A CLINICAL EVALUATION OF MATRA BASTI AND KATI BASTI WITH DHANWANTARAM TAILA IN THE MANAGEMENT OF GRIDHRASI

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ABSTRACT
Gridhrasi comes under 80 types of Nanatmaja Vatavyadhi. The cardinal signs and symptoms of Gridhrasi are Ruk (pain), Toda (pricking sensation), Spandana (twitching) in the Sphik, Kati, Uru, Janu, Jangha and Pada in order and Sakthikshepa Nigraha i.e., restricted lifting of the leg associated with Gourava, Aruchi. Kati Basti is widely being practiced throughout country as Bahyaupakrama which has both Snehana and Swedana effects. Matra Basti is Snehana procedure which does Vataanulomana, Vatashamana.

OBJECTIVES: To evaluate the efficacy of Matrabasti and Katibasti with Dhanwantram Taila in the management of Gridhrasi. Materials and Methods: Patients presenting with the classical features of Gridhrasi and between the age group of 16 to 50 years irrespective of sex were selected and allotted in Group A, B and C with 15 patients in each group. Group A was administered with Matra basti with Dhanwantram Taila and Group B with Kati basti with Dhanwantram Taila and Group C with both Matra basti and Kati basti with Dhanwantram Taila for 9 days. Results: In combined treatment of Kati Basti and Matra Basti in Group C there was tremendous response in relieving Ruk (73%), Toda (46%), Spandana (60%), Supti (80%), Gourava (73%), Aruchi (66%), Sparshasahyata (73.3%) SLR (60%). In Group A, patients subjected to Matra Basti was effective in relieving Ruk (26.7%), Toda (13.3%), Spandana (26.7%), Supti (66.7%), Gourava (46.7%), Aruchi (53.3%), Sparshasahyata (13.3%) SLR (6.7%). In Group B patients subjected to Kati Basti was effective in relieving Ruk (6.7%), Toda (0%), Spandana (0%), Supti (40%), Gourava (20%), Aruchi (0%), Sparshasahyata (20%) SLR (0%). Conclusion: On the basis of the results of this study, it can be clearly concluded that combined treatment of Matrabasti and Kati basti with Dhanwantram taila provided significant relief in the signs and symptoms of Gridhrasi than individually performed Matra basti and Kati basti with Dhanwantram taila.

KEYWORDS: Matra Basti, Kati Basti, Gridhrasi, Sciatica, Dhanwantram Taila.

INTRODUCTION
In the present era, competition or race for everything made humans more susceptible to many Muscular skeletal diseases. The prime factors that are responsible for the decline of health are irregular food habits, swift jerky movements, stress, suppression of natural urges, lack of proper sleep and relaxation. In this scenario especially Sciatica, low back pain incidences are increasing day by day.

Sciatica is a disease with neurological symptoms pertaining to sciatic nerve. The first attack is often sudden in onset and occurs while lifting stooping, though sometimes pain in slight at first but increase over the next few hours the patient may be fixed, bent and has backache. Sometimes sciatica follows soon after and made worse by straining. Usually these symptoms subside in a few days or week. Low back pain is more common, second only to the common cold. About 50% of working adult experiences a back injury each year and the incidence of Sciatica ranges from 11% – 40%.

With all the symptomatology of Sciatica comes under the purview of Gridhrasi. Gridhrasi, an entity enumerated by Shulapradhana vyadhi and is one among the 80 types of Nanatmajavata vyadhis[1], According to Acharya charaka, Stamba, Ruk, Toda Spandana, Aruci, Tandra and Gourava are the symptoms[2], According to Acharya Charaka, Gridhrasi is caused predominantly due to the vitiation of Vata or Vata–Kapha[3], Gridhrasi is pathological entity in which pain starts from the buttocks, waist or back and radiates gradually towards the thigh, knee, leg and foot. If there is stiffness pain, pins and needles restricted mobility and frequent catching sensation it is due to Vata on the other hand if drowsiness
heaviness and anorexia are present in addition it is due to Vayu and Kapha[4].

Despite of technological and pharmacological advances, the management of sciatica is still a medical problem, where no permanent medical treatment is available, except some palliative measures, were again chances of reoccurrence are high.

Ayurvedic approach towards the disease is holistic. Numerous therapeutic modalities have been advocated by our Acharyas in the management of each and every disease.

Management of Gridhrasi comes under the treatment protocol of Vata Vyadhi Chikitsa where in Snehana, Swedana, Basti chikitsa make a major part[5-7].

Basti therapy is considered as Chikitsaaraadha among all therapies. Matrabasti is a type of a Sneha basti which can be given in anytime, in any season and to anybody. It cures Vataja diseases. Moreover, it can be administered easily and without any restriction in food and activities.

Kati basti is a Bahyaupakrama which has both Snehana and Swedana effects, in which comfortably warm oil is kept over the Kati region for a certain period of time. And both, Matrabasti and Kati basti can be used as an OPD level procedure.

Dhanwantram taila is indicated in Sarvavatavikarajith, Sootika, Bala, Marmasthirogas, Jwara, Gulma, Unmada, Mutraghata, Antravridhi, Yoniroga, and Kshaya.

Hence the present study has been taken to compare the efficacy of Matrabasti and Katibasti with Dhanwantaram taila in the management of Gridhrasi. A clinical study was under taken where 45 patients randomly allocated into 3 groups with 15 patients each. Group A patients were subjected to Matrabasti, Group B patients were subjected to Kati Basti, and Group C patients were subjected to Kati Basti and Matra Basti both. Overall response was better in Group C due to combined action of Matrabasti and Kati Basti.

**MATERIALS AND METHODS**

**AIMS AND OBJECTIVES**

1) To evaluate the efficacy of Matrabasti with Dhanwantaram Taila in the management of Gridhrasi.
2) To evaluate the efficacy of Kati basti with Dhanvantaram Taila in the management of Gridhrasi.
3) To evaluate the efficacy of Matra basti and Kati Basti with Dhanvantaram Taila in the management of Gridhrasi.

**Source of Data:** 45 patients with features of Gridhrasi, were selected randomly for the study from the OPD and IPD of RAMC, H and RC, Bangalore.

**Source of Drug:** Genuine Raw drugs are procured from market. Dhanwantaram taila was prepared in Baishajyakalpaka Dept of RAMC, Bengaluru.

**Method of Collection of Data**

- Patients suffering from classical signs and symptoms of Gridhrasi.
- 45 patients of either sex are randomly selected and assigned into three groups each comprising of 15 patients.
- A case proforma was specially designed and duly filled with all points of history taking, physical signs, and lab investigations.
- The parameters of signs and symptoms were scored as mentioned in the proforma.

**Inclusion Criteria**

1. Patients with clinical signs and symptoms of Gridhrasi and Sciatica like Spandana, Aruchi, Gourava, Supti, Sparshaasayatha
2. Patients of age limits between 16 to 50 years
3. Patients having tenderness along the course of the Sciatic nerve

**Exclusion Criteria**

1. Patients with other systemic diseases like Diabetes mellitus, Tuberculosis
2. Traumatic lesion in lumbo-sacral region. Infective, Neoplastic conditions of Spine
3. Hip joint arthritis
4. Pelvis pathology
5. Pregnancy

**Study design**

A comparative clinical study with pre and post-test design was conducted on 45 patients with Lakshanas of Gridhrasi.

