

Clinical evaluation of the efficacy of masha saindava taila and karapasasthyadi taila as nasya in the management of manyasthambha

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Abstract

In the present era of modernization and fast life everybody is busy and living a stressful life. Advancement of busy professional and social life, improper sitting posture in office, continuous work in one posture and over exertion, jerking movements during travelling and sports and other strenuous activities – all these factors create undue pressure and stress injury to the spine play an important role in producing disease like Cervical spondylosis. Nasya karma is considered as a prime line of treatment in urdhwa jathru vikaras. The disease Cervical spondylosis is primarily affecting the neck, to be correlated as manyasthambha.

Comparative Clinical Study in which the data collected before study is compared with data collected after study. 2 groups of 20 patients each suffering from Manyasthambha of either sex in age limit between 20-60 years were selected from the OPD and IPD of the Department of Panchakarma, Karnataka Ayurveda Medical College and Hospital, Integrated AYUSH Hospital of District Wenlock Hospital Mangalore and from Medical camps conducted for the same.

GROUP A: 20 patients were administered with Masha saindava thaila Nasya 8 bindus in each nostril once a day for seven days. GROUP B: 20 patients were administered with Karpasasthyadi thailam Nasya 8 bindus in each nostril once a day for seven days. Both the group showed significant improvement in the parameters of Ruk, Graha, Cervical spine movements and Muscle strength. Comparative analysis of overall effect of treatments in both the groups showed that the treatment is equally significant in Group A when compared to Group B. Group A overall result is 58.72% and Group B overall result is 60.88%.

Present study concluded that Mashasaindava Taila Nasya is equally effective as Karpasasthyadi Taila Nasya in managing manyasthambha. Also the cost effectiveness and less production effort makes it a more suitable choice for managing the disease.

Keywords

Manyasthambha, Cervical spondylosis, Nasya karma, Masha saindava taila nasya, Karpasasthyadi taila nasya.

Introduction

Ayurveda is the most ancient and natural system of medicine that has been practiced for more than 5000 years. Ayurveda was the system of health care conceived and developed by the Rishis and natural scientists through centuries of observations, experiments and discussions. The term 'Panchakarma' literally means five-fold therapy. The word 'Pancha' has a meaning 'Vistara' (elaborate) also. Thus, it implies the meaning elaborate procedures. Both the meanings are really true in their sense. The therapies that are included under this collective term are Vamana karma, Virechana karma, Nirooha vasti, Anuvastana vasti and Nasya karma¹. It is necessary at this state to make it clear that these Panchakarmas do not imply simple administration of emesis, purgation, enema or nasal drops as is conventionally understood. Elaborate methods are described for preparation of the individual prior to the administration (Poorvakarma), the administration of the procedure (Pradhanakarma) and the management of the patient after the therapy is administered (Paschat karma). From the five types of therapies Nasya is described as having a significant role in urdhwa jathrugata vyadhis² due to its sodhana, brumhana and samana effect. Especially the brumhana nasya is having vata samaka property. So, this study was taken to see whether the treatment is effective or not in manyasthambha diagnosed as cervical spondylosis which is a common degenerative spinal problem affecting the people very badly.

Ayurveda the age-old Indian system of medicine advocates a reliable management of diseases with due consideration to protect the normal health while treating the disease with highly efficacious and easily available drugs. Ayurvedic scientists at various centers with an aim to study the cervical pathologies like Grivasthambha, Manyasthambha etc. and to evolve safer and economical medicaments for it, have carried out several experimental and clinical studies. The works are successful to some extent to relieve pain and stiffness, the common complaints of this condition.

This clinical study is to assess the comparative effect of Mashasaindhavathaila^{3,4} Nasya and Karpasasthyadi thaila⁵ Nasya on the signs and symptoms of manyasthambha. Previously it was proved that Nasya is very effective in reducing the signs and symptoms of manyasthambha. Nasya is one among the panchakarma procedure especially indicated for jatrueordha vyadhis. As far as etiopathology of cervical spondylosis is concerned vatavaigunya is important and snehanasya is specially indicated for jatrueordha vatavikaram.

