

Research Article

Pilot study of Dashamuladi Yoga on the patients of Gridhrasi with special reference to sciatica

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Article Received on: 30/10/2018

Accepted on: 20/12/2018

ABSTRACT:

In today's modern medicine for the management of sciatica, conservative treatments, epidural steroids, and surgical treatments are indicated. All these are having their own complications and side effects. On the other hand all these management tools are not affordable for the poor, particularly in developing countries like India. In Ayurveda many treatments are indicated for *gridhrasi* which give more relief and are cost effective and so we have done *shaman chikitsa* with *dashamooladi yoga* as told by Vangasena.

Methods-

20 patients of *gridhrasi* were selected randomly. They were treated with the *Dashamooladi yoga* of Vangasena as told in the *Gridhrasi adhikar* and accordingly, *kwath* (decoction) preparation was done and administered in the dose of 40 ml in *Abhukta awastha* (empty stomach) for 60 days. Follow up was taken on 0th, 15th, 30th, 45th and the 60th day. The contents of *dashamooladi yoga* are Dashmool, Bala, Rasna Guduchi, Sunthi and Eranda tailam.

Observations and results -

It was found that *Dashamooladi yoga* of Vangasena is effective in reducing the signs and symptoms of *gridhrasi*.

Conclusion -

Dashamooladi yoga is suitable to be used in large scale for the treatment of *gridhrasi*, as it is very useful in the treatment of the disease and also it is very cost effective.

KEY WORDS: *Dashmooladi yoga, Gridhrasi, Sciatica, Vangasena, Abhukt avastha.*

INTRODUCTION:

Ayurved is 'the science of life' and had a golden time some centuries back.

In ancient India, this system was the only prevalent one which could help the ailing humanity. The present era is an era of new inventions and the modern science has struck the minds of all by its day to day developments. The disorders affecting the locomotor system are increasingly seen in present era.

These conditions considerably reduce the human activity in terms of social and professional life. Among such disorders ayurvedic classics have described a

severe debilitating disease in the name of *Gridhrasi*¹. The name itself indicates the way of gait shown by the patient due to extreme pain just like a *Ghradhra* (Vulture). In modern parlance the above condition is described in which pain is experienced along the course and in the distribution of sciatic nerve². It is now become well known even among the laymen, as sciatica. A variety of *vata vyadhies* described in Charaka Samhita are divided into *samanyaja* and *nanatmaja*. *Gridhrasi* comes under 80 types of *nanatmaja vata vyadhies*³. The cardinal signs and symptoms are *Ruk* (pain), *Toda* (pricking sensation),

Muhuspandana, *Stambha* (restriction of the movements) in the *sphik*, *Kati*, *Uru*, *Janu*, *Jangha* and *Pada* in order and *Sakthikshepanigraha* i.e. restricted lifting of the leg. In *kaphanubandhi* (that associated with kapha) *Tandra* (sleepiness), *Gaurava* (feeling of heaviness in the body), *Arochaka* (loss of appetite) are present.

As far as aetiopathology of *Ghridhrasi* is concerned 'Vatavaigunya' (vitiation of vata) is important. It essentially plays a role in the over stimulation of the nerve as experienced by severe pain in the course of affected part. as opined by Charakacharya According to modern science, the causative factors of sciatica are mostly degenerative arthritis and disc prolapse⁵, and to diagnose the sciatica SLR test, sitting test, lasegues sign are most helping. In modern medicine for the management of sciatica – conservative treatment, epidural steroids injection, periradicular infiltration and surgical treatment are indicated. All these are having their own complications and side effects. On the other hand all these management tools are not affordable for the poor, particularly in developing countries like India. In Ayurveda many treatments like *snehana* (oleation) *swedana* (sudation) *basti* (enema) etc. are told⁶. Here we are doing *shaman chikitsa* (medication) with *Dashamooladi yoga* as told by Vangasena⁷.

I have selected this disease for the present study because of the rise in number of the patients day by day here in the state of Maharashtra.

Aims and objectives-

1. To study the efficacy of dashamooladi yoga in relieving the signs and symptoms of *gridhrasi* such as *ruja*, *toda*, *muhuspandana*, *graha* and *stambha*
2. To study *gridhrasi* in ayurvedic perspectives in the present era.
3. To study *gridhrasi* in modern perspectives.
4. To get the desired results within the given period of time i.e. 2 months.

MATERIALS AND METHODS :

Dashamooladi yoga is the main material required for the study. Its efficacy was assessed with 20 patients.

Contents of Dashamooladi Yoga -

Dashamooladi yoga from the text book of Vangasena was selected for internal administration in *Gridhrasi* for the clinical trial.

