

MANAGEMENT OF VARICOSE ULCER WITH JATYADI TAILA AND SARIVADIGHANA VATI: A case Report

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ABSTRACT:

Venous ulcers are open sores in the skin that occur with sustained venous hypertension and malfunctioning of venous valves, usually of the lower limbs. Ulcers develop in areas where blood collects and pools, as swelling there interferes with the movement of oxygen and nutrients through the tissues. Eventually, a visible ulcer develops on the skin. It is one of the most serious chronic venous insufficiency complications, accounting for 80% of lower extremity ulcerations. If it is left untreated, venous ulcers can quickly become infected, leading to cellulitis or gangrene and the risk of foot or leg amputation.

Conservative management for varicose ulcers includes compression therapies, foot elevation, oral antibiotics, regular dressing of the wound. Surgery may be performed for chronic venous insufficiency that fails to respond to other therapies, or for non-healing or infected venous ulcers. surgical management includes ultrasound-guided foam sclerotherapy, ELVA (Endo Venous Laser Ablation), RFA (Radio Frequency Ablation), Saphenofemoral ligation, and long saphenous vein stripping, skin grafting, etc. However, recurrence of venous ulcers is common, ranging from 60 to 70% of patients.

As per the Ayurveda perspective, varicose ulcers can be correlated with “*Sira jayna dusta vrana*”. In Sushrut Samhita, where we get the description of various wounds and its management, so these kinds of the wound can be managed with the specific Ayurvedic adjuvant therapies.

A 55-years old male patient having chief complaints of non-healing ulcer on the left ankle with pain and swelling in the left lower limb, was clinically diagnosed as a case of Varicose ulcer. The patient was treated with a specific regimen such as *Jatyadi taila* for local application once daily and *Sarivadi ghanvati* 250mg 2BD orally. The parameter observed for prognosis were pain, size of the ulcer, edema, hyperpigmentation, and granulation tissue was assessed during the treatment. Therapeutic evaluation of treatment was done based on improvement in the symptoms.

The observations showed remarkable improvement in terms of pain, size of the ulcer, edema, hyperpigmentation, and granulation tissue. This Observational case study revealed that *jatyadi tail* (local application daily for 8weeks) along with *sarivadi ghana vati* (internally) provided significant relief in symptoms of a varicose ulcer.

Key words: *Sariva ghana vati*, *Jatyadi taila*, Varicose ulcer management, *Vrana upakarma*, *Sira janya dusta vrana*.

INTRODUCTION:

Varicose ulcer (static or venous ulcer) is a type of chronic leg wound caused by venous insufficiency that affects 0.5 to 2.2% of the adult population and 3 to 5% of those over 65 years

old^[1]. Overall, 93% of Varicose ulcers heal within 12 months, but the remaining 7% persist for 5 years or more. The recurrence rate within 3 months after wound closure is approximately 70%^[2]. Venous leg ulcers most often occur in the gaiter region of the lower leg, from just below the ankle up to mid-calf. They are defined as any break in the skin that has been present for at least six weeks or occurs in someone with a previous history of venous leg ulceration (Norman et al, 2016).

The most common aetiological factors of venous ulcers include chronic long-standing cases of the varicose vein causing valve incompetence, venous hypertension, inflammatory processes resulting in leukocyte activation, endothelial damage, platelet aggregation, and intracellular edema. Venous hypertension causes damages to capillaries of the skin and subcutaneous tissues making them 'glomerulus-like'(convoluted) resulting in a fibroid process called lip dermatosclerosis from capillaries proliferation and inflammation which if uncontrolled progress into venous ulceration.^[3]

The primary risk factors for venous ulcer development are older age, obesity, previous leg injuries, deep venous thrombosis, and phlebitis.

On physical examination, venous ulcers are generally irregular, shallow, and located over bony prominences. Granulation tissue and fibrin are typically present in the ulcer base. Associated findings include lower extremity varicosities, edema, venous dermatitis, and lip dermatosclerosis. Venous ulcers are usually recurrent, and an open ulcer can persist for weeks to many years. Severe complications include cellulitis, osteomyelitis, and malignant change. Poor prognostic factors include large ulcer size and prolonged duration. The current conventional pattern involves a combination of topical dressings, compression therapy, foot elevation, and antibiotics. Surgical management may be considered for ulcers that are large in size, of prolonged duration, or refractory to conservative measures. Surgical management consists of ultrasound-guided foam sclerotherapy, ELVA (Endo Venous Laser Ablation), RFA (Radio Frequency Ablation), Saphenofemoral ligation and long saphenous vein stripping, skin grafting, etc.^[4]

In Ayurveda, the comprehensive management of all *vranas* (wounds) is exclusively described by Acharya Sushruta under *shashthi upakarma* (sixty procedures).^[5] He has described wound from their different aspects right from the definition, causes, types, and their management in detail. In the classification and types of *vranas*, he mentioned the term *Dushtavrana* which is having similar clinical features to the non-healing type of chronic wound according to present medical science. Acharya Sushruta has also explained about *vranas* (wounds) which are present in lower extremities eliminated (pus etc) from below in the upper direction (anti-gravity drainage) are difficult to cure. There are a lot of different drug formulations, described for *vrana ropan* (wound healing) according to its site, types, chronicity but the management of *vranas*, particularly *dustavranas* (nonhealing ulcers) is still a challenge for treating surgeons. *Jatyadi taila* has *vrana ropaka* (wound healing) and *vrana shodhana* (wound cleansing) properties which promotes wound healing. *Sira* and *Snayu* are bi-product (*upadhatu*) of *Rakta* (blood) and '*Sariva ghana Vati*' (*Hemidesmus Indicus*)^[6,7] have *raktaprasadnya* and *shodhak* (blood purification), *rakta vardhak* (improves haematopoiesis) and *shothhar* (anti-inflammatory) characters. It also provides strength to the blood vessels, thus venous valvular dysfunction.

