

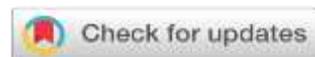
**ROLE OF JALUKAVACHARANA (LEECH THERAPY) AND KARANJA PATRA LEPA PRAYOGA IN THE MANAGEMENT OF VARICOSE ULCER- A CASE REPORT**Akhila.C<sup>1</sup>, Binitha.A<sup>2</sup><sup>1,2</sup>Department of Panchakarma, VPSV Ayurveda College, Kottakkal, Kerala, India.Corresponding Author: [akhilavinu208@gmail.com](mailto:akhilavinu208@gmail.com)<https://doi.org/10.46607/iamj4310122022>

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**ABSTRACT**

Venous ulcer is the common and recurrent form of leg ulcer encountered in general practice which occurs due to chronic venous insufficiency. Around 70 to 90% of chronic leg ulcer is of venous origin. If this ulcer is left untreated or not properly treated, it can lead to cellulitis, gangrene, and even amputation of the affected limb. Conventional treatments include supportive care such as wound dressing, elastic bandages, compression stockings, and physical exercises apart from medications like antibiotics, dietary supplements, and non-steroidal anti-inflammatory drugs. Surgical interventions though effective are not always affordable. Ayurvedic medicines have proven their potential in many chronic and challenging disorders. In Ayurveda, this condition is clinically correlated with *Dushta Vrana*. To achieve good approximation and early healing of ulcers Sushruta described *Shasti upakramas*, in which he has explained *visravana* by *Raktamokshana* and *lepana* as important *upakramas*. In the present study patient with a chronic nonhealing ulcer has undergone repeated *Jalukavacharana* therapy and *karanjapatra lepana* to achieve a healthy granulated wound bed and the wound was successfully treated and therefore discussed in detail.

**Keywords:** Varicose ulcer, *Dushta vrana*, *Jalukavacharanam*, *Karanja patra lepanam*.**INTRODUCTION**

An ulcer is a break in the continuity of skin or covering epithelium<sup>1</sup>. Venous ulcer is defined as full thickness

defect of the skin most frequently in the medial aspect of the ankle region that fails to heal spontaneously and

is sustained by chronic venous disease<sup>2</sup>. It is the commonest ulcer of the leg caused by venous hypertension. It is most common in those aged 65 years and older. However, the incidence and prevalence have not been well established, the annual prevalence of venous leg ulcers among the elderly was 1.69. The overall incidence rate was 0.76 for men and 1.42 per 100 person – year for women<sup>3</sup>.

Venous ulcers can be of any size and shape. It can be vertically oval with a sloping edge, the floor is formed with pale granulation tissue, the base is fixed to a deep structure, and adjacent skin shows pigmentation, induration, and often tenderness. Discharge is usually seropurulent and with intact peripheral pulses<sup>4</sup>. The aetiology of varicose ulcers was increased intravenous pressure, secondary to DVT, chronic constipation, long-standing occupation, etc. which leads to increase in intravenous pressure which damages the venous walls, results in stretching, loss of elasticity, hyperlipo-dermato sclerosis and finally ulceration<sup>5</sup>. Varicose ulcers have more recurrence rate and many patients seeking treatment are seen with a history of relapse and non-healing wounds.

In Ayurveda varicose vein can be correlated to *siragranthi* and over a period it may lead to venous ulcer – *dushtavrana* as it having *deerghakaalanubandhitwa*, *pooyasrava* and *krishna rakta varna* features<sup>6</sup>. A venous leg ulcer can be susceptible to microbial infections which delay healing and are responsible for the formation of *dushtavrana*.

Acharya Susrutha was quite aware of the importance of *vrana chikitsa* and has described *shashtirupakrama* (sixty measures) for *vrana* management<sup>7</sup>. The drugs for the management of *vrana* are broadly classified into *vrana sodhana* and *vrana ropana*<sup>8</sup>. Among these, *Lepana* (topical application) is the first and foremost one as it has strong *sodhana* and *ropana* property<sup>9</sup>. He has also given utmost importance to *visravana* (blood-letting therapy) and considered *jalookavacharana* (leech therapy) as the most unique, effective method of bloodletting even in infected wounds and in abscess management to relieve pain and inhibit suppuration<sup>10</sup>.

