Clinical Evaluation of Agnitundi Vati in the management of Gridhrasi
With special reference to Sciatica

Research Article

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Abstract

In the present era, Gridhrasi is the commonly occurring disease in both geriatric and middle age. It causes due to irritation of sciatic nerve. According to Ayurveda, vataprapakopak nidanas i.e. depletion of dhatu and obstruction of channels are the causes of Gridhrasi. Vata plays a major role in pathogenesis of the disease but sometimes associated with kapha. Agnitundi Vati described in Sharangadharsamhita has the properties acting on both vata and kapha. To assess the efficacy of Agnitundi vati in the management of Gridhrasi, present study was undertaken in 30 patients of both types of Gridhrasi. 125-250 mg of Agnitundi Vati was given orally, two times daily after meal with lukewarm water for total 21 days. It showed hopeful results in subjective and objective parameters of Gridhrasi. The study shows that Agnitundi vati is effective in management of both types of Gridhrasi, but more effective in vata-kapha Gridhrasi.

Key Words: Gridhrasi, Vataprapakopak nidanas, Vata, Kapha, Agnitundi vati.

Introduction

Sciatica is characterised by constant aching pain in the lumber region radiating to the buttock, calf and foot caused by irritation of the sciatic nerve. (1) It is quite a common condition with a lifetime incidence varying from 13% to 40%. The consequent annual incidence of an episode of sciatica ranges from 1% to 5%. (2)

It can be compared to Gridhrasi described in ayurvedic text having pricking pain, twitching along the route of sciatic nerve. It occurs both in old and middle age. It is one of the 80 types of Nanatmaja vyadhi of vata. (3) The general vata prakopa nidanas are nidanas of Gridhrassisuch as improper sitting posture, over exertion, over loading, trauma to lumbosacral spine, production of ama, jerky movements during travelling etc. (4) The samprapti of Gridhrasi is a complex mechanism. The vata provoked by the above-mentioned factors, either by depletion of dhatu or by the occlusion of channels, enters the emptymajjavaha srotas and leads to Gridhrasi. (5)

The cardinal features of Gridhrasi are ruk(pain), toda(pricking sensation), stabdhata(stiffness), spandana(twitching) in the buttocks, low back region radiating to thigh, knee, calf region and foot, whereas arochak (aversion to food), tandra(drowsiness),and gaurava(feeling of heaviness) come across additionally when kapha is associated with vata. (6) Due to severe pain, it creates little threat to life. Treatment of the disease includes analgesics, traction therapy and physical therapy. Surgery i.e. removal of disc herniation also recommends according to stage. This treatment reduces only leg pain and corresponding symptoms, not the back pain and the chances of recurrence are more. Vata plays major role in the pathogenesis of the disease but most of the times associated with kapha. Alsobeing a nerveine disorder, can be treated by a drug having deepana, pachana, vatashamakaand shoolaghna properties along with having action on nerves. Agnitundi vati mentioned in Sharangadhara samhita is having all the properties. (7) This drug is using being successfully to cure vatarogas. But it is need to study on scientific measures to make more use of it.

Materials & Methods

Objective of the study

To evaluate the efficacy of Agnitundi Vati in the management of Gridhrasi.

Source of Data

Patients attending the OPD and IPD of the Department of Rognidan- Vikritivigyan and Dept of Kayachikitsa, Pakwasa Samanvay Rughalaya and Dept of Rognidan- Vikritivigyan of Akhil Bhartiya Ayurved Anusandhan, Nagpur.

Method of Collection

30 participants fulfilling the diagnostic and inclusion criteria, belonging to either sex irrespective of socio-economic status and caste were selected and registered for the clinical study. Prakriti, addiction, gender, occupation of the patients was also studied.

