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Case Study

Role of *Jalokaavacharana* in the Management of Varicose Veins (Sirajgranthi)- A Case Study

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ABSTRACT

When a vein becomes dilated, elongated and tortuous, the veins is said varicose. The common sight of varicosity are superficial venous system of lower limb effecting either long or short saphenous veins, oesophageal varices, varicosity of haemorrhoidal veins, varicosity of spermatic veins. Generally varicose veins are compared with *sirajgranthi* according to *Ayurveda*. Acharya Sushruta had described various types of *granthi* and its various treatment modalities among them *jalaaukaavacharana* is one of them. Sushruta had given special chapter related to *jalaauka* in which he had described the types, nomenclature, specific qualities of each types of *jalaauka*, their method to apply and detach and how to do *vamana* of *jalaauka*. Acharya Charak also described *jalaauka* as best amongst all *anushashtras*. *Jalaauka* possesses *sheet guna* in nature and on the basis of sign and symptoms varicose veins can be correlated with *sirajgranthi*. In this case study a 36- year old woman of bilateral varicose veins was treated successfully and found symptomatic relief.

Keywords: *Jalokaavacharana*, Medicinal Leech Therapy, varicose veins,

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INTRODUCTION

Varicose veins are abnormally thick, enlarged, swollen, twisted veins occurring most commonly on thighs and legs. The common symptoms of varicose veins are aching pain in calf and leg, ankle swelling, itching, and complications like eczema, superficial thrombophlebitis, and ulceration. Predisposing factors for varicose vein include prolonged standing, maladjustment to the evolutionary changes, constrictive tight clothing, femoral thrombosis and heredity. It was found that up to 15% of men and 25% of women have visible varicose veins.¹ The superficial veins and perforating veins, connects the superficial with deep veins. The primary causes of varicose veins are the incompetency of the valves and weakness in the walls of veins which causes venous insufficiency. Secondary varicose veins occur due to venous obstruction caused by pregnancy, tumours in the pelvis, fibroid, ovarian cyst and deep vein thrombosis etc. In *Ayurveda* classics varicose vein can be very much correlated with the signs and symptoms explained for *Sirajgranthi* (obstructive circulation). Due to *Vataprakopakanidanas* (causative

factors which increases *vata*) such as, physical exertion, straining, for debilitated persons the vitiated *vata* enters the *Siras* (veins) causing *Sampeedana* (Squeezing),

Sankocha (constriction), and *Vishoshana* (act of drying up) which produces round and protruded *Granthi* in the *Siras* (Veins), manifesting *Sirajgranthi* (varicose vein).² Hence *Ayurveda* reveals *Siravyadham* (vein section). *Jalaauka* are of mainly 2 types *savisha* (poisonous) application of which can cause poisonous effect on the body and *nirvisha* (non-poisonous) which is not harmful for the body and which can be applied on the body for therapeutic purpose. Both are again having 6 types and their detail description of each type of *jalaauka* given with how to identify the type of *jalaauka* and their quality. As *jalaauka* reside in water their main qualities are *shit* and *madhura* so mainly it should be used for *pitta Dushtarudhir*.^[3-4] In *Sushruta Samhita* there also description of best quality *jalaauka*, from where they should be collected (*Yavan Pradesh/ Pandya/ Sahya/ Pautan*), their method of application, their sign of proper applied on sight (*Ashwakhurvadana*) etc are also given. Acharya Charaka

also described *jalauka* as best amongst all *anushashtras*.⁵This case study has been taken for Understanding the alleviation of complaints of varicose veins.

CASE REPORT

46 year old housewife presented with nine months history of pain, swelling and dilated superficial veins in left leg came to Shalyatantra department of Akhandanandand Ayurveda hospital. Dull aching pain was present from calf to dorsum of the left leg. There was mild ankle swelling along with burning sensation and itching. Symptoms aggravated by long standing, after heavy work, during evening hours, relieved by elevation of the leg. There was no past history of trauma, diabetes, hypothyroidism, surgery and addiction. There was no history of venous thrombosis. On examination there was tenderness in left fore foot and calf *along with presence of bluish reticular veins. Mild swelling was noted at left ankle. No ulceration was noticed. Pain got relieved by elevation of legs. Mose's Sign (pain in the calf region on gentle squeezing of calf region) was slightly positive in the patient. The patient was subjected for jalaukavachara in both lower limbs with oral medicines like KaishorGuggulu and Arshakuthara Ras (Table-1).*