**Table 1: Study Design**

| Group | Procedure           | Drug             | Days/ Sittings | Dose   |
|-------|---------------------|------------------|----------------|--------|
| A     | Matra Basti         | Dhanwantaram taila | 9              | 75ml   |
| B     | Kati Basti          | Dhanwantaram taila | 9              | 100ml  |
| C     | Matra Basti and Kati Basti | Dhanwantaram taila | 9              | 75ml and 100ml |

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45 Patients with *Lakshanas of Gridhrasi* were selected randomly and divided into three groups as Group-A, Group-B and Group-C.

**Group-A:** Patients will be subjected to *Matrabasti* with *Dhanwartaram taila* 75ml for 9 consecutive days.

**Group-B:** Patients will be subjected to *Katibasti* with *Dhanwartaram taila* 100ml (Duration 40 min) for 9 consecutive days.

**Group-C:** Patients will be subjected to *Matrabasti* and *Katibasti* with *Dhanwartaram taila* for 9 consecutive days.

**Follow Up**
Follow up was done after completion of *Viramakala* on 18th day.

**Assessment Criteria**
The assessment will be done on the basis of following subjective and objective parameters.

**Subjective Parameters**
1. *Ruk*
2. *Toda*

**Study design:** An observational clinical study.

**Table 2: Age distribution of patients studied**

| Age in years | Group A | Group B | Group C | Total |
|--------------|---------|---------|---------|-------|
| <30          | 1 (6.7%)| 0 (0%)  | 1 (6.7%)| 2 (4.4%)|
| 30-40        | 4 (26.7%)| 5 (33.3%)| 4 (26.7%)| 13 (28.9%)|
| 41-50        | 6 (40%) | 6 (40%) | 5 (33.3%)| 17 (37.8%)|
| 51-60        | 4 (26.7%)| 4 (26.7%)| 5 (33.3%)| 13 (28.9%)|
| Total        | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|
| Mean ± SD    | 44.27±9.68| 44.47±7.81| 45.00±8.82| 44.58±8.61|

Samples are age matched with P=0.973, ANOVA test.

In Group A, 1 (6.7%) were under the age group of 21-30 years, 4 (26.7%) were under the age group of 30-40 years, 6 (40%) were under the age group of 41-50 years and 4 (26.7%) were under the age group of 51-60 years age group.

In Group B, 0 (0%) were under the age group of 21-30 years, 5 (33.3%) were under the age group of 30-40 years, 6 (40%) were under the age group of 41-50 years and 4 (26.7%) were under the age group of 51-60 years age group. In Group C, 1 (6.7%) were under the age group of 21-30 years, 4 (26.7%) were under the age group of 30-40 years, 5 (33.3%) were under the age group of 41-50 years and 5 (33.3%) were under the age group of 51-60 years age group.

**Table 3: Gender distribution of patients studied**

| Gender | Group A | Group B | Group C | Total |
|--------|---------|---------|---------|-------|
| Female | 8 (53.3%)| 6 (40%) | 5 (33.3%)| 19 (42.2%)|
| Male   | 7 (46.7%)| 9 (60%) | 10 (66.7%)| 26 (57.8%)|
| Total  | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|

Samples are gender matched with P=0.529, Chi-Square test.

**Sex:** In Group A, number of male patients- 8 (53.3%) and females 7 (46.7%). In Group B, number of male patients -6 (40%) and females 9 (60%). In Group C, number of male patients- 5 (33.3%) and females 10 (66.7%).
In the present study, in Group A, patients who could read and write were 7 (46%), post graduates 1 (6.7%). In group B, patients who could read and write were 7 (46%), physical labour 2 (13.3%), sedentary 1 (6.7%). In group C, patients who could read and write were 7 (46%), rich 1 (6.7%), upper middle class 3 (20%).

Table 4: Education distribution in three groups of patients studied

| Education   | Group A  | Group B  | Group C  | Total   |
|-------------|----------|----------|----------|---------|
| Graduate    | 7 (46.7%)| 7 (46.7%)| 7 (46.7%)| 21 (46.7%)|
| Post Graduate| 1 (6.7%) | 1 (6.7%) | 1 (6.7%) | 3 (6.7%) |
| R & W       | 7 (46.7%)| 7 (46.7%)| 7 (46.7%)| 21 (46.7%)|
| Total       | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|

P=1.000, Not Significant, Fisher Exact Test

Table 5: Occupation distribution in three groups of patients studied

| Occupation   | Group A  | Group B  | Group C  | Total   |
|--------------|----------|----------|----------|---------|
| Field worker | 2 (13.3%)| 1 (6.7%) | 2 (13.3%)| 5 (11.1%)|
| Physical Labour | 4 (26.7%)| 2 (13.3%)| 3 (20%) | 9 (20%) |
| Sedentary    | 9 (60%)  | 12 (80%) | 10 (66.7%)| 31 (68.9%)|
| Total        | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|

P=0.829, Not Significant, Fisher Exact Test

Table 6: Socio Economic Status- distribution in three groups of patients studied

| Socio Economic Status | Group A  | Group B  | Group C  | Total   |
|-----------------------|----------|----------|----------|---------|
| Lower middle          | 6 (40%)  | 5 (33.3%)| 7 (46.7%)| 18 (40%)|
| Poor                  | 2 (13.3%)| 2 (13.3%)| 1 (6.7%) | 5 (11.1%)|
| Rich                  | 4 (26.7%)| 1 (6.7%) | 2 (13.3%)| 7 (15.6%)|
| Upper middle          | 3 (20%)  | 7 (46.7%)| 5 (33.3%)| 15 (33.3%)|
| Total                 | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|

P=0.665, Not Significant, Fisher Exact Test

Table 7: Diet- distribution in three groups of patients studied

| Diet     | Group A  | Group B  | Group C  | Total   |
|----------|----------|----------|----------|---------|
| Mixed    | 15 (100%)| 12 (80%) | 12 (80%) | 39 (86.7%)|
| Veg      | 0 (0%)   | 3 (20%)  | 3 (20%)  | 6 (13.3%)|
| Total    | 15 (100%)| 15 (100%)| 15 (100%)| 45 (100%)|

P=0.217, Not Significant, Fisher Exact Test

Diet of Patients- In Group A, number of patients who were vegetarians were 0 (0%) and who took mixed diet were 15 (100%). In Group B, number of patients who were vegetarians were 3 (20%) and who took mixed diet were 12 (80%). In Group C, number of patients who were vegetarians were 3 (20%) and who took mixed diet were 12 (80%).

