Research Article

A RANDOMISED OPEN LABELLED COMPARATIVE PARALLEL GROUP CLINICAL STUDY TO EVALUATE THE EFFICACY OF INTERFERENTIAL THERAPY & KATI BASTI IN GRIDHRASI WITH SPECIAL REFERENCE TO SCIATICA

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ABSTRACT

Snigdha Swedana plays an important role in the management of *Vata Vyadhi* among which *Katibasti* is one which is indicated in *Vata* related pathogenesis in *Kati Pradesha*. *Gridhrasi* is a *Vataja Nanatmaja Vyadhi*. *Katibasti* is an effective treatment in *Gridhrasi* as it acts as both *Snehana* and *Swedana*. Interferential therapy is a form of electrical current that is primarily used for relief from pain. It is said to be effective in case of low back pain. Both *Katibasti* and Interferential therapy are commonly used treatment modalities in sciatica, hence the present study is intended to compare the efficacy of *Katibasti* and Interferential therapy in the treatment of *Gridhrasi*. Thirty-four subjects of *Gridhrasi* were randomly distributed in 2 groups (A and B) of 15 subjects each. Group A subjects were treated with *Katibasti* using *Maha Vishagarbha Taila* for 7 days. Group B subjects were treated with Interferential Therapy for 7 days. Follow up was done on the 14th day. The statistical analysis within the group showed significant improvement in all the parameters in *Katibasti* group as well as IFT group. Comparative analysis between the groups showed no significant difference between the groups in all the parameters. Clinically, there was a slight difference between two groups. During follow up it was noticed that symptomatic relief was more in *Katibasti* than Interferential Therapy.

Key words: *Gridhrasi*, Sciatica, *Swedana*, *Katibasti*, Interferential therapy

INTRODUCTION

Gridhrasi is one among the most common *Vatavyadhis* and uprising health problems in our daily lives. *Acharya Charaka* explained the *Lakshanas* of *Gridhrasi* as *Stambha*, *Ruk* and *Toda* which originate from the *Sphik Pradesha* and radiates downwards through the *Prishthabhaga* of *Kati*, *Uru*, *Janu*, *Jangha* and *Pada*. *Spandana* is noted in the affected parts frequently.¹

In modern science, the disease *Gridhrasi* can be correlated to Sciatica. Sciatica is a symptom and not a disease. The symptom is pain, which starts in the back and radiates down one or both lower limbs.²

As there is affliction of *Dosha* in the *Kati Pradesha*, a *Sthanika*, *Ekanga Sweda* is best selected. Hence, an *Ekanga Sweda* practiced over *Kati Pradesha* is *Katibasti* which is selected as a *Swedana* procedure in the present study. As there is involvement of *Vata* or *Vata Kapha*, a *Snigdha Sweda* with drugs having *Vata* or *Vata Kapha Shamana* property is best advocated. Hence with this idea in backdrop, *Maha Vishagarbha Taila* has been selected for the study.

Interferential therapy is a form of electrical stimulation produced using the principle of amplitude modulation whereby two medium frequency currents (in the kilohertz range, e.g., 4,000 Hz), which are slightly out of phase, are mixed (either within the

tissues or within an electrical stimulator) to produce a low frequency current (0-250 Hz).³ It is a form of electrical current that is primarily used for pain relief.⁴ It is said to be effective in case of low back pain.⁵

In the Modern medicine, the condition is managed by the administration of muscle relaxants, NSAIDS, corticosteroids, surgery etc. Long term use of these medicines may cause mild to serious systemic illness. Therefore, *Ayurveda* and physiotherapy has a greater role to play in the treatment for such conditions. Hence the present study was intended to compare the efficacy of *Katibasti* & Interferential therapy in the treatment of *Gridhrasi*.

MATERIALS AND METHODS

Total 34 Subjects suffering from *Gridhrasi*, attending the Outpatient Department and In Patient Department of Sri Sri College of Ayurvedic Science and Research Hospital, Bengaluru were registered randomly irrespective of their age, gender, religion, economic status etc. This is an open randomized label comparative parallel group clinical study. This clinical trial is registered with Clinical Trials Registry - India, with CTRI number - CTRI/2020/08/027409. *Maha Vishagarbha Taila* was procured from GMP and HACCP certified pharmacy, Chaitanya Ayur Formulations, Bellary with Batch No. MVT-031 for the purpose of the present study.