## PATIENT INFORMATION

A 56-year-old male, running a hotel was admitted to IPD of VPSV Ayurveda College, Kottakkal with complaints of non-healing ulcers at the medial malleolus of bilateral leg for 5 years associated with swelling and blackish discoloration of limbs for 5 years.

**Brief history** – Initially he developed varicose veins on the left leg followed by hyperpigmentation and oedema of the left foot and a small sore at the medial malleolus of the left leg, which eventually burst and developed into an ulcer. But he ignored it. Later the same presentation appeared in the right leg also. Then the patient consulted a physician who suggested doing a Duplex scan of both the LL Venous system and Lymphoscintigraphy. From the report, evidence of DVT was ruled out. The pus culture and sensitivity test reported heavy growth of pseudomonas species. He was prescribed antibiotics and topical antiseptic cream. There was pain around the ulcer associated with scanty, seropurulent, non-foul-smelling discharge from the ulcer. The pain and swelling worsened with erect posture and were relieved in lying down position. The patient also had a burning sensation of bilateral LL(R>L). His bowel and bladder habits were regular and had a normal appetite, but his sleep was disturbed due to pain.

**Past medical history** – History of hypothyroidism for 11 years and was under medication.

## CLINICAL FINDINGS

### General examination :

- ✓ General condition and appearance – well built
- ✓ Weight – 88 kg
- ✓ Height – 160 cm
- ✓ Body built- obese (BMI – 34.4 kg/m)
- ✓ The skin of the bilateral lower limb – is blackish & oedematous
- ✓ Vitals of the patient -stable
- ✓ Prakriti- kapha pitta

### Physical examination:

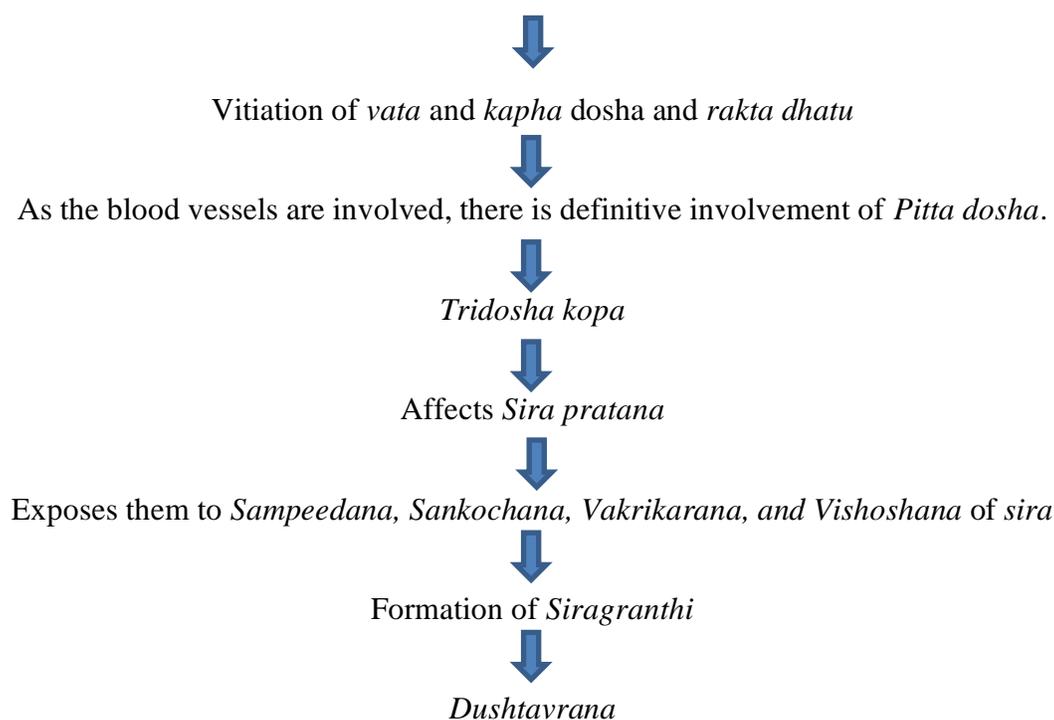
- ✓ In the standing position – long, tortuous, dilated veins were seen in the bilateral lower limb(left>right).
- ✓ Skin – hyperpigmented(blackish) in bilateral lower limb

