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Case Report

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# A CASE REPORT ON THE EFFECTIVENESS OF JALAUKAVACHARAN IN THE MANAGEMENT OF VARICOSE VEINS

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#### **ABSTRACT**

Varicose veins is the venous pathology of the veins with dilated, tortuous and elongated superficial vein with reversal of blood flow due to incompetence of valves. It is one which has permanently lost its valvular efficiency. Prolonged standing, obesity, old age, pregnancy form the etiological factors for varicosity. Nowadays changed lifestyle and work pattern i.e prolonged standing, obesity also cause the varicose veins. Venous pathology develops when venous return is impaired due to primary muscle pump failure, venous obstruction and valvular incompetence. <sup>[1]</sup> In Ayurveda the varicose veins is correlated to *Siraaj Granthi* which has been described by *Acharya Sushruta* also

mentioned by *Madhavakar* and *Bhav Mishra*. When a *durbalavyakti* does *vyayam* it leads to vitiation of vata in venous network making the *Siraa* i.e veins tortuous and dilated. Further *Ayurveda* mentions the treatment for venous pathologies by *Jalaukavacharan* i.e. application of leech. In this article a case report of 55 years old female patient who came to OPD with the complaints of muscle cramps, pain and swelling in both legs has been discussed. On examination it was revealed that the patient has varicose veins on both lower limbs. Along with oral medication and proper diet *Jalaukavacharan* was done weekly for 1 month and then with 15 days gap for 2nd month. The clinical signs and symptoms of varicosity were reduced after the application of *Leech* i.e *Jaluakavacharan*.

**KEYWORDS:** Varicose veins, siraaj granthi, jalaukavacharan.

#### INTRODUCTION

When a vein becomes dilated, elongated and tortuous it is said to be varicose. <sup>[2]</sup> It presents with visisble dilated veins in the leg with pain, nocturnal pain, feeling of heaviness, musclefatigue, throbbing heavy legs, soreness, burning, itching. Often there is pedal oedema, pigmentation, dermatitis, ulceration, tenderness, restricted ankle joint movement and bleeding. It is more common in females (10:1) The adult prevalence of varicose veins is 25-30% in women and 15% in men. The Edinburgh Vein Study shows the prevalence of trunk varicosities in the group 55-64 years was 55.7%. <sup>[3]</sup>

The predisposing factors are prolonged standing, obesity, pregnancy and old age. The common sites where varicosity is seen are:

- 1) Long Saphenous or short Saphenous vein or both.
- 2) Oesophageal varix.
- 3) Varicosity of haemorrhoidal veins.
- 4) Spermatic Vein.

#### **PATHOLOGY**

Under the normal conditions blood from superficial venous system is passed to the deep veins through the competent perforators and from the deep veins the blood is pumped up to the heart by the muscle pump, competent valves and negative intrathorasic pressure. But if this mechanism breaks down, either due to destruction of the valves of deep veins or of the superficial venous system the blood becomes stagnant in superficial veins and thus they become distended and tortuous.

#### **SYMPTOMS**

- 1. Commonest symptoms is tired and aching sensation in the affected lower limb especially in the calf at the end of the day.
- 2. Pigmentation over affected areas.
- 3. Heaviness in lower limb.
- 4. Muscle fatigue.
- 5. Itching over affected region.

The palliative treatment in Modern Science includes avoidance of prolonged standing, crepe bandage or elastic stockings, keeping the limbs above heart level while sleeping or sitting.

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The operative treatment includes ligation while other treatment are injecting Fegan's Injection and compression treatment.

In Ayurveda Varicose Veins has been correlated with *Siraaj Granthi* described by *Acharya Sushruta*, *Madhavakar* and *Bhav Mishra*. [4,5,6]

#### Siraaj Granthi

In *Durbalavyakti* due to *vyayam* or strainous work leads to the *prakop* of *vatadosha* compressing and squeezing the venous network making the vein raised and circular. In the treatment of Varicose veins Acharya Sushruta<sup>[7]</sup> and Vagbhatta<sup>[8]</sup> has mentioned *Jalaukavacharan* for the treatment of venous disease.

#### **MATERIALS AND METHODS**

Simple Random Single Case Study.

#### **CASE REPORT**

A Female patient XYZ of 55 years old came to OPD with the complaints of pain in both legs, nocturnal cramps, fatigue of both lower limbs. While ruling out history the female had occupation which required prolonged standing. On examination of the patient tenderness was present in the calf region along with palpable tortuous veins near the populated fossa of both the lower limbs. The pain aggrevated on standing for long time.

Patient was started *Kachanar Guggul* 250 mg TDS, *Triphala Guggul* 250 mg TDS along with *Maharasnadi Kwath* 40 ml BD. Along with it *Jalaukavacharan* was started once a week for 1 month. Follow up was taken weekly. *Jalaukavacharan* was carried out after 15 days for 2nd month. The patient was also advised to follow dietary changes.

#### **RESULT**

The clinical symptoms of varicose veins showed fall from the 2nd week of treatment. There was improvement in the nocturnal muscle cramps, fatigue of both lower limbs by the end of 1st month. The pain of both lower limbs reduced by the end of 2nd month. Tenderness and dilated tortuous veins also reduced by the end of 2nd month. The tortuous veins were no longer palpable.

Table I: Follow up.

Symptoms	1 <sup>st</sup> WEEK	2 <sup>nd</sup> WEEK	4 <sup>th</sup> WEEK	6 <sup>th</sup> WEEK	8 <sup>th</sup> WEEK
Nocturnal cramps	+++	++	+	-	-
Fatigue	++	+	-	-	
Tortuous palpable veins	++	++	+	+	-
Pain in both lower limbs	++	++	+	+	_





Before (Fig. I)

After (Fig. II)

#### DISCUSSION

*Jalaukavacharan* forms the safe alternative with minimum pain to the Modern treatment of Varicose veins. In Ayurveda amongst the *Raktamokshana* techniques application of *Jalauka* forms an easy method for the delicate people without much complications. As the *siraa* form the *updhatu* of *Rakta* the treatment of *raktamokshana* by *Jalauka* is beneficial.

Jalauka i.e leech belongs to the Hirudinea family. The Latin name of Leech is Hirudo Medicinalis which is used for medicinal purpose while the other is Hirudo Detrimental which has poisonous effects. When the leech is applied on the affected parts it starts sucking blood helping to reduce the raktadushti. During this the chemical substance called Hirudin gets secreted from salivary glands. Along with Hirudin other substances present in saliva also help to cure varicosity.

### Composition of Leech Saliva<sup>[9]</sup>

- 1) **Hirudin:** anti-coagulant that binds with thrombin and thus inhibits blood coagulation.
- 2) Calin: anti-coagulant that blocks the binding of Von-Willebrand factor to collagen.
- 3) Destabilase: dissolves fibrin.
- 4) **Bdellins:** anti-inflammatory effect.
- 5) Eglins: anti-inflammatory effect.
- **6)** Acetlycholine: vasodilator.

#### 7) **Histamine like component:** vasodilator.

Thus the application of Leech has anti-coagulant, anti-inflammatory and vaso dilatory action on the varicosity and thus it helps in management of varicose veins.

#### **CONCLUSION**

The clinical symptoms of varicose veins started improving by the 2nd follow up i.e after 15 days and were totally reduced after the end of the 2nd month with the Jalaukavacharan. The internal medicines given had vata-kapha pacifying action Thus, this case report shows that Jalaukavacharan has effect in the management of varicose veins with cost effective way and less invasion.

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