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Table 8: *Toda* - distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Toda     | Before Treatment | After 9th sitting | After 18th day | % difference |
|----------|------------------|------------------|----------------|--------------|
| Group A (n=15) |                  |                  |                |              |
| • No pricking sensation | 0 (0%) | 0 (0%) | 0 (0%) | 0.0% |
| • Occasional | 0 (0%) | 3 (20%) | 9 (60%) | 60.0% |
| • Mild | 0 (0%) | 7 (46.7%) | 4 (26.7%) | 26.7% |
| • Moderate | 11 (73.3%) | 5 (33.3%) | 0 (0%) | -73.3% |
| • Severe | 4 (26.7%) | 0 (0%) | 0 (0%) | -26.7% |
| Group B (n=15) |                  |                  |                |              |
| • No pricking sensation | 0 (0%) | 0 (0%) | 8 (53.3%) | 53.3% |
| • Occasional | 4 (26.7%) | 8 (53.3%) | 7 (46.7%) | 20.0% |
| • Mild | 5 (33.3%) | 7 (46.7%) | 0 (0%) | -33.3% |
| • Severe | 6 (40%) | 0 (0%) | 0 (0%) | -40.0% |
| Group C (n=15) |                  |                  |                |              |
| • No pricking sensation | 0 (0%) | 0 (0%) | 7 (46.7%) | 46.7% |
| • Occasional | 0 (0%) | 9 (60%) | 8 (53.3%) | 53.3% |
| • Mild | 6 (40%) | 6 (40%) | 0 (0%) | -40.0% |
| • Moderate | 3 (20%) | 0 (0%) | 0 (0%) | -20.0% |
| • Severe | 6 (40%) | 0 (0%) | 0 (0%) | -40.0% |

Before treatment BT T in Group A, 4 (26.7%) patients presented with grade 4 *Toda*, 11 (73.3%) patients presented with grade 3 *Toda*, 0 (0%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T1 (after 9th sitting of *Matra Basti*) in Group A, 0 (0%) patients presented with grade 4 *Toda*, 5 (33.3%) patients presented with grade 3 *Toda*, 7 (46.7%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T2 (after 18 days) in Group A, 0 (0%) patients presented with grade 4 *Toda*, 0 (0%) patients presented with grade 3 *Toda*, 0 (0%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. Before treatment BT T in Group B, 6 (40%) patients presented with grade 4 *Toda*, 5 (33.3%) patients presented with grade 3 *Toda*, 4 (26.7%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T1 (after 9th sitting of *Kati Basti*) in Group B, 0 (0%) patients presented with grade 4 *Toda*, 0 (0%) patients presented with grade 3 *Toda*, 7 (46.7%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T2 (after 18 days) in Group B, 0 (0%) patients presented with grade 4 *Toda*, 0 (0%) patients presented with grade 3 *Toda*, 0 (0%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. Before treatment BT T in Group C, 6 (40%) patients presented with grade 4 *Toda*, 3 (20%) patients presented with grade 3 *Toda*, 6 (40%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T1 (after 9th sitting of *Matra basti* and *Kati Basti*) in Group C, 0 (0%) patients presented with grade 4 *Toda*, 0 (0%) patients presented with grade 3 *Toda*, 0 (0%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*. *Toda* T2 (after 18 days) in Group C, 0 (0%) patients presented with grade 4 *Toda*, 0 (0%) patients presented with grade 3 *Toda*, 0 (0%) patients presented with grade 2 *Toda*, 0 (0%) patients presented with grade 1 *Toda*, 0 (0%) patients presented with grade 0 *Toda*.


### Table 9: *Ruk* (Pain)- Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Ruk (Pain) | Before Treatment | After 9th sitting | After 18th day | % difference |
|------------|-----------------|------------------|----------------|--------------|
| Group A (n=15) |                 |                  |                |              |
| • No pain | 0 (0%)          | 0 (0%)           | 4 (26.7%)      | 26.7%        |
| • Trivial pain | 0 (0%)          | 6 (40%)          | 11 (73.3%)     | 73.3%        |
| • Mild pain | 0 (0%)          | 9 (60%)          | 0 (0%)         | 0.0%         |
| • Moderate pain | 11 (73.3%)    | 0 (0%)           | 0 (0%)         | -73.3%       |
| • Severe pain | 4 (26.7%)       | 0 (0%)           | 0 (0%)         | -26.7%       |
| Group B (n=15) |                 |                  |                |              |
| • No pain | 0 (0%)          | 0 (0%)           | 1 (6.7%)       | 6.7%         |
| • Trivial pain | 0 (0%)          | 1 (6.7%)         | 8 (53.3%)      | 53.3%        |
| • Mild pain | 5 (33.3%)       | 10 (66.7%)       | 5 (33.3%)      | 0.0%         |
| • Moderate pain | 6 (40%)         | 4 (26.7%)        | 1 (6.7%)       | -33.3%       |
| • Severe pain | 4 (26.7%)       | 0 (0%)           | 0 (0%)         | -26.7%       |
| Group C (n=15) |                 |                  |                |              |
| • No pain | 0 (0%)          | 0 (0%)           | 11 (73.3%)     | 73.3%        |
| • Trivial pain | 1 (6.7%)        | 10 (66.7%)       | 4 (26.7%)      | 20.0%        |
| • Mild pain | 5 (33.3%)       | 5 (33.3%)        | 0 (0%)         | -33.3%       |
| • Moderate pain | 5 (33.3%)       | 0 (0%)           | 0 (0%)         | -33.3%       |
| • Severe pain | 4 (26.7%)       | 0 (0%)           | 0 (0%)         | -26.7%       |
| P value | 0.067+          | 0.002**          | <0.001**       | -            |

Before treatment BT R *RUK* in Group A, 4 (26.7%) patients presented with grade 4 *Ruk*, 11 (73.3%) patients presented with grade 3 *Ruk*, 0 (0%) patients presented with grade 2 *Ruk*, 0 (0%) patients presented with grade 1 *Ruk*, 0 (0%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R1 (after 9th sitting of *Matra Basti*) in Group A, 0 (0%) patients presented with grade 4 *Ruk*, 0 (0%) patients presented with grade 3 *Ruk*, 9 (60%) patients presented with grade 2 *Ruk*, 6 (40%) patients presented with grade 1 *Ruk*, 0 (0%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R2 (after 18 days) in Group A, 0 (0%) patients presented with grade 4 *Ruk*, 0 (0%) patients presented with grade 3 *Ruk*, 0 (0%) patients presented with grade 2 *Ruk*, 6 (40%) patients presented with grade 1 *Ruk*, 0 (0%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R1 (after 9th sitting of *Kati Basti*) in Group B, 0 (0%) patients presented with grade 4 *Ruk*, 4 (26.7%) patients presented with grade 3 *Ruk*, 10 (66.7%) patients presented with grade 2 *Ruk*, 0 (0%) patients presented with grade 1 *Ruk*, 0 (0%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R2 (after 18 days) in Group B, 0 (0%) patients presented with grade 4 *Ruk*, 1 (6.7%) patients presented with grade 3 *Ruk*, 5 (33.3%) patients presented with grade 2 *Ruk*, 8 (53.3%) patients presented with grade 1 *Ruk*, 1 (6.7%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R1 (after 9th sitting of *Kati Basti and Matra Basti*) in Group C, 0 (0%) patients presented with grade 4 *Ruk*, 0 (0%) patients presented with grade 3 *Ruk*, 0 (0%) patients presented with grade 2 *Ruk*, 10 (66.7%) patients presented with grade 1 *Ruk*, 0 (0%) patients presented with grade 0 *Ruk*. Before treatment BT R *Ruk* R2 (after 18 days) in Group C, 0 (0%) patients presented with grade 4 *Ruk*, 0 (0%) patients presented with grade 3 *Ruk*, 0 (0%) patients presented with grade 2 *Ruk*, 4 (26.7%) patients presented with grade 1 *Ruk*, 11 (73.3%) patients presented with grade 0 *Ruk*.