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**Diagnostic Criteria**
Patients were diagnosed on the basis of following clinical features
1. Patients having cardinal symptoms of Gridhrasi-like Ruk, Toda, Stambha and Spandana in Sphik, Kati radiating to Prishthabhaga of Uru, Janu, Jangha and Pada.
2. Positive straight leg raises (SLR) test in affected leg.

**Inclusion Criteria**
1. Patients fulfilling the diagnostic criteria.
2. Patients of both sex between age group 20-65 years.

**Exclusion Criteria**
1. Benign or Malignant tumour of spine, traumatic injury, Tuberculosis of vertebral column.
2. Developmental anomalies.
3. Uncontrolled diabetes mellitus, cardiovascular diseases.
4. Pregnant and Lactating women.

**Laboratory Investigation (Objective Parameter)**
- Routine haematological investigation- Hb%, TLC, DLC, ESR
- Urine for routine and microscopic examination
- X-ray of Lumbosacral spine – AP and Lateral view.

**Plan of Treatment**
125-250 mg of Agnitundi Vati was given orally, two times daily after meal with lukewarm water for total 21 days. A gap of 1 day was given in between two weeks.
Weekly follow up was taken.
Agnitundi Vati was prepared in Universal Pharmacy, Nagpur.

**Contents of Agnitundi vati:**
Bhavana Dravya- Jambeera (Citrus Limon)

| Ingredients                  | Quantity |
|------------------------------|----------|
| Parad (Mercury)              | 1 part   |
| Gadhak (Sulphur)             | 1 part   |
| Vatsanabh (Aconitum ferox)   | 1 part   |
| Haritaki (Terminalia chebula)| 1 part   |
| Bibhitak (Terminalia beclica)| 1 part   |
| Amalaki (Phyllanthus emblica)| 1 part   |
| Chitrak (Plumbago zeylanica) | 1 part   |
| Jeerak (Cuminum cyminum)     | 1 part   |
| Ajamoda (Carum Roxburghianum DC) | 1 part |
| Vidanga (Emblica ribes)      | 1 part   |
| Shunthi (Zingiber officinale Roscae) | 1 part |
| Marich (Piper nigrum)        | 1 part   |
| Pippali (Piper longum)       | 1 part   |
| Sarji kshara                 | 1 part   |
| Yava kshara (Potasssi carbons)| 1 part |
| Saindhava (Sodii chloride)   | 1 part   |
| Sauvarchala (Unaqna sodium chloride) | 1 part |
| Samudra (Sodii muras)        | 1 part   |
| Kupeelu (Strychnos nux-vomica Linn) | 18 parts|

**Assessment Criteria**
Subjective and objective parameters presented by the patients were given score and were assessed before and after every week for 3 weeks.

- **Ruk (Pain)**
  0: No pain
  +: Painful but walks without limping
  ++: Painful, walks with limping but without support
  +++: Painful, can walk only with support
  ++++: Severe pain, unable to walk

- **Stambha (Stiffness)**
  0: No stiffness
  +: Mild Stiffness
  ++: Moderate stiffness
  +++: Severe stiffness
  ++++: Very severe stiffness

- **Spandana (Twitting)**
  0: No twitching
  +: For few minutes occasionally
  ++: Daily once in a day for few minutes
  +++: Many times, in a day affecting daily routine
  ++++: Daily for many times severely hampering daily routine

- **Arochak**
  0: Absent Arochak
  +: Mild Arochak
  ++: Moderate Arochak
  +++: Severe Arochak

- **Gaurava**
  0: Absent Gaurava
  +: Mild Gaurava
  ++: Moderate Gaurava
  +++: Severe Gaurava

- **Tandra**
  0: Absent Tandra
  +: Mild Tandra
  ++: Moderate Tandra
  +++: Severe Tandra

**Gradation for SLR**
- 0: Equal to or greater than 900
- +: 710 to < 900
- ++: 510 – 700
- +++: 310 - 500
- ++++: <300

**Observations and Result**
Total 30 patients of Gridhrasi were registered. Important features were as follows:

**Graph 1. Showing the distribution of gender in 30 patients of Gridhrasi**
Maximum, 63.3% were females.
According to prakriti, 36.67% patients were of vata-kaphaj and 36.67% were of vata-pittaj prakriti.

