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A Clinical Study to Evaluate the Efficacy of *Dashanga Taila Nasya Karma* in Cervical Spondylosis w.s.r *Vishwachi*

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ABSTRACT

Nasya karma, one among the panchakarma has both preventive and curative effect over the jatruurdhwa parts. Among the diseases affecting the jatruurdhwa pradesha, Vishwachi is one which presents with severe pain and functional disability in the affected bahu(upper limb). Cervicalradiculopathy can be best compared with this. Among the different causes of rediculopathy, cervical spondylosis most common with most affected age group between fourth and fifth decade. Vishwachi being shula pradhana vatavyadhi, affecting the urdhwajatru avayava, can be best treated with snehana type of nasya karma. Hence, Dashanga taila is selected for nasya karma. So, a single blind clinical study was planned where in 20 patients of cervical spondylosis were subjected to Dashanga taila nasya karma for 7 days. Patients were assessed based on standard parameters before and after treatment and 7 days of follow up. The statistical analysis revealed that, there is statistically significant improvement in parameters like Neck Pain, Radiation of pain, Stiffness, Muscle weakness, Paraesthesia, Grip in hand, Movement of neck, Tenderness, Neck disability index, Ruk, Toda, S tambha, Bahu kriyahani with p value <0.001. The overall effect of the therapy showed that, 10 % patient had 50-75% of improvement and 5% each had improvement between 76-80% and 80-90%. Hence, Dashanga taila nasya karma is therapeutically effective in treating vishwachi due to cervical spondylosis.

KEYWORDS

Nasya karma, Vishwachi, Cervical spondylosis, Dashangataila



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INTRODUCTION

Amongst the treatment approaches in Ayurveda, Shamana and Shodhana are two major treatment modalities. Panchakarma is one such treatment which performs shodhana karma. The aim of Panchakarma therapy is to purify and detoxify the body and practiced both in healthy and diseased individuals. In diseased, it helps to get rid of many diseases and prevents the recurrence. In healthy persons, it keeps them physically and mentally fit.

Nasya karma is one amongst the Panchakarma wherein the medicines are instilled into the nostrils to eliminate or to alleviate the morbid dosha from the jatrurdhwa pradesha and for urdhwa jatrugata vikaras it is considered as prime line of treatment¹. Nasya also imparts strength to the neck and shoulders². As Nasya is considered as the gateway to the shiras³, the drug instilled will directly reach the target area and the effect can be observed.

One of the diseases affecting the jatrurdhwa pradesha, presenting with severe pain and functional disability in the affected bahu (upper limb) is Vishwachi⁴. Due to clinical similarities, it can be best correlated with cervical radiculopathy. Among the different causes of radiculopathy, cervical spondylosis is most

common. Cervical spondylosis is a degenerative condition of the cervical spine. In the general population the incidence rate of neck pain is highest in the people aged between fourth and fifth decade. Per year there will be about 3.3 per 1000 patients registered having the incidence of neck pain⁵, in 10% of people, the neck pain becomes chronic in nature. Majority of these people in the age group of 50 to 60 years have degenerative changes in radiological findings⁶. With change in lifestyle, increased desk work and increased usage of computer, incidence of cervical spondylosis is increasing day by day. By considering this cervical spondylosis presenting with symptom of vishwachi was selected for the study.

Vishwachi being shula pradhana vatavyadhi, affecting the urdhwa jatra awayava, can be best treated with snehana type of nasya karma. Dashangataila mentioned in Gada nigraha⁷ which is indicated in manya stambha, vishwachi is selected for the study.

AIMS AND OBJECTIVES

- Clinical study to assess the effect of Dashanga taila nasya karma in vishwachi/cervical spondylosis

Ethical Committee Approval No.
SDMCAU/ACA-49/EC46/14-15 date
23/04/15.



MATERIALS AND METHODS

i. Source of data:

- **Literary source-** References of vishvachi, cervical spondylosis, Nasya Karma, Dashanga taila, were compiled from different available sources like ayurvedic text books, literature related to allied sciences, journal, website, and medical research articles and so on.

- **Drugs source** –Dashanga Taila and Haridra choorna were prepared in S.D.M. Ayurveda Pharmacy, Udupi.