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Table 10: Supti (Numbness) - Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Supti (Numbness) | Before Treatment | After 9th sitting | After 18th day | % difference |
|------------------|-----------------|------------------|----------------|--------------|
| **Group A** (n=15) |                 |                  |                |              |
| • Absent         | 2 (13.3%)       | 7 (46.7%)        | 12 (80%)       | 66.7%        |
| • Present        | 13 (86.7%)      | 8 (53.3%)        | 3 (20%)        | -66.7%       |
| **Group B** (n=15) |                 |                  |                |              |
| • Absent         | 6 (40%)         | 9 (60%)          | 12 (80%)       | 40.0%        |
| • Present        | 9 (60%)         | 6 (40%)          | 3 (20%)        | -40.0%       |
| **Group C** (n=15) |                 |                  |                |              |
| • Absent         | 1 (6.7%)        | 10 (66.7%)       | 13 (86.7%)     | 80.0%        |
| • Present        | 14 (93.3%)      | 5 (33.3%)        | 2 (13.3%)      | -80.0%       |
| **P value**      | 0.107           | 0.529            | 1.000          | -            |

In Group A before treatment, BT S Supti was present in 13 (86.7%) patients, and absent in 2 (13.3%). After 9th sitting of Matra Basti Group A i.e., S1, 8 (53.3%) patients presented Supti and in remaining 7 (46.7%) patients Supti was absent.
After 18th Day Group A i.e., S2, 3 (20%) patients presented Supti and in remaining 12 (80%) patients Supti was absent.

In Group B, before treatment, BT S Supti was present in 9 (60%) patients, and absent in 6 (40%).
After 9th sitting of Kati Basti Group B i.e., S1, 6 (40%) patients presented Supti and in remaining 9 (60%) patients Supti was absent.
After 18th Day Group B i.e., S2, 3 (20%) patients presented Supti and in remaining 12 (80%) patients Supti was absent.

In Group C before treatment, BT S Supti was present in 14 (93.3%) patients, and absent in 1 (6.7%).
After 9th sitting of Kati Basti and Matra Basti Group C i.e., S1, 5 (33.3%) patients presented Supti and in remaining 10 (66.7%) patients Supti was absent.
After 18th Day Group C i.e., S2, 2 (13.3%) patients presented Supti and in remaining 13 (86.7%) patients Supti was absent.

Table 11: Sparshasahyatha (Tenderness) - Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Sparshasahyatha (Tenderness) | Before Treatment | After 9th sitting | After 18th day | % difference |
|------------------------------|-----------------|------------------|---------------|--------------|
| **Group A** (n=15) |                 |                  |               |              |
| • No Tenderness        | 0 (0%)          | 1 (6.7%)         | 2 (13.3%)     | 13.3%        |
| • Deep Tenderness      | 6 (40%)         | 9 (60%)          | 13 (86.7%)    | 46.7%        |
| • Tenderness with fine touch | 9 (60%) | 5 (33.3%) | 0 (0%) | -60.0%       |
| **Group B** (n=15) |                 |                  |               |              |
| • No Tenderness                  | 0 (0%)               | 1 (6.7%)            | 3 (20%)       | 20.0%        |
| • Deep Tenderness               | 7 (46.7%)           | 11 (73.3%)          | 12 (80%)      | 33.3%        |
| • Tenderness with fine touch     | 8 (53.3%)           | 3 (20%)             | 0 (0%)        | -53.3%       |
| **Group C** (n=15) |                 |                  |               |              |
| • No Tenderness                  | 0 (0%)               | 4 (26.7%)           | 11 (73.3%)    | 73.3%        |
| • Deep Tenderness               | 4 (26.7%)           | 11 (73.3%)          | 4 (26.7%)     | 0.0%         |
| • Tenderness with fine touch     | 11 (73.3%)           | 0 (0%)              | 0 (0%)        | -73.3%       |
| **P value**                  | 0.638             | 0.094+            | 0.002**       | -            |

Before treatment, in Group A 9 (60%) patients presented with grade 2 Sparshasahyatha, 6 (40%) patients presented with grade 1 Sparshasahyatha, 0 (0%) patients presented with grade 0 Sparshasahyatha.
Sparshasahyatha Sh1 (after 9 sittings of Matra Basti) in Group A, 5 (33.3%) patients presented with grade 2 Sparshasahyatha, 9 (60%) patients presented with grade 1 Sparshasahyatha, 1 (6.7%) patients presented with grade 0 Sparshasahyatha.

Sparshasahyatha Sh2 (after 18days) in Group A 0 (0%) patients presented with grade 2 Sparshasahyatha, 13 (86.7%) patients presented with grade 1 Sparshasahyatha, 2 (13.3%) patients presented with grade 0 Sparshasahyatha.

Before treatment, in Group B 8 (53.3%) patients presented with grade 2 Sparshasahyatha, 7 (46.7%) patients presented with grade 1 Sparshasahyatha, 0 (0%) patients presented with grade 0 Sparshasahyatha.

Sparshasahyatha Sh1 (after 9sittings of Kati Basti) in Group B, 3 (20%) patients presented with grade 2 Sparshasahyatha, 11 (73.3%) patients presented with grade 1 Sparshasahyatha, 1 (6.7%) patients presented with grade 0 Sparshasahyatha.

Sparshasahyatha Sh2 (after 18days) in Group B 0 (0%) patients presented with grade 2 Sparshasahyatha, 12 (80%) patients presented with grade 1 Sparshasahyatha, 3 (20%) patients presented with grade 0 Sparshasahyatha.

Before treatment, in Group C 11 (73.3%) patients presented with grade 2 Sparshasahyatha, 4 (26.7%) patients presented with grade 1 Sparshasahyatha, 0 (0%) patients presented with grade 0 Sparshasahyatha.

Sparshasahyatha Sh1 (after 9sittings of Kati basti and Matra Basti) in Group C, 0 (0%) patients presented with grade 2 Sparshasahyatha, 11 (73.3%) patients presented with grade 1 Sparshasahyatha, 4 (26.7%) patients presented with grade 0 Sparshasahyatha.

