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Evaluation of the efficacy of *Punarnavadi Guggulu* & *Mahamashadi Taila Kati Basti* in the management of *Gridhrasi* (Sciatica)

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ABSTRACT

Background: *Gridrasi* is one among the *Vataja Nanatmaja Vyadhi*. Now a day *Gridhrasi* is a common disease to all class of people, and can be correlated to Sciatica which is affecting the day today life of individuals. Even though the scientific world has conducted extensive studies but couldn't find a safe and effective therapy or medicine for this disease, only they are giving many analgesics, in Ayurveda we offer several treatment modalities. Due to busy lifestyle people cannot spare much time even for long term procedures. **Objective:** Evaluation of the efficacy of *Punarnavadi Guggulu* and *Mahamashadi Taila Kati Basti* in the management of *Gridhrasi* (Sciatica). **Materials and Methods:** This study is a prospective clinical trial, 30 patients were divided in 2 groups, Group A: 15 patient of *Gridhrasi* disease were treated by *Punarnavadi Guggulu* orally. Group B: 15 patient of *Gridhrasi* were treated by *Mahamasadi Taila Kati Basti*. **Results and Conclusion:** The assessments of result among groups are, in group A, 12 (80%) patient have got mild response, 3 (20%) patient have got moderate response. In group B, 10 (66.66%) patients have got marked response and 5 (33.33%) patient have got moderately relieved.

Key words: *Ghridrasi, Sciatica, Punarnavadi Guggulu, Mahamashadi Taila, Katibasti.*

INTRODUCTION

Health is the supreme foundation of virtue, wealth, enjoyment and salvation. Diseases are the destroyers of health. Ayurveda is one such system, which prevailed 5000 years ago, which has its chief objects - preservation of health and prevention of disease and so this gifted science was considered the most advanced and scientifically proven in those days and still continues its shining. A constant re-examination or re-evaluation of every theory or fact is therefore, the very essence of science. Acharya Charaka says, *"Pareekshaam Abhiprasamsanti Kusalaah"*[1]

In a normal daily life, living without ambulation is almost impossible for any human being, from the time immemorial to ultramodern life. Though the movements of legs are so important, these are the most neglected parts of the body and vulnerable to many diseases. The most common disorder, which affects the movement of leg particularly in most productive period of life, is low backpain, out of which 40% of persons will have radicular pain and this comes under the umbrella of Sciatica syndrome. Such presentations were common in olden period too and ancient science of life named it as *Gridhrasi.* It is considered as *Soola Pradhaana Vatavyadhi*. Ample description is available in *Brhatrayee* and later

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treatises as well. Many researches were also conducted on this disease still the complete cure of this is still a mirage.

The physical strain of modern life, adoption of erect posture and lack of physical exercise made a civilized human liable to backache. Backache is a national personal and clinical problem because it is experienced by most of the population at some time and is drain to national sources. It is a personal problem and also clinical problem as it is often difficult to diagnose and treatment measures are conflicting and often unrewarding. It is a problem because of severity of pain, its persistence; it's disabling effects the fear of its origin and apprehension about future. Changing of life style of modern human being has created several disharmonies in his biological system. As the advancement of busy, professional and social life, improper sitting posture in offices, factories, continuous and overexertion, jerking movements during traveling and sports - all these factors create undue pressure to the spinal cord and play an important role in producing low backache and sciatica.

According to Ayurveda simple freedom from disease is not health. For a person, to be healthy he should be mentally and spiritually happy. An imbalance in *Doshic* equilibrium is termed as '*Roga'*. Among *Tridosha*, *Vata* is responsible for all *Cheshta* and all the diseases. As having the properties of locomotor, its dynamic entity, its intensity and majority of its specific disorder in number more importance and attention is given to the *Vata Dosha*.

A variety of *Vatavyadhi* described in *Charaka Samhita* are divided into *Samanyaja* and *Nanatmaja* group. *Gridhrasi* comes under 80 types of *Nanatmaja Vatavyadhi* though, occasionally there is *Kaphanubandha*. The name itself indicates the way of gate shown by the patients due to extreme pain just like a *Gridhra* (vulture), it is clear that this disease not only inflicts pain but also causes difficulty in walking, which is very much frustrating and embracing to the patient. It disturbs the daily routine and overall life of the patient.