- **Patients source**-Patients suffering from vishwachi/cervical spondylosis were selected from O.P.D. & I.P.D of S.D.M. Ayurveda hospital, Udupi.

ii. Methods of collection of data:

- **Study Design:** This is an open clinical study with pretest and posttest design

- **Sample size:** 20 patients suffering from vishwachi/cervical spondylosis were randomly selected for the study

Diagnostic criteria:

- Patients with signs and symptoms of vishwachi
- Patients with signs and symptoms of cervical spondylosis

Inclusion criteria

- Patients fulfilling the diagnostic criteria
- Patients of either sex, aged between 16 to 60 yrs

- Patients who are fit for nasya karma.

Exclusion criteria

- Patients with traumatic, infective, neoplastic condition of cervical spine.
- Patients with major systemic disorders that may interfere with the course of treatment.
- Patients suffering from neurodegenerative and post-surgical condition of cervical spine.
- **Total duration:-7** consecutive days.
- **Follow up study:** - 7 days after the course of the Nasya karma.

- **Total duration of the study:**study was carried out for 14 days which includes 7 days of treatment and 7 days of follow up period

Investigations:

- Blood routine investigation { Hb% TC, DC, ESR, RBS }
- X- Ray cervical spine Antero Posterior and Lateral view was taken before treatment to confirm the diagnosis.
- MRI of cervical spine -if necessary.

INTERVENTION:

In selected 20 patients, Nasya karma was done as per the classical reference.

Poorva Karma-

- Patient was advised laghu bhojana 2 hours before the procedure



- 20 ml of dashanga taila was made luke warm by placing it over water bath
- Patient is made to lie down in supine posture
- Mukha abhyanga with Dashanga Taila was carried out for 10 minutes
- Swedana was done using towel dipped in hot water and squeezed. Then tapped over the face. The procedure is repeated for 10 minutes.

Pradhana Karma-

- Patient is made to lie down by hanging the head backwards over the head end of the table. Foot end of the table is raised. Lukewarm Dashanga Taila in the dose of 8 Bindu was instilled to each nostril by lifting the tip of the nose with left thumb. Patient is advised to inhale deeply and the medicine which comes to throat, is to be spitted out. The patient is advised to do so till the secretion is cleared. Then once again mild swedana was done over the face in the same method for 5 minutes

Paschat Karma

- Dhoomapana with Haridra choorna was given (9 puffs)
- Repeated kavalagraha with lukewarm water given for 2-3 minutes.

Assessment criteria

Patients were evaluated before the treatment, on 7th day and 7 days after the follow up

based on :

Subjective parameters:-

Subjective parameters:-

- Stambha
- Radiating pain
- Weakness
- Toda
- Bahukriyakshaya
- Spandana
- Gaurava
- Arochaka
- Subjective symptoms of samyaknasya
- Neck pain
- Stiffness
- Vertigo

Objective parameters:

- Tenderness over cervical Spine
- Neck movement restriction
- Clumsy finger movements
- Range of movement
- Deep tendon reflexes of upper limb
- Sensory changes in cervical and upper limb
- Objective symptoms of samyaknasya
- Deep tendon reflexes of upper limb

Tests like:

- Lhermitte sign
- Spurlingsign test
- Codman's test
- Distraction test

OBSERVATIONS

In present study, 20 patients of vishwachi (cervical spondylosis) were treated with Dashanga taila nasya karma for 7 days.

Total number of the patients registered for the study: 20

Number of patients completed the study: 20

Dropouts: Nil



Some of the observations are given in table 1 and 2.

Table 1 Demographic observation:

PARAMETER	Observations in each parameter	Maximum number of patients	%
Age	31-40 Years	10	50%
Gender	Female	16	80%
Marital Status	Married	18	90%
Occupation	Business	4	20%

Table 2 Observation related to the disease

Symptoms	Maximum observation	Number of Patients	%
Neck pain	Present	20	100%
Radiation of pain	Present	20	100%
Radiation side	Both side	8	40%
Stiffness	Present	16	80%
Painful neck movement	Painful	12	70%
Weakness in upper limbs:	Present	15	75%
Onset of pain	Gradual	20	100%
Nature of pain	Stabbing	7	35%
Duration of the onset	6 Months- 4 Years 5-8 Years	Each 7 Patients	35%
Associated complaints	Paraesthesia	19	95%
Inspection of cervical spine:	No visible deformity	16	80%
Palpation	Tenderness	7	35%
Bulk of Muscles	Normal	20	100%
Lhermitte sign:	Positive	16	80%
Spurling sign test:	Positive	13	65%
Codman's test:	Positive	14	70%
Distraction test:	Positive	16	80%
Flexion of neck	Partial	16	80%
Extension of neck	Partial	17	85%
Rotation of neck	Partial	17	85%