Sparshasahyatha Sh2 (after 18days) in Group C 0 (0%) patients presented with grade 2 Sparshasahyatha, 4 (26.7%) patients presented with grade 1 Sparshasahyatha, 11 (73.3%) patients presented with grade 0 Sparshasahyatha.

**Table 12: Spandana (Fasciculation) - Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day**

| Spandana (Fasciculation) | Before Treatment | After 9th sitting | After 18th day | % difference |
|--------------------------|------------------|------------------|----------------|--------------|
| Group A (n=15)           |                  |                  |                |              |
| - No Involuntary Movement| 0 (0%)           | 0 (0%)           | 4 (26.7%)      | 26.7%        |
| - Sometimes for 5-10 mins| 0 (0%)           | 6 (40%)          | 7 (46.7%)      | 46.7%        |
| - Daily for 10-30 mins   | 0 (0%)           | 6 (40%)          | 4 (26.7%)      | 26.7%        |
| - Daily for 30-60 mins   | 11 (73.3%)       | 3 (20%)          | 0 (0%)         | -73.3%       |
| - Daily more than 1 hour | 4 (26.7%)        | 0 (0%)           | 0 (0%)         | -26.7%       |
| Group B (n=15)           |                  |                  |                |              |
| - No Involuntary Movement| 0 (0%)           | 0 (0%)           | 0 (0%)         | 0.0%         |
| - Sometimes for 5-10 mins| 0 (0%)           | 3 (20%)          | 5 (33.3%)      | 33.3%        |
| - Daily for 10-30 mins   | 4 (26.7%)        | 8 (53.3%)        | 9 (60%)        | 33.3%        |
| - Daily for 30-60 mins   | 8 (53.3%)        | 4 (26.7%)        | 1 (6.7%)       | -46.6%       |
| - Daily more than 1 hour | 3 (20%)          | 0 (0%)           | 0 (0%)         | -20.0%       |
| Group C (n=15)           |                  |                  |                |              |
| - No Involuntary Movement| 0 (0%)           | 0 (0%)           | 9 (60%)        | 60.0%        |
| - Sometimes for 5-10 mins| 0 (0%)           | 5 (33.3%)        | 5 (33.3%)      | 33.3%        |
| - Daily for 10-30 mins   | 4 (26.7%)        | 9 (60%)          | 1 (6.7%)       | -20.0%       |
| - Daily for 30-60 mins   | 8 (53.3%)        | 1 (6.7%)         | 0 (0%)         | -53.3%       |
| - Daily more than 1 hour | 3 (20%)          | 0 (0%)           | 0 (0%)         | -20.0%       |
| P value                  | 0.242            | 0.547            | 0.001***       |              |

Before treatment BT SP in Group A, 4 (26.7%) patients presented with grade 4 Spandana, 11 (73.3%) patients presented with grade 3 Spandana, 0 (0%) patients presented with grade 2 Spandana, 0 (0%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Toda Sp1 (after 9th sitting of Matra Basti) in Group A, 0 (0%) patients presented with grade 4 Spandana, 3 (20%) patients presented with grade 3 Spandana, 6 (40%) patients presented with grade 2
Spandana, 6 (40%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Spandana Sp2 (after 18 days) in Group A, 0 (0%) patients presented with grade 4 Spandana, 0 (0%) patients presented with grade 3 Spandana, 4 (26.7%) patients presented with grade 2 Spandana, 7 (46.7%) patients presented with grade 1 Spandana, 4 (26.7%) patients presented with grade 0 Spandana.

Before treatment BT Sp Spandana in Group B, 3 (20%) patients presented with grade 4 Spandana, 8 (53.3%) patients presented with grade 3 Spandana, 4 (26.7%) patients presented with grade 2 Spandana, 0 (0%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Spandana Sp1 (after 9th sitting of Kati Basti) in Group B, 0 (0%) patients presented with grade 4 Spandana, 4 (26.7%) patients presented with grade 3 Spandana, 8 (53.3%) patients presented with grade 2 Spandana, 3 (20%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Spandana Sp2 (after 18 days) in Group B, 0 (0%) patients presented with grade 4 Spandana, 1 (6.7%) patients presented with grade 3 Spandana, 9 (60%) patients presented with grade 2 Spandana, 5 (33.3%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Before treatment BT Spandana in Group C, 3 (20%) patients presented with grade 4 Spandana, 8 (53.3%) patients presented with grade 3 Spandana, 4 (26.7%) patients presented with grade 2 Spandana, 0 (0%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Spandana Sp1 (after 9th sitting of Kati basti and Matra Basti) in Group C, 0 (0%) patients presented with grade 4 Spandana, 1 (6.7%) patients presented with grade 3 Spandana, 9 (60%) patients presented with grade 2 Spandana, 5 (33.3%) patients presented with grade 1 Spandana, 0 (0%) patients presented with grade 0 Spandana.

Spandana Sp2 (after 18 days) in Group C, 0 (0%) patients presented with grade 4 Spandana, 0 (0%) patients presented with grade 3 Spandana, 01 (6.7%) patients presented with grade 2 Spandana, 5 (33.3%) patients presented with grade 1 Spandana, 9 (60%) patients presented with grade 0 Spandana.

Table 13: Gouravata (Heaviness)- Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Gouravata (Heaviness) | Before Treatment | After 9th sitting | After 18th day | % difference |
|-----------------------|-----------------|------------------|----------------|--------------|
| Group A (n=15)        |                 |                  |                |              |
| • Absent              | 5 (33.3%)       | 9 (60%)          | 12 (80%)       | 46.7%        |
| • Present             | 10 (66.7%)      | 6 (40%)          | 3 (20%)        | -46.7%       |
| Group B (n=15)        |                 |                  |                |              |
| • Absent              | 5 (33.3%)       | 6 (40%)          | 8 (53.3%)      | 20.0%        |
| • Present             | 10 (66.7%)      | 9 (60%)          | 7 (46.7%)      | -20.0%       |
| Group C (n=15)        |                 |                  |                |              |
| • Absent              | 3 (20%)         | 9 (60%)          | 14 (93.3%)     | 73.3%        |
| • Present             | 12 (80%)        | 6 (40%)          | 1 (6.7%)       | -73.3%       |
| P value               | 0.770           | 0.448            | 0.048*         | -            |

In Group A before treatment, BT G Gourava was present in 10 (66.7%) Patients, and absent in 5 (33.3%).

After 9th sitting of Matra Basti Group A i.e. G1, 6 (40%) Patients presented Gourava and in remaining 9 (60%) patients Gourava was absent.

After 18th Day Group A i.e., G2, 3 (20%) patients presented Gourava and in remaining 12 (80%) patients Gourava was absent.

In Group B before treatment, BT G Gourava was present in 10 (66.7%) patients, and absent in 5 (33.3%).

After 9th sitting of Kati Basti Group B i.e. G1, 9 (60%) Patients presented Gourava and in remaining 6 (40%) patients Gourava was absent.

After 18th Day Group B i.e., G2, 7 (46.7%) patients presented Gourava and in remaining 8 (53.3%) patients Gourava was absent.

In Group C before treatment, BT G Gourava was present in 12 (80%) patients, and absent in 3 (20%).

