EVALUATE THE EFFICACY OF ASHTAVARGASIDDHA BASTI AND UPANAH SWEDA IN THE MANAGEMENT OF SANDHIGATAVATA

Tribhuvan Pareek¹*, S. N. Belavadi², U. V. Purad³

¹P.G. Scholar, ²Associate Professor, ³Professor, Dept. of Panchkarma, Shri DGM Ayurvedic Medical College, Gadag, Karnataka, India.

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ABSTRACT

Sandhigata vāta is the most common form of joint disorder amongst the elderly and obese persons. It is a major cause of morbidity and chronic disability as well as burden on healthcare resources especially for the elderly. This disease keeps an insidious attack, which runs for many years causing the loss of function as well as deformity of the joints, especially weight bearing joints like knee joint. The study was done in two groups, Group A and Group B each group having 15 patients. Patients of Group A received the treatment modalities Ashtavargasiddha Niruhabasti for 8 days. Where, Patients of Group B received Ashtavargasiddha Niruhabasti for 8 days followed by Upanaha Sweda for next 8 days. Subjective parameters were Sandhi Ruk (Pain), Sandhi Graha (Stiffness), Sparshaakshamatva (Tenderness), Sandhi Shotha (Swelling), Sandhi Atopa (Crepitation) and objective parameters were WOMAC, Range of movements, Walking time. According to the statistical analysis Parameters Sandhi Ruk, Walking time better responded in group A compared to group B, Whereas Parameters Sandhi Graha, Sparshaakshamatva (Tenderness), Sandhi Shotha (Swelling), Sandhi Atopa (Crepitation) and objective parameters as WOMAC, Range of movements responded equally in both groups, But more in Group B by comparing their t-values.

KEYWORDS: Ashtavargasiddha Basti, Sandhigatavata, Upanaha Sweda.

INTRODUCTION

In this modern world, human being is becoming more and more mechanical. This moving away from the nature and modern life style leading adverse effects on his Psychic and Somatic planes. Because of sedentary life style, change in food habits and overeating lack of exercise, lead to many health hazards. As these causative factors leads to different diseases in which Sandhigatavata is one which is among Vatavadyadi. Sweda and Bastikarma occupies important place in treating Vatavyadhis. The word “Sandhigata Vata” comprises of three words, viz. Sandhi, Gata and Vata.

Sandhi¹: Sandhi is a word of masculine gender. Sandhi is derived from root “dha” which when prefixed by “sam” and suffixed by “ki” gives rise to word Sandhi.

Gata²: - Gata word exists in all the three genders and it is derived from “Gam” dhathu and “Ktin” pratyaya. “Gachati, janaati, yaateeti va” - That which has went or reached.

Vata³: - Vata is a word of masculine gender. The word is coined from “Vaa” dhathu and “Ktin” pratyaya. Vata is derived from “Va gati gandhanayoho” i.e. gamana- movement, to move and gandhana – pressure. Thus, collectively the Sandhigatavata means the disease resulting from the settling of vitiated Vata dosha in Sandhi (joint).

The ability of any work of every individual is depends upon the ability of using his joints. Sandhigatavata is one such clinical entity among Vatavyadhis which affects the major joints of senior citizens in which Dhatukshaya is prime factor which is characterized by certain symptoms like joint pain, joint stiffness, swelling and difficulty of joint movement etc. This disease can be
compared with Osteoarthritis of contemporary medical science.

Sandhigatavata is one among the Vatavyadhish and Basti karma is best choice of treatment modality, and Upahana sweda on the other hand is considered best for Vata samana, which includes the different ingredients, which is helpful in treating the this diseases. So here the effort is being done to show the efficacy of both Upahana Sweda and Basti Karma in treating Sandhigatavata.

AIMS AND OBJECTIVES

1. Evaluate the effect of Ashtavargasiddha Basti in the management of Sandhigatavata.
2. Evaluate the effect of Ashtavargasiddha Basti followed by Upahana sweda in the Management of Sandhigatavata.
3. To know the additional effect of Upahana Sweda in Sandhigatavata.

MATERIAL AND METHODS

Assessment

Study design: A Simple randomized comparative clinical prospective trial.

Sample size and grouping: A minimum of 30 patients suffering from Sandhigatavata will be selected in 2 groups, 15 patients in each group.

