



CLINICAL STUDY ON THE EFFICACY OF “GRIVA VASTI” IN THE MANAGEMENT OF GRIVA-SANDHIGATA VATA (CERVICAL SPONDYLOSIS)

Kartar Singh Bansal and Hemlata Soni*

Assistant Professor, Department of Kayachikitsa, Punjab Ayurvedic Collage, Shriganganagar, Rajasthan, India.

***Corresponding Author: Hemlata Soni**

Assistant Professor, Department of Kayachikitsa, Punjab Ayurvedic Collage, Shriganganagar, Rajasthan, India.

Article Received on 07/05/2019

Article Revised on 28/05/2019

Article Accepted on 19/06/2019

ABSTRACT

Introduction: Any degenerative type of pathological conditions in the body can be considered under the broad umbrella of ‘*Vata Vyadhi*’. A study of asymptomatic adults showed significant degenerative changes at 1 or more levels in 70% of women and 95% of men at age 65 and 60 respectively. The most common evidence of degeneration is found at C5-6 followed by C6-7 and C4-5". **Aims:** To evaluate the efficacy of “*Griva Vasti*” in the management of ‘*Griva-Sandhigata Vata*’. **Materials and Methods:** For that purpose 25 patients were selected and treated with *Griva Vasti* daily once for two weeks. **Results:** Highly significant improvement in *Shool* (65.21%, $p < 0.01$), *Prasarana Aakunchana Vedana* (59.09%, $p < 0.01$), *Hantisandhigatah Vata* (68.18%, $p < 0.01$), Restricted head movement (57.14%, $p < 0.01$), Stiffness in neck (58.82%, $p < 0.01$). **Conclusion** Result indicates that *Griva Vasti* is an effective treatment in cervical spondylosis.

KEYWORDS: Griva-Sandhigata Vata, Cervical Spondylosis, Griva Vasti.

INTRODUCTION

Any degenerative type of pathological conditions in the body can be considered under the broad umbrella of ‘*Vata Vyadhi*’. Sandhigata Vata is mentioned under Vata Vyadhi. Acharya Charaka has mentioned that Nidana Sevana aggravates Vata Dosha and this Vata gets vitiated in Griva Asthi and Sandhi it leads to Griva Sandhi Gata Vata. Acharya Charaka has described Sandhigata Vata as a Sandhigata Anila in Vata Vyadhi Chikitsa. Cervical spondylosis was considered a medical condition in which the degeneration of the inter-vertebral disks occurred due to old-age. However, this condition is commonly caused due to regularly ignoring the ergonomics of our bodies, e.g., working for long hours with computers, wrong postures while performing day-to-day life functions, sports/repetitive injuries such as long hours of playing video games, texting etc. Evidence of spondylotic change is frequently found in many asymptomatic adults, with 25% of adults under the age of 40, 50% of adults over the age of 40, and 85% of adults over the age of 60 showing some evidence of disc degeneration. Another study of asymptomatic adults showed significant degenerative changes at 1 or more levels in 70% of women and 95% of men at age 65 and 60. The most common evidence of degeneration is found at C₅₋₆ followed by C₆₋₇ & C₄₋₅".

MATERIALS AND METHODS

The study were conducted on 25 clinically diagnosed patients of ‘*Griva-Sandhigata Vata*’ (Cervical Spondylosis) selected from OPD & IPD of National

Institute of Ayurveda, Jaipur and SSBH, Kishan Pole jaipur.

Inclusion criteria

- Patients willing to signature the consent form for the clinical trial.
- Patients of either sex.
- Patients above 20 years and less than 70 years.
- Clinical symptoms of ‘*Griva-Sandhigata Vata*’ (Cervical Spondylosis) with or without radiological changes.

Exclusion Criteria

- Stenosis of spinal cord.
- Contraindication and allergy to any drug in Dashamooladi Taila used for Griva Vasti.
- Recent cervical, spinal, or shoulder surgery or implanted instrumentation or previous surgery for cervical spondylotic myelopathy.
- Myofacial pain.
- Patients suffering from any infectious disease (like tuberculosis), metabolic disease (like diabetes mellitus and hypothyroidism) and chronic disease (like rheumatoid arthritis, SLE, ankylosing spondylitis).
- Pregnant and lactating mothers.

Study Design: It was Single center, Open label, Randomized clinical trial.

Table. 1: Contents of ‘Dashamooladi Taila’(Kalpit Yoga For “Griva Vasti”).