Many medicines are prescribed in Ayurveda for treatment of Vata rogas. Among them Masha saindava thaila yoga and Karpasasthyadi thaila yoga is famous for the treatment of Manyasthambha. Though both yogas are beneficial in urdhwa jathru vikaras. The masha saindhava thaila which is specifically for the kaphavrtta vata or directly pacifies the vata, Masha, Tilathaila, Saindhava are the contents of Mashasaindhavathaila. therefore it helps the proper spreading of medicine through srotas where as karpasasthyadi thaila is vatakapahara and brimhana in nature. So, it is essential to evaluate the efficacy of two yogas independently over the samprapthi vighatana of manyasthambha. Since Manyasthambha is a disease affecting the neck and upper limbs, these two yogas are expected to give good response in the treatment of this disease. So, the study is planned to evaluate and to compare the therapeutic effect of Mashasaindava thailam and Karpasasthyadi Thaila Nasya in the management of Manyasthambha. So, the present study is evaluating the efficacy of both nasya forms in manyasthambha.

Aims and Objectives

- To evaluate the efficacy of Masha saindava Thaila nasya in the management of Manyasthambha
- To evaluate the efficacy of Karpasasthyadi thaila Nasya in the management of Manyasthambha
- To compare the efficacy of Mashasaindava Thaila Nasya and Karpasasthyadi Thaila Nasya in the management of Manyasthambha

Methodology

Sample size:

Those patients diagnosed as cervical spondylosis based on clinical findings, attaining the inclusion criteria were selected for the study, 40 patients fulfilling either sex was selected randomly.

Diagnostic Criteria:

- Greeva rujam

- Siro graham

Inclusion Criteria:

- Patients in the age group between 20 - 60 years were selected.
- Patients of both sex.
- Patient indicated for nasya.
- Patient willing and able to participate in the study for 2 weeks.

Exclusion Criteria:

- Patients related to major systemic disorders that interfere in the line of treatment.
- Pregnancy and lactating mother.
- Age group: less than 20yrs and exceeding 60 yrs are to be excluded.
- Conditions like Cervical Myelopathy, Prolapsed disc etc
- Patients contra-indicated for Nasya.

Study Design

The research design for this study is an open clinical trial. It is a comparative clinical study in which the data collected before study is compared with data collected after study.

POSOLGY

Patients were selected in two groups Group A and Group B, consisting of 20 patients in each group excluding dropouts as per the criteria for the study.

Group A : 20 patients will be given Nasya karma with Masha saindava thaila 8 bindus in each nostril once a day for seven days sitting.

Group B: 20 patients will be given Nasya karma with karpasasthyadi thailam 8 bindus in each nostril once a day for seven days sitting.

Study Duration:

- 1-7th day: Nasya is given
- 7 days followed by Parihara Kala of 14 days
- Follow up after 21 days

INTERVENTION: Treatment Procedure SambharaSamgraha

Cotton pad, gauze, lotus petals to protect eyes while swedana were made available. For swedana arrangement for nadiswedana (pressure cooker without weight, long heat resistant flexible pipe) was made. Gokarna, Warm water for kavala, Haridra churna dhoomavarthi, disposable sterile plastic

container for spitting (preferably transparent) were made available.

Purva karma

The Patient was advised to wash the face and mouth with luke warm water. Abhyanga was done over shiras, lalata, kapala, greeva and skanda. Nadisweda was done followed by abhyanga over palm and sole. Eyes were bandaged with a clean gauze piece after placing lotus petals and cotton pad over closed eyelids while doing the swedana. Patient was made to lie in supine position with slightly elevated legs and head extended backwards.

Pradhana karma

The medicine was mildly warmed over a water bath. The prescribed dose of medicine was taken in the Gokarna and poured into either nostril closing the other in a continuous single stream. Immediately after instillation of medicine mild massage was done over pani, pada, greeva, skanda. Patient was asked to inhale the medicine with moderate force and to spit it through mouth turning head to either side alternatively without rising from the cot. Patient was made to lie in the same position for 100 matrakala (3-5 minutes).

Pashchat karma

Dhoomapana was done with Haridra churna followed by Kavala with warm water to attain kanthashudhi. The patient was advised not to take any type of food or drinks for two hour after nasya.

Assessment Criteria

Assessment was done at baseline, on completion of the procedure and after follow up.

Subjective Parameters

- Ruk

- Graha

Objective Parameters

- Mobility (Flexion)
- Extension
- Lateral flexion
- Rotation
- Passive neck flexion
- Muscle strength

Statistical Analysis

For the statistical analysis, the data obtained in both the groups were recorded, presented in tables, diagrams and graphs. The following statistical tests are used for assessment of parameters:

- Assessment of parameters within the group (after treatment and after follow up) – Wilcoxon sign rank test.
- Assessment of parameters between the groups – Mann-Whitney U test.

The corresponding p value was noted and obtained results were interpreted as follows:

- For p value > 0.05 – interpreted as no significant.
- For p value < 0.05 – interpreted as significant.