Table 1: Study Design

Group	Intervention	Time	Treatment Duration	Follow up Period	Study Period
Group A	Katibasti	45 minutes	7 Days	7 th day after treatment	14 Days
Group B	Interferential Therapy	20 minutes	7 Days	7 th day after treatment	14 Days

Inclusion criteria

- Subjects of either sex between 21 to 65 years.
- Subjects presenting with clinical signs and symptoms of Gridhrasi.
- Patients fit for *Katibasti*.
- Subjects fit for Interferential Therapy.
- Subjects with signs and symptoms of Sciatica.

Exclusion criteria

- Subjects suffering with T.B. spine, tumors of spine, focal neuropathy and any septic or infectious disease of spine.
- Subjects suffering with Diabetes or Diabetic neuropathy, Gout, Rheumatoid Arthritis, Spondylolisthesis, fracture of hip bones, fracture of spine.
- Subjects who are unfit for *Katibasti*.
- Dermatological conditions e.g. dermatitis, broken skin etc.
- Subjects with Pacemakers.
- Pregnant and lactating women.

Grouping**Group A: Katibasti**

Subject was made to lie prone on the table & ring made from *Masha churna* was placed over *kati Pradesha* and sealed properly. The *Taila* was heated in water bath and after checking the temperature of the *Taila* over the dorsum of the therapist's hand it was slowly poured inside the circular ring with the help of a sponge. Once the temperature of the *Taila* was decreased, half of the *Taila* was replaced with warm *Taila* again. After the prescribed time, *Taila* was removed and stored. Thereafter, the ring was removed, and the area was wiped and cleaned with lukewarm water and mild massage was given over the *Kati Pradesha*.

Group B: Interferential Therapy

Subject was asked to lie down in prone position and the lower back was exposed. Electrode gel was applied. Four electrodes were arranged in two circuits and applied over the painful area in the lumbar area. Electronics Vectrostim 100 was switched on & IFT mode was selected. IFT program number 10 was selected (Base-100Hz, Spectrum-50Hz, Frequency- 4000Hz, Sweep pattern- Trapezoid). Treatment time (20 minutes) was selected. Intensity knob was increased gradually from zero to the level tolerated by the subject (10-20 mA). After 20 minutes, Intensity knob was brought to the initial position. Electrodes were removed and Electronics Vectrostim 100 was switched off. Thereafter, the area was wiped and cleaned with cotton.

Assessment criteria**Subjective parameters**

- Symptoms of *Gridhrasi*.

Objective parameters

- Straight Leg Raising Test.
- Bragard's Test.

Questionnaires used

- Greenough and Fraser Scoring method. (13 parameters, Minimum score: 0 & Maximum score: 75, The higher the score the better the patient's status)
- Sugarbaker and Barofsky clinical mobility scale. (8 parameters, Minimum score: 0 & Maximum score: 24 The higher the score the better the patient's status)
- Oswestry disability assessment questionnaire. (10 sections describing the pain and its impact with each section scored from 0-5, with higher values indicating more severe impact).

Table 2: Scoring Systems used for the Assessment of Different Parameters

Score	0	1	2	3	4
Stambha (Stiffness)	Nil	Mild	Moderate	Severe	
Ruk (Pain)	Nil	Painful walk without limping	Painful walk with limping without support	Painful walk only with support	Painful and unable to walk
Toda (Pricking sensation)	Nil	Mild	Moderate	Severe	
Spandana (Fasciculation)	Nil	Mild	Moderate	Severe	
Aruchi (Anorexia)	Nil	Mild	Moderate	Severe	
Tandra (Stupor)	Nil	Mild	Moderate	Severe	
Gaurava (heaviness)	Nil	Mild	Moderate	Severe	
Straight leg raising test	More than 90°	71° to 90°	51° to 70°	31° to 50°	Up to 30°
Bragard's test	Absent	Mildly +	Moderately +	Highly +	

Statistical Analysis

For Parametric value, Paired t-test was applied within the group and unpaired t-test in between the groups. For Non-Parametric

value, Wilcoxon's Signed Rank Test was applied within the group and Mann-Whitney U Test in between the groups.

