

CLINICAL EFFICACY OF “RASNADI GUGGULU”, “RASNADASHAMOOOLADI KWATHA” AND “GRIVA VASTI” IN THE MANAGEMENT OF GRIVA-SANDHIGATA VATA (CERVICAL SPONDYLOSIS)

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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". **Aim:** To evaluate the efficacy of ‘*Rasnadi Guggulu*’ and ‘*Rasnadashamooladi Kwatha*’ and “*Griva Vasti*” in the management of ‘*Griva-Sandhigata Vata*’. **Materials and Methods:** The study was conducted in 20 clinically diagnosed patients of *Griva-Sandhigata Vata*. These patients were divided into two groups of 10 patients each. In group A patients were treated with *Rasnadi Guggulu*, 2 Tab. (each tab. of 500mg) three times in a day with lukewarm water and *Rasnadashamooladi Kwatha* 30 ml two times in a day for 30 days. In group B patients were treated with ‘*Griva Vasti*’(*Dashamooladi Taila*) for 14 days. **Results:** In group A highly significant improvement in *Shool* (39.28%, p<0.01), *Prasarana Aakunchana Vedana* (39.13%, p<0.01), *Headache* (62.50%, p<0.01). In group B highly significant improvement in *Shool* (43.24%, p<0.01), *Prasarana Aakunchana Vedana* (32.14%, p<0.01), *Hantisandhigatah Vata* (39.13%, p<0.01), *Restricted head movement* (39.13%, p<0.01), *Stiffness in neck* (45%, p<0.01). **Conclusion:** Both the groups showed good results, but group B showed better results in comparison to group A.

Keywords: *Griva-Sandhigata Vata*, *Cervical Spondylosis*, *Rasnadi Guggulu*, *Rasnadashamooladi Kwatha*

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 20 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 *Rasnadi Guggulu*, *Rasnadashamooladi Kwatha* or *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.

Administration of drug: 20 clinically diagnosed and registered patients of ‘Griva-Sandhigata Vata’ (Cervical Spondylosis) were divided randomly into two groups 10 patients were included in each group.

Group A - 10 Patients were treated by “*Rasnadi Guggulu*” 2 tab. (each tab. of 500 mg) three times in a day with lukewarm water and “*Rasnadashamooladi Kwatha*” 30 ml. two times in a day for 30 days.

Group B - 10 Patients were treated by ‘*Griva Vasti*’ with ‘*Dashamooladi Taila*’ daily once a day for 14 days.

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

S.NO.	DRUG	BOTANICAL NAME	PART USED	Quantity
1.	<i>Bilwa</i>	<i>Aegle mormelos</i>	Root	1 Part
2.	<i>Agnimantha</i>	<i>Premna mucronata</i>	Root	1 Part
3.	<i>Shyonak</i>	<i>Oroxylum indicum</i>	Root	1 Part
4.	<i>Patala</i>	<i>Stereospermum suaveolance</i>	Root	1 Part
5.	<i>Gambhari</i>	<i>Gmelina arborea</i>	Root	1 Part
6.	<i>Shalaparni</i>	<i>Desmodium gangeticum</i>	Root	1 Part
7.	<i>Prishniparni</i>	<i>Uraria picta</i>	Root	1 Part
8.	<i>Brihati</i>	<i>Solanum indicum</i>	Root	1 Part
9.	<i>Kantakari</i>	<i>Solanum surattense</i>	Root	1 Part
10.	<i>Gokshura</i>	<i>Tribulus terrestris</i>	Root	1 Part
11.	<i>Erandamoola</i>	<i>Ricinus communis</i>	Root	1 Part
12.	<i>Nirgundi</i>	<i>Vitexni gundo</i>	Leaf	1 Part

13.	<i>Til taila</i>	<i>Sesamum indicum</i>	Seed's oil	As per requirement
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Trial Drugs: All three drugs were prepared in NIA *Rasayana shala* according to classical instructions (*Yogratanakar, Bhaishajya Ratnavali & Sharangdhar Samhita*).

Dose:

1. “*Rasnadi Guggulu*” 2tab. (each tab. of 500 mg) three times in a day with lukewarm water for 30 days.
2. “*Rasnadashamooladi Kwatha*” 30 ml (prepared by 12 gm of *Kwatha Dravya*) two times in a day for 30 days.