As the medical science recognized the severity, a medicament, which relieve the pain, improves the functional ability, restore from functional disability and controls the condition with cost effectiveness is the need of the century.

The term *Gridhrasi* and sciatica of modern medicine can be termed synonymous as much as they refer to the same singular presentation - pain along the course of leg irrespective of etiological variations.

Now the whole scientific world has high hopes in Ayurveda as capable to provide proper and safer methods of management in disorders where the efforts with modern medicine have failed to achieve the desired results. Already the efficacy of the Ayurvedic drugs and techniques has gained global popularity in musculo-skeletal disorders like rheumatoid arthritis. Sequential administration of the *Snehana, Svedana, Basti, Siraavyadha* and *Agnikarma* are lines of treatment of *Gridhrasi* as expounded in the Ayurvedic literature.[2-4] Apart from these procedures, the *Shamana* line of treatment that includes oral administration of medicine is of utmost importance as the administration is very easy and also effective. But only few of research works have been carried out in relation to the *Shamana* treatment. Many herbal and herbo-mineral combinations are described in Ayurveda and their therapeutic effect in *Gridhrasi* is yet to be explored. *Punarnavadi Guggulu*[5] is one such herbo-mineral combination mentioned in the *Vangasena*, prescribed by eminent scholars since many decades for a wide range of diseases including *Gridhrasi*.

By looking at the individual herbal and mineral constituents, it appears that this combination should be very proficient in combating the *Gridhrasi*.

As the local *Samprapti*, *Sthanasanshraya* is having quiet major importance in *Gridhrasi* local simultaneous *Sneha Sweda* procedures called *Kati Basti* by *Mahamashadi Tailam*[6] has been selected for the present study.

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METHODOLOGY

Source of data

Patients suffering from *Gridhrasi* will be selected from Post Graduate and Research Center O.P.D of DGM Ayurvedic Medical College and Hospital by pre-set inclusion and exclusion criteria.

Trial Drug: Orally - *Punarnavadi Guggulu* and *Katibasti - Mahamasadi Taila*

Method of collection of data

Study Design: The study design set for the present study is 'Prospective clinical trial'. The study was done in double group.

Sample Size: A minimum of total 30 patients of Gridhrasi disease were selected and made into 2 groups.

a. **Group A:** A minimum of 15 patient of *Gridhrasi* disease will be treated by *Punarnavadi Guggulu* orally.

b. **Group B:** A minimum of 15 patient of *Gridhrasi* will be treated by *Mahamasadi Taila Kati Basti.*

Selection Criteria

Patients suffering from *Gridhrasi* were selected from the Post Graduate and Research Center OPD of D.G. Melmalagi Ayurvedic Medical College Hospital, Gadag. The criteria for inclusion and exclusion are as follows.

Inclusion Criteria:

a. Presence of clinical features of Gridhrasi.

b. Patient with back pain radiating to thigh, foot.

Exclusion Criteria:

a. Patient below 18 and above 60 years of age.

b. Patient with other systemic disorders and malignancy.

c. Degenerative disorders with marked deformity.

d. Pregnant women and lactating mother.

e. History of major trauma causing fractures.

f. Patient of Cauda equina syndrome and other Surgical Emergencies.

Posology:

a) *Punarnavadi Guggulu* taken orally : 3 grams in divided doses.

Anupana : Hot water

b) *Katibasti* by *Mahamasadithaila* : qs

Study Duration

- 30 - days medicine given orally and follow-up for 30 days
- 14 - days of *Kati Basti* and follow-up for 30 days.

Data Collection

Patients selected were thoroughly examined by both subjective and objective parameters. Detailed history and physical examination findings were noted. Laboratory and radiological investigations such as a complete blood count, ESR, RBS, Urine routine along with X-ray AP and Lateral views of lumbosacral regions were done, to exclude and include in the study.

Assessment of Result

Subjective and objective parameters of baseline data to post medication data comparison are used for assessment of results.

Subjective Parameter

As designated in the classical ayurvedic and modern texts.

Method of assessment of grading

The assessment of results, by observing the severity of symptomatology. The severities of the symptoms are assessed before and after the treatment.