After 9th sitting of Kati Basti and Matra Basti Group C i.e. G1, 6 (40%) patients presented Gourava and in remaining 9 (60%) patients Gourava was absent.
After 18th Day Group C i.e., G2, 1 (6.7%) patients presented Gourava and in remaining 14 (93.3%) patients Gourava was absent.

Table 14: Aruchi- distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Aruchi     | Before Treatment | After 9th sitting | After 18th day | % difference |
|------------|------------------|-------------------|----------------|--------------|
| Group A (n=15) |                  |                   |                |              |
| • Absent   | 6 (40%)          | 14 (93.3%)        | 14 (93.3%)     | 53.3%        |
| • Present  | 9 (60%)          | 1 (6.7%)          | 1 (6.7%)       | -53.3%       |
| Group B (n=15) |                  |                   |                |              |
| • Absent   | 5 (33.3%)        | 5 (33.3%)         | 5 (33.3%)      | 0.0%         |
| • Present  | 10 (66.7%)       | 10 (66.7%)        | 10 (66.7%)     | 0.0%         |
| Group C (n=15) |                  |                   |                |              |
| • Absent   | 5 (33.3%)        | 13 (86.7%)        | 15 (100%)      | 66.7%        |
| • Present  | 10 (66.7%)       | 2 (13.3%)         | 0 (0%)         | -66.7%       |
| P value    | 0.908            | <0.001**          | <0.001**       | -            |

In Group A before treatment, BT A Aruchi was present in 9 (60%) patients, and absent in 6 (40%).
After 9th sitting of Matra Basti Group A i.e., A1, 1 (6.7%) patients presented Aruchi and in remaining 14 (93.3%) patients Aruchi was absent.
After 18th day Group A i.e., A2, 1 (6.7%) patients presented Aruchi and in remaining 14 (93.3%) patients Aruchi was absent. In Group B before treatment, BT A Aruchi was present in 10 (66.7%) patients, and absent in 5 (33.3%).
After 9th sitting of Kati Basti Group B i.e. A1, 10 (66.7%) patients presented Aruchi and in remaining 5 (33.3%) patients Aruchi was absent.
After 18th day Group B i.e., A2, 10 (66.7%) patients presented Aruchi and in remaining 5 (33.3%) Patients Aruchi was absent.
In Group C before treatment, BT A Aruchi was present in 10 (66.7%) patients, and absent in 5 (33.3%).
After 9th sitting of Matra Basti and Kati Basti Group C i.e., A1, 2 (13.3%) patients presented Aruchi and in remaining 13 (86.7%) patients Aruchi was absent.
After 18th day Group C i.e., A2, 0 (0%) patients presented Aruchi and in remaining 15 (100%) patients Aruchi was absent.

Table 15: Straight Leg Raise Test- Distribution in three groups of patients studied @ before treatment, after 9th sitting and after 18th day

| Straight Leg Raise Test | Before Treatment | After 9th sitting | After 18th day | % difference |
|-------------------------|------------------|-------------------|----------------|--------------|
| Group A (n=15)          |                  |                   |                |              |
| • >90 degree            | 0 (0%)           | 0 (0%)            | 1 (6.7%)       | 6.7%         |
| • 75 to 90 degree       | 1 (6.7%)         | 3 (20%)           | 8 (53.3%)      | 46.6%        |
| • 50 to 74 degree       | 4 (26.7%)        | 8 (53.3%)         | 6 (40%)        | 13.3%        |
| • 30 to 49 degree       | 6 (40%)          | 4 (26.7%)         | 0 (0%)         | -40.0%       |
| • <30 degree            | 4 (26.7%)        | 0 (0%)            | 0 (0%)         | -26.7%       |
| Group B (n=15)          |                  |                   |                |              |
| • >90 degree            | 0 (0%)           | 0 (0%)            | 0 (0%)         | 0.0%         |
| • 75 to 90 degree       | 2 (13.3%)        | 3 (20%)           | 8 (53.3%)      | 40.0%        |
| • 50 to 74 degree       | 4 (26.7%)        | 7 (46.7%)         | 5 (33.3%)      | 6.6%         |
| • 30 to 49 degree       | 6 (40%)          | 5 (33.3%)         | 2 (13.3%)      | -26.7%       |
| • <30 degree            | 3 (20%)          | 0 (0%)            | 0 (0%)         | -20.0%       |
| Group C (n=15)          |                  |                   |                |              |
| • >90 degree            | 0 (0%)           | 0 (0%)            | 9 (60%)        | 60.0%        |
| • 75 to 90 degree       | 1 (6.7%)         | 4 (26.7%)         | 6 (40%)        | 33.3%        |

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patients presented with grade 4, 6 (40%) patients presented with grade 3, 4 (26.7%) patients presented with grade 2, 1 (6.7%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

Toda SLR1 (after 9th sitting of Matra Basti) in Group A, 0 (0%) patients presented with grade 4, 4 (26.7%) patients presented with grade 3, 8 (53.3%) patients presented with grade 2, 3 (20%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

Before treatment BT SLR in Group A, 4 (26.7%) patients presented with grade 4, 6 (40%) patients presented with grade 3, 4 (26.7%) patients presented with grade 2, 1 (6.7%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

SLR SLR2 (after 18 days) in Group A, 0 (0%) patients presented with grade 4, 6 (40%) patients presented with grade 3, 4 (26.7%) patients presented with grade 2, 2 (13.3%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

SLR SLR1 (after 9th sitting of Kati Basti) in Group B, 0 (0%) patients presented with grade 4, 5 (33.3%) patients presented with grade 3, 7 (46.7%) patients presented with grade 2, 3 (20%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

Before treatment BT SLR in Group B, 3 (20%) patients presented with grade 4, 6 (40%) patients presented with grade 3, 4 (26.7%) patients presented with grade 2, 2 (13.3%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

SLR SLR2 (after 18 days) in Group B, 0 (0%) patients presented with grade 4, 2 (13.3%) patients presented with grade 3, 5 (33.3%) patients presented with grade 2, 8 (53.3%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

Before treatment BT SLR in Group C, 6 (40%) patients presented with grade 4, 4 (26.7%) patients presented with grade 3, 4 (26.7%) patients presented with grade 2, 1 (6.7%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

SLR SLR1 (after 9th sitting of Matra Basti and Kati Basti) in Group C, 0 (0%) patients presented with grade 4, 2 (13.3%) patients presented with grade 3, 9 (60%) patients presented with grade 2, 4 (26.7%) patients presented with grade 1, 0 (0%) patients presented with grade 0.

SLR SLR2 (after 18 days) in Group C, 0 (0%) patients presented with grade 4, 0 (0%) patients presented with grade 3, 0 (0%) patients presented with grade 2, 6 (40%) patients presented with grade 1, 9 (60%) patients presented with grade 0.