EXAMINATION:

Patient was treated at Shalyatantradepartment of Akhandanandandayurved hospital. Astavidha Pariksha and systemic examination was done. Routine Examination such as CBC, ESR, Serum Uric acid, RA factor, CRP, FBS, LFT, RFT, Lipid profile, TFT, CT, BT and Urine Routine Examination (RE) was within normal limits. Astavidha Pariksha was done. Nadi was of Pittaj type, Akriti of patient was Madhyama other examination such as Mala, Mutra, Jivha, Sabda, Sparsha and Drika was found normal. Severity of varicosity was classified as C3 category using CEAP (clinical- etiological- anatomical- pathophysiological) classification.⁶[Table 2]

Treatment Protocol:

On the day of admission internal medication was started using KaishorGuggulu 1gm with Arshakuthara rasa 500mg 2-2 tablets twice a day. Four sittings of Jalaukavacharana was planned once in a week for one month. Patient was advised to continue oral medicines at home during jalaukavacharana and after four sittings of jalaukavacharana also for one month. The overall reduction in Pain, burning sensation, swelling, tortuosity and skin changes were graded based on patient's presentation and physician's observation and were manually documented (Table-3,4).

Table 1: Key ingredients of the formulations used;

Name of Formulations	Ingredients
Arshkuthara rasa	Parad, gandhak, lauhabhasma, abhrakhabhasma, bilva, chitraka, vatsanabha, maricha, danti, tankan bhasma, yavaKshara, saindhavalavana, gomutra, and snuhiksheer
KaishorGuggulu	Triphala, Guggulu (Comiphoramukul), Guduchi (Tinospora cordifolia), Vidanga (Embeliaribes), Danti (Baliospermummontanum), Trivrit (Operculinaturpethum)

Table 2: CEAP Classification

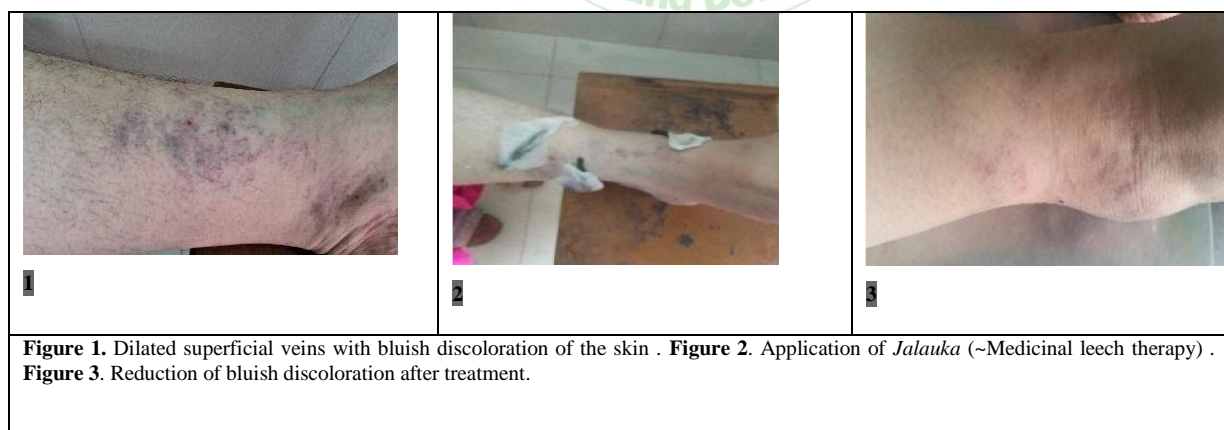
CEAP Clinical Score	Description
Class 0	No visible or palpable signs of venous disease
Class 1	Telangiectases or reticular veins
Class 2	Varicose veins
Class 3	Edema
Class 4	Skin changes ascribed to venous disease (e.g. pigmentation, venous eczema, lipodermatosclerosis)
Class 5	Skin changes as defined above with healed ulceration
Class 6	Skin changes as defined above with active ulceration

Table 3: Subjective parameters:

Grade	Explanation
Shoola	
0	Absent (No pain)
1	Mild (Occasional pain after long exertion)
2	Moderate (Frequent pain)
3	Severe (Continuous pain throughout day)
Daha	
0	Absent (No complaints of Daha)
1	Present (occasional or often feeling of Daha)

