

"COMPARATIVE STUDY OF *SIRAVYADHA* BY *KUTARIKA SHASTRA* AND *BHADRADARUVADI BASTHI* IN THE MANAGEMENT OF *SIRAJAGRANTHI*"

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ABSTRACT

Background: Varicose veins has become very common disorder in the present era. Patients with Varicose vein have to deal with unattractive, painful, discoloured and swollen legs, which is not good for living an attractive life style.

Ayurveda explains a similar diseases condition, *Acharyas* explains *Sirajagranti* as one among the types of *Granti*, in which vitiated *Vata* with *Raktha* causes *Sampeedana*, *Sankocha* and *Vishoshana* of *Siras*. For such condition treatment like *Siravyadha*, *Basti*, *Pana* of *Sahacharadi taila*, *Upanaha* are explained.

Objective: To study the efficacy of *Siravyadha* by *Kutharika Shastra* and *Bhadradaruvadi Basti* and to compare their efficacy in *SirajaGranti*.

Methodology: 40 patients diagnosed as *Sirajagranti* were selected strictly as per the pre-set inclusion and exclusion criteria and divided into Group A, who were treated with *Siravyadha* by *Kutharika Shastra* and Group B, who were treated with *Bhadradaruvadi Basthi*. The patients were assessed before treatment and on 11thday, 15th day, 22nd day and 30th day.

Result: In this clinical study Group A and Group B showed significant results in all the attributes of *Sirajagranti*, but on comparison between groups there was no statistically significant difference in *Shoola*, *Kandu*, *Grathana*, *Vaivarnya* and *Daha*. *Shotha* showed significant difference between the groups.

Conclusion: In this clinical study, both Group A and Group B showed significant results in all attributes of *Sirajagranti*.

Key words: *Sirajagranti*, *Kutarika Shastra*, *Badradaruvadi Basti*, *Siravyadha*, Vericose vein.

INTRODUCTION

Varicose veins are the penalty the humans has to pay for its erect posture¹, due to gravitational force.

Incompetency of valves due to various reasons like, life style changes, obesity, hormonal changes, occupation-prolonged standing and pregnancy are found to be significantly contributing to

this condition. Varicose veins of lower limbs are abnormally dilated, elongated, tortuous and gnarled alteration in the saphenous veins and their tributaries, which may later lead to complications like Hemorrhage, Chronic venous insufficiency, Pigmentation, Ankle flare, Eczema, Ulcerations, Calcification of wall, DVT, Thrombophlebitis, Pulmonary embolism.

Approximately 20% of population is affected by Varicose veins², prevalence of Varicose vein is 35%, Severe varicose veins is 10%, Chronic venous insufficiency is 8%, Venous ulcers 2%³. Most commonly it affects females than males. It affects 15-25% of all adults⁴. Many conservative as well as surgical treatments are available like, sclerotherapy, ligation with stripping of vein⁵. But all these have one or the other complications, limitations and also recurrence rate is high.

The condition of Varicose vein is similar to the *Sirajagranti* a type of *Granti* *Roga*, where vitiated *Vata* along with *Raktha* causes *Sampeedana*, *Sankochana*, and *Vishoshana* of *Siras*⁶. For this condition *Siravyadha*, *Basti*, *Paana* of *Sahacharadi taila*, *Upanaha*

with *Vatahara Dravyas* are told as treatment of choice by *Acharya Vagbhata*.

Rakthamokshana is the treatment of choice for *Siragata Vata*. In which *Siravyadha* is one technique of treatment, *Siravyadha* is considered as *Ardhachikitsa* of *Shalya Tantra*⁷. *Rakthamokshana* if done regularly will never leads to *Granti*, *Shopha*, *Tvak* and *Raktha Vikaras*⁸. Among the types of *Siravyadha*, *Vrihimukha* and *Kutharika Shastra* have been described. Here *Kutharika Shastra* is taken for the study, which is explained for the *Siras* situated over *Asth*⁹.

