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A Comparative Study of *Amrita Guggulu* and *Siravyadha* in the Management of *Siragranthi* w.s.r to Varicose Vein

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ABSTRACT:

The study entitled "A Comparative Study Of Amrita Guggulu And Siravyadha In The Management Of Siragranthi W.S.R To Varicose Vein" is mainly based on clinical observation. Susruta explained the nidanas, samprapthi, chikitsa, and sadhyasadhyatha, as well as many forms of therapies and consequences that were gathered from various classical sources. The study includes the use of Amrita guggulu internally and Siravyadha procedure. A total of 50 cases of varicose veins were chosen and are randomly separated into two groups. For three months, Amrita guggulu two tablets twice daily after food were administered. Siravyadha was performed twice, once on the first day and again on the 90th day. Pain, nocturnal cramps, itching, ankle flare, venous edema, venous induration, and skin pigmentation were all observed in all of the study participants. After treatment procedure Siravyadha reduction in symptoms like pain, itching, varicosities and discoloration was statistically significant with the p value of < 0.001 was observed. One Patient in Group A (Amrita guggulu) and three patients of group B (Sirayadha) got maximum improvement. 12 patients in group A and 15 patients in group B got moderate improvement.

Key words: Amrita guggulu, Siravyadha, Siragranthi, Varicose veins

INTRODUCTION

The main object of any research is critical scientific enquiry into the facts with the purpose of establishing fundamental relationship initially expressed as theories and later on as natural laws. Diseases are primarily responsible for reducing the potentiality of an individual by hampering his capacity, inability to live to the full and curtailing his enjoyment. Out of these challenging diseases varicose vein is one of the prime as well as common during present era.

Venous diseases especially varicose vein occurs only in humans because of our erect posture. Lower limbs are affected usually, but bilateral presentations are also common. Present life style and diet of humans has a major contribution in increasing the morbidity of the disease. Varicose vein, one of the common manifestations of venous disease is dilated, tortious and elongated superficial vein with reversal of blood flow due to the incompetence



of valves. This incompetence of valves may be congenital or acquired. Those who walk or sit have less chance of occurrence when compared to one who is prone to standing like bus conductors, police constables, teachers etc. Pregnant women are not excluded from the category because of high levels of estrogen and progesterone which causes smooth muscle in the vein to relax. The common clinical presentation of varices are aching or dragging pain especially on standing, restless legs, tiredness, tingling sensation, itching and discoloration of skin. Ankle swelling is a common presentation which progressively worsens by end of the day and will get relieved by leg elevation. As per Ayurveda, clinical features of varicose vein goes hand to hand with siragranthi¹. Siragranthi is one among the five granthi's which are mentioned by Acharya Susruta. It is also mentioned by Acharya Charaka, Acharya Vagbhatta², ,Bhela,Bhoja etc.

Need Of Study

Varicose vein is a global problem that is having prime concern. Both congenital and acquired causes are there for the onset. The pathology is troublesome for both the patient as well as the physician as it is having a bad prognosis. As it is a well-known universal fact that percentage of recurrence rate is higher even after known modern surgical procedures like laser therapy, sclerotherapy, radiofrequency ablation, ambulatory phlebectomy etc. There is no definite system for identifying the patients for whom the significant benefits have been observed by these approaches. Due to unsuccessful management by available surgical and para surgical allopathic procedures for this challenging problem there is a big scope for intervention through most ancient medical science. Many research works have been carried out on various indigenous drugs to evaluate their efficacy but very little work has been carried out on Raktamokshana and Amrita Guggulu. So to know the basic ideas about *samprapti* of this disease and to assess a simple and harmless radicle approach for the same I have planned to work on this subject.

AIMS AND OBJECTIVES

A detailed conceptual study of *siragranthi* vice versa varicose vein will be carried out on the basis of *Ayurvedic* classics and modern medical science respectively. Review of previous research work and compilation work will be also carried out for the better management of this disease based on *samprapti Vighatana* theory of *Ayurveda*³. To know the efficacy of *Amrita guggulu* alone in *siragranthi*.