Observations during nasya karma:

During the nasya karma course, all most all the patient had mild irritation in the nose till 2-3 hours then gradually reduced. On the second day onward, the intensity of the irritation reduced. **Samyak nasya lakshana:** The symptoms like indriya vishudhi in the form of increased functional ability of the karmendriya was observed in all the patient. Vikaropashama in the form of improvement in the symptoms of vishwachi was noted in all the patients. Even though all the patients had delayed

or disturbed sleep, in none of the patient complete svapnasukha was observed as samyak lakshana. But in some patient, the quality and quantity of the sleep was improved to some extent. Urah shiro laghavata is not observed in any patient, because none of the patient had gauravata in these parts before nasya. No patient presented with ati or heena yoga of nasya.

RESULTS

In this study, Dashanga taila nasya karma was administered in 20 patients of vishwachi/cervical spondylosis. The



relevant data were collected before the treatment and patient were assessed on first day of treatment (BT), after the treatment (AT) and after follow up of 7days (AF). The data collected are analyzed using paired t-test and statistical test was done using sigma stat version 3.5 software.

After a course of the *Nasya karma*, the analysis of the patients revealed that- there

was statistically significant improvement observed in neck pain, radiation of pain, movement of neck, neck stiffness, weakness and Paraesthesia in upper limbs, grip in hand, movement of neck, neck disability index, stambha, ruk, toda and Bhahu kriyahani.

The different values are given in table 3.

Table 3 Statistical analysis of observed results

Symptoms	n	Mean			Mean diff	%	±SD	±SE	t	P
		B.T.*	A.T.*	A.F.*						
Neck Pain	20	2.7	1.05	0.35	1.65	61	0.75	0.16	11	<0.001
					2.35	87	0.48	0.10	17.89	<0.001
Radiation of pain	20	2.85	1.05	0.5	1.8	63.1	0.93	0.20	16.17	<0.001
					2.8	82.4	0.51	0.11	21.47	<0.001
Neck stiffness	20	2.4	0.95	0.35	1.45	60.4	0.88	0.19	7.31	<0.001
					2.05	85.4	0.48	0.10	11.10	<0.001
Weakness in upper limbs	20	0.45	0.6	0.8	0.15	33	0.50	0.11	7.76	<0.001
					0.15	77	0.47	0.10	8.75	<0.001
Paraesthesia in upper limbs	20	0.95	0.4	0.25	0.55	57.8	0.50	0.11	4.81	<0.001
					0.25	73.6	0.44	0.09	6.58	<0.001
Grip in hand	20	1.9	0.75	0.4	1.15	60.5	0.63	0.14	7.66	<0.001
					1.5	78.9	0.50	0.11	9.74	<0.001
Movement of neck	20	1.45	0.45	0.39	1.00	68.9	0.60	0.13	13.64	<0.001
					1.55	72.7	1.31	0.29	14.69	<0.001
Tenderness	20	2.7	1.35	0.55	1.35	50.0	0.74	0.16	12.33	<0.001
					2.15	79.6	0.51	0.11	19.64	<0.001
Neck disability index	20	1.35	0.7	0.5	0.65	48.1	0.47	0.11	5.940	<0.001
					0.85	62.9	0.51	0.10	5.667	<0.001
Ruk	20	2.95	1.2	0.5	1.75	59	1.10	0.5	9.952	<0.001
					2.24	83	0.76	0.17	18.16	<0.001
Toda	20	2.55	1.15	0.45	1.4	54	0.81	0.18	12.45	<0.001
					2.1	82	0.51	0.10	30.51	<0.001
Bhahukriyahani	20	2.15	1.1	0.6	1.05	48.8	0.78	0.17	21	<0.001
					1.55	72.0	0.50	0.11	13.58	<0.001
Stambha	20	2.75	1.25	0.65	1.5	55.7	0.71	0.17	21	<0.001
					2.1	77.0	0.48	0.11	13.58	<0.001

*BT=before treatment, AT= after treatment, AF= After follow-up



Overall benefits of the therapy is given in table 4:

Table 4 Overall benefits of the therapy

Se. No.	Overall Benefits	Number of patients
1.	No improvement - <25%,	0
2.	Mild improvement 25-50%,	0
3.	Moderate improvement 50-75%,	10
4.	Marked 75-80%,	5
5.	improvement- 80-90%	5
6.	Remission-100%)	0

Maximum improvement 90% was seen in one patient and minimum improvement 64% was observed in one patient

DISCUSSION

The success of the treatment depends on the chikitsa chatushpada among which the one fourth of the credit goes to the drug used for the procedure. Several factors decide the role of drug like the dose, veerya, collection time, route of drug administration and so on.