Basti is told as *Ardhachikithsa* of *Kayachikithsa*¹⁰. *Basti* when carried out properly not only enhances the growth, complexion and strength but also increases the life span of the individual. The administered *Basti* reaches *Pakvashaya* and eliminates all the *Prakupita Doshas* from foot to head, as "Soorya absorbs the *Rasa* of the *Bhoomi*"¹¹. In *Ashtanga Hrudaya Bhadradaruvadi Gana* is mentioned as *Vatahara*¹².

Lots of research studies have been carried out pertaining the treatment of *Sirajagranti*. As the number patients

are increasing day by day, selecting the ideal treatment with minimum discomfort is required for the patient. Considering the above points, here an attempt was made to compare the effect of one parasurgical technique that is *Siravyadha* by *Kutarika Shashtra* with one *Panchakarma* procedure that is *Bhadradaruvadi Basti* in the management of *Sirajagranti*.

MATERIALS AND METHODS:

Sample source: 40 patients diagnosed as *Sirajagranti* were selected from the O.P.D & I.P.D of Alva's Ayurveda Hospital, Moodbidri, other camps and referrals and were grouped into two Groups A& B.

Sample size: 40 patients diagnosed as *Sirajagranti* were divided into two equal groups- Group A and Group B for the study.

Study design: Comparative clinical study.

Selection Criteria:

Diagnostic criteria:

- Clinical features of *Sirajagranti*(varicose vein) viz. *Sampeedana*, *Samkochana* and *Vishoshana* of *Siras* (dilated, elongated and tortuous veins)
- Brodie -Trendelenburg test.

- Multiple Tourniquet test.
- Perthes test.

Inclusion criteria

- Patient aged between 16-70 years of either gender
- Patient suffering from Primary varicose vein.
- Patient with *Sirajagranti* (Varicose vein) in lower limb only.
- Patient indicated for *Basti* and *Siravyadha*.

Exclusion criteria

- Patient with Anemia, Diabetes mellitus and other systemic diseases.
- Patient with Hemophilia, Coagulopathy or Bleeding diseases.
- Varicosity associated with complications like Deep Vein Thrombosis, Calcification, Equines deformity, Venous ulcer.
- Congenital varicose vein, pregnancy.

INTERVENTIONS

GROUP A: 1st day – *Siravyada*, upto 7th day - *Paschat Karma*, 8th day – 30thday Observation period.

Assessment was done before treatment and after treatment on the 11th day, 15th day, 22nd day and 30th day.

GROUP B: 1st - 3rd day: *Deepana* and *Pachana* with *Panchakola Choorna* 5 gram with

**"COMPARATIVE STUDY OF SIRAVYADHA BY KUTARIKA SHASTRA AND
BHADRADARUVADI BASTHI IN THE MANAGEMENT OF SIRAJAGRANTHI"**

Ushna Jala thrice daily before food, 4th - 11th day: *Basti* in *Yoga Basti* schedule. 12th- 30th day: Observation period which includes *Parihara Kala* also.

Assessment was done before treatment and on the 11th day, 15th day, 22nd day and 30th day.

Follow up: The patients was advised to come for follow-up on 45th and 60th day.

Study period: Including observation and follow up - total 60 days.

Procedure

Informed written consent of the patients were taken for both groups.

Group A

Siravyadha by using *Kutharika Shastra* was done on 20 patients of Group A.

Materials used: *Yavagu, Moorchita Tila Taila, Nadi Swedana Yantra, Kutharika Shastra*, sterile cotton pad,

adhesive plaster, tourniquet, kidney tray, measuring jar, surgical spirit, distilled water.

Site: Maximum tortuous area was selected for the *Siravyadha*.

Poorva Karma: *Yavagu* was given to the patient and after 1 hour *Abhyanga* with *Moorchita Tila Taila* and *Nadi Swedana* were to the lower limb.