OBSERVATIONS & RESULTS

Thirty-six subjects presenting with signs and symptoms of *Gridhrasi* were screened in the OPD and IPD of SSCASR&H, out of which Thirty-four were enrolled into the present study in accordance with the inclusion criteria and the data was collected. The complete study was performed in 30 subjects, 15 in each group. It was observed that maximum number of Subjects (26.66%) belonged to the age group of 31–40 years and both male & female subjects were 50% in either group. In this study, it was noted that 66.67% subjects were married, and 46.67% subjects were from lower middle economic class, 26.66% patients were

labour and 96.67% subjects were Hindu. Maximum 60% had reported sound sleep and 80% were having gradual onset of the disease. Maximum patients (56.67%) were of Vata Kaphaja *Gridhrasi* and 76.66% were having regular bowel habits. Also, 50% subjects were vegetarian, and 70% of patients gait was not affected. Maximum patients had pain radiating to the right side, i.e., 46.66%. Similarly, it was revealed that 33.33% subjects were having secondary level of education. Maximum subjects, i.e., 36.66% were vatakapaprakruti. 43.33% of the subjects had duration of pain less than 1 year. Ruka (pain in sciatica nerve distribution), SLR test positive and tenderness at lumbar region were found in all the patients.

Table 3: Results on Parameters (Within the Groups)

Parameter	Group	N	BT (Mean)	SD	AT (Mean)	SD	p Value	AT (Mean)	SD	AF (Mean)	SD	p Value
Stambha	A	15	1.6	0.48	0.53	0.52	0.00	0.53	0.52	0.33	0.49	0.08
	B	15	1.93	0.67	0.93	0.7	0.00	0.93	0.7	0.8	0.77	0.15
Ruk	A	15	1.6	0.63	0.6	0.63	0.00	0.6	0.63	0.53	0.64	0.31
	B	15	1.73	0.88	0.8	0.77	0.00	0.8	0.77	0.53	0.64	1.00
Toda	A	15	0.33	0.72	0.07	0.26	0.10	0.07	0.26	0.00	0.00	0.10
	B	15	0.6	1.05	0.33	0.62	0.05	0.33	0.62	0.26	0.59	0.31
Spandana	A	15	1.07	0.59	0.20	0.41	0.00	0.20	0.41	0.13	0.35	0.31
	B	15	1.27	0.60	0.33	0.49	0.00	0.33	0.49	0.33	0.49	1.00
Aruchi	A	15	0.13	0.51	0.06	0.26	0.31	0.06	0.26	0.06	0.26	1.00
	B	15	0.47	0.63	0.20	0.41	0.04	0.20	0.41	0.20	0.41	1.00
Gaurava	A	15	0.33	0.48	0.00	0.00	0.02	0.00	0.00	0.00	0.00	1.00
	B	15	0.20	0.41	0.00	0.00	0.08	0.00	0.00	0.00	0.00	1.00
Tandra	A	15	0.07	0.26	0.00	0.00	0.31	0.00	0.00	0.00	0.00	1.00
	B	15	0.13	0.35	0.00	0.00	0.15	0.00	0.00	0.00	0.00	1.00
Pain	A	15	35.47	6.01	55.80	7.11	0.00	55.80	7.11	58.07	6.15	0.02
	B	15	33.80	7.90	52.87	9.21	0.00	52.87	9.21	53.73	8.5	0.18
Functional Ability	A	15	16.93	2.76	21.33	1.59	0.00	21.33	1.59	22.00	1.89	0.05
	B	15	15.80	3.02	20.40	1.59	0.00	20.40	1.59	20.60	1.84	0.32
Functional Disability	A	15	21.93	4.16	10.33	4.10	0.00	10.33	4.10	7.07	3.45	0.00
	B	15	22.13	4.50	10.87	3.78	0.00	10.87	3.78	8.53	2.70	0.01
SLR Test	A	15	1.93	0.46	0.93	0.46	0.00	0.93	0.46	0.67	0.62	0.04
	B	15	1.93	0.70	0.93	0.70	0.00	0.93	0.70	0.93	0.70	1.00
Bragards Test	A	15	1.80	0.56	0.67	0.49	0.00	0.67	0.49	0.40	0.51	0.04
	B	15	1.33	1.23	0.73	0.80	0.00	0.73	0.80	0.73	0.80	1.00

Table 4: Results on Parameters (Between the Groups)