Grading of parameters

The results were evaluated by observing subjective and objective parameters by grading method. The grading was done in the following manner.

Subjective parameters

Ruk (pain)

The grading for the pain was given on the basis of Visual Analogue Scale (VAS).[7] Scale of 0 to 10, with 10 indicating most severe pain.

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Table 1: Visual Analogue Scale

	Scale	
No Pain	0 1	
Mild, annoying pain	2 3	
Nagging, Uncomfortable, Troublesome pain	4 5	
Distressing, miserable pain	6 7	
Intense, dreadful, horrible pain	8 9	

Grade 0 - No pain - No Pain

Grade 1 - Trival pain - Mild, annoying pain

Grade 2 - Mild pain - Nagging, Uncomfortable, Troublesome pain

Grade 3 - Moderate pain - Distressing, miserable pain

Grade 4 - Severe pain - Intense, dreadful, horrible pains

***Sthambha* (Stiffness)**

Grade 0 - No stiffness

Grade 1 - With up to 25% impairment in the range of movement of joints. Patient can perform daily routine work without any difficulty.

Grade 2 - With 25-50% impairment in the range of movement of joints. Patient has moderate to severe difficulty in performing daily routine.

Grade 3 - With 50-75% impairment in the range of movement of joints. Patient has moderate to severe difficulty in performing daily routine.

Grade 4 - With more than 75% impairement in the range of movements of the joints patient totally unable to perform daily routine.

***Toda* (Piercing pain)**

Grade 0 - Absent

Grade 1 - Mild, occasionally in a day

Grade 2 - Moderate, after movement, daily frequent not persistent.

Grade 3 - Moderate, after movement, daily frequent and persistent.

Grade 4 - Severe, persistent

Objective Parameters

SLR Test: is assessed as positive at 0° to 90° with pain, negative at 90° (without pain)

Grade 0 - up to 90° without pain.

Grade 1 - up to 90° with pain.

Grade 2 - can be raised more than 40° with pain.

Grade 3 - cannot be raised more than 40° with pain.

Movements of lumbar spine

a) Forward Flexion : Assessed by measuring the distance between the tip of middle finger and floor in cms.

b) Rt. Lat Flexion : Assessed by measuring the distance between the tip of right middle finger and floor in cms

c) Left Lat flexion : Assessed by measuring the distance between the tip of left middle finger and floor in cms.

Walking time - to cover 21 meters

Grade 0 - upto 20 sec

Grade 1 - upto 21-30 sec.

Grade 2 - upto 31-40 sec

Grade 3 - upto 41-50 sec.

Grade 4 - upto 51-60 sec.

Investigation for Exclusion

a) X-ray of lumbo-sacral region with anterior-posterior and lateral views

b) Hb%

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c) Total WBC count

d) Differential count

e) Erythrocyte sedimentation rate

f) RBS

g) Urine routine examination

Overall assessment

- Good relief - 100% relief
- Marked response - more than 75% relief in signs and symptoms.
- Moderate response - 50-75% relief in signs and symptoms.
- Mild response - Below 50% relief in signs and symptoms
- Not relief - No relief.

DISCUSSION

Discussion on probable mode of action of *Punarnavadi Guggulu* in *Gridhrasi*

The materials in the nature including the human body as well as drugs are composed of *Panchamahabutha*. In drug compositions of these *Mahabhuthas* are known by inferred on the basis of their properties like *Rasa, Guna, Viryaa, Vipaka, Prabhava* etc. which are inherent in drug on which the pharmacodyanmic depends.

Punarnavadi Guggulu described by *Acharya Vangasena* in *Vatarakthaadikara Adhyaya* has been selected for the *Shamana* in the study. *Punarnavadi Guggulu* contains mainly *Punaranava*, *Erandamoola, Sunthi, Guggulu, Eranda Taila, Makshika Dathu* etc. which possesses *Vata-Kaphahara*, *Anulomaka* and *Shoolahara* property as well as anti-inflammatory, analgesic, muscle relaxant properties and even regenerative properties which give relief from the disease.

