

Clinical evaluation of *Pratimarsha Nasya Karma* in Cervical spondylitis: Case Study**Dr. Ajesh Sambhaji Tambule**Assistant Professor Department of Shalakyta Tantra at
SSVP Ayurved College and Research Institute Hatta Hingoli
Email: ajeshambule@gmail.com**Abstract:**

Cervical spondylitis is neurological conditions of the cervical spine irrespective of age. In today's modern era, for higher accomplishments and ambitions human kind are more prone to degenerative disorders. Apart from age, other risk factors for cervical spondylitis include occupations that may cause more stress on neck, certain neck injuries, incorrect posture while sitting or walking, smoking, sedentary lifestyle and genetic factors. Modern therapies such as analgesics, muscle relaxants, steroids, physiotherapies, and even surgical procedures are not satisfying the patients' goal of healthy life. Pratimarsha Nasya is a type of Nasyakarma which is indicated for daily practice and is helpful in prevention of diseases of head, neck, oral cavity and also respiratory disorders. Pratimarsha Nasya has many advantages such as having almost no contra-indications, done in a very low dose (2 drops), can be done on multiple occasions in a day and that it can be self-administered.

Materials And Methods:

In Ayurveda, Degenerative disorders come under the broad aspect of Vata Vyadhi and Nasya (Nasal Medication) is specifically indicated in Urdhvajatrugata Vikaras. Keeping this view and the increasing incidence of the disease in modern era, a study was conducted on one clinically diagnosed cases of cervical spondylitis, selected from Outpatient / Inpatient departments of Shalakyta Tantra Department. The patients were treated with Anu taila Nasya for first 7 days followed by Kshirabala Taila Nasya for the next 7 days.

RESULTS: Satisfactory relief was seen in symptoms with improved quality of life after treatment and follow up.

CONCLUSION: *Pratimarsha Nasya Karma* can be considered as an effective management of cervical spondylitis

Keywords: Cervical spondylitis, occupational disorders, *Pratimarsha Nasya*, Panchakarma

Introduction

Cervical spondylitis is a neurological condition of the cervical spine irrespective of age. **Spondylitis** is an inflammation of the vertebrae. (1) **Cervical spondylitis** occurs when the cartilage, bones, ligaments, and bones in your neck begin to wear and tear with age or without age. In the olden days, **cervical spondylitis** and **spondylosis** were associated with old age. But with the present generation and the current lifestyle, spondylitis and spondylosis are not restricted to any age group. (2)

Howard Vernon developed the neck disability index (NDI) in 1989. The NDI was developed as a modification of the Oswestry low back pain disability index with the permission of the original author (J. Fairbank, 1980).(3)

In ancient *Ayurvedic* texts, the disease cannot be correlated exactly as whole with any single disease or condition, but some features of the cervical spondylitis can be correlated nowadays with

various conditions described in Ayurveda such as *Griva Hundana*,(4) *Manyastambha*,(5) *Sandhi Gata Vata*,(6) and *Asthigata Vata*.(7)

Nasya is mainly specified in the management of *Urdhvajatrugata Vikaras* in classics.(8) *Charakacharya* has indicated *Nasya* therapy exclusively for the management of *Manyastambha*.(9) Moreover, it is stated that symptoms such as *Gaurava* (Heaviness), *Supti* (Numbness), *Stambha* (Stiffness) and *Shirashula* (Headache) should be treated with *Shirovirechana* type of *Nasya Karma* with appropriate drug to demolish the pathology.(10)

Aim and objective

To evaluate the efficacy of *Pratimarsha Nasya Karma* in cervical spondylitis without the support of any oral medication.

Materials and Methods

One patient of cervical spondylitis (Irrespective of age and sex)
Anu Taila(11)

Kshirabala Taila(12)

Case Presentation:

A female patient, aged 37 years, presented with complaint of pain in the backside of the neck, right arm pain (sometimes bilateral) and temporal region since the past 3 years. The onset was sudden due to jerky movement while carrying heavy weight (Bucket full of water). Numbness and tingling sensation in bilateral hands, stiffness at the cervical region, inadequate range of movement at cervical spine and occasionally, light-headedness was also present in this case since last 2 years. The pain was usually aggravating in the morning, after lifting heavy objects and reading even for 15–20 min and relieving by some hot fomentation and cervical exercises.

Investigations:

All the routine hematological, biochemical investigations complete blood count, blood sugar level, liver function test, renal function test, and urine investigations were carried out the patients to rule out any possible associated disorder, but they were found within normal limits.