Parameter	Group	N	BT (Mean)	SD	AT (Mean)	SD	P Value	AT (Mean)	SD	AF (Mean)	SD	P Value
Stambha	A	15	1.6	0.48	0.53	0.52	0.10	0.53	0.52	0.33	0.49	0.08
	B	15	2.07	0.68	0.93	0.7		0.93	0.7	0.8	0.77	
Ruk	A	15	1.6	0.63	1.6	0.63	0.49	0.6	0.63	0.53	0.64	0.34
	B	15	1.73	0.88	0.8	0.77		0.8	0.77	0.8	0.77	
Toda	A	15	0.33	0.72	0.07	0.26	0.14	0.07	0.26	0.00	0.00	0.07
	B	15	0.6	1.05	0.33	0.62		0.33	0.62	0.26	0.59	
Spandana	A	15	1.07	0.59	0.20	0.41	0.41	0.20	0.41	0.13	0.35	0.20
	B	15	1.27	0.6	0.33	0.49		0.33	0.49	0.33	0.49	
Aruchi	A	15	0.13	0.51	0.06	0.26	0.29	0.06	0.26	0.06	0.26	1.00
	B	15	0.47	0.63	0.20	0.41		0.20	0.41	0.20	0.41	
	B	15	0.20	0.41	0.00	0.00		0.00	0.00	0.00	0.00	
Tandra	A	15	0.07	0.26	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
	B	15	0.13	0.35	0.00	0.00		0.00	0.00	0.00	0.00	
Pain	A	15	35.47	6.01	55.80	7.11	0.28	55.80	7.11	58.07	6.15	0.13
	B	15	33.8	7.9	52.87	9.21		52.87	9.21	53.73	8.5	
Functional Ability	A	15	16.93	2.76	21.33	1.59	0.32	21.33	1.59	22.00	1.89	0.07
	B	15	15.80	3.02	20.40	1.59		20.40	1.59	20.60	1.84	
Functional Disability	A	15	21.93	4.16	10.33	4.10	0.72	10.33	4.10	7.07	3.45	0.26
	B	15	22.13	4.50	10.87	3.78		10.87	3.78	8.53	2.70	
SLR Test	A	15	1.93	0.46	0.93	0.46	1.00	0.93	0.46	0.67	0.62	0.28
	B	15	1.93	0.70	0.93	0.70		0.93	0.70	0.93	0.70	
Bragards Test	A	15	1.80	0.56	0.67	0.49	0.78	0.67	0.49	0.40	0.51	0.18
	B	15	1.33	1.23	0.73	0.80		0.73	0.80	0.73	0.80	

DISCUSSION

In the present study, the patients who were having *Kapha* and *Vata Prakruti* showed more tolerance to temperature than *Pitta Prakruti*. The people having *Pitta* predominant *Prakruti* (*Pitta Vataja* and *Pitta Kaphaja*) showed minimum tolerance to temperature. Hence it was observed that the ability to tolerate more temperature of Taila during *Katibasti* was more in people having predominance of *Vata* and *Kapha Prakruti* when compared to *Pitta* predominant *Prakruti*. On day one, 500 g of dehusked *Masha Churna* was required to prepare the ring which was used on 2nd and 3rd day also. On day 4, a new ring was prepared in a similar manner and used till 7th day. Daily about 20 to 30 g of thin gummy paste of dehusked *Masha Churna* was required to seal the ring over the skin to prevent leakage of oil. The ring was preserved in an airtight container after the treatment. The length of the ring was around 55 to 60 cm, width (which forms the height of the wall) of about 6 to 7 cm, thickness of about 1.5 to 2 cm.

During the study, it was observed that 600ml of oil was sufficient for procedure on Day 1. Same set of oil was used on the 2nd and 3rd day. On 4th day 200 ml oil was added to replace the loss and the same was used for 5th, 6th and 7th day. Everyday oil was filtered before the procedure. The temperature of the oil tolerated was in between 40- 45°C.

In *Stambha*, both groups were statistically highly significant after treatment. *Stambha* is mainly due to the *sheeta guna* associated with either *vata* alone or *vata kapha* as per the *samprapti*. In both the condition, the treatment needed is *ushna*, *vata* or *vata kapha shamaka* like *swedana chikitsa*. The *ushna guna* of *swedana* helps to relieve the *sheeta guna* associated in the *samprapti*. While explaining about the definition of *swedana*, it is said that the procedure which relieve *stambha* is called as *swedana* which shows the efficacy of *swedana* in *stambha nigraha*.⁶ Due to the muscle contraction & relaxation, there will be pumping action on veins & lymphatic vessels lying within & around muscles. Thus, there will be reduction of stiffness after Interferential therapy.⁷

In *Ruk*, both groups were statistically highly significant after treatment. *Ruk* is mainly due to *Vata*. Due to the *ushna*, *snigdha guna*, *Swedana* helps in *vata shamana* and, hence relieving the pain. The *samyak Swedana* brings about *shoolahara* effect.⁸ The principle of reduction in pain is because of gate control theory and stimulated release of pain reducing substances (endorphin and enkephalin). Thus, Interferential therapy helps in the reduction of *Ruk*.

