



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

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Received on: 19/09/2014

Revised on: 07/10/2014

Accepted on: 10/10/2014

ABSTRACT

Sandhigataavata 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, Sandhigataavata, 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 *Sandhigataavata* is one which is among *Vatavyadhi*. *Sweda* and *Bastikarma* occupies important place in treating *Vatavyadhis*, The word "*Sandhigata Vata*" comprises of three words, viz. *Sandhi*, *Gata* and *Vata*.

*Sandhi*¹: *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*.

*Gata*²: - *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.

*Vata*³: - *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 *Sandhigataavata* 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. *Sandhigataavata* 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 *Vatavyadhis* and *Basti karma* is best choice of treatment modality, and *Upanaha 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 *Upanaha 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 *Upanaha sweda* in the Management of *Sandhigatavata*.
3. To know the additional effect of *Upanaha Sweda* in *Sandhigatavata*.

MATERIAL AND METHODS

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 *Upanaha 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, Karnatka, 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

- Patients suffering from classical signs and symptoms of *Sandhigatavata* like *Sandhishula*, *Sandhishotha*, *Atopa* and Other *Lakshanas* of *Sandhigatavata*.
- Patient between age group of 30 to 60 years.

- No discrimination of sex and chronicity
- Patient fit for *Basti Karma* and *Upanaha 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*⁴

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 texts⁵. *Basti* was prepared and given as mentioned in the classics⁶.

Ingredients for *Devadarubaladi Taila*⁷. (for *Anuvasana*)

Ingredients for *Devadarubaladi taila* are: *Devadaru, Bala, Jatamansi, Sarshapa, Shunthi, Tila taila* Preparation of the *taila* will be According to *Sharangadhara Samhita Sneha Prakarana*⁸. This *taila* was used for *Anuvasana* 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*⁹

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 classics¹⁰.

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

Sparshaakshamatva (Tenderness)

01. Grade 0 – No Complaints

02. Grade 1 – Says the joint is tender

03. Grade 2 – Winces the affected joint

04. Grade 3 – Winces and withdraws the affected joint.

Sandhishotha (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.

Results**Table 1: Effect of therapy on Sandhi shula**

Sandhishula	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	1.67	1.00	40%	0.655	0.169	9.025	<0.001
Group B	15	2.00	0.80	60%	0.561	0.145	8.290	<0.001

Table 2: Effect of therapy on Sandhi Graha

Sandhi Graha	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	1.07	0.33	69.15%	0.488	0.126	6.205	<0.001
Group B	15	1.00	0.07	93%	0.258	0.067	14.00	<0.001

Table 3: Effect of therapy on Sparshakshamatva

Sparshakshamatva	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	1.67	1.00	40.11%	0.655	0.169	5.292	<0.001
Group B	15	2.13	.93	56.33%	0.594	0.153	8.290	<0.001

Table 4: Effect of therapy on Sandhi shotha

Sandhi shotha	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	3.20	2.27	29.02%	0.594	0.153	4.583	<0.001
Group B	15	2.07	0.73	64.73%	0.594	0.153	8.367	<0.001

Table 5: Effect of therapy on Sandhi Atopa

Sandhi Atopa	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	1.27	0.73	42.51%	0.594	0.153	1.871	P>0.05
Group B	15	1.07	0.87	18.69%	0.352	0.091	1.871	P>0.05

Table 6: Effect of therapy on WOMAC

WOMAC	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	2.47	1.67	32.38%	0.617	0.159	6.089	<0.001
Group B	15	3.47	2.13	38.61	0.352	0.091	8.367	<0.001

Table 7: Effect of therapy on Range of Movements

Range of Movements	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	1.27	0.73	42.51%	0.594	0.153	4.000	<0.001
Group B	15	1.07	0.20	81.30%	0.414	0.107	9.539	<0.001

Table 8: Effect of therapy on Walking time

Walking time	N	Mean score		% of relief	SD	SE	't'	P
		BT	AT					
Group A	15	2.47	1.67	32.38%	0.617	0.159	7.483	<0.001

Group B	15	2.87	1.73	39.72%	0.594	0.159	6.859	<0.001
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Sr. no	Parameters	% of relief
1.	<i>Sandhi shula</i>	46.5%
2.	<i>Sandhi graha</i>	80%
3.	<i>Sandhi shotha</i>	45%
4.	<i>Sandhi Atopa</i>	60%
5.	<i>Sparshaakshmatva</i>	50%
6.	WOMAC	34%
7.	Range of Movements	57.14%
8.	Walking Time	34.6%

Sr. No	Result	No. of Patients	Percentage
1.	Good Response	8	26.6%
2.	Moderate response	14	46.6%
3.	Mild response	4	13.6%
4.	No Response	4	13.6%

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

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 Mild response. 04 (26.66%) 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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Cite this article as:

Tribhuvan pareek, S. N. Belavadi, U. V. Purad. Evaluate the Efficacy of Ashtavargasiddha Basti and Upanaha Sweda in the Management of Sandhigatavata. Int. J. Ayur. Pharma Research. 2014;2(6):42-47.

Source of support: Nil, Conflict of interest: None

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