Table: 1.1 Complete Blood Count

Investigation	Result	Unit	Ref. Range
Erythrocytes			
Total RBC Count	5.1	mil. /cmm	4.0 - 17.0
Haemoglobin	12.7	gms%	13.0 - 17.0
HCT/PCV	43	%	35 - 55
MCV	84.3	fL	78 - 100
MCH	24.9	%	27 - 31
MCHC	29.5	%	31 - 34
RDW	12	%	11.5 - 14.0
DF	-		
Leucocytes	-		
Total WBC Count	8400	/cumm	4.0 - 10500.0
Differential Count			
Neutrophils	66	%	40 - 80
Lymphocytes	32	%	20 - 40
Eosinophils	02	%	0 - 6
Monocytes	02	%	2 - 10
Basophils	0	%	0 - 1

Band Cells	-	%	
Platelets Count:	241000	/ cmm	150000-450000
Morphology:			
RBC	Normal		
WBC	Normal		
Platelets	Normal		

Table: 1.2 Diabetes Profile

Investigation	Result	Unit	Range
FBS	95	mg/dl	10-110
PPBS	120	mg/dl	0-140
RBS	-	mg/dl	0-200
HbA1c	5.4	mmol/mol	0-36
Average Blood Glucose	108	mg/dl	0-140

Table: 1.3 Liver Function Test

Investigation	Result	Unit	Range
SGPT	0.8	U/L	0.6-1.81
SGOT	6	U/L	5.5-11.0
Albumin	4	gm/dl	3.4-5.0
Albumin / Globulin Ratio	1.02	gm/dl	1.0-2.1
Alkaline Phosphatase (ALP)	8	U/L	6-113
Bilirubin Direct	0.03	mg/dl	0.0-0.25
Bilirubin Indirect	0.5	mg/dl	0.2-0.8
Bilirubin Total	0.8	mg/dl	0-1.0
Globulin	2.15	gm/dl	2.0-4.1
Protein	8	gm/dl	6.4-8.2

Table: 1.4 Kidney Function Test

Sr.No.	Name of the Test	Result	Normal Range
1	Blood Urea	15	13 to 45 mg/dl

2	Creatinine	0.8	F : 0.6 – 1.2 mg/dl M: 0.7 – 1.4 mg/dl
3	Uric acid	3	F: 2.5 – 6.2 mg/dl M: 3.5 – 7.2 mg/dl

Table: 1.5 Urine Examination

Investigation	Result	Investigation	Result
Physical Examination			
Quantity	10 MI	Odour	Normal
Colour	Pale Yellow	Specific Gravity	1.010
Appearance	Normal		
Chemical Examination		Microscopic Examination	
Reaction	Slightly Acidic	Leucocytes	0/hpf
Albumin	Nil	Epithelial Cells	1-2/hpf
Sugar	Nil	Red Blood Cells	0
Ketone Bodies	Nil	Casts	0
Bile Salts	Nil	Crystals	0
Bile Pigments	Nil	Organism	Nil
		Pus Cell	1-2/hpf

Clinical Assessment

1. Subjective criteria

Clinical symptoms of cervical spondylitis were assessed based on grading system of each symptom such as pain, stiffness, giddiness, numbness, tingling sensation, and headache

2. Objective criteria

Following scales were used for the assessment of objective parameters:

- a. Visual analog scale (VAS)
- b. Neck disability index (NDI)
- c. Range of movement.

Intervention: Nasya Karma

Purva Karma

- Local *Abhyanga*

Face and neck of the patient were massaged with lukewarm *KshirBala Taila* and then massaged

by linear thumb movements over Forehead, Nose, Chin, and Maxillary area and circular movements of palm over Cheek and Temporal.

- *Mridu Sweda*

The towel was soaked in boiling water and after squeezing the water, towel was waved, touched, and pressed on the face and neck.

- Positioning of the patient

Supine position (*Uttanasya Shyanasya*) by bending the head for about 45°(*Pralambita Shirshah Kinchit*).(13)

Pradhana Karma

- Administration of medicine
- Lukewarm oil was poured with instrument “*Gokarna*” in each nostril one by one by closing the other nostril and patient was asked to sniff the medicine so that it reaches deep inside the nose
- Duration-7 days (*Anutaila* for first 7 days + *Kshirabala Tail* for next 7 days)
- Dose-6 drops (1 drop-0.05 ml)(14) in each nostril.

Pashchat Karma

- The patient was requested to spit out medicine that reaches the throat in beside kidney tray/spitting vessel
- *Kavala* (Gargling) with lukewarm water was recommended just after the procedure.