1. Dashamooli
2. Bala
3. Rasna
4. Guduchi
5. Vishwabheshajam
6. Erandatailam

Trial drug i.e. *Dashamooladi yoga* was prepared by making the *kwatha* (medicinal decoction) preparation with Dashamoola, Bala, Rasna, Guduchi and vishwabheshajam and afterwards this mixture was added with *erandatailam* (castor oil) accordingly as mentioned in the text.

Table - 1 : Contents of Dashamooladi Yoga

Sr . no	Drug name	Botanical name	Family name
1	Bilva ⁸	Aegle marmelos	Rutaceae
2	Agnimantha ⁹	Premna mucronata	Verbenaceae
3	Syonaka ¹⁰	Oroxylum indicum	Bignoniaceae
4	Patala ¹¹	Stereospermum suaveolens	Bignoniaceae
5	Gambhari ¹²	Gmelina arborea	Verbenaceae
6	Brihati ¹³	Solanum indicum	Solanaceae
7	Kantakari ¹⁴	Solanum xanthocarpum	Solanaceae
8	Gokshura ¹⁵	Tribulus terrestris	Zygophyllaceae
9	Shalaparni ¹⁶	Desmodium gangeticum	Leguminaceae
10	Prishnaparni ¹⁷	Uraria pictata	Leguminaceae
11	Bala ¹⁸	Sida cordifolia	Malvaceae
12	Rasna ¹⁹	Pluchea lanceolata	Compositae
13	Guduchi ²⁰	Tinospora cordifolia	Menispermaceae
14	Vishwabheshaja ²¹	Zingiber officinale	Zingiberaceae
15	Eranda ²²	Ricinus communis	Euphorbiaceae

20 patients were selected for the clinical trial randomly and study was done on them.

The 20 patients of gridhrasi treated with Dashamooladi yoga (i.e. kwatha 40 ml prepared from dashamoola, Bala, Rasna, Guduchi, Vishwabheshaja added to 20ml of erandataila) orally.

Dose:

Orally 40ml or as per the condition of the disease.

Route of Administration:

The medicine was administered orally.

Time of Administration :

The medicine was administered twice daily .

(2 hrs before lunch)

(2hrs before dinner)

Aushadh Sevan Kala (time of administration of the medicine) :

Abhukta Avastha (without taking any food).

Duration of Treatment: 2 months

Follow up : D15, D30, D45, D60.

Study Design & Sample Size:

Clinical Study, single Group.

20 Patients of *Gridhrasi* were selected.

Methods of Selection of Study Objects

Inclusion Criteria:

- Patients aged between 18-70 years were selected .
- Patients presenting with symptoms of *Gridhrasi* such as *ruja* (Pain), *stambha* (restriction of movements), *toda*(pricking pain), *graha* (stiffness) *muhuh spandana* of *sphik, kati, prashtha, uru, janu,jangha* and *padam* were selected.
- Those showing SLR test positive or Lasegues test positive were also included.

Exclusion Criteria:

- Patients with uncontrolled systemic disorders like Diabetes Mellitus/ Hypertension/ Cardiac disorders/ tuberculosis/ malignancy/ severe anaemia etc. were excluded.
- Patients with HIV/HbsAg positive.
- Disobedient patients were excluded.

Matching criteria :

Before and after.

Criteria for Assessment

All the patients were examined on every 15th day during the treatment. Criteria for assessment was designed on the basis of relief in the signs and symptoms of the disease *Gridhrasi*. For this purpose, signs and symptoms of *Gridhrasi* is divided into gradations according to their severity before and after treatment.

1. Subjective criteria :

- History of patient
- Stambhana*
- Toda*
- Ruja* (Pain)
- graha* and *muhuhspandana*

2. Objective criteria:

- degree to which the leg can be raised, while doing the SLR(Straight Leg Raising) test.
- Vital function examination (Temperature, Blood Pressure)

Gradation Index :

1) *Ruja*:(Pain)

No pain	0
Mild pain but no difficulty in walking	+
Moderate pain and slight difficulty in work	++
Severe pain with severe difficulty in walking	+++

2) *Stambha*:(Restriction of movements)

No Stambha	0
Some time for 0 – 5 minute	+
Some time for 5 – 30 minute	++
Sometime for 30 – 60 minute	+++
Above 1 hour	++++

3) *Toda*(Pricking pain)

No toda	0
Occasional	+
Mild	++
Moderate	+++
Severe	++++

4) Spandana

No Spandana	0
Some time for 0 – 5 minute	+
Some time for 5 – 30 minute	++
Sometime for 30 – 60 minute	+++
Above 1 hour	++++

5) SLR test (Straight Leg Raising) test.