Results

Statistical analysis of Subjective and Objective parameters tabulated below.

Group	Mean score				%	S.D (±)	S.E (±)	Wilcoxon Z Value	p value
	BT			BT-AT					
Group A on Ruk	2.45	AT	1.35	1.10	44.90	0.308	0.071	3.92	<0.05
		AF	0.95	1.50	61.22	0.513	0.118	3.92	<0.05
Group B on Ruk	3.05	AT	2.20	0.85	27.87	0.366	0.084	3.92	<0.05
		AF	1.85	1.20	39.34	0.616	0.141	2.21	<0.05
Group A on Graha	1.70	AT	2.60	0.90	29.03	0.553	0.127	3.62	<0.05
		AF	3.10	1.40	45.16	0.754	0.173	3.72	<0.05
Group B on Graha	1.25	AT	2.20	0.95	36.54	0.224	0.051	3.82	<0.05
		AF	2.60	1.35	51.92	0.587	0.135	3.82	<0.05
Group A on Flexion	0.45	AT	1.30	0.85	62.96	0.366	0.084	3.62	<0.05
		AF	1.35	0.90	66.67	0.447	0.103	3.62	<0.05
Group B on Flexion	0.20	AT	1.05	0.85	68.00	0.366	0.084	3.62	<0.05
		AF	1.25	1.05	84.00	0.510	0.117	3.72	<0.05
Group A on Extension	0.35	AT	1.30	0.95	65.52	0.224	0.051	3.82	<0.05
		AF	1.45	1.10	75.86	0.447	0.103	3.82	<0.05

Group B on Extension	0.20	AT	1.05	0.85	68.00	0.366	0.084	3.62	>0.05
		AF	1.25	1.05	84.00	0.510	0.117	3.72	>0.05
Group A on Right Lateral Flexion	0.35	AT	1.35	1.00	68.97	0.000	0.000	3.92	<0.05
		AF	1.45	1.10	75.86	0.447	0.103	3.92	<0.05
Group B on Right Lateral Flexion	0.20	AT	1.05	0.85	77.27	0.366	0.084	3.62	<0.05
		AF	1.10	0.90	81.82	0.308	0.071	3.72	<0.05
Group A on Left Lateral Flexion	0.45	AT	1.25	0.80	55.17	0.410	0.094	3.52	<0.05
		AF	1.45	1.00	68.97	0.562	0.129	3.62	<0.05
Group B on Left Lateral Flexion	0.20	AT	1.00	0.80	72.73	0.410	0.094	3.52	<0.05
		AF	1.10	0.90	81.82	0.308	0.071	3.72	<0.05
Group A on Rotation	0.45	AT	1.25	0.80	55.17	0.410	0.094	3.52	<0.05
		AF	1.45	1.00	68.97	0.459	0.105	3.72	<0.05
Group B on Rotation	0.20	AT	1.00	0.80	69.57	0.410	0.094	3.52	<0.05
		AF	1.15	0.95	82.61	0.224	0.051	3.82	<0.05
Group A on Passive Neck Flexion	2.15	AT	1.30	0.85	39.53	0.366	0.084	3.62	<0.05
		AF	0.65	1.50	69.77	0.607	0.139	3.82	<0.05
Group B on Passive Neck Flexion	2.10	AT	1.50	0.60	28.57	0.503	0.115	3.05	<0.05
		AF	1.10	1.00	47.62	0.324	0.074	3.82	<0.05
Group A on Muscle Strength	2.20	AT	3.10	0.90	27.69	0.308	0.071	3.72	<0.05
		AF	3.25	1.05	32.31	0.224	0.051	3.92	<0.05
Group B on Muscle Strength	1.25	AT	2.25	1.00	36.36	0.000	0.000	3.92	<0.05
		AF	2.75	1.50	54.55	0.513	0.118	3.92	<0.05

Comparative results of Signs and Symptoms of Group-A and Group-B.

Signs and Symptoms	Group A (Mean Score)	Group B (Mean Score)	Z-Value of Mann Whitney	U Value	P Value
Ruk	1.58	2.37	3.57	67.50	<0.05
Graha	2.47	2.02	2.39	111.00	<0.05
Flexion	1.03	0.83	1.17	156.00	<0.05
Extension	1.03	0.83	1.17	156.00	>0.05
Right Lateral Flexion	1.05	0.78	1.78	133.50	>0.05
Left Lateral Flexion	1.05	0.77	2.32	113.50	<0.05
Rotation	1.05	0.78	2.04	124.00	<0.05
Passive Neck Flexion	1.37	1.57	1.90	129.00	>0.05
Muscle Strength	2.85	2.08	3.09	85.00	<0.05

Comparative results of Group A and Group B

Group A	Group B	Mean Difference	SE (±)	Z-Value of Mann Whitney	U Value	P value
58.72	60.88	2.16	3.25	1.52	143.00	>0.05

Comparative analysis of the overall effect of the treatments in both the groups was done by statistically with Mann Whitney test. The test shows that the treatment is equally significant in Group A when

compared to Group B. Group A overall result is 58.72% and Group B overall result is 60.88%.