In *Toda*, Group A was statistically non-significant after treatment & after follow up whereas Group B was statistically significant after treatment and non-significant after follow up. *Toda* is the *lakshana* due to the involvement of *vata dosha*. When *vata shamana* is achieved due to *Swedana* and due to *Sneha* used for *katibasti*, the symptom will be relieved. Interferential therapy relieves deep muscle pain and spasm.

In *Spandana*, Both Groups were statistically highly significant after treatment.

Spandana is reduced as the *Snigdha Sweda* advised in *Kati Pradesha* causes *Vata Shamana*. Interferential therapy helps in Stimulation of muscle. Stimulation of muscle will help in increase in metabolism. There will be an increase in oxygen & nutrients demand. This will help in Nerve regeneration & Soft tissue healing.⁹

In *Aruchi*, Group A was statistically non-significant after treatment & after following up whereas Group B was statistically significant after treatment. *Aruchi* is the associated symptom in *Vata-kaphaja Gridhrasi* due to involvement of *Kapha dosha* which increase *apyatatwa* or *kledata*. Also, there will be involvement of *Jatahragni* along with *Vatadosha* vitiated at *Katipradesha*. As there is involvement of *Rasa Dhatu*, statistically significant was not seen. Mechanism of Interferential therapy on *Aruchi* is not known. The significance seen may be due to the more incidences of subjects with *Vata-kaphaja* type of *Gridhrasi* in this group.

In *Gaurava*, Group A was statistically significant after treatment and non-significant after following up whereas Group B was statistically non-significant after treatment and after following up. *Gaurava* is the associated symptom in *Vata-kaphaja Gridhrasi* due to involvement of *Kapha dosha* which increase *apyatatwa* or *kledata*. The *apya* or *kleda* is *Guru* and hence *Gaurava* occurs. So, the *ushna guna* of *Swedana* might have caused *kaphashamana*. Heaviness of the body is being relieved by *Swedana*. By means of *Swedana*, the fluids in the body are being excreted through the sweat and hence the feeling of lightness in the body. There will be an increase in output of waste products (lactic acid) due to Interferential therapy.

In *Tandra*, no statistically significance was seen. *Tandra* is one of the symptoms of *Vata Kaphaja Gridhrasi*. *Tandra* is due to *Tamo Guna*, *Vata* and *Kapha Doshas*. As there is involvement of *Tamo Guna*, statistically significant was not seen.

In Greenough and Fraser Scoring Method, Group A was statistically highly significant after treatment & significant after follow up whereas Group B was statistically highly significant after treatment. The *ushna guna* & *snigdha guna* of *snigdha sweda* relieved *ruksha*, *khara* and *sheeta guna* of *Vata*. Hence there was reduction in the intensity of pain. The drugs in *Mahavishagarbha taila* are also having *vata*, *vata-kapha shamana*, *shoola* and *shothahara* effect whereby adding to the effect of *swedana* procedure. Interferential Therapy controls pain by activating non-nociceptive sensory nerves which inhibit activation of pain transmission cells and close gate to transmission of pain to the brain which decreases sensation of pain.¹⁰

In Sugarbaker and Barosky clinical mobility scale, Group A was statistically highly significant after treatment & significant after follow up whereas Group B was statistically highly significant after treatment. The functional ability of the person depends upon the intensity of pain, stiffness & range of movement. When the pain & stiffness is more and the range of movement is less, then functional ability reduces and vice-versa. In the present study the *katibasti* relieves the pain, stiffness and increased the range of movement whereby the patients felt comparatively free to do these activities. A rhythmical pumping action is produced by muscle contraction and there is a possibility of an effect on the autonomic nerves which can affect the diameter of blood vessels and therefore the circulation. Thus, Interferential therapy helps to increase the functional ability.⁷

In Oswestry Disability Assessments Questionnaire, both groups were statistically highly significant after treatment and after follow up. The pain, stiffness, *toda* and so on symptoms cause the disability to do the daily activities. The *swedana* with *Mahavishagarbha taila* relieved all these symptoms, the disability felt before treatment was reduced. Interferential therapy helps in the resolution of inflammation.