**DISCUSSION**

**Gridhrasi** is not a contemporary health problem but it has been familiar to the mankind since *Samhita* period. *Vata* is the *Dosha* responsible for the causation of the disease. The causes of *Gridhrasi* are not described in the classics, but the factors vitiating Vata are the *Nidanas* for Gridhrasi. Bad posture, irregular and unwholesome dietary habits, travelling in jerky vehicles etc are most commonly encountered factors in today’s life.

Vitiated Vata especially Apana and Vyana Vayu are involved in the *Samprapti* of Gridhrasi. The *Samprapti* takes place either by Dhatukshaya or Margavarana or due to Agantunja causes like Abhigehata. In Dhatukshayaya Samprapti, due to improper nourishment of Rasadi Dhatu, these Dhatu change into Kshaya Avastha. Dhatukshaya further vitiates Vata causing Gridhrasi. This type of Samprapti can be correlated to the Sciatica caused by degenerative changes. These changes are osteoporosis, spondylosis etc which lead to Sciatica. When Vayu is obstructed by Kapha, Ama etc it gets vitiated leading to Margavaranaajanya Samprapti of Gridhrasi. Agantunja factors are mentioned as a cause of Gridhrasi by both the systems of medicine.

As per contemporary science, there are multiple conditions where low backache with or without radiation depending upon the structure or nerve root involved is found.

Starting with simple condition like Pyriformis, Hamstring and Psoas Syndrome, Back Pocket Sciatica, and some real condition like Degenerative Disc Disorders, Spondylosis, Inter-Vertebral Prolapsed Disc, Facet Arthritis, Lumbar Stenosis, Spondylolisthesis, Cauda Equina Syndrome can be presented to outpatient department with signs and symptoms of Gridhrasi.

Hence proper history taking, clinical examination, supported with investigation whenever required are most important for the diagnosis and treatment.

**Gridhrasi** is classified into Vataja and Vatakaphaja. It can be understood on the basis of symptomatology as follows:

**Vataja Gridhrasi- (Dhatukshayajanya):** Lumbar spondylosis, Disc Degeneration Degenerative
Spondylolisthesis, Lumbar Arthritis, Disc Herniation, Lumbar Compression Fracture etc.

Vata Kapha Gridhrasi (Avaranajanya)-Lumbar Spinal Stenosis, Tumors etc. Finally it can be concluded that Gridhrasi can be equated with the condition Sciatica syndrome in modern parlance, which occurs because of Spinal Nerve Irritation and is characterized by pain in the distribution of Sciatic Nerve which begins from buttock and radiates downwards to the posterior aspect of thigh, calf and to the outer border of foot.

Various therapeutic modalities have been described for Gridhrasi in our treatise. They include Basti, Raktamokshana, Agnikarma etc. For the present study, treatment has been selected according to the principles laid by the classics.

Vasti is a significant, quick acting, perfect sovereign Panchakarma procedure. As such Kativasti a localized form of Vasti strategy is implemented at this contemplation to scrutinize the efficacy in respect with Vatahara property of Dhanwantaram Taila. Vata is an invincible Dosha out of triad helps in maintenance of life i.e., Ayu. This not only depends upon the physical or materialistic factors but also on the psyche and factors influencing the mind.

A base of Tila taila, which is said as the best to, pacified Vata with its unctuousness and specific properties of Vataharatwam. It is also acts as Brimhana, thereby nullifies Vata.

Thus the Dhanwantaram Taila, has been included in the process of pacifying the Vata. The reason behind could be Vata pacification through its action on Vata and as aromatherapy which activates the nervous system through peripheral nerve endings by direct and also indirect.

The said actions of Dhanwantaram Taila in the base of Tila taila act traditionally on the Vata to neutralize. The process exerts physical pressure that activates nerves and its root cause. Phizoelectricity, physical pressure impulse electricity enhances the charge and discharges of nerve impulse and reduce the pain by producing anesthesia and oil with its properties nourishes the bone. Its action directly on the bone nourishment has to be elucidated in further.

Charaka has classified Trividha Aoushadhi as Anta-Parimarjana, Bahi-Parimarjana and Shastra-Pranidhana. Kati Basti and Kati Pichu are included in Bahi-Parimarjana Chikitsa.

Snehana and Swedana are the two Upakramas, which can be adopted for the management of Vata Vyadhi. In Kati Basti, Sukoshna Taila is used over the Kati Pradesha. While administering on Kati Pradesha, it helps in oleation of spine and strengthens the muscles.

Where the Sneha by its Snigdha, Guru and Ushna Guna counteracts the Rooksha, Laghu and Sheeta Gunas of Vata and by Ushna Guna and Sukoshnata counteracts Kapha also. By penetrating through the Sukshma Srotases of the skin to pacify the Vata and Kapha.

Though it is a commonest diagnosis given to the patients attending the clinics with Sciatica, the current management includes NSAID’S, local anaesthesia, Steroids, sedatives etc., gives temporary relief from pain but has got severe adverse effects. In spite of recent advances in western science, the treatment is mere-symptomatic. But symptomatic management of any disease is incomplete as it cannot break up the chain of pathogenesis. So need arise for search of a safer, better and cheaper treatment. Mattrabasti and Kati Basti fulfill these criteria. The end results of each therapy were assessed individually on various parameters, monitored cautiously, subjected to statistical analysis and finally inferences were drawn and are hereby put forward.

**Observations**

- **Age:** Maximum numbers of patients were from age group 41-50 years (37.8%). According to modern science there is progressive decrease in degree of hydration of the intervertebral disc with age that leads to the cycle of degeneration resulting in disc problems and causing Gridhrasi. Moreover, young adults are more expose to strong biochemical force and heavy work in comparison to children, which may also create this condition. Hence, prevalence of Sciatica is high in young and middle-aged people, which is supported by the findings of the present study.

- **Gender:** Maximum number of subjects were male (57.80%) in male who are at hard physical works and in particular frequent lifting and postural stress are known to increase the risk of Sciatica.

- **Education:** In the study majority of people were read and write, graduates (46.7%). As sample size was small no particular conclusion was drawn.

- **Ahara:** In the present study most of the subjects were having Mixed diet (86.7%) may be one of the cause for Prakopa of Vata dosha.

- **Occupation:** Here majority of patients belong to Sedentary life (68.9%). May cause Kaphaprakopa followed by Margavarana of Vata.

- **Socio-economic status:** In present study majority of patients were from Lower middle (40%), upper middle (33.3%). They are the people in society, who face maximum strain physically and mentally to maintain their living standards in this heavy inflection period.

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Effect of Therapy

In this study, the effect of the therapies was assessed on each sign and symptom of Gridhrasi. These signs and symptoms were given score before and after treatment and were assessed statistically for the level of significance.

Ruk

There were no comparative significant statistical changes in all the three groups with P value 0.067. But clinically overall reduction in pain was highly significant in Group C 73.3% where as in Group A 26.7% and Group B 66.7%.

Grade of improvement was better in Group C (73.3%) than Group A (26.7%) and Group B (6.7%).

In Group A, RUK relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanvantaram Taila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Ruk with percentage of improvement was 73.3% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Toda

There were no comparative significant statistical changes in all the three groups with P value 0.015. But clinically overall reduction in pricking pain was highly significant in Group C 46.7% and Group A 13.3 %.