S. No.	Drug	Botanical Name	Part Used	Quantity
1.	Bilwa	Aegle mormelos	Root	1 Part
2.	Agnimantha	Premna mucronata	Root	1 Part
3.	Shyonak	Oroxylum indicum	Root	1 Part
4.	Patala	Stereospermum suaveolance	Root	1 Part
5.	Gambhari	Gmelina arborea	Root	1 Part
6.	Shalaparni	Desmodium gangeticum	Root	1 Part
7.	Prishniparni	Uraria picta	Root	1 Part
8.	Brihati	Solanum indicum	Root	1 Part
9.	Kantakari	Solanum surattense	Root	1 Part
10.	Gokshura	Tribulus terrestris	Root	1 Part
11.	Erandamoola	Ricinus communis	Root	1 Part
12.	Nirgundi	Vitexni gundo	Leaf	1 Part
13.	Til taila	Sesamum indicum	Seed's oil	As per requirement

Trial Drugs: All three drugs were prepared in NIA Rasayana shala according to classical instructions (Yogratanakar, Bhaishajya Ratnavali & Sharangdhar Samhita).

Duration of Clinical Trial & Follow up Study

1. Duration for Griva Vasti was 14 days.
2. Patients were followed once in a week regularly for 1 month.

Method of administration of Griva Vasti

Materials required:

1. Flour of black gram (Masa powder): 250-300 g/day
 2. Dashamooladi Taila: 200-250 ml/day
- Duration - 35-45 min for 14 days.

Procedure

I. Pūrva Karma (preparation for procedure): Patient was let to lie down on the table in prone position after having confirmed that he/she has passed stools and voided properly. Then the patient was asked to drape clothes so that cervical area could be exposed properly.

II. Pradhāna Karma (procedure): Taking ample quantity of water, the dough of black gram powder was prepared. This dough was used to form a wall which was two inches height and four inches diameter on the cervical area. This wall was filled with Dashamooladi Taila using a cotton piece and was let to be there for 35-45 min. To ensure the constancy of temperature, a little portion of oil was taken out and the remaining oil within the wall was mixed with warm oil.

III. Pashchāt Karma (Post procedure care): To remove the oil, a spoon was used and the oil was collected in a separate vessel. After this, the dough wall was removed. The patient was allowed to relax and take rest. i.e. they lay in the supine position inside the room.

Precautions

1. During the course of treatment, patients were advised to take rest on uniformly plain wooden table surrounded and cover themselves using blanket.

2. Patients were advised to avoid lifting heavy objects on head. They were also advised to avoid exposure to cold air immediately after the procedure.

Criteria of assessment

1. Subjective improvement, 2. Objective improvement.

1. Subjective Improvement.

Sign & Symptoms of ‘Griva-Sandhigata Vata’	Sign & Symptoms of Cervical Spondylosis.
1. Shoola (pain)	6. Headache
2. Prasarana Achunchana Vedana (painful flexion and extension)	7. Dizziness
3. Shotha (swelling)	8. Numbness / tingling sensation in arms
4. Vatapurnadritisparsha (feeling of air filled in joints)	9. Weakness in arms
5. Hanti Sandhigatah (loss of function)	10. Restricted head movements
	11. Stiffness in neck and arms.

2. All the patients registered for present trial were looked for any changes in their growing feeling of wellbeing, on the basis of NECK DISABILITY INDEX, pre and post assessment.

Symptom scoring scale

Symptoms	Score
Absent (Symptom is not present at all)	0
Mild (Symptoms is present but not bothering)	1
Moderate (Symptoms is bothering but tolerable)	2
Severe (Symptoms is not tolerable and needs medication)	3
Agonizing (Symptom is not relieved at all)	4

Grading For the assessment of improvement in the symptoms

No relief	00%
Mild relief	25%
Moderate relief	50%
Significant relief	75%
Excellent relief	100%

2. Objective parameter: Complete Blood Count, ESR (Erythrocyte Sedimentation Rate), Sr. Creatinine, CRP (C- Reactive Protein), RBS (Random Blood Sugar), RA Factor (Rheumatoid Factor), SGOT, SGPT, Total Bilirubin, X-Ray of cervical spine -Antero-posterior and Lateral view.

OBSERVATIONS AND RESULTS

Majority of patients belong to age group 31 - 40 years, in 40%. 63.33% were reported to be Females. 66.67% were Hindus, 80% had belong to urban area. 76.67% had middle class. 33.33% had primary passed, 53.33% were house wives, 40% patients were of Vata Kapha Prakriti, 63.33% patients having Rajasik prakriti, 86.66% were having Madhyama Sara. 80% were having Madhyama Samahanana. 80% were having Madhyama pramana.

