis. As a result, medicines with Vatahara characteristics should be used. Mahamasha Taila Nasya Karma and Dashmool Kwath Greeva Parisheka both contain characteristics that help to prevent bone deterioration and promote regeneration. Based on Rogaprakriti, Adhishthan, and Samutthana, as well as their clinical presentations, Manyastambha can be correlated to the disease entity Cervical Spondylosis, as defined by modern medical research. According to the findings of the current study, Manyastambha peaks in the fourth decade of life. This indicates that degenerative changes in the intervertebral joints caused by Vata Prakopaka Kala and spondylosis begins around the age of 40 years. As a result, it is apparent that the natural ageing phenomena *Dhatukshya*, in terms of degeneration, is the primary reason of Manyastambha. Disintegration of Samprapti is Chikitsa, but when age-related alterations are evident, such as in cervical spondylosis, total reversal is not possible. The goal of treatment was to slow neurological degeneration, offer symptomatic relief, prevent future progression, and promote a sense of well-being. Taking into account all of these factors, Mahamasha Taila Nasya Karma and Greeva Parisheka with Dashmoola Kwath were studied, since it is a very basic technique that is both cost-effective and practical in present era.

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