Discussion on probable mode of action of *Mahamasaditaila Kati Basti* in *Gridhrasi*

Mahamasadi Taila described by *Acharya Vangasena* in *Vatavyadhadhikara Adhyaya* has been selected for the *Kati Basti. Mahamasadi Taila* contains mainly *Masha, Trikatu, Tila Taila, Eranda, Dugda, Chagamamsa, Dasamula, Gokshura, Amalaki* etc. drugs which possess *Vata-Kaphahara* property.

Snehana, Swedana and *Mrdu Sodhana* are the principles of treatment in all *Vaata Vyadhi*. From the *Shamana* point of view, various medication which soothe the severity of pain, improves functional ability is best in *Gridhrasi*. An added advantage will be achieved if *Snehana* and *Swedana* are done which relieves *Stambha*, *Gaurava, Seeta* and which reduces the intensity of pain. Oil and herbal active principles get absorbed through skin medium. The warm oil also helps to improve the gap between the vertebrae, thus giving a chance for the herniated disc to heal. Considering this aspect *Kati Basti* is adopted for this study.

Table 2: Statistical Assessment of Individual Study Group - A (Objective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	S.L.R Right	0.5	0.577	0.149	3.355	<0.05	H.S
	S.L.R Left	0.724	0.467	0.120	6.058	<0.001	H.S
2.	Forward flexion	4.733	2.685	0.693	6.83	<0.001	H.S
3.	Right Lateral flexion	3.866	2.477	0.638	6.059	<0.001	H.S
4.	Left Lateral flexion	3.4666	1.807	0.466	7.437	<0.001	H.S
5.	Extension	0.666	0.487	0.125	5.328	<0.001	H.S
6.	Rotation	0.1333	0.351	0.090	1.481	>0.05	N.S
7.	Walking time	6.6	4.95	1.279	5.16	<0.001	H.S

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Table 3: Statistical Assessment of Individual Study Group - B (Objective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	S.L.R Right	1.666	0.516	0.133	12.52	<0.001	H.S
	S.L.R Left	1.666	0.5	0.129	12.29	<0.001	H.S
2.	Forward flexion	13.666	5.367	1.385	9.867	<0.001	H.S
3.	Right Lateral flexion	10.6	3.794	0.979	10.827	<0.001	H.S
4.	Left Lateral flexion	9.266	4.078	1.053	8.8	<0.001	H.S
5.	Extension	0.533	0516	0.133	4.00	<0.01	H.S
6.	Rotation	0.133	0.351	0.090	1.47	>0.05	N.S
7.	Walking time	6.6	4.95	1.279	5.16	<0.001	H.S

Table 4: Statistical Assessment of Individual Study Group - A (Objective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	V.A.S	1.6	0.828	0.213	7.511	<0.001	H.S

Table 5: Statistical Assessment of Individual Study Group - B (Objective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	V.A.S	3.933	0.961	0.248	15.858	<0.001	H.S

Table 6: Statistical Assessment of Comparative study of Group A with Group B, After Treatment (Objective Parameter)

SN	Parameters	Group	Mean	S.D	S.E	P.S.E	t-value	P - value	Remarks
1.	S.L.R Right	A	2.0	1.414	0.365	0.391	1.278	>0.05	N.S
		B	0.5	0.547	0.141				
	S.L.R Left	A	1.545	0.934	0.241	0.302	2.91	<0.02	H.S
		B	0.666	0.707	0.182				
2.	Forward flexion	A	20.866	11.15	2.879	3.716	2.368	<0.02	H.S
		B	12.066	9.098	2.349				
3.	Right Lateral flexion	A	33.666	8.582	2.216	3.024	3.13	<0.01	H.S
		B	24.2	7.97	2.059				
4.	Left Lateral flexion	A	33.266	1.977	1.977	2.844	2.931	<0.01	H.S
		B	24.93	2.045	2.045				
5.	Extension	A	-	-	-	0.0666	1.000	>0.05	N.S
		B	0.0666	0.258	0.0666				
6.	Rotation	A	-	-	-	0.0666	1.000	>0.05	N.S
		B	0.0666	0.258	0.0666				
7.	Walking time	A	26.33	7.333	1.894	2.412	1.687	>0.05	N.S
		B	22.26	5.787	1.494				

Table 7: Statistical Assessment of Comparative study of Group A with Group B, After Treatment (Objective Parameter)