Group A: 15 patients receive Ashtavargasiddha Niruhabasti, (8 days, yoga basti pattern)

Group B: 15 patients receive Ashtavargasiddha Niruhabasti followed by Upahana Sweda. (for next 8 days on next day after completion of Basti karma)

Source of Data

Patient suffering from Sandhigatavata were selected from O.P.D and I.P.D. of D.G.M.A.M.C & Hospital., Gadag, Karnataka, after fulfilling the Inclusion and Exclusion criteria.

Selection Criteria

The cases were selected strictly as per the pre-set inclusion and exclusion criteria.

Inclusion Criteria

- No discrimination of sex and chronicity
- Patient fit for Basti Karma and Upahana Sweda

Exclusion Criteria

- Patient below 30 years and above 60 years of age will be excluded
- Pregnant women
- Inflammatory Arthritis, Gout, Pseudo gout, Paget’s disease
- Severe bursitis (knee studies only)
- Symptomatic trochanteric bursitis (hip studies only)
- Acute joint trauma
- Complete loss of articular cartilage
- Significant bleeding disorder

Preparation of Medicines

Ashtavarga Kwatha churna, Devadaru Baladi taila, Nirgundi churna and Kanji for upanaha was prepared in the Department of Rasashastra and Bhaishajya kalpana, D.G.M.A.M.C.and H., Gadag. Method of preparation of medicine followed as mentioned in classics.

For Group A: Ashtavargasiddha Basti for 8 days

Composition for Ashtavargasiddha Basti Dravya:

a) Ashtavargasiddha Kashaya - 400 ml
b) Puthoyavanadi kalka - 10 grams
c) Saindhava lavana - 10 grams
d) Madhu - 100 ml
e) Devadaru Baladi Taila - 100 ml.

Ingredients for Ashtavargasiddha Kashaya

Bala moola, Sahachara moola, Shunthi kand, Eranda moola, Devadaru kanda, Nirgundi moola, Rasna mool, Lashuna kanda

200gms of Ashtavargasiddha Kashaya churna was added to 1600ml water and boiled up to its 1/4 i.e. 400ml. The drugs were checked with the criteria mentioned in the Ayurvedic texts. Basti was prepared and given as mentioned in the classics.

Ingredients for Devadarubaladi Taila (for Anuvasaana)
Ingredients for Devadarubaladi taila are: Devadaru, Bala, Jatamansi, Sarshapa, Shunthi, Tila taila Preparation of the taila will be According to Sharangadhara Samhita Sneha Prakarana. This taila was used for Anuvasa purpose.

**Group B**

After completion of Ashtavargasiddha Niruhabasti course of 8 days, on the following next day application of Upanaha Sweda was done for 8 days.

**Materials for Upanaha sweda**

Nirgundi churna, Tila taila, Kanji, Saindhava Lavana, Cloth (for covering affected part), where the quantity of materials required depends up on the individual size of patients affected part.

**Preparation of the Medicine**

200gms of Churna used for Upanaha were made into a paste by adding Taila, Kanji and Saindhava Lavana in sufficient quantity. Thus prepared semi liquid paste is warmed and kept ready. Application was done as mentioned in classics.

**Study duration:**

Group A Basti - 8 days
Follow up - 16 days
Total study duration - 24 days
Group B Basti - 8 days
Upanaha Sweda - 8 days
Follow up - 8 days
Total study duration - 24 days

**Criteria’s for Assessment**

The diagnosis is mainly based on clinical presentation of the patient according to signs and symptoms of Sandhigatavata mentioned in classical texts, which are described under subjective and objective parameters.

**Sandhi Ruk (Pain)**

01. Grade 0 – No Complaints
02. Grade 1 – Tells on Enquiry
03. Grade 2 – Complains Frequently
04. Grade 3 – Excruciating Condition

**Sandhi Graha (Stiffness)**

01. Grade 0 – Absent
02. Grade 1 – Present

**Sparshaakshamata (Tenderness)**

01. Grade 0 – No Complaints
02. Grade 1 – Says the joint is tender
03. Grade 2 – Wincing the affected joint
04. Grade 3 – Winces and withdraws the affected joint.