- ✓ Diffuse ulcers with irregular margins and purulent discharge in bilateral lower limb
- ✓ On palpation – mild tenderness around the ulcer and calf tenderness present
- ✓ Mild increase in local temperature around the ulcer.
- ✓ Dorsalis pedis arterial pulsation – intact.
- ✓ No neurological deficit noted

**Pathogenesis (Samprapti) –**

### Nidana seva

Regular intake of *vidaahi, guru, snigdha, abhishyandi ahara* vitiates both *Rakta* and *Kapha Atyasana* (prolonged standing) and *Atichankramana* (prolonged walking) leads to *Vata prakopa*



**Diagnosis-** from the detailed history and ancillary investigation, the case was differentiated from other causes of leg ulcers such as diabetic, neuropathic, arterial, and tubercular ulcers.

### Therapeutic intervention

Internal medications	External procedures
1. Guggulu tiktakam kashyam+ punarnavadi kashyam – 90 ml bd	1. Patolamooladi <b>kashaya dhara</b> (adhakayam)- 7 days
2. Avipathi choornam – 1 tsp with 6 am kashayam	2. <b>Virechanam</b> with patolamooladi kashayachooranam (10gm) + 60ml hot water
3. Amrutha guggulu gulika – 2 tablets with 6 pm kashyam	3. <b>Jalookavacharanam</b> – total 4 sittings
4. Guggulu panchapala choornam – 5gm bd with hot water	4. <b>Karanjapatra lepanam</b> – 15 days
5. Dasamoola kashaya choornam–for yavagu preparation- daily night	

### Discharge medicines

Medicine	Dose	Time
Guggulu tiktakam kashayam	90 ml	6 am
Avipathy choorna	1 tsp	Along with 6 am kashayam
Manjishtadi kashayam	90 ml	6 pm
Kaisora guggulu gulika	2 tablets	Along with 6 pm kashayam
Gomutra arkam+ water+ dasamoolarishtam	5ml+5ml+15ml	Noon after food
Dasamoolam kanji + 1 pinch Aviltholadi bhasmam		Night

Along with this, lifestyle modifications and selfcare were also advised and he was advised to report after one month.

### Follow-up medicines

Guggulu tiktakam kashayam	90 ml at 6 am
Avipathy choorna	1 tsp along with Kashayam at 6 am
Manjishtadi kashayam	90 ml at 6 pm
Kaisora guggulu gulika	Along with 6 pm Kashayam
Dasamoolam kanji + 1 pinch Aviltholadi bhasmam	Night

### Follow-up assessment and Outcome of intervention

Pictures of the ulcer and affected legs were taken at the time of commencement of the treatment successively after the procedures and on every visit and the consequent observations were noted. Then matched with the baseline status which showed a substantial improvement in the ulcer following the therapy. No adverse effects pertaining to the prescribed medicines were reported.

### DISCUSSION

Varicose ulcers and their complications are common recurring problems. The main challenge was to promote the healing of the wound. Therefore, initially, proper cleaning therapy should be carried out to initiate the healing process. Conservative management consists of the application of elastic stocking, elevation of the leg at rest, and calf muscle and ankle exercises. Ayurvedic medicines have proven their potentiality in many chronic and challenging disorders. In the presenting case drugs possessing *vrana ropaka* (wound healing), *vrana sodhaka* (cleansing of the wound), *rakta sodhaka* (blood purifier), *sothahara* (anti-inflammatory), and *rakta prasadana* properties were selected<sup>11</sup>.