DISCUSSION

Discussion on Karma

Manyasthambha diagnosed as cervical spondylosis is a vatavyadhi. The condition is affecting the neck region with the symptoms such as pain and stiffness. Vata is vitiated either because of Avarana or Dhathukshya when vata covered by kapha or dosha accumulation makes Greevagraha. In initial stage of the disease the kaphaanubandam is acknowledged. Ayurveda advocates a reliable management of this condition through highly effective and easily available drugs based on doshic theory. Ayurvedic approach to the disease management of Greevagraha, a vyadhi occurring in the Jatruurdhwa is to retard the inflammation and degeneration and to strengthen the dhathus and pacifying the vatadosha which has a special importance in the management.

Nasya karma is the first line of management explained in the classic for urdwajatrugata vatavyadhi. Greevasthambha being one of the urdwajatrugathavikara and especially dhathukshayanyavataroga, bruhmana type of nasyakarma is more beneficial. Brimhananasya karma has been selected for the study because the disease Greevasthambha is degenerative in origin and Urdwajatagata vatavyadhi. Hence Nasyakarma with Mashasaindhavathaila and Karpasasthyadi taila is advisable to palliate the disease which helps to set right the disease resorting to santarpana type of chikitsa which prepared with vatakapahara drugs.

Discussion on Drug review

MashasaindhavaThaila

Most of the ingredients of Mashasaindhavathaila are having guru and snigdha gunas which pacifies vatadosha. Saindhava and Tilathaila are having sookshmaguna that helps the proper spreading of the medicine through subtle srothas. Most of the drugs are having ushnvirya, so they act as vatakapasamana. All the ingredients of this thaila are having madhuravipaka and alleviates vatadosha. Masha is vatahara, Saindhava is tridoshasamana and Tilathaila is vatakapasamana by nature. By considering all these facts we can assume that the overall effect of Mashasaindhavathaila will be vatakapasamana. Cervical spondylosis being a vatavyadhi with kaphaanubandha gets regressed by the usage of this thaila as Nasya.

Karpasasthyadi Thaila

For the procedure Nasyakarma taila is considered better for the treatment of Vatavyadhi. Simple Tila taila can control the vitiated Vata but the medicated taila with Vatahara drugs is more beneficial. Karpasasthyadi taila has been described in Sahasrayoga as Vatahara. Hence Karpasasthyadi was selected for procedure Nasya in present study. Most of the ingredients of Karpasasthyadi taila are having ushna veerya, snigdha guna, vata kapha nashaka properties and having karmukata as vedana nashaka, snehana and brumhana

Discussion on Disease

Cervical Spondylosis is a non-specific term describing the

morphological manifestations of progressive degeneration of the spine. Cervical Spondylosis is a common degenerative condition of the cervical spine that most likely is caused by age related changes in the inter-vertebral discs. The most common symptom is pain in the neck, worsening with exertion and relieved, in the early stages, by rest. This pain often radiates down to the hand, with the fingers becoming numb due to compression of the nerves that innervate the upper extremity of the brachial plexus is affected. The trapezius area becomes tender and painful. A nodule can form in the muscle due to chronic pressure. The symptoms of cervical cord compression can sometimes be severe. The pain radiates down the right or left arm to the fingers, to the chest and shoulder blades depending on which side the nerve root is involved. It can become continuous, making movements painful and limited.