**Sandhisotha (Swelling)**

01. Grade 0 – No Complaints
02. Grade 1 – Slightly obvious
03 Grade 2-covers well over the bony prominence
04 Grade 3-Much elevated

**Sandhiatopa (Crepitus)**

01. Grade 0 – None
02. Grade 1 – Felt
03 Grade 2- Heard

**Objective Parameters:**

WOMAC:
Grade 1-None,
Grade 2-Slight,
Grade 3-Moderate,
Grade 4-Very,
Grade 5-Extreme

**Range of movements**

Grade 0-Full,
Grade 1-Limited,
Grade 2-Nil

**Walking time**

Grade 0 - up to 20 seconds.
Grade 1 - 21-30 seconds.
Grade 2 - 31-40 seconds.
Grade 3 - 41-50 seconds.
Grade 4 - 51-60 second

**Overall Assessment of Clinical Response:**

- Good Response: 70 % and more improvement in overall clinical parameters.
- Moderate Response: 50%-70% improvement in overall clinical parameters.
- Mild Response: 30%- 50% improvement in overall clinical parameters.
- No Response: Nothing has been changed
Lab Investigations: (For Diagnostic purpose) 
Hb%, D.C, E.S.R, Plain X-rays (AP and LA view or according to site affected) 

To observe the effect of the therapy, classical signs and symptoms were considered and the changes were assessed and calculated on 30 patients who completed the study period. The results obtained are shown in Table given below.

### Table 1: Effect of therapy on Sandhi shula

<table>
<thead>
<tr>
<th>Sandhishula</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
<th>SE</th>
<th>'t'</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>1.67</td>
<td>1.00</td>
<td>40%</td>
<td>0.655</td>
<td>0.169</td>
<td>9.025</td>
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<tr>
<td>Group B</td>
<td>15</td>
<td>2.00</td>
<td>0.80</td>
<td>60%</td>
<td>0.561</td>
<td>0.145</td>
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### Table 2: Effect of therapy on Sandhi Graha

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<th>Sandhi Graha</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
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</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>1.07</td>
<td>0.33</td>
<td>69.15%</td>
<td>0.488</td>
<td>0.126</td>
<td>6.205</td>
</tr>
<tr>
<td>Group B</td>
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<td>1.00</td>
<td>0.07</td>
<td>93%</td>
<td>0.258</td>
<td>0.067</td>
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### Table 3: Effect of therapy on Sparshakshamatva

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<th>Sparshakshamatva</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
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</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>1.67</td>
<td>1.00</td>
<td>40.11%</td>
<td>0.655</td>
<td>0.169</td>
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<td>Group B</td>
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<td>2.13</td>
<td>0.93</td>
<td>56.33%</td>
<td>0.594</td>
<td>0.153</td>
<td>8.290</td>
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### Table 4: Effect of therapy on Sandhi shotha

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<tr>
<th>Sandhi shotha</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
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<tr>
<td>Group A</td>
<td>15</td>
<td>3.20</td>
<td>2.27</td>
<td>29.02%</td>
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<td>64.73%</td>
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### Table 5: Effect of therapy on Sandhi Atopa

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<th>Sandhi Atopa</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
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</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>1.27</td>
<td>0.73</td>
<td>42.51%</td>
<td>0.594</td>
<td>0.153</td>
<td>1.871</td>
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<tr>
<td>Group B</td>
<td>15</td>
<td>1.07</td>
<td>0.87</td>
<td>18.69%</td>
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<td>1.871</td>
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### Table 6: Effect of therapy on WOMAC

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<th>WOMAC</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
<th>SE</th>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>2.47</td>
<td>1.67</td>
<td>32.38%</td>
<td>0.617</td>
<td>0.159</td>
<td>6.089</td>
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<tr>
<td>Group B</td>
<td>15</td>
<td>3.47</td>
<td>2.13</td>
<td>38.61%</td>
<td>0.352</td>
<td>0.091</td>
<td>8.367</td>
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### Table 7: Effect of therapy on Range of Movements

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<thead>
<tr>
<th>Range of Movements</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
<th>SE</th>
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</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>1.27</td>
<td>0.73</td>
<td>42.51%</td>
<td>0.594</td>
<td>0.153</td>
<td>4.000</td>
</tr>
<tr>
<td>Group B</td>
<td>15</td>
<td>1.07</td>
<td>0.20</td>
<td>81.30%</td>
<td>0.414</td>
<td>0.107</td>
<td>9.539</td>
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</table>

### Table 8: Effect of therapy on Walking time

<table>
<thead>
<tr>
<th>Walking time</th>
<th>N</th>
<th>Mean score</th>
<th>% of relief</th>
<th>SD</th>
<th>SE</th>
<th>'t'</th>
<th>P</th>
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</tr>
<tr>
<td>Group A</td>
<td>15</td>
<td>2.47</td>
<td>1.67</td>
<td>32.38%</td>
<td>0.617</td>
<td>0.159</td>
<td>7.483</td>
</tr>
</tbody>
</table>
**DISCUSSION**

**Effect of Treatment on Clinical Symptoms**

**Ruk:** Both groups shows highly significant (as P<0.05), but Group-A shows highly significant than Group-B (by comparing t-values). This is because the chronicity of disease is more in group B, where in Group A there is less chronicity of the disease.