Grade of improvement was better in Group C (46.7%) than Group A (13.3%) and Group B 0 (0%).

In Group A, Toda relieved gradually may be due to sustained actions of the potency of cluster of drugs in DhanvantaramTaila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Toda with percentage of improvement was 46.7% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Spandana

There were no comparative significant statistical changes in all the three groups with P value 0.242. But clinically overall reduction in pricking pain was highly significant in Group C 60% and Group A 26.7%.

Grade of improvement was better in Group C (60%) than Group A (26.7%) and Group B (0%).

In Group A, Spandana relieved gradually may be due to sustained actions of the potency of cluster of drugs in DhanvantaramTaila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Toda with percentage of improvement was 60% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Numbness

There were no comparative significant statistical changes in all the three groups with P value 0.107. But clinically overall reduction in pricking pain was highly significant in Group C 80% and Group A 66.7%.

Grade of improvement was better in Group C (80%) than Group A (66.7%) and Group B (40%).

In Group A, Supti relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanvantaram Taila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Supti with percentage of improvement was 80% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Gourava

There were no comparative significant statistical changes in all the three groups with P value 0.107. But clinically overall reduction in pricking pain was highly significant in Group C 73% and Group A 46.7%.

Grade of improvement was better in Group C (73%) than Group A (46.7%) and Group B (20%).

In Group A, Gourava relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanvantaram Taila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Supti with percentage of improvement was 73% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Aruchi

There were no comparative significant statistical changes in all the three groups with P value 0.107. But clinically overall reduction in pricking pain was highly significant in Group C 66% and Group A 53%. Grade of improvement was better in Group C (66%) than Group A (53%) and Group B (0%).

In Group A, Aruchi relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanvantaram Taila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Supit with percentage of improvement was 66% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Tenderness (Sparshasahyata)

There were no comparative significant statistical changes in all the three groups with P value 0.638. But clinically overall reduction in pricking pain was highly significant in Group C 73.3% and Group B 20%, Group A 13.3%.
Grade of improvement was better in Group C (73.3%) than Group B 20%, Group A (13.3%). In Group A, Toda relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanwantaram Taila. In Group B patients subjected to Kati Basti relieved effectively because of close contact of warm oil. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Toda with percentage of improvement was 73.3% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

S.L.R

There were no comparative significant statistical changes in all the three groups with P value 0.923. But clinically overall reduction in pricking pain was highly significant in Group C 60% and Group A 6.7%. Grade of improvement was better in Group C (60%) than Group A (6.7%) and Group B (0%). In Group A, Toda relieved gradually may be due to sustained actions of the potency of cluster of drugs in Dhanwantaram Taila. The patients who were treated with Kati Basti and Matra Basti in Group C showed improvement in Toda with percentage of improvement was 60% which shows combined action of Matra Basti and Kati Basti played a tremendous role in relieving the symptom.

Mode of Action of Basti

Eliminative or purificative action of Basti

Basti enters the Pakvashaya which the main site of Vata Dosha and destroys it which is the originator of all diseases. By subsiding the Vata all diseases located in the other parts of the body also become allayed just as by the eradication of the roots of a plant, the stem, the branches, sprouts. However fruits, leaves etc. also vanish.

Basti administered into the Pakvasaya draws the Dosha/Mala from all over the body from the foot to the head by virtue of its Virya, just as the sun situated in the sky draws the moisture from the earth by virtue of its heat.

As the cloth sucks up the pigment only from the water dyed with saf-flower, similarly Basti eliminates only the waste substances (Mala) from the body.

Systemic action of Basti

The Virya of the drugs administered through the Basti into the Pakvashaya reaches the whole body through the channels (Srotas), as the active principles in the water when poured at the root of the tree reaches the whole plant.

Nutritive action of Basti

Just as a tree fed with water at its roots, puts forth green leaves and delicate sprouts, and in due time grows into a big tree, full of blossom and fruit, similarly does a man grow strong by means of Anuvasana Basti. The fact that Basti introduced into Pakvashaya reaches all over the body, is well explained by Chakrapani. He has quoted the reference of Parasara that Guda is the Mula of the body where all the Siras located. The Sneha administered through Guda reaches up to head giving the nutrition to the body.

Though Basti drug quickly comes out alone or with stool, its effect took place all over the body with the help of Vayu. This action takes place just like as sun draws moisture from the earth. As firstly the Virya of the Basti drugs reaches the Apana Vayu, then it is handed over to Samana Vayu. After nourishing Samana Vayu it reaches the Vyana Vayu, thereafter it acts on Udana Vayu and Prana Vayu. When all these five types of Vata get their normal state, they promote health. Then these Virya of Basti drug acts on the Pitta and Kapha to bring them in normal states and provides them nourishment. Just as whole farm gets its nourishment by water supplied to it through channels, the whole body gets nourishment by the Virya of Basti drugs carried by five types of Vata through Srotas.

The same action of Basti drugs has been described by Acharya Charaka as the Basti, when lying in the Pakvashaya, draws by its Virya and morbid Dosha lodged in the entire body from the foot to the head, just as the sun situated in the sky sucks up the moisture from the earth.

Basti performs the function of Apananulomana hence increases the Jatharagni ultimately normalize the Agni which is said to be the main cause of any disease. Thus Basti has its effect on two important factors viz. Vata and Agni which is responsible for proper formation of Dhatu and thereby establishes their normal functions. Active principles of the ingredients used in the Basti gets absorbed and then through general circulation reaches at the sites of the lesion and relieves the disease. That is why Acharya Sushruta has mentioned that by using the different ingredients, Basti can cure Paitika, Kaphaja, Raktaaja, Sansargaja and Sannipatika disorders through it is the best treatment for Vata Dosha.

CONCLUSION

1) Based on the symptomatology, Sciatica comes under the purview of Gridhrazi.
2) In combined treatment of Kati Basti and Matra Basti in Group C there was tremendous response in relieving Ruk (73%), Toda (46%), Spandana (60%), Supti (80%), Gourava (73%), Aruchi (66%), Sparshasahyata (73.3%) SLR (60%).
3) In Group A patients subjected to Matra Basti was effective in relieving Ruk (26.7%), Toda (13.3%), Spandana (26.7%), Supti (66.7%), Gourava (46.7%), Aruchi (53.3%), Sparshasahyata (13.3%) SLR (6.7%).

4) In Group B patients subjected to Kati Basti was effective in relieving Ruk (6.7%), Toda (0%), Spandana (0%), Supti (40%), Gourava (20%), Aruchi (0%), Sparshasahyata (20%) SLR (0%).

5) Statistically all the three groups showed significant changes in improving all the subjective and objective parameter.

6) Moderate to marked relief of the symptoms of Sciatica was observed in all the three groups. But overall response was significantly more in Group C when compared to Group A (0%) and Group B.

7) The better response in Group C is due to combined procedural influence.

8) No complications were observed during the study.

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