Table 4: Objective parameters:

Grade	Explanation
Shotha (oedema)	
0	Present (no oedema)
1	Absent (mild to moderate oedema)
Tourtisity	
0	Absent (No dilated veins)
1	Mild (Few dilated veins after exertion)
2	Moderate (Multiple veins confined to calf or thigh)
3	Severe (Extensive involving both calf and thigh)
Skin changes	
0	Absent (No discolouration)
1	Mild (Blackish patchy hyper pigmentation)
2	Moderate (Hyper pigmentation with eczema)

**Procedure of Jalaukavacharan:****Poorvakarma (Pre operative procedure):**

- Written consent of patient taken
- All pre procedure investigation like RBS, BT, CT was done and they were under normal range
- Patient was explained about the procedure
- All instruments required for procedure were prepared

- *Jalauka* activated

Pradhankarma (Main procedure):

- 3 *jalauka* in each leg applied on the most effected site, where the maximum tourtousity and pain found
- *Jalauka* applied there for approx. 45 minutes.
- Some of *jalauka* detached itself and some of them were detached by applying *haridra* on it's mouth.

- Patient have complains of burning at the sight
- Proper bandage done to avoid post procedure bleeding

Paschat karma (post procedure):

- Haemostasis achieved
- Proper *vaman* of *jalaauka* done

- After *vaman*, *jalaauka* stored in its container with label of name of patient with date
- Patient was advised for proper position of the leg
- Diet and regimen advised to patient.

Table 5: Weekly relief in subjective and objective parameters:

Symptoms	Day 1	1 st week	2 nd week	3 rd week	4 th week	8 th week
<i>Shoola</i>	3	2	2	2	1	1
<i>Daha</i>	2	1	0	0	0	0
<i>Shoth</i>	1	1	1	0	0	0
tourtousity	3	3	3	2	2	1
Skin changes	2	2	2	2	1	1

DISCUSSION:

During two months of treatment, patient underwent four times *jalaaukavacharana* with internal medicines in first one month and during 2nd month patient was on internal medicines. The assessment was done by weekly interval by assessing the subjective and objective parameters (Table-5). In recent days leech therapy has been legally approved in some western countries such as Europe and Germany. Symptoms of varicose vein resembles with *Sirajagranthi* in Ayurveda. *Sirajagranthi* shows symptoms like *SiraSankocha*(~tortuous vein), *SiraVakrata*(~irregular surface and twisting of vein), *SiraUtsedha*(~elevation of vein), *Vishoshana*(~rough and hard vein). Accumulation of *Rakta* and vitiation of *Vata* leads to the dilation and elevation of veins along with tortuosity and pain. *Raktamokshana* (bloodletting) is the most common treatment of choice where there is involvement of *Raktadushti*. *Jalaaukavacharan* is one of the types of *Raktamokshana*. *Jalaauka* is also indicated in the *Grathitha* and *AvagadhaRakta*(~clotted and thick blood). Leech's saliva has analgesic action, blocking certain steps of the regular pain evolving cascade by counteracting cytokines with anti-inflammatory agents.⁷ Saliva of leech contains histamine, serotonin, steroid hormones, enzymes, protease inhibitor and anti-microbial agents along with hirudin, factor Xa inhibitor, destabilize and hyaluronidase which have anticoagulant, thrombolytic, vasodilator, anti-inflammatory effects and also helps to enhance the blood circulation. No any complications like bleeding, hematoma etc. were seen after the application of leech. *Jalaaukavacharan* results in local hyperaemia, increases the permeability of the cell and improves tissue regeneration and blood circulation.⁸ *Arshakuthara rasa* is also helpful in relieving the tourtousity as *arsha* and varicose veins having same pathology.⁹ *KaishorGuggulu* is also effective in relief of pain due to its antiinflammatory action.¹⁰ After two months of treatment and 4 sittings of *jalaaukavacharana* there was

complete relief in *daha* and *shotha* (oedema) and marked improvement in the *shoola* (pain), tourtousity and skin changes.

CONCLUSION:

Hence Combined effect of local *Jalaaukavacharan* (Leech application) and oral /systemic Ayurved formulations are said to be effective in the management of *Sirajgranthi* (Varicose veins). This case study indicates that when treatment is done on the basis of Ayurveda guidelines significant improvement can be obtained. The results need to be studied in more number of populations for better.

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