1. Subjective Improvement:

<p>Sign & Symptoms of ‘Griva-Sandhigata Vata’</p> <ol style="list-style-type: none"> 1. <i>Shoola</i> (pain) 2. <i>Prasarana Achunchana Vedana</i> (painful flexion and extension) 3. <i>Shotha</i> (swelling) 4. <i>Vatapurnadritisparsha</i> (feeling of air filled in joints) 5. <i>Hanti Sandhigatah</i> (loss of function) 	<p>Sign & Symptoms of Cervical Spondylosis.</p> <ol style="list-style-type: none"> 6. Headache 7. Dizziness 8. Numbness / tingling sensation in arms 9. Weakness in arms 10. Restricted head movements 11. Stiffness in neck and arms.
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2. All the patients registered for present trial were looked for any changes in their growing feeling of

Duration of Clinical Trial & Follow up Study

1. Duration of clinical trial was 30 days and for *Griva Vasti* 14 days.
2. Patients were followed once in a week regularly.

Criteria of assessment:

1. Subjective improvement,
2. Objective improvement

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 Pro-

tein), RBS (Random Blood Sugar), RA Factor (Rheumatoid Factor), SGOT, SGPT, Total Bilirubin,

X-Ray of cervical spine -Antero-posterior and Lateral view

STATISTICAL METHODS USED IN THE STUDY:

- For Nonparametric Data **Wilcoxon matched-pairs signed ranks test** was used while for Parametric Data & Anthropometric Parameters **Paired‘t’ Test** was used and results Calculated in each group.
- For calculating the Inter group comparison of Nonparametric Data **Mann-Whitney Test** was used while for Parametric Data & Anthropometric Parameters **Unpaired‘t’ Test** was used.

OBSERVATIONS & 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 *Vatapoorndritisparsha* 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	Gr.	Mean score		Difference	% relief	S.D±	S.E±	p value	S
		BT	AT						
<i>Shoola</i>	A	2.8	1.7	1.10	39.28	0.5676	0.1795	<0.01	HS
	B	3.7	2.1	1.60	43.24	0.5164	0.1633	<0.01	HS
<i>Prasaran Aakunchan Vedana</i>	A	2.3	1.4	0.90	39.13	0.5676	0.1795	<0.01	HS
	B	2.8	1.9	0.90	32.14	0.3162	0.1000	<0.01	HS
<i>Shoatha</i>	A	0.6	0.1	0.50	83.33	0.5270	0.1667	>0.05	NS
	B	0.4	0.2	0.20	50.00	0.4216	0.1333	>0.05	NS
<i>Vatapurna dritisparsh</i>	A	0.4	0.1	0.30	75.00	0.4830	0.1528	>0.05	NS
	B	0.2	0.1	0.10	50.00	0.3162	0.1000	>0.05	NS
<i>Hanti sandhigatah</i>	A	1.0	0.6	0.40	40.00	0.5164	0.1633	>0.05	NS
	B	2.3	1.4	0.90	39.13	0.3162	0.1000	<0.01	HS
Headache	A	1.6	0.6	1.00	62.50	0.4714	0.1491	<0.01	HS
	B	1.8	1.3	0.50	27.78	0.5270	0.1667	>0.05	NS

Dizziness	A	0.6	0.2	0.40	66.67	0.5164	0.1633	>0.05	NS
	B	1.1	0.8	0.30	27.27	0.4830	0.1528	>0.05	NS
Numbness/ tingling sensation in arms	A	1.5	1.2	0.30	20.00	0.4830	0.1528	>0.05	NS
	B	1.8	1.7	0.10	5.55	0.3162	0.1	>0.05	NS
Weakness in arms	A	1.0	0.9	0.10	10.00	0.3162	0.100	>0.05	NS
	B	1.2	1.1	0.10	8.33	0.3000	0.1000	>0.05	NS
Restricted head movements	A	1.4	0.8	0.60	42.85	0.5164	0.1633	<0.05	S
	B	2.3	1.4	0.90	39.13	0.3162	0.1000	<0.01	HS
Stiffness in neck	A	1.5	0.7	0.80	53.33	0.6325	0.200	>0.05	NS
	B	2.0	1.1	0.90	45.00	0.3162	0.1000	<0.01	HS
NDI*	A	17.6	12.6	5.00	28.40	3.300	1.043	<0.01	HS
	B	18.6	13.8	4.80	25.80	0.6325	0.2000	<0.01	HS