In SLR Test, Group A was statistically highly significant after treatment and significant after follow up whereas Group B was statistically highly significant after treatment. The pain and stiffness which was preventing the range of movement of the affected upper limb is relieved by the *kati basti*, the range of movement will increase thus showing the improvement in the degree of SLR. Interferential therapy helps in the reduction of the joint stiffness.

In Braggards Test, Group A was statistically highly significant after treatment and significant after follow up whereas Group B was statistically highly significant after treatment. The effect could be due to the relaxation of muscle which increases the range of movements. Interferential therapy helps to increase in the extensibility of deep collagen tissue.

Probable Mode of action of Kati Basti

As *Katibasti* is a *Swedana* procedure, the *Ushna Guna* helps to relieve the *Sheeta*, *Stambha* and *Gaurava*. The procedure of *Swedana* is having *Vata*, *Vata Kapha Shamana* property. The *Sneha* used in *Katibasti* adds to the *Vata Shamana* effect of *Swedana*. As the *Swedana* applied is locally over the affected area, the *Swedana* and the drug are directly acting as *Vata Kapha Shamana* hence providing the effect in a faster way. *Acharya Sushruta* explains that the *Tiryak Dhamanis* are connected to the *Roma kupa* through which the *Veerya* of *Aushadha* used in *Abhyanga*, *Parisheka*, *Avagaha*, *Upanaha*, *Alepa* enters into the *Twak* and undergoes *Paka* through *Bhrajaka Pitta*.¹¹ *Acharya Vagbhata* explains the same that *Bhrajaka Pitta* does the *Pachana* of drugs used for the *Abhyanga*, *Parisheka* and *Lepa*.¹² All these descriptions mentioned in classics indicate about the absorption of drug applied over the skin. The *Mahavishagarbha Taila* used for the study has drugs which help in *Kapha Vata Shamana*. *Mahavishagarbha Taila* is best in relieving the pain in the *Vaksha*, *Uru*, *Kati* and *Jangha*. It is used in the treatment of *Gridhrasi*, *Mahavata*, *Sarvangagraha*, *Dandapatanaka*, *Karna Nada*, *Karna Shunyatha*, etc. The drug possesses *Shothahara*, *Shoolahara*, *Pustikara*, *Bala Vardhaka* effect.¹³

Probable Mode of action of Interferential Therapy

1. Relief of pain: The increase in local blood circulation which might be produced by either the local pumping effect of the stimulated muscles or the effect on autonomic nerves and therefore blood vessels may help in removing the chemicals from the local area. The principle of reduction in pain is because of gate control theory and stimulated release of pain reducing substances (endorphin and encephalin).
2. Motor stimulation: Normal innervated muscles will be made to contract if interferential frequencies between 1 and 100 Hz are used. The type of contraction depends on the frequency of stimulation, as the shape and length of each individual stimulus is of a muscle stimulating type.
3. Increased local blood flow: Due to the muscle contraction & relaxation, there will be pumping action on veins & lymphatic vessels lying within & around muscles. Thus there will be reduction of swelling due to increased venous & lymphatic return.
4. Absorption of exudates: A rhythmical pumping action is produced by muscle contraction and there is a possibility of an effect on the autonomic nerves which can affect the diameter of blood vessels and therefore the circulation. Both of these factors will help for absorb exudates and thus reduce swelling.¹⁴

CONCLUSION

Katibasti and IFT are both effective measures for *Gridhrasi*. Both groups individually showed same results statistically in improving all subjective and objective parameters. However, in comparison between the groups all parameters were statistically proven to be non-significant (i.e., *p* value > 0.05). Clinically, there was a slight difference between two groups. During follow up it was noticed that symptomatic relief was more in *Katibasti* than IFT. Although there was statistically significant improvement, there was no complete remission in any Subject. Thus, in practice, we may combine other treatment along with *Katibasti* like specific *Basti Chikitsa*, *Deepana*, *Pachana*, *Siravyadha*, *Agnikarma*, etc according to the *dosha* dominance, *Sama* and *Nirama avastha*. The combined therapy of Ayurvedic and Physiotherapy treatments may yield better results.

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