Pradhana Karma: Tourniquet was tied above the site of *Siravyadha* and *Rakthamokshana* was carried out by using *Kutharika Shastra*.

Paschat Karma: After the complete stoppage of bleeding, loose bandaging was done with wet sterile cotton pad. The food or diet, which is neither hot nor cold and is light, which can be easily digested, and that which stimulates the digestion was recommended. The patient will be advised to take *Ksheera* along with *Guda*.

Group B

Bhadradaruvadi Basti was administered to the patients of group B.

Table No 1-Course of *Basti: Yoga Basti* Pattern

1 st day	2 nd day	3 rd day	4 th day	5 th day	6 th day	7 th day	8 th day
A	N	A	N	A	N	A	A

Note: - A – *Anuvasana Basti*

N – *Nirooha Basti*

Anuvasana Basti

Poorva Karma: *Sthanika Abhyanga* with *Moorchitha Tila Taila* and *Nadi*

Swedana was given to the lower abdomen, and thighs of the patient. Light food was given to the patient.

Pradhana Karma: Patient was asked to lie in the left lateral position by keeping left leg straight and right leg flexed at the knee joint and hip joint. Anus was anointed by using cotton swab dipped in *Taila* and 80 ml of *Sahacharadi Taila* was administered using *Basti Yantra*.

Paschat Karma: *Sphik Thadana*, *Mardhana* over *Nabhi* region was done and asked to rub the palms together briskly. Simultaneously patient's sole was rubbed. After that the patient was made to raise the legs by flexing the hip several times. Avoidance of *Ashta Mahadoshakara Bhava*.

Nirooha Basti

Poorva Karma: Patient was asked to be on empty stomach and made to lie on the cot. *Sthanika Abhyanga* with *Moorchitha Tila Taila* was done followed by *Nadi Swedana* over lower abdomen, back and thighs of the patient.

Pradhana Karma: Patient was asked to lie in the left lateral position by keeping left leg straight and right leg flexed at the knee joint. Anus was anointed by using cotton swab dipped in *Taila* and appropriate quantity of

prepared *Nirooha Basti Dravya* was administered.

Paschat Karma: The patient was advised to take luke warm water bath and light diet. Avoidance of *Asta Mahadoshakara Bhava*.

Method of Preparation of

Bhadradaruvadi Basti

– To prepare *Bhadradaruvadi Basti*, *Basti Dravyas* were mixed in a particular fashion as mentioned in classics, initially 60 ml of *Madhu* and 5gms of *Saindhava Choorna* was taken in a *Khalva Yantra* and mixed homogenously, after that 80 ml of *Sahacharadi Taila* was taken and is mixed to form uniform mixture. There after 40 gms of *Kalka* made of *Bhadradaruvadi Gana* was added to the above mixture. Followed by the mixing of 300 ml of *Kwatha* prepared with *Kwatha Choorna's* of *Devadaru*, *Jatamamsi*, *Kusta*, *Dashamoola*, *Baladvaya* was added and mixed thoroughly to form a homogenous mixture and tested for *Suyojita Nirooha Lakshana's*. The whole of the *Basti Dravya* was filtered and it was administered after making it lukewarm by heating indirectly. The particular pattern of mixing the *Basti Dravya* is followed so that all the contents was

**"COMPARATIVE STUDY OF SIRAVYADHA BY KUTARIKA SHASTRA AND
BHADRADARUVADI BASTHI IN THE MANAGEMENT OF SIRAJAGRANTHI"**

mixed properly and finally a uniform mixture was obtained. The total quantity of *Basti Dravya* was maintained around 480ml.

done based on a detail proforma adopting different methods of scoring of subjective and objective parameters and was analysed statistically.

ASSESSMENT CRITERIA

Assessment of the condition was

Table No 2-Subjective and Objective parameters

Subjective parameters:	Objective parameters:
<i>Shoola</i> (Pain)	1) Grathana (Hardening of Sira).
<i>Kandu</i> (Itching sensation).	2) Shotha (Swelling).
<i>Daha</i> (Burning sensation).	3) Vaivarnya (Pigmentation).