SN	Parameters	Group	Mean	S.D	S.E	P.S.E	t-value	P - value	Remarks
1.	V.A.S	A	3.733	2.016	0.52	0.624	2.46	<0.05	H.S
		B	2.2	1.32	0.341				

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Table 8: Statistical Assessment of Individual Study Group A (Subjective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	*Ruk*	1.0	0.377	0.097	10.309	<0.001	H.S
2.	*Sthamba*	0.0666	0.258	0.066	1.000	>0.05	N. S
3.	*Toda*	0.4	0.507	0.1309	3.055	<0.01	H.S

Table 9: Statistical Assessment of Individual Study Group B (Subjective Parameter)

SN	Parameters	Mean	S.D	S.E	t-value	P - value	Remarks
1.	*Ruk*	2.4	0.507	0.130	18.461	<0.001	H.S
2.	*Sthamba*	1.0	1.0	0.258	3.875	<0.01	H.S
3.	*Toda*	0.933	0.883	0.228	4.093	<0.01	H.S

Table 10: Statistical Assessment of Comparative study of Group A with Group B, After Treatment (Subjective Parameter)

SN	Parameters	Group	Mean	S.D	S.E	P.S.E	t-value	P - value	Remarks
1.	*Ruk*	A	1.733	0.593	0.153	0.22	4.806	<0.001	H.S
		B	0.666	0.617	0.159				
2.	*Sthamba*	A	0.733	1.032	0.266	0.306	1.526	>0.05	N.S
		B	0.266	0.593	0.153				
3.	*Toda*	A	0.8	0.861	0.222	0.246	2.439	<0.05	H.S
		B	0.2	0.414	0.106				

To compare the mean effect of 2 groups, the analysis is done by using un paired 't' test by assuming that the mean effect of 2 groups is same after the treatment. From the analysis the objective parameter forward flexion, right lateral flexion, left lateral flexion and VAS shows highly significant and other parameter shows non-significant. In the parameter SLR, right leg which shows not significant the analysis done by using 4 patients in group A and 6 patients in group B, those have symptoms. In SLR of left leg the analysis done for 11 patients in group A and 9 patients in group B those have the symptoms of the parameter which shows highly significant. By comparing p value and t value. (Table 3)

In the subjective parameters, the *Ruk* and *Toda* shows highly significant, but *Sthamba* shows non significant.

To know the effect of drug individually the analysis done by using paired t test by assuming that drug is not responsible for changes in the observation before and after the treatment. Over all the group B shows more highly significant in all the objective parameter except extension, where as the Rotation shows not significant in both the groups. The parameter VAS shows more highly significant in group B with more mean and more variation.

In subjective parameters in group B shows highly significant but in the parameter *Sthambha* is not significant in group A. There is a much highly significant in parameter *Ruk*, *Toda* and *Sthamba* in group B with more mean and more variation. By comparing p value, t value, mean and standard deviation. (Table 1 & 2)

Individual Parameter

Objective parameter

- In group B the parameter SLR right and left shows more net mean effect with less variation.
- In group B the parameter Forward flexion shows more net mean effect with more variation.
- The parameter right lateral flexion in group B is having more net mean effect with more variation.
- The parameter left lateral flexion in group B is having more net mean effect with more variation.

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- The parameter extension in group B is shows less net mean effect with less variation.
- The parameter rotation in both groups is shows same net mean effect with same variation.
- In the parameter, walking time in both groups shows same net mean effect with same variation.
- In group B the parameter, VAS shows more net mean effect with more variation.

Subjective parameter

- The parameter *Ruk* in group B shows more net mean effect with more variation.
- The parameter *Sthambha* in group B shows more net mean effect with more variation.
- The parameter *Toda* in group B shows more net mean effect with more variation.

Table 11: Showing the Overall assessment

Response	Group A		Group B	
	No. of Patient	%	No. of Patient	%
Good relief	0	0%	0	0%
Marked response	0	0%	10	66.66%
Moderate response	3	20%	5	33.33%
Mild response	12	80%	0	0%
Not relief	0	0%	0	0%

The above table shows the assessment of result among groups. In group A, 12 (80%) patient have got mild response, 3 (20%) patient have got moderate response. In group B, 10 (66.66%) patients have got marked response and 5 (33.33%) patient have got moderately relieved.