In Ayurveda, Acharyas have used all the possible route of drug administration in different treatments even from the era when the other medical sciences have not yet evolved. After repeated trials, they have identified the very finer aspect of each treatment including the normal procedure, complication and its management, drugs, different formulations and so on. So the reference in the classics is considered to be scientific even today. Among them, nasya karma is the procedure where the drugs are administered through the nostrils. Depending on the effect required, the drug

and its formulation, dosage, differs. In the procedure of nasya, each step has got its own importance. Snehana and swedana causes dosha utkleshana and vilayana. Swedana practiced after the drug administration helps in liquification and elimination of remnant doshas. The dhoomapana and kavalagraha helps in clearance of remnant doshas present in kanta.

Discussion on clinical study: When the disease is affecting jatru urdhwa pradwsha, nasya is the ideal treatment. When the vata and dhatukshaya is involved in the samprapti, snehana type of nasya is ideal as it reduces vata and imparts snehana to the deeper tissues⁸.

The radiating pain and the karma kshaya in the affected bahu is the presenting feature of vishwachi⁹ which is due to prakupita vata afflicting the khandara. The samprapti involves dhatukshaya in asthi due to ruksha khara guna of prakupita vata. The snehana nasya imparts the snehana effect and the Dashanga taila is vata shamaka and specially indicated in vishwachi and in



daruna vata roga. Combined effect is proved to be beneficial in the treatment of pain. Along with the vata shamana, samyak nasya has the benefit of indriyaprasada¹⁰. Here the upper limbs are karmendriyas. So the prasada of karmendriya is seen in the present study. Nasya also gives bala to the ura, greeva and skanda. Stambha is the symptom in the vata prakopa with sheetaguna pradhanata. Here a treatment with snehana effect is beneficial in normalizing vata. The drugs used for nasya is possessing ushna veerya dravyas¹¹ which are sufficient to combat the sheetaguna. The same is depicted in the present study. The beneficial effect is by the combination of snehana nasya and ushnaveerya dravyayukta sneha. The mild and occasional weakness observed in some of the patients due to involvement of khandara and vatadosha. The snehana nasya with vatashamaka taila shows better relief in the symptom. Movement of neck is restricted in painful and stiffness conditions. When the pain and stiffness is reduced by the nasya with vatashamaka drug, the range of movement will increase. The same is depicted in the present study. The symptoms like, vertigo, clumsy finger movement, neurological deficit, sensory loss are not seen in any patients. When there is involvement of gambheera dhatu and severe damage to the khandara,

repeated course of snehananasya may yield better relief. Brumhana or anuvasana basti also is practiced when the dhatukshaya in neck is a part of generalized dhatukshaya. As swedana is having vatakapsha shamana, stambha, shoolahara property¹², the nadesweda or greevabasti can be combined with snehananasya. The chronicity, damage to the deeper tissues contributes to the prognosis of the disease. Along with this, regular vyayama, life style modification, practice of pratimarsha nasya adds to the improvement and prevents the recurrence of the disease.

CONCLUSION

The present study was planned with the objective to evaluate the therapeutic efficacy of Dashanga taila nasya karma in *Vishwachi* w.s.r. to cervical spondylosis. 20 patients of *vishwachi* / cervical spondylosis is subjected to Dashanga taila nasya for 7 days. Patients were evaluated based on the standard subjective and objective parameters before and after the treatment and after the follow up of 7 days. Statistical significant improvement in parameters like Neck Pain, Radiation of neck pain, Stiffness, Muscle weakness, Paraesthesia, Grip in hand, Movement of neck, Tenderness, Neck disability, Ruk, Toda, Stambha, Bahukriyahani with p value



< 0.001. The symptoms like vertigo, altered deep tendon reflexes, clumsy finger movements, sensory and motor loss was not seen in any patients.

When the samprati of vishwahi is prakupitavata due to ruksha and kharaguna dominance causing astidhatu kshaya and afflicting the khandara, the snehana nasya imparts snehana and mardavata to the dhatus. snehana with the drugs in dashangatailanormalizes the vata. Nasya karma reduces vata, causes indriya prasada and strengthens the parts above the jatru pradesha. The combined effect normalizes the samprapti and hence beneficial in the management of vishwahi.



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