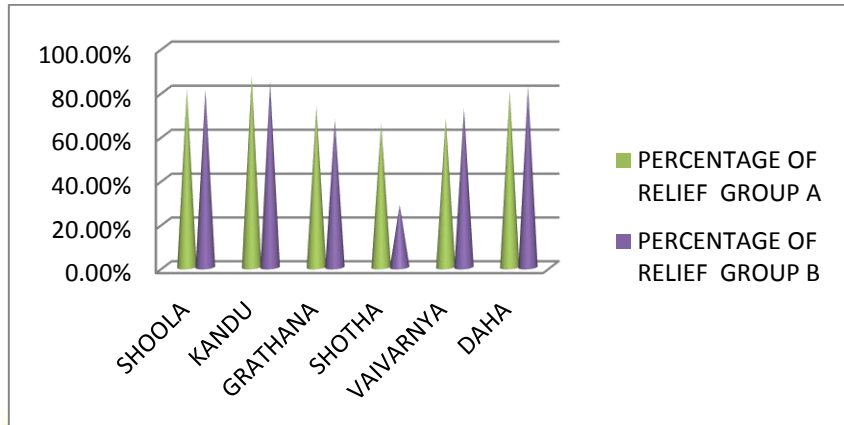
Table No.3 COMPARATIVE EFFECT OF TREATMENT BETWEEN TWO GROUPS

Symptoms	BT-At mean		Difference of mean	Standard Deviation		T value	P value
	Group A	Group B		Group A	Group B		
<i>Shoola</i>	2.1	2.35	-0.25	0.447	0.489	-1.687	0.1
<i>Kandu</i>	1.7	1.35	0.35	0.47	0.671	1.911	0.064
<i>Grathana</i>	1.35	1.25	0.1	0.489	0.444	0.677	0.503
<i>Shotha</i>	1.55	0.7	0.85	0.686	0.571	4.257	<0.001
<i>Vaivarnya</i>	1.6	1.45	0.15	0.503	0.759	0.737	0.466
<i>Daha</i>	1.45	1.7	-0.25	0.51	0.657	1.344	0.187

Table No.4 COMPARATIVE PERCENTAGE OF RELIEF BETWEEN GROUP A & GROUP B

SIGNS AND SYMPTOMS	MEAN DIFFERENCE		PERCENTAGE OF RELIEF	
	GROUP A	GROUP B	GROUP A	GROUP B
SHOOLA	2.1	2.35	81.40%	81.03%
KANDU	1.7	1.35	87.17%	84.37%
GRATHANA	1.35	1.25	73.60%	67.56%
SHOTHA	1.55	0.7	65.95%	28.57%
VAIVARNYA	1.6	1.45	68.08%	72.50%
DAHA	1.45	1.7	80.50%	82.50%

Graph No. 1



Discussion on Results

Effect on *Shoola*

In Group A out of 20 patients, the mean score of the symptoms which was 2.7 before treatment was reduced to 0.5 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on *Shoola* at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, also reduces the pressure in the veins and removes the P substances by this it reduces the *Shoola*.

In Group B, out of 20 patient, the mean score of *Shoola* before treatment was 2.9 which was reduced to 0.55 on 30th day after treatment. This revealed a statistically significant effect of *Bhadradaruvadi Basti* on *Shoola* at

$P < 0.001$. This may be due to *Vatahara* and *Vedanahara* action of the *Basti*.

Effect on *Kandu*

In Group A, out of 20 patients, the mean score of *Kandu* the symptoms which was 1.95 before treatment was reduced to 0.25 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on *Kandu* at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, and entry of fresh blood, breakage of RBC gets reduced, which in turn reduces the pigmentation and itching over the site.