According to agni, majority of patients i.e. 60% were having mandagni.

53.33% patients were diagnosed as vataj Gridhrasi and 46.67% patients as vata-kaphaj Gridhrasi.
increase the risk of injury due to decrease in hydration

**Discussion**

The obtained results were classified as:

| Signs & Symptoms | Mean | % Relief | 'P' value |
|------------------|------|----------|-----------|
| Ruk              | 2.53 | 1.93     | 23.68     | <0.01     |
| Stambha          | 1.367| 0.233    | 82.92     | <0.001    |
| Katishoola       | 1.367| 0.233    | 74.28     | <0.001    |
| Toda             | 1.567| 0.833    | 46.80     | <0.001    |
| Spandana         | 0.966| 0.066    | 74.28     | <0.001    |
| Arochak          | 0.4667| 0      | 99.9      | <0.001    |
| Gaurava          | 0.4667| 0      | 99.9      | <0.001    |
| Tandra           | 0.4667| 0      | 99.9      | <0.001    |
| SLR test Rt. leg | 1.39 | 0.42     | 69.78     | <0.001    |
| SLR test Lt. leg | 1.27 | 0.55     | 56.69     | <0.001    |

BT- Before Treatment  
AT- After Treatment

**Table 8. Effect of treatment in sign and symptoms**

The obtained results were interpreted as:

- Marked improvement: 75% - 100% relief
- Moderate improvement: 51% - <75% relief
- Mild improvement: 25% - 50% relief
- Unchanged: <= 25% relief

The obtained results were classified as:

- P> 0.05 - Not significant
- P< 0.05 - Significant
- P< 0.01 - More significant
- P<0.001 - Highly significant

The effect of therapy was evaluated on the basis of improvement in sign and symptoms. Statistical analysis, means, standard deviations and standard errors and percentages were calculated. Kruskal Wallis Test with Dunn’s Multiple Comparison Test was applied for assessing sign and symptoms. Mann Whitney’s Test was applied for assessing laboratory investigations.

The obtained results were interpreted as:

Sex- the higher incidence of disease occurred in females. (9)

There was higher incidence of sciatica in homemakers. Working constantly with improper posture for long duration during household work, lack of exercise; irregular food habits and cold exposure are the contributing factors. Labourer also show comparatively high incidence because of heavy work they do. (10)

A high proportion of patients were having vatapittaj and vatakaphaj prakriti suggesting that vata has major role in the manifestation of sciatica

Maximum patients were having addiction of beetle nut, tobacco chewing and gutkha. These factors lower the bone mineral density causing osteoporosis. It causes osteoporotic vertebral fractures compressing the sciatica nerve thereby responsible for nerve damage. (11) As beetle nut is kashaya in rasa, it vitiates vata.(12)

**Effect of therapy**

**Kupeelu** (*Strychnos nux-vomica* Linn.) is the major content of drug which is more effective in nerve disorders. It improves stimulatory function of vata, when function of vata decreases due to association with kapha.

All contents of *Agnitundi vati* are deepana, pachana, vatashamaka and shoolaghna in properties. Due to its ushna virya it normalises the function of apana and vyanavayu. (13)

**Conclusion**

The drug *Agnitundi vati* showed good results in both types of Gridhrasi, but better relief seen in vatakaphaj Gridhrasi. Ingredients of this vati having deepana, Amapachana, vatashamaka and shoolaghna properties. It improves agni by digesting ama which is the main factor in vatakaphaj Gridhrasi. In this way relieves generalised symptoms such as aruchi, gaurava and tandra. This drug works at the root level of samprapti and minimizes chances of recurrence.

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