**Graha:** According to statistical Analysis both the treatment have response on the parameter Graha and both Group are highly significant as p<0.05, but the Group-B shows highly significant than Group-A (by comparing t-values).

**Sparshaakshamatva:** According to statistical Analysis both the treatment have response on the parameter Sparshaakshamatva and, both groups shows highly significant (as P<0.05), but the Group-B shows highly significant than Group-A (by comparing t-values). Here also the additional effect of Upanaha shows better result than Basti.

**Shotha:** According to statistical Analysis both the treatment have response on the parameter Shotha and both group are significant as p<0.05, but the group-B shows highly significant than group-A by comparing t values. This is because there is increase in blood supply to the applied part of Upanaha, which shows the Shothahara properties of combined effect ingredients of Upanaha sweda.

**Atopa:** According to statistical Analysis both the treatment have no response on the parameter Atopa. Both groups shows not significant (as P>0.05). Mean effect of group A and group B is same. This is because the drugs used in Niruhabasti do not shows Snehana properties drugs in Upanaha also having Karshniya effect not Snehana. Here the chronicity of disease also having major contribution in Atopa.

**Effect of Treatment on Clinical Parameters**

**WOMAC:** According to statistical Analysis both the treatment have response on the parameter WOMAC and both group are highly significant as p<0.05 and based on the t value the correlation coefficient in group B is higher than group A.

**Range of movements:** According to statistical Analysis both the treatment have response on the parameter Range of movement, both groups shows highly significant (as P<0.05), but the Group-B shows highly significant than Group-A (by comparing t-values).

**Walking Time:** According to statistical Analysis both the treatment have response on the parameter Walking Time and both groups shows highly significant (as P<0.05), but the Group-A shows highly significant than Group-B (by comparing t-values). Here there is reduction in Sandhi ruk parameter in Group A.

<table>
<thead>
<tr>
<th>Sr. no</th>
<th>Parameters</th>
<th>% of relief</th>
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<tr>
<td>1.</td>
<td>Sandhi shula</td>
<td>46.5%</td>
</tr>
<tr>
<td>2.</td>
<td>Sandhi graha</td>
<td>80%</td>
</tr>
<tr>
<td>3.</td>
<td>Sandhi shotha</td>
<td>45%</td>
</tr>
<tr>
<td>4.</td>
<td>Sandhi Atopa</td>
<td>60%</td>
</tr>
<tr>
<td>5.</td>
<td>Sparshaakshamatva</td>
<td>50%</td>
</tr>
<tr>
<td>6.</td>
<td>WOMAC</td>
<td>34%</td>
</tr>
<tr>
<td>7.</td>
<td>Range of Movements</td>
<td>57.14%</td>
</tr>
<tr>
<td>8.</td>
<td>Walking Time</td>
<td>34.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Sr. No</th>
<th>Result</th>
<th>No. of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Good Response</td>
<td>8</td>
<td>26.6%</td>
</tr>
<tr>
<td>2.</td>
<td>Moderate response</td>
<td>14</td>
<td>46.6%</td>
</tr>
<tr>
<td>3.</td>
<td>Mild response</td>
<td>4</td>
<td>13.6%</td>
</tr>
<tr>
<td>4.</td>
<td>No Response</td>
<td>4</td>
<td>13.6%</td>
</tr>
</tbody>
</table>
show the effect over walking time of the patient.

**CONCLUSION**

**Group A:** Out of fifteen patients, 03 (20%) shown Good response to the treatment. 06 (40%) were shown Moderate response and 02 (13.33%) patients shown No response.

**Group B:** Out of fifteen patients, 05 (33.33%) shown Good response to the treatment. 08 (53.33%) were shown Moderate response and 02 (13.33%) patients shown Mild response. 00 patients shown No response.

**Overall:** Out of thirty patients, 08 (26.66%) shown Good response to the treatment. 14 (46.66%) were shown Moderate response and 4 (13.33%) patients shown Mild response. 04 (13.33%) patients shown No response.

In this research study, the statistician analyzed the each parameter and collected data is analyzed by using the Levene's test and t-test to know the significance of both the treatment and to compare each subjective and objective parameter is as mentioned above and statistically it is possible to assess the improvement between the groups in each parameter. To Conclude here Group B shows marked improvement then Group A which shows the additional effect of *Upanahasweda* along with *Ashtavargasiddha Basti*.

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