In Group B, out of 20 patient, the mean score of *Kandu* before treatment was 1.6 which was reduced to 0.25 on 30th day after treatment. This revealed a statistically significant effect of

Bhadradaruvadi Basti on *Kandu* at $P < 0.001$. This may be due to *Rakthashodhana* and *Kandugna* action of the *Basti*.

Effect on *Grathana*

In Group A, out of 20 patients the mean score of the symptoms which was 1.9 before treatment was reduced to 0.5 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on *Grathana* at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, also reduces the pressure in the veins.

In Group B, out of 20 patients, the mean score of *Grathana* before treatment was 1.85 which was reduced to 0.6 on 30th day after treatment. This revealed a statistically significant effect of *Bhadradaruvadi Basti* on *Shoola* at $P < 0.001$. This may be due to *Vatahara* and *Vedanahara* action of the *Basti*.

Effect on *Shotha*

In Group A, out of 20 patients, the mean score of the symptoms which was 2.35 before treatment was reduced to 0.8 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on

Shotha at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, also reduces the pressure in the veins by this it reduces the *Shotha*.

In Group B, out of 20 patient, the mean score of *Shotha* before treatment was 2.45 which was reduced to 1.75 on 30th day after treatment. This revealed a statistically significant effect of *Bhadradaruvadi Basti* on *Shoola* at $P = 0.003$. This may be due to *Vatahara* and *Shothahara* action of the *Basti*.

Effect on *Vaivarnya*

In Group A, out of 20 patients, the mean score of the symptoms which was 2.35 before treatment was reduced to 0.75 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on *Vaivarnya* at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, and entry of fresh blood, breakage of RBC gets reduced, which in turn reduces the pigmentation and itching over the site.

In Group B, out of 20 patient, the mean score of *Vaivarnya* before treatment was 2 which was reduced to 0.55 on 30th day after treatment. This revealed a statistically significant effect of

Bhadradaruvadi Basti on *Vaivarnya* at $P < 0.001$. This may be due to *Rakthashodhaka*, *Vatahara* action of the *Basti*.

Effect on Daha

In Group A the mean score of the symptoms which was 1.8 before treatment was reduced to 0.35 on 30th day after treatment. This revealed a statistically significant effect of *Siravyadha* by *Kutarika Shastra* on *Shoola* at $P < 0.001$. This may be probably due to letting out of stagnated vitiated blood, by this it reduces the *Daha*.

In Group B, out of 20 patient, the mean score of *Daha* before treatment was 2 which was reduced to 0.35 on 30th day after treatment. This revealed a statistically significant effect of *Bhadradaruvadi Basti* on *Daha* at $P < 0.001$. This may be due to *Rakthashodhana* property of *Basti*.

B. Discussion on comparative effect of the both Groups

While comparing both the Groups there is no Statistically significant difference in *Shoola*, *Kandu*, *Daha*, *Vivarnya*, and *Grathana*.

Shotha showed a significance difference of $p < 0.001$ on comparing the two groups.

Follow Up

The improvement in the disease condition noted during the study period persisted as such in both the groups in course of the follow up period.

CONCLUSIONS

Based on the review of literature and observations made in this clinical study, the following conclusions are drawn.

- *Sirajagranti* is one of the common clinical condition affecting the lower limbs and the incidence being prevalent in this era due to occupation and busy life schedules.
- In the people belonging to the occupation which requires standing posture for long duration and strenuous works, the disease of varicose vein was found more.
- *Siravyadha* by *Kutarika Shastra* is a simple cost effective OPD procedure which shows clinically good results.
- In *Siravyadha* by *Kutarika Shastra* large amount of blood can be removed from the tortuous area in a single attempt, which gave more symptomatic relief. Even though convincing the patient was difficult for *Siravyadha*.