Almost all the patients of cervical Spondylosis have a history of trauma or bad postures which in turn leads to improper positioning of cervical vertebrae, this puts uneven pressure over the spinal nerve roots producing different signs and symptoms. It is observed that when a person sleeps with improper head position, especially in middle aged or old aged, develop inflammatory and degenerative processes in the cervical vertebrae, and may lead to manyasthambha. Spondylosis is due to ageing process or with wrong postures causing minor trauma, which can accelerate the pathology of manyasthambha and further degeneration leading to set a clinical features. Considering the etiology, signs and symptoms the cervical Spondylosis can be compared to manyasthambha as follows. Stiffness which is a major symptom of cervical spondylosis can be correlated to Sthambha. Aching pain which occurs in this disease can be correlated to the ruk and muscle weakness to sada and paraesthesiae and numbness to swapa. Muscle wasting which can occur in root compression as a complication of cervical spondylosis can be correlated to sosha which is again karma of vridhavata. Thus, almost all the symptoms reveal essential role of vitiated vata in the pathogenesis of cervical spondylosis. Sandhis are the abode of sleshakakapha. Its function is to connect the different units of sandhi. This

action is performed by snigdhatwa (unctuousness), Slakshnatwa (smoothness), Mrisnatwa (lubricability) of kapha. Apart from this asthi sandhis are strengthened by the presence of snayu and peshis in the surrounding area.

Discussion on Probable Mode of Action:

In Ayurvedic classics, the mode of action of Nasya karma is explained indirectly. According to Charaka Samhita, the drug administered through the nose enters in the Uttamanga and eliminates the morbid doshas residing there. The sneha Nasya which is administered through nose gives Bala and do the preenana of Shira kapalagata siras, sandhis and snayu kandas. It indicates the action of Nasya. The absorption of the drugs is carried out in three media. They are by general blood circulation, after absorption and through mucous membrane. The direct pooling into Venous sinus of brain via inferior ophthalmic veins and next one absorption directly in to the cerebra spinal fluid. Apart from the small emissary veins entering cavernous sinuses of the brain, a pair of venous branch emerging from alliance will drain into facial vein. Just almost in the opposite direction inferior ophthalmic in other hand also drain into cavernous sinus of the meninges. And in addition neither the facial vein nor the ophthalmic veins have any venial values so there are more chances of blood draining from facial vein into the cavernous sinus in the lowered head position.

The drug administered enters the para nasal sinus especially frontal and sphenoid sinus i.e., shringataka where the ophthalmic veins and the other veins spread the sphenoid sinus are in close relation with intra-cranial structures. Thus there may be a so far undetected route between air sinuses and cavernous sinuses enabling the transudation of fluids. As a whole, the mentioning of the shringataka in this context seems to be more reasonable. From the above it was observed that the Mashasaindhava thaila Nasya and Karpasasthyadi thaila is very much effective in reducing the sign and symptoms of cervical spondylosis. About the exact mechanism of the action of the Mashasaindhavathaila Nasya and Karpasasthyadi thaila in reducing the signs and symptoms is not clearly understood. Still a humble attempt to analyse the possible mode of action is made. Considering the pain relief, the vataharatwa nature of Mashasaindhavathaila Nasya and Karpasasthyadi thaila is found to be reducing the pain. In the case of neck stiffness, the ushnavirya of the Mashasaindhavathaila may found to be alleviating the stiffness, which is caused by seethaguna. As the stiffness is removed it enhances the mobility of the joints also. The cause for neck stiffness is dehydration of intervertebral discs. Nasya with a nourishing drug can induce some nourishment to the tissues

by impregnating kaphabhavas and may reduce degeneration. In cervical spondylosis, degenerative changes and osteophytosis occurs which compress the nerve roots. This leads to radiculopathy and resultant radiation of pain. It is difficult to reverse these structural changes. Still Nasya is having significant relief in pain radiation. The exact mechanism is obscure but it is assumed that the nasya improves circulation and prevents the degeneration up to some extent.

Conclusion

Cervical Spondylosis is a degenerative disease producing various signs and symptoms which is badly affecting the day to day activities. The disease cervical Spondylosis and manyasthambha are similar in their etiology, signs and symptoms. The Dosha involved in manyasthambha are Vyanavata and Sleshaka Kapha. It is a Vatavyadhi affecting asthi and sandhi of greeva. The manyasthambha is a roga occurring above the Jathru. Nasya is the main treatment modality of Urdhwajatrugata vikaras and which is cost effective and can be implicated easily in day today life. In this study Nasya is very much effective in reducing signs and symptoms of manyasthambha diagnosed as cervical Spondylosis. No complications of Nasya (atiyoga, ayoga and mitya yoga) were observed in this study. Statistical analysis of patients of group A showed moderately significant results in Ruk ($p < 0.05$) and group B showed highly significant results ($p < 0.05$). Statistical analysis of patients of group B showed moderately significant results in Graha ($p < 0.05$) and group A showed highly significant results ($p < 0.05$). In the case study of Masha Saindhava Thaila Nasya drug cost effect is too less when compared to other thaila. Comparatively both the groups have almost same significance in the parameters. But both the Groups shows more net mean effect and results lasted throughout follow up period.

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