To know the efficacy of *siravyadha* alone in *siragranthi*.

MATERIALS AND METHODS

Patients will be selected from the OPD and IPD of University Post Graduate Institute of Ayurveda Studies & Research, Jodhpur, irrespective of age, sex, religion, occupation etc. based on the predetermined criteria. Criteria of selection of the patients will be strictly based as per clinical features in classics and Modern medical science. Selected patients will be randomly divided into 2 groups and further study will be preceded as per the plan of study.

CTRI Reg. No. -: CTRI/2022/04/041796 Ethical clearance no. DSRRAU/UCA/IEC/19-20/282 Sample Size

50 patients were selected from the hospital and they will be randomly disposed into following two groups after proper clinical examinations and investigations. Group A-In this group only *Amrita guggulu* will be internally administered twice daily for 3 months(90days) Group B- In this group *siravyadhana* procedure will be done twice ,first at the beginning of management (1st day) and next and final sitting of venesection will be given at the end of three months(90th day).

Study Design

Open labelled randomized trial.

Selection Of Patients Inclusion Criteria

- Patients with informed consent.
- Patients with clinical presentation of varicose vein.
- Primary varicose vein confined to lower extremities.

Exclusion Criteria

- Varicosities with complications like spectacular hemorrhage, DVT, venous ulcer etc.
- Those patients who are contra indicated for the procedure of bloodletting.
- Patients having life style disorders like HTN, DM, dyslipidemia etc.
- Varicosities in sites other than lower extremities

Withdrawal Criteria

Those patients who shows allergic reactions for the internal medication given or due to *apathya* followed during the treatment will be discarded even if they were selected for the study. This should be done for non-cooperative patients also.

Collection Of Data

The case history of each patient was recorded as per the

case Performa designed for the study. A thorough examination was carried out for each patient and symptoms like pain, itching, discoloration, tortuousness and swelling were recorded and suitable scores were given.

Statistical Analysis

Testing hypothesis for significance

- A) Wilcoxon test is used to find difference between each set of pairs and analyses these differences.
- B) Mann Whitney U test is used to find difference between two groups and the difference within the groups.

Assessment Criteria

Subjective criteria -All the classical features of varicose vein such as Pain, Itching etc

Objective criteria-Tortuousness, Discoloration, Swelling As per the predesigned case sheet assessment will be carried out on the basis of grading and Grades from 0-4 will be assigned and each of them will be scored accordingly.

- 1. Marked improvement >75% relief from signs and symptoms
- 2. Moderate improvement -50%-75% relief from signs and symptoms
- 3. Mild improvement -25%-50% relief from signs and symptoms
- 4. No change

RESULTS

Pain:

Group A: On pain, before treatment, the mean value was 1.92. After treatment, the mean value was reduced to 1.16 with S. D 0.5228. Group B: On pain, before treatment, the mean value was 2.32. After treatment the mean vale was reduced to 0.52 with S.D 0.7638. Statistical data shows in between groups P value is 0.001 which is considered extremely significant. In both the groups pain are significantly reduced. *Siravyadha* helps to relieve the pressure in the legs thereby reduce the pain in the leg. *Amrita guggulu* improves circulation which causes a reduction in *margavarana*, in turn reduces *vata dosha* and so reduces pain.

Itching:

Group A: the mean value was 1.28 before treatment. After treatment, the mean value was reduced to 0.76 with S. D 0.5099. Group B: Before treatment, the mean value was 1.96. After treatment the mean vale was reduced to 0.56 with S.D 0.6455. Statistical data shows in between groups P value is 0.001 which is considered extremely significant.

Hemosiderin deposits are drwan out from the body because of that itching got reduced significantly in group A. *Siravyadha* acts on itching by the removal of stagnant *dushta rakta* which cause *Sanga*. The intensity of *rakta dhatu* morbidity has decreased in group A, which has resulted in an improvement in itching and local colour change.