Observations and Results

Table 1.6: Effect of therapy on subjective parameters

Clinical examination (Subjective)	Score		Percentage of relief
	BT	AT	
Pain	3.8	1.0	75
Stiffness	2.4	0.8	68
Headache	3.3	2.3	20
Giddiness	1.0	0.0	65
Tingling sensation	1.0	0.5	45
Numbness	1	0.2	70

BT: Before treatment, AT: After treatment

Table 1.7: Effect of therapy on objective parameters

Clinical examination (Objective)	Score		Percentage of relief
	BT	AT	
NDI	22	5.4	75
VAS	5.2	1.2	70
Flexion	2	0	100
Extension	2	0.8	60
Lateral rotation	1.2	0	100
RF	2	0.2	90
LF	1.8	0.2	88.89

NDI: Neck disability index, VAS: Visual Analogue scale, RF: Right lateral flexion, LF: Left lateral flexion, BT: Before treatment, AT: After treatment

Majority of the ingredients of Anu Taila possess *Laghu-Teekshana guna, Ushna veerya,* and *Katu vipaka* which facilitate *Srotoshodhaka* (cleansing) effect of *Anu Taila*(19) and due to *Sukshma Srotogami* (rapidly penetrating into microchannels) property, it is seen at the cellular level by entering microcirculation and causing profuse secretions by irritating the nasal mucosa. Hence, it mobilizes the *Kaphadi Doshas* and then expels them out from the nearest outlet and concurrently strengthens the *indriyas*.(20) Thereby, it removes the *Avarana* caused by *Kapha Dosha* over *Vata*.

After the pacification of *Kapha dosha* by *Anu Taila Nasya*, the disease remains *Keval Vatika* for which *Brimhana* type of *Nasya* with *Kshirabala Taila* was used. In *Sahasrayogam*, it is said to pacify all the eighty *Nanatmaja Vata Vyadhies*.(21) *Charaka charya* and *Vagbhattacharya* have also cited the same preparation, but with different names, i.e., *Shatapaka* or *Sahasrapaka Bala Taila* and its effects as best *Vatashamaka, Jeevanam,* and *Brimhana* have been described there.(22) The *Sneha* used as *Nasya* reaches the *Srotasas* and imparts tone to the nerves and muscles of the neck, shoulders, and chest.(23)

Cervical spondylitis involves the inflammatory pathology of the cervical spine; the anti-inflammatory effect of *Kshirabala Taila* marks its importance as a *Nasya dravya* in such cases. Studies reported the anti-inflammatory effect of *Kshira Bala*

Taila, which was comparatively more in *Mridu* and *Madhyama paka* and was equally effective as *Diclofenac and NSAIDS*.(24)

Aggravation of *Doshas* takes place in *Shirah* (Head) due to irritating effect of administered drug, which results in an increased blood circulation to the brain due to vasodilator effect of histamine released in response to irritation caused by the *Nasya* drug.(25) The facial vein has a direct connection to the ophthalmic vein and then to deep venous sinus within the cranial cavity the cavernous sinus. Facial vein does not possess any valve in its course, and the cavernous plexus stands for arteriovenous communication of the nasal cavity. Therefore, there is the possibility of reverse circulation of *Nasya Dravya*, reached to the brain circulation after being absorbed by highly vascular mucous membrane of nasal cavity.(26) Hence, accumulated morbid *Doshas* are expelled out from small blood vessels and ultimately, they are eliminated through the nasal discharge and by salivation. Moreover, pre- and post-procedure massage and fomentation at supraclavicular and posterior part of neck help to improve the local circulation, enhancing the absorption of the drug and also relieves local stiffness.

Discussion

Cervical spondylitis is a degenerative disorder, and all such disorders can be considered under the broad umbrella of *Vata Vyadhi*. As per classics *Vata Prakopa*, occurs by two types of *Samprapties*, i.e., *Margasya avaranajanya* and *Dhatukshayajanya*.(15) Pain and stiffness are the primary symptoms of the disease which reflect the association of *Kapha* along with *Vata*. On the other hand, as *Urdhwanga* is concerned, the involvement of *Kapha* is defined by *Acharyas*.

Acharya Charaka has used the term, “*Nastah Pracchardana*(16)” for *Nasya*, which denotes *Shodhana* done by *Nasya*. It is the best method to eliminate and alleviate the vitiated *Doshas* of *Urdhvanga*.(8) *Taila* has been mentioned for *Nasya Karma* in *Kapha-Vata Dosha Pradhana* condition.(17) The best treatment modality for any kind of disorder is *Shodhana* therapy followed by *Shamana Therapy*.(18) Hence, this treatment regimen was adopted here.

Conclusion

Cervical spondylitis is a *Kapha-Vata* dominant condition, *Nasya* with *Anu Taila* pacifying *Kapha* by profuse secretions followed by *Avartita Kshirabala Taila* pacifying *Vata Dosha* through *Brimhana* is proved effective in its management. Hence, *Nasya* can be considered as an effective management of cervical spondylitis.

Financial support and sponsorship
Nil.

Conflicts of interest

There are no conflicts of interest.

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