86.67% were having Pravara Satmya. 63.33% were having Madhyama Satva and 33.33% were having Avara Satva. 86.67% had Madhyama Abhyavarana Shakti, 63.33% had Madhyama Jarana Shakti, 60% had Madhyama Vyayama Shakti, 46.67% had Samagni, 50% had Madhyama Kostha, 60% were having taking vegetarian diet, 46.67% had complaint of their illness since 1 – 2 years, 90% were taking Atisheeta Ahara, followed by 70% were taking Alpa Ahara, 86.67%. 100% presented with the symptom of Shool, 86.67% presented with Prasarana Aakunchansavedana, followed by 80% suffering from headache and Restricted head movements. 73.33% presented with Stiffness in neck and arms. 60% were suffering from Hanti Sandhigatah and Numbness/Tingling sensation 60% presented with Vatapournadritisparsha and Numbness in hand. In X-Ray finding Reduction of space between C4-C5 was found in 10% whereas space between C5-C6 was diminished in 3.33%. Reduction of space between C6-C7 was also found in 3.33%. Presence of Osteophytes was found in 26.67% patients. Degenerative changes was found in 20 % whereas of decreased cervical lordosis was seen in only 3.33% patient.

Table. 2: Showing effect of Therapy in Subjective Parameters.

Sign & Symptoms	Mean score		Difference	% relief	S.D±	S.E±	p value	S
	BT	AT						
Shoola	2.3	0.8	1.50	65.21	0.7000	0.2236	<0.01	HS
Prasaran Aakunchan Vedana	2.2	0.9	1.30	59.09	0.4830	0.1528	<0.01	HS
Shooha	0.2	0.1	0.10	50.00	0.3162	0.1000	>0.05	NS
Vatapurna Dritisparsh	0.4	0.1	0.30	75.00	0.6749	0.2134	>0.05	NS
Hanti sandhigatah	2.2	0.7	1.50	68.18	0.5270	0.1667	<0.01	HS
Headache	1.3	0.5	0.80	61.53	0.6325	0.2000	<0.05	S
Dizziness	0.9	0.6	0.30	33.33	0.4830	0.1528	>0.05	NS
Numbness/ Tingling sensation in arms	1.3	1.0	0.30	23.07	0.6749	0.2134	>0.05	NS
Weakness in arms	0.9	0.7	0.20	22.22	0.4216	0.1333	>0.05	NS
Restricted head movements	2.1	0.9	1.20	57.14	0.4216	0.1333	<0.01	HS
Stiffness in neck	1.7	0.7	1.00	58.82	0.4714	0.1491	<0.01	HS
NDI	20.2	11.5	8.70	43.06	3.945	1.248	<0.01	HS

(HS: Highly Significant S: Significant NS: Non Significant) (* Neck disability index)

Table. 3: Showing Effect of Therapy on Objectives Parameters.

Variables	Mean		Mean Diff.	Relief%	SD	SE	T	P	S
	BT	AT							
Hb% (gm %)	13.27	13.35	0.08	0.60	0.569	0.1800	0.4444	>0.05	NS
TLC	7030	7260	230	3.27	1367.9	432.58	0.5317	>0.05	NS
Neutrophills	63.70	59.10	4.60	7.22	8.809	2.7860	1.6510	>0.05	NS
Lymphocytes	27.70	33.50	5.80	20.93	9.830	3.1080	1.8660	>0.05	NS
Eosinophills	3.70	3.20	0.50	0.13	2.321	0.7341	0.6811	>0.05	NS
Monocytes	4.90	4.20	0.70	14.28	1.567	0.4955	1.4130	>0.05	NS
ESR	15.40	14.40	1.00	6.50	5.888	1.8620	0.5371	>0.05	NS
Creatinine	0.83	0.80	0.03	3.61	0.067	0.0213	1.4060	>0.05	NS
Sr. T. Bilirubin	0.70	0.64	0.06	8.57	0.143	0.0452	1.3270	>0.05	NS
SGOT	30.20	25.00	5.20	17.21	5.770	1.8250	2.8500	<0.05	S
SGPT	32.10	26.90	5.20	16.19	6.989	2.2100	2.3530	<0.05	S