Swelling:

Group A: the mean value was 1.84 before treatment. After treatment, the mean value was reduced to 1.2 with S. D 0.4899. Group B: Before treatment, the mean value was 2.04. After treatment the mean vale was reduced to 0.72 with S.D 0.4761. Statistical data shows in between groups P value is 0.001 which is considered extremely significant. In the *Siras*, the accumulation of *Rakta* and vitiation of *vata* causes vein dilatation and tortuosity. *Siravyadha* helps to relieve local *Shotha* (swelling) and congestion in the *sira*. *Amrita guggulu* acts by reducing *rakta* dhatu morbidity.

Varicosities:

Group A: the mean value was 1.8 before treatment. After treatment, the mean value was reduced to 1.24 with S. D 0.56. Group B: Before treatment, the mean value was 1.64. After treatment the mean vale was reduced to 0.48 with S.D 0.7461. Statistical data shows in between groups P value is 0.0031 which is considered very significant. Vein dilatation and tortuosity are caused by *Rakta* aggregation and *vata* vitiation in the *Siras*. *Siravyadha* aids in the relief of *sira* swelling and congestion. Likewise *amrita guggulu* too.

Discoloration:

Group A: the mean value was 2 before treatment. After treatment, the mean value was reduced to 1.2 with S. D 0.5774. Group B: Before treatment, the mean value was 1.6. After treatment the mean vale was reduced to 0.48 with S.D 0.526. Statistical data shows in between groups P value is 0.0477 which is considered significant. *Siravyadha* acts on discoloration by the removal of stagnant *dushta rakta* which had cause *Sanga*. The intensity of *rakta dhatu* morbidity has decreased, which has resulted in an improvement in local colour change in both of the groups.

Percentage of Relief After Treatment:

The overall severity and relief in the assessment parameters are as follows, Pain group A after treatment 39.58% and group B is 77.58%. Itching after treatment group A is 40.62% and group B is 71.42%. Swelling after

treatment group A is 34.78% and group B is 64.7 %. Varicosities after treatment group A is 31.11% and group B 70.73%. Discoloration in Group A after treatment is 40% and group B is 70%.

Effectiveness of treatment between two groups:

Effectiveness of treatment between Group A and Group B was statistically analyzed by Mann Whitney U test. The treatment which is administered in Group B is more effective than in group A. Considered extremely Significant results in all criteria's in group B and group A. Among all the five criteria's in group A, % of relief is less in swelling than others. In group A, it is less in case of varicosities. When both groups are compared, it shows pain, itching and swelling has considered extremely significant results while varicosity is considered very significant and discoloration as significant.

Overall assessment was done after treatment and it was found that, one Patient in Group A (*Amrita Guggulu*) and three patients of group B (*Sirayadha*) got maximum improvement. 12 patients in group A and 15 patients in group B got moderate improvement.

DISCUSSION

Varicose veins are intently related to the signs and symptoms of *Siragranthi*⁴ in *Ayurveda*. Because of *Vataprakopaka nidana's* which include physical exertion and straining, vitiated *vata* enters the *Sira*, inflicting *Sampeedana*, *Sankocha*, and *Vishoshana*⁵, resulting in round and protruding *siragranthi*. Because of this *samprapthi*, *siravyadham* will make a big difference in medical manifestations of *Siragranthi*⁶.

The siras are the ashrayasthana of siragata vata. Due to apathya ahara and vihara, the dosha, particularly vata, becomes vitiated, obstructing blood flow in the siras of the lower limb. The kutila sira manifests in adho-kaya, which is a major seat of vata. As a result, tulya dosha and tulya desha produce the sickness and is durupakrama⁹, which means it is difficult to cure and has a long duration. Rakta, which moves in their own sira, conducts activities such as transferring nutrition to the tissue, as well as colour and a variety of other tasks. When rakta becomes vitiated, it accumulates in its own siras and presents a variety of ailments in the body, one of which is sirajagranthi, which has been linked to varicose veins.

Varicose veins can cause a variety of symptoms, including fatigue and painful sensation in the affected lower limb, particularly in the calf⁷, dilated and convoluted leg veins, swelling of the ankles in the evening, the skin over the varicosity may be itchy and discolored, eczema on the

afflicted area of the skin, ulceration of the veins^{8,10}.