76-90 degree	0
61-75 degree	+
46-60 degree	++
31-45 degree	+++
Below 30 degree	++++

Criteria for Assessment of Results :

This was done to assess the improvements of *Gridhrasi Chikitsa*(treatment) with reference to signs and symptoms presented at the end of each observations.

1. Complete Improvement : 100% Improvement
2. Marked Improvement : 75%-99% Improvement
3. Moderate Improvement : 50%-74% Improvement
4. Mild Improvement : 25%-49% Improvement
5. No Improvement : Less than 25% Improvement

OBSERVATIONS AND RESULTS:**1) Ruja:(Pain)**

	Before Treatment	After Treatment
0	2 (7.00) [3.57]	12 (7.00) [3.57]
+	4 (4.50) [0.06]	5 (4.50) [0.06]
++	8 (5.00) [1.80]	2 (5.00) [1.80]
+++	6 (3.50) [1.79]	1 (3.50) [1.79]
Column totals	20	20

The chi-square statistic is 14.4254 .The P value is .00238. The result is significant at $p < 0.05$.

2) Stambha:(Restriction of movements)

	Before Treatment	After Treatment
0	3 (6.50) [1.88]	10 (6.50) [1.88]
+	3 (4.50) [0.50]	6 (4.50) [0.50]
++	2 (2.00) [0.00]	2 (2.00) [0.00]
+++	4 (2.50) [0.90]	1 (2.50) [0.90]
++++	8 (4.50) [2.72]	1 (4.50) [2.72]
Column totals	20	20

The chi-square statistic is 12.0137 .The P value is .01725. The result is significant at $p < 0.05$.

3) Toda(Pricking pain)

Grade	Before Treatment	After Treatment
0	2 (7.50) [4.03]	13 (7.50) [4.03]
+	5 (4.00) [0.25]	3 (4.00) [0.25]
++	4 (2.50) [0.90]	1 (2.50) [0.90]
+++	7 (4.50) [1.39]	2 (4.50) [1.39]
++++	2 (1.50) [0.17]	1 (1.50) [0.17]
Column totals	20	20

The chi-square statistic is 13.4778 .The P value is .009163. The result is significant at $p < 0.05$.

4) Spandana

Grade	Before Treatment	After Treatment
0	1 (4.50) [2.72]	8 (4.50) [2.72]
+	2 (3.50) [0.64]	5 (3.50) [0.64]
++	6 (4.50) [0.50]	3 (4.50) [0.50]
+++	8 (5.50) [1.14]	3 (5.50) [1.14]
++++	3 (2.00) [0.50]	1 (2.00) [0.50]
Column totals	20	20

The chi-square statistic is 11.0029 .The P value is .026532. The result is significant at $p < 0.05$

5) SLR test (Straight Leg Raising) test.

Grade	Before Treatment	After Treatment
0	2 (7.00) [3.57]	12 (7.00) [3.57]
+	8 (5.50) [1.14]	3 (5.50) [1.14]
++	6 (4.00) [1.00]	2 (4.00) [1.00]
+++	3 (2.50)[0.10]	2 (2.50)[0.10]
++++	1 (1.00)[0.00]	1 (1.00)[0.00]
Column totals	20	20

The chi-square statistic is 11.6156 .The P value is .020451. The result is significant at $p < 0.05$.

DISCUSSION :

Sciatica refers to the pain that radiates along the path of the sciatic nerve, which branches from your lower back through your hips and buttocks and down each leg.Sciatica most commonly occurs when a herniated disc,bone spur on the spine or narrowing of the spine (spinal stenosis) compresses part of the nerve. This causes inflammation, pain and often some numbness in the affected leg.

Here in the results obtained ,we can see that there is much improvement in the symptoms after taking *dashamooladi yoga* and it has very good results in sciatica, especially vataja gridhrasi.

Dashamooladi yoga contains Dashamoola, bala, rasna, guduchi and sunthi with eranda taila which contain

individual properties like ushna virya, vata shamaka property, kaphavata shamaka property, madhura vipaka etc. and therefore it works very effectively in this disease especially in vataja gridhrasi.

CONCLUSION :

From the above study and statistical analysis done it is established that Dashamooladi yoga has excellent results in gridhrasi and it is suitable to be used at a large scale because it is both effective in this disease and also cost effective.

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Cite this article as:

Jagadish Pillai, Rajan B. Kulkarni, Pilot study of Dashamuladi Yoga on the patients of Gridhrasi with special reference to sciatica, ADJIM 2018: 3(4), p.11-15