**"COMPARATIVE STUDY OF *SIRAVYADHA* BY *KUTARIKA SHASTRA* AND
BHADRADARUVADI BASTHI IN THE MANAGEMENT OF *SIRAJAGRANTHI*"**

- *Bhadradaruvadi Bhasti* has *Vatahara* properties, it is effective in the remission of the symptoms of *Sirajagranti* as evidenced by statistically significant reduction in the symptoms of various subjective and objective parameters.
- In this clinically study, both Group A and Group B showed statistically significant results in all the attributes of *Sirajagranti*.
- But on comparison between the Group A with Group B there is no statistically significant difference in *Shoola, Kandu, Grathana, Vaivarnya, and Daha* of *Sirajagranti* except *Shotha*. Parameter *Shotha* showed statistically significant results in between the groups.

REFERENCES

- 1.) Dr Somen Das, A Concise Text Book of Surgery, 4th edition, Calcutta, 2001, page no: 203.
- 2.) Bailey and Love's Short Practice of Surgery, 24th edition, London, 2004, edited by RCG Russell, Norman S Williams and Christopher J.K Bulstrode, International Students Edition, Page no. : 954.
- 3.) Sriram Bhat M, SRB's Manual of Surgery, 4th edition, New Delhi, 2013, page no.:235.
- 4.) www.sirweb.com
- 5.) Dr. Somen Das, A Concise Text Book of Surgery, 4th edition, Calcutta, 2001, page no: 207
- 6.) Acharya Sushruta, Sushruta Samhita with Nibandha Sangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa, Edited by Yadavji Trikamji Acharya, Published by Chaukamba Orientalia, Varanasi, Reprint-2017, Nidana Sthana, 11th chapter, Sloka no: 7 Page no.: 311.
- 7.) Acharya Sushruta: Sushruta Samhita with Nibandha Sangraha Commentary of Dalhanacharya and Nyaya chandrika Panchika of Gayadasa, edited by Yadavji Trikamji Acharya, Published by Chaukamba Orientalia, Varanasi, Reprint-2017, Shareera Sthana, 8th chapter, Sloka no 23, Page no: 383.
- 8.) Acharya Sushruta, Sushruta Samhita with Nibandha Sangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa, edited by Yadavji Trikamji Acharya, Published by Chaukamba Orientalia, Varanasi,

**"COMPARATIVE STUDY OF SIRAVYADHA BY KUTARIKA SHASTRA AND
BHADRADARUVADI BASTHI IN THE MANAGEMENT OF SIRAJAGRANTHI"**

Reprint-2017, Sutra Sthana, Uttara Sthana, 30th chapter, Sloka no.:
14thchapter, Sloka no: 34, Page no: 65. 7, Page no: 884

- 9.) Acharya Sushruta, Sushruta Samhita with Nibandha Sangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa, edited by Yadavji Trikamji Acharya, Published by Chaukamba Orientalia, Varanasi, Reprint-2017, Shareera Sthana, 8th chapter sloka no:9, Page no: 380.
- 10.) Acharya Vagbhata, Ashtanga Hrudaya Sanskrit text with commentaries Sarvanga Sundaraby Arunadatta and Ayurveda Rasayana tika of Hemadri annotated by Anna Moreswar Kunte and Krishna Ramachandra Shastri Navre edited by Pandit Hari Sadashiva Shastri published by Varanasi, Chaukambha Sanskrit series office, Edition 2016,
- 11.) Acharya Agnivesha, Prathisamskartha Acharya Charaka, Charaka Samhita with 'Ayurveda deepika' Commentary of Chakrapanidatta, edited by Vaidya Harish Chandra Singh Kushawaha, Chaukamba Orientation, Varanasi, Reprint - 2012, Siddhi Sthana 1st chapter, Sloka no.:39, 40, Page no.:953.
- 12.) Acharya Agnivesha, Prathisamskartha Acharya Charaka, Charaka Samhita with 'Ayurveda deepika' Commentary of Chakrapanidatta, edited by Vaidya Harish Chandra Singh Kushawaha, Chaukamba Orientation, Varanasi, Reprint - 2012, Siddhi Sthana 7th chapter, Sloka no.:64, Page no.:1050.

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