*Guggulutiktakam kashayam* possesses blood-purifying, anti-inflammatory, and anti-infective properties. It has direct indication in *nadivrana* as it is *KV hara*, *kledahara*, *chedaniya*, *leghaniya* and has both *vrana sodhana* and *vrana prasadana* property<sup>12</sup>. By considering the signs and symptoms there is the involvement of *pitha* and *rakta dosha* and hence *virechana karma* is selected. *Nitya virechana with avipathy choorna* was thus advised as it stimulates the *dhatugata agni* (digestive and assimilation capacity). The osmotic effect seen by the laxative action in the gut to suck the extra fluid retained anywhere in the body helps in wound healing. *Amrutha guggulu* is directly indicated in *dushtavrana* as it is *rasa rakta medo prasadana*, *srothosodhana*, *kledahara*, and *vrana ropana* in nature. *Guggulupanchapala choorna* is yet another formulation directly mentioned in *nadivrana chikitsa* and it possesses anti-inflammatory and antioxidant property and thus aid in the healing of ulcers. At the time of discharge along with these medicines, *Manjishtadi Kashaya* and *Kaisora guggulu* were also added. *Manjishtadi Kashaya* though indicated in *vatarakta chikitsa*, it is especially *KP samana* with *rakta prasadana* property. It enhances wound healing. *Kaisora-guggulu gulika* acts as an immunomodulator with anti-inflammatory action and also aids in *vrana ropana*.

## KRIYAKRAMAS

- **KARANJA PATRA LEPA** -In Ashtangahrudaya Sutrastana 15th adhyaya, Arkaalarkadi gana is mentioned which includes *Karanja* (Indian beech)

Rasa	Katu, tikta, Kashaya
Guna	Laghu, teekshna
Veerya	Ushna
Vipaka	Katu

which possess both *Krmikushtaprasamana* and *Viseshat vranasodhana* property.

- KARANJA- *Pongamia pinnata*
- FAMILY – Fabaceae

- ✓ **Preparation** – fresh leaves of this plant were collected every day and cleaned using water. Made into a paste by grinding in khalwa yantra.
- ✓ **Dosage form** – *kalka (pradeha)*
- ✓ **Thickness** -3-4 mm
- ✓ **Dosing schedule** – 15 days
- ✓ **Mode of administration** – topical application
- **JALOOKAVACHARANA**
- ✓ *Jalaukavacharana* has a comprehensive therapeutic influence in reducing inflammation, pain, Srava (exudates), and vitiated doshas. It stimulates granulation tissue in the wound bed which has good healing properties<sup>13</sup>. Leech saliva contains the following chemical substances which promote healing. **Bdellins** are found to have anti-inflammatory action at the wound site. **Hyaluronidase** is found to have antibiotic properties over the tissues. **Carboxypeptidase A – inhibitors** increase the blood flow at the wound site. **Histamin and Acetylcholine** substances present in the saliva of Jalauka are found to act as Vasodilatation on the smaller vessels over the site of application. All the properties like anti-inflammatory, antibiotic, and vasodilatation increase blood flow and are very much helpful to heal a wound. All these properties are present in the saliva of leeches which helps in proper nourishment, oxygen supply, and removing the toxic substances from the site of the wound<sup>14</sup>.

## Images

### 1.First visit



### 2.After dhara



**3.JALUKAVACHARANA – 4 SITTINGS**



**4.At the time of discharge**



**5.Follow up after 1 month**



## CONCLUSION

To treat conditions like chronic non-healing ulcers where the pathogenesis is so much advanced, it is always preferable to follow the concept of Ayurveda treatment. Ayurvedic medicines have proven their potentiality in many chronic and challenging disorders. Venous ulcers can be correlated with **dushtavrana** and among the shashtirupakramas, the procedures **vis-ravana** (bloodletting) and **lepana** (topical application) have been given much importance. This Case Report shows Jalaukavacharana and karanjapatra lepana is highly effective in the treatment of chronic non-healing ulcers. As it is also cost-effective and has fewer complications so always can be preferred in such cases.

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