CONCLUSION

At the end of the study, following conclusions can be drawn on the basis of observations made, results achieved and thorough discussions in the present context. Historical glimpses reveal that though the knowledge of Sciatica is just two centuries old for the modern medicine, Ayurveda has concise but exact description of the disease in the samhitas. The anatomical, pathological, clinical and even diagnostic aspects of the disease are well covered in our texts. Our classics have described *Vata Dosha* as the main culprit in the disease *Gridhrasi*. Sometimes *Kapha* is the *Anubandhi Dosha*. This is supported clinically as maximum no. of the patients showed *Vataprakopaka Hetus* as the cause. Physical as well as mental stress was observed as the common causes along with trauma. There is no direct reference regarding *Nidana* and *Samprapti* of *Gridhrasi*. *Gridhrasi* can be equated with *Sciatica* in modern medicine. Majority of the patients had *Dwandwaj Prakruti* i.e. *Vatapitta* or *Vatakapha*. Also majority of patients had *Vishamagni* and *Krura Koshtha*. All these finding support the dominance of *Vata Dosha.* In the present study, majority of the patients suffered from *Vatakaphaj Gridhrasi* (53.33%) with 46.66% suffering from *Vataja Gridhrasi.* In the present study both the therapies were effective in combating the disease. Major improvement was observed on all signs and symptoms as well as on SLR in both the groups. On comparing the overall effect of the therapies, *Kati Basti* showed more effective than only *Shaman* Therapy. This proves the importance of *Kati Basti* therapy in the management of *Gridrasi*. The drugs administered in *Guggulu* form gave overwhelming response in treating *Gridhrasi*. Only *Shamana* therapy cured 3 patients were moderately responded and 12 patients showed Mild improvement. This proves the efficacy of *Guggulu Kalpana* in mitigating *Vata* and *Kapha* and also potentiating *Agni*. Another reason behind the effectiveness of the therapy might be that the combination was with *Erand Taila. Erand Taila* effectively conquers *Vata* and *Kapha Dosha*. It clears the *Srotasas* by removing *Mala* and *Avarana*. It conquers the *Rukshata* of *Vayu* with *Snigdha Guna* and also normalizes *Apana Vayu,* which is the main culprit. No major adverse or side effects were encountered during this treatment period. Preventive aspect and patient's education play an important role

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in the management of *Gridhrasi*. Proper guidelines about posture etc. along with exercises strengthening the spine are helpful for effective management. Allopathic management is far away from the perfect treatment.

REFERENCES

1. Agnivesa, Charaka samhita Vimanasthana, edited by Vaidya Jadavaji Trikamji Acharya, chapter 8 - 18th sloka. Varanasi: Chaukhambha Sanskrit Sansthan; 2004 page no. 265.
2. Agnivesa, Charaka samhita Chikitsasthana, edited by Vaidya Jadavaji Trikamji Acharya, chapter 28 - 101th sloka. Varanasi: Chaukhambha Sanskrit Sansthan; 2004 page no. 621.
3. Susruta, Susruta samhita Sareerasthana, edited by Vaidya Jadavaji Trikamji Acharya, chapter 8 - 17th sloka. Varanasi: Chaukhambha Orientalia; 1980 page no. 381.
4. Vagbatha, Asthanga hrudaya Sutrasthana, edited by Achrya Baladeva Upadyaya, chapter 27 -15th sloka. Varanasi: Chaukhambha Orientalia; 2002 page no. 328.
5. Vangasena, Vangasena samhitha, edited by Kaviraj Sri Shalligramjji Vaishya, Vatarakthaadhikara Adyyaya Shloka 117-121, Kamaraj Sri Krishnadasa Prakashsena Mumbai, Page no.: 387.
6. Vangasena, Vangasena samhitha, edited by Kaviraj Sri Shalligramjji Vaishya, Vatavyadhadhikara Adyyaya Shloka 326-332, Kamaraj Sri Krishnadasa Prakashsena Mumbai, Page no.: 351.
7. A Max India Institution, Max Healthcare Caring for you for life Low Back ace & Sciatica ppt. Available from www.maxindia.com. Accessed on 6th June 2006.

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