Siravyadha is the remedy of choice for siragranthi by Acharya Vagbhata¹¹ and Acharya Sharangadhara. It is considered as Ardhachikitsa of Shalya Tantra which offers faster effects than snehadi karmas12. Vein dilation and tortuosity within the siras is due to the accumulation of rakta and vitiation of vata. Via repeated Siravyadha, swelling, discoloration, itching etc. in vicinity is reduced. This encourages quality circulation, which facilitates to the dissolution of coagulated blood. Siravyadham also relieves daha. Right here pitta daha shamana belongings of siravyadha play the function. Decrease in localized intravascular pressure consequences in reduction of daha. By puncturing and the ejection of static blood, tortuosity can be reduced which restores elasticity. In the siras, the accumulation of rakta and vitiation of vata causes vein dilatation and tortuosity. The local shotha and local congestion in the sira is reduced by siravyadha. It also aids in the reduction of venous pressure in the veins. This encourages adequate circulation, which helps to break up the stasis. It also relieves discomfort, nocturnal cramps, itching, ankle flare, and skin discoloration caused by vata and raktha in the siras. It also aids in the relief of vein tortuosity and dilatation.

Amrita guggulu is highly useful in sira granthi and helps to detoxify the blood. The key ingredient in the composition is Guduchi/Giloy. In sira granthi, guggulu and other drugs with srothosudhikaraka and vyadhihara rasayana properties are employed. Amrita guggulu is an important yoga that is developed from Bhaishajya Ratnavali and is referenced in Vatarakta Chikitsa. The combination and characteristics of the drugs employed in the preparation reflect the effectiveness of yoga in eliminating the margavarana. The results revealed a considerable reduction in dragging discomfort, as well as a significant reduction in skin discolouration and itching. There are obvious signs that circulation is improving. Improved circulation causes a reduction in margavarana, which reduces vata dosha morbidity.

Discussion on the Comparative Effect of Both Groups:

While comparing both the groups, there is statistically significant difference between Group A and Group B in the case of pain (U-536), itching (U-515.5), swelling (U-489), varicosities (U-449) and discoloration (U-397) statistically. Thus, Group B, with *Siravyadha* showed more results in main attributes like pain, itching, swelling, varicosities and discoloration. In group A *Amrita guggulu*, which is good in eliminating *margavarana* by proper circulation which is improved through the drug administration. Thereby it

reduces *vata dosa* morbidity. By doing *siravyadhana* there is reduction of pressure in the veins. So better results are seen in group B than Group A with *Amrita guggulu*. Out of 50 patients two Patients in Group A and one patient of group B got maximum improvement.12 patients in group A and 15 patients in group B got moderate improvement.

CONCLUSION

One Patient in Group A (*Amrita guggulu*) and three patients of group B (*Siravyadha*) got maximum improvement.12 patients in group A and 15 patients in group B got moderate improvement.

Effectiveness of Treatment based on Clinical sign and symptom on Pain in group A after treatment got 39.58% releif and in group B is 77.58% with p value < 0.0001. Itching after treatment in group A is 40.62% and in group B 71.42% relief with p value < 0.0001. Swelling after treatment in group A is 34.78% and group B is 64.7% relief with p value < 0.0001. Varicosities after treatment in group A is 31.11% and in group B, relief is 70.73% with p value < 0.0031. Discoloration in Group A after treatment is 40% and group B is 70% relief with p value < 0.0477.

Amrita guggulu is effective to reduce the signs and symptoms of varicosity and being a non-interventional management, it can be advised for patients of varicose veins those who are contra indicated for interventional managements like *siravyadha* etc.

Because *siravyadha* is quite efficient in lowering most of the signs and symptoms of varicosity in the lower limbs, it can be used as a stand-alone treatment for varicose veins or as a support to other treatments. Though the study was conducted with a limited sample size, the results cannot be considered final; further research with a larger sample size is required to fully comprehend the components.

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