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

Table 3:- Showing Effect of Therapy on Objectives Parameters

Variables	Gr.	Mean		Mean Diff.	Relief%	SD	SE	T	P	S
		BT	AT							
Hb% (gm %)	A	13.11	13.15	0.04	0.30	0.786	0.2486	0.1609	>0.05	NS
	B	13.27	13.35	0.08	0.60	0.569	0.1800	0.4444	>0.05	NS
TLC	A	7570	7570	0.00	00.00	1167.1	369.08	0.0000	>0.05	NS
	B	7030	7260	230	3.27	1367.9	432.58	0.5317	>0.05	NS
Neutrophills	A	57.20	57.10	0.10	0.174	4.886	1.5450	0.0647	>0.05	NS
	B	63.70	59.10	4.60	7.22	8.809	2.7860	1.6510	>0.05	NS
Lymphocytes	A	31.70	31.70	0.00	0.00	2.867	0.9068	0.0000	>0.05	NS
	B	27.70	33.50	5.80	20.93	9.830	3.1080	1.8660	>0.05	NS
Eosinophills	A	4.70	5.00	0.30	6.38	2.751	0.8699	0.3449	>0.05	NS
	B	3.70	3.20	0.50	0.13	2.321	0.7341	0.6811	>0.05	NS
Monocytes	A	6.10	6.20	0.10	1.60	1.524	0.4819	0.2075	>0.05	NS
	B	4.90	4.20	0.70	14.28	1.567	0.4955	1.4130	>0.05	NS
ESR	A	14.80	13.20	1.60	10.81	5.739	1.8150	0.8817	>0.05	NS
	B	15.40	14.40	1.00	6.50	5.888	1.8620	0.5371	>0.05	NS
Creatinine	A	1.05	0.97	0.08	7.61	1.050	0.9700	1.7140	>0.05	NS
	B	0.83	0.80	0.03	3.61	0.067	0.0213	1.4060	>0.05	NS
Sr. T. Bilirubin	A	0.74	0.70	0.04	5.40	0.135	0.0426	0.9372	>0.05	NS
	B	0.70	0.64	0.06	8.57	0.143	0.0452	1.3270	>0.05	NS
SGOT	A	34.50	31.60	2.90	8.40	14.310	4.5250	0.6409	>0.05	NS
	B	30.20	25.00	5.20	17.21	5.770	1.8250	2.8500	<0.05	S
SGPT	A	32.20	29.00	3.20	9.93	9.041	2.8590	1.1190	>0.05	NS
	B	32.10	26.90	5.20	16.19	6.989	2.2100	2.3530	<0.05	S

*Statistical test is not applicable because BT &AT values are same.

(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 Rasnadi Guggulu: The drug *Rasna*, due to its *Tikta Rasa*, *Katu Vipaka* and *Ushna Virya*, pacifies vitiated *Kapha* and *Aama Dosha*. *Guru Guna* and *Ushna Virya* pacifies *Vata Dosha* resulting in reduction of *Toda*, *Shula* and other related symptom. Properties of *Amrita* are mainly *Tikta*, *Kashaya*, *Snigdha*, *Ushna*, *Tridosha Shamaka*, *Vedanasthapana*, *Deepana*, *Pachana*, *Vatanulomana*. Properties of *Erandamoola* are mainly *Madhura*, *Snigdha*, *Tikshna*, *Ushna*, *Vata-Kapha Shamaka*, *Vedanasthapana Shothahara*. Properties of *Devdaru* are mainly *Tikta*, *Katu*, *Laghu*, *Snigdha*, *Ushna*, *Vata-Kapha Shamaka*, *Vedanasthapana Shothahara*. Properties of *Shunthi* is mainly *Katu*, *Laghu*, *Snigdha*, *Madhura*, *Ushna*, *Vata-Kapha Shamaka*, *Vedanasthapana*, *Deepana*, *Pachana*. Properties of *Guggulu* are *Vedanasthapaka* and *Vatashamaka*. It pacifies *Kapha Dosha* by its *Katu*, *Tikta Rasa* and *Laghu Gunas* and corrects *Vatadosha* through its *Ushna Virya*. So all these drugs having Anti – inflammatory and Analgesic effect.¹¹

Probable mode of action of Rasnadashamooladi Kwatha: The mode of action of drug *Rasna*, *Shunthi* and *Erandamoola* is described above in *Rasnadi Guggulu*. *Vidanga* is *Kaphavata Shamaka* drug and helps in digestion of *Ama* and improve the *Agni* as having *Ushna Virya*, *Katu & Tikta Rasa* and *Laghu*, *Ruksha Guna*. *Triphala* is *Tridosha shamaka*, *Vedanasthapana*, *Anulomana* and *Shothahara*. *Dashamoola* is a potent *Vata Shamaka*, *Vata-Kapha Shamaka* and *Tridosaghna* Compound. In *Ayurvedic* texts also mentioned, “*Dashamoolam Tridoshagham Kaphamarut Nashnam*”. It possesses anti-inflammatory and analgesic action. *Nishotha* is *Rechaniya* and *Pittakaphasanshodhaniya* drug. Due to *Laghu*, *Ruksha*, *Teekshna Guna*, *Ushna Virya*, and *Katu Vipaka* it have *Shothagna* property. In *Rasnadashamooladi Kwatha* maximum drugs have *Ushna Virya* which pacify both *Vata* and *Kaphadosha*

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

It is obvious from the foregoing study that group A and group B provided significant relief in signs and symptoms of patients of cervical spondylosis. While comparing the results of both groups it can be stated that group B showed better results in comparison to group A.

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