(Hb: hemoglobin; TLC: Total Leucocyte Count; ESR: Erythrocyte Sedimentation Rate; Sr.: Serum; SGOT: Serum glutamic-oxaloacetic transaminase; SGPT: Serum glutamic-pyruvate transaminase; CRP: C-Reactive Protein; S: Significant; NS: Non Significant)

DISCUSSION**Probable mode of action of Dashamooladi Taila:**

Dashamoola is mentioned as Shothahara, Shoolahara and Vedanashamaka. Erandamoola is Vedana Sthapana and Vrishya drug. It is drug of choice for the Avrita Vata. Nirgundi is an effective Vatashamaka drug. Due to its Ushnaveerya, it acts against the Sheetaguna of vata. It has Tikta, Katu and KashayRasa, but after Tailasiddhi by Nirgundi, it helps to provide Gamitwain Asthi and Majjadhatu to act on the Sandhi. Also, it acts on the Shleshmaka Kapha present at the sites of Sandhi. Nirgundi has got proven Analgesic and Anti-inflammatory properties. Tila Taila is Madhura, Kashaya, Tikta rasa, Guru and Snigdha guna. It is Ushna Veerya Dravya having Madhuravipaka. Therefore, Tilataila is Vatashamaka. Along with Nirgundi, its qualities are amplified and it proves as a great analgesic and anti-inflammatory drug.

Probable Modes of Action of Griva Vasti: Griva Vasti is a procedure in which both the properties of Snehana & Swedana are incorporated. It can be include under Shadvidha Upakrama, Bahirparimarjana Chikitsa, Sthanik Shamana Chikitsa (external oleation therapy) and retaining type of procedure. The reason behind selection of Griva Vasti is that it comes under direct contact with painful region. In this disease, Samprapti is at Griva-region and is mostly associated with structural changes of cervical vertebral column. There is derangement in cervical joints & vertebrae, degeneration of intervertebral disc and lubrication function of Shleshmaka Kapha is affected, which results in compression and irritation of nerve, resulting in severe pain & muscle spasm. Therefore, local Snehana and Swedana is very effective and gives quick results because they act at the site of Samprapti.

CONCLUSIONS

In view of the above, it can be concluded that Griva Vasti with Dashamooladi Taila is effective in management of Griva Sandhi Gata Vata (cervical spondylosis). A study involving a larger number of patients may be conducted to confirm the results of the present study. Longer follow up can also be considered. Internal bṛmhana therapies can prevent relapse of the condition.

REFERENCES

1. Agnivesha, Charka Samhita, Vidyotini Hindi Commentry by K. Shatri, G.N. Chaturvedi, Chaukhabha Bharati Academy Varanasi. Year of reprint 2009, Sutra Sthana chapter 12/5: 244.
2. Agnivesha, Charka Samhita, Vidyotini Hindi 4Commentry by K. Shatri, G.N. Chaturvedi, Chaukhabha Bharati Academy Varanasi. Year of reprint 2009, Chikitsasthana 28/37; 783.
3. Davidson's Principles and practice of Medicine. Author- Brian R.Walker, Nickki R. colledge, Stuart H. Ralston, Ian D. Penman ;22nd Edition; 1218.
4. Cervical Spondylosis Clinical Presentation;Updated: Mar 30, 2018 ;Author: Hassan Ahmad Hassan Al-Shatoury, MD, PhD, MHPE; Chief Editor: Dean H Hommer, MD; emedicine.medscape.com/article/306036-clinical
5. Kelly JC, Groarke PJ, Butler JS, Poynton AR, O'Byrne JM. The natural history and clinical syndromes of degenerative cervical spondylosis. *Advances in orthopedics*, 2011 Nov 28; 2012.
6. Shastri Vd. Sh. Laxmipati, Yog Ratnakar, Chaukhambha Prakashan, Varanasi, Ed., 2008; 242.
7. BHAISHAJYA RATNAVALI, Commentary by Ambika Dutta Shastri; Chaukhambha Sanskrit Sansthan, Varanasi (India), 16th Ed., 2002. Chapter 26/84-85; 538.
8. Ibidem (No.2) Chikitsasthana chapter 28/37; 783.
9. Cervical Spondylosis; Authored by Dr Colin Tidy, 20 Jun 2016; patient.info/health/neck-pain/cervical-spondylosis
10. Developed by: Vernon, H. & Miors, S. *Journal of Manipulative and Physiological Therapeutics*, 1991; 14: 409-415.
11. DATABASE on Medicinal plants used in Ayurveda. CCRAS, Deptt. of ISM and H, Ministry of Health and Family Welfare, Govt. of India, 2002.