CASE REPORT-

In this study, A 55 years old male patient, with chief complaints of - Pain and Swelling over the Left lower leg, Infected wound on the medial aspect of the left leg, Skin discoloration, and Serous discharge from the wound, for 1 year, visited shalya tantra outpatient department for Ayurveda management. The patient has been working as a waiter and had a history of prolonged standing.

A brief history (including onset and progress)- The patient has been suffering from the above symptoms for the last 1 year. The patient was on allopathy treatment from local doctor 3 months back but did not get any relief and the wound got infected further. The patient's brief history did not reveal evidence of Diabetes, Hypertension, Asthma, Tuberculosis, Heart disease, or any other major illness. Similarly, there was no history of any previous surgery. The patient was hemodynamically stable.

The General examination (On day 1) All the vital parameters were within normal limits. Hb – 13 gm/dl, WBC – 8,500 /cu mm of blood, RBSL – 120 mg/dl, ESR – 14 mm /hour, Viral Markers– Negative, Coagulation profile– Normal, X-ray left leg – Essentially normal study.

On Local Examination- (On day 1): Site of ulcer - Medial aspect of left lower limb; Size of ulcer – 4.2 x 3.5 x 0.5 cm; Shape- round; Smell – Foul smell+; Discharge: + +; Hyper pigmentation: +++; Epithelisation: +; Granulation Tissue: +; Edges: Fibrosed, Sloping; Ankle flare – Positive; Local Temperature: Normal; Arterial Pulsation: Dorsalis pedis and post tibial – Normal.

Diagnosis: Nonhealing varicose ulcer left lower limb. (*Sira janya dusta vrana*)

OBJECTIVES OF STUDY:

To evaluate the clinical efficacy of *Sariva ghana vati* and *Jatyadi taila* adjuvantly in management on the parameters of varicose ulcer, i.e.pain, size of ulcer, hyper pigmentation, granulation tissue, edema.

TYPE OF STUDY: Single Interventional Case Study.

MATERIALS & METHODS:

SOURCE OF DATA: A single case study had taken upon the management of varicose ulcers. The Patients with MRD No. (OPD/2016/100801) were collected outpatient department of Shalyatantra of D.Y Patil Ayurvedic hospital by simple random sampling procedure, fulfilling the selection criteria.

DRUG AND DOSAGE:

Local application of *Jatyadi taila* dressing once daily.

Sariva ghana vati 250mg 2TDS orally.

Duration – 6 weeks

After the assessment of prognosis with therapy was observed. Proper counseling, written informed consent were recorded after an explanation of the proposed line of treatment, following International Council for Harmonised Tripartite Guideline. After that patient's wound was washed with Normal Saline. Thereafter dressing with guage piece soaked in *Jatyadi taila* is done daily for 6 weeks. During the treatment, the assessment was done on Day-01, Day-07, Day-14, Day-21, and Day-30. The patient was advised to take "*Sariva Ghana vati*" (Hemidesmus Indicus)-250mg (Two tablets three times a day) internally.

Clinical features were recorded before the treatment that is on zero-day. Changes with the treatment were observed from 1st week till 6th week.

Follow up: Patients were advised to come to the hospital for daily regular dressing for up to 4 weeks and further follow up after 2 weeks. Clinical observations were recorded systematically and thoroughly.

Advice: Above-knee stockings, protein-rich diet, two pillows leg elevation, avoid dressing soakage, avoid barefoot long-term standing or walking.

PARAMETERS:

Parameters	Grade			
Ankle Oedema	Baseline 100 %	3=75%	2=50%	1=25%
Hyperpigmentation	Baseline 100 %	3=75%	2=50%	1=25%
Size of ulcer (cm)	Baseline 100 %	3=75%	2=50%	1=25%
Granulation tissue	Baseline 0 %	1=25%	2=50%	1=25%
Pain	Baseline 100 %	3=75%	2=50%	1=25%

Table 1: Observational parameter in gradation

OBSERVATION:

Parameters of observation included Ankle oedema, Hyperpigmentation, Size of ulcer, Granulation tissues, and relief in Pain. The patient was observed on the above parameters every week for 4 weeks and further follow up on the 6th week.

Parameters	1 st week	2 nd week	3 rd week	4 th week	6 th week
Ankle edema	Baseline 100%	50%	25%	10%	0
Hyper granulation	Baseline 100%	75%	50%	50%	50%
Size of ulcer	Baseline 100%	75%	50%	25%	5%
Granulation tissue	Baseline 0%	25%	50%	10%	0
pain	Baseline 100%	75%	25%	25%	0

Table 2: Prognosis and Result

RESULT- With the Integrated management *Jatyadi taila* daily dressing and *Sariva ghana vati* internally the wound completely healed within 45 days and the patient was cured of varicose ulcer. The images during and after treatment support the statement.

IMAGES:

DAY:1



DAY:15



DAY:45



DISCUSSION:

Varicose ulcer and its complication are a common recurring problem. The management scheme for venous ulcer edema, hyperpigmentation has been evolving through the years, with the primary goal of reducing venous congestion and enhancing tissue perfusion and wound healing. Typically, conservative management with a regime of double elastic stockings, leg elevation at rest, and calf muscle exercise, requires good and prolonged patient compliance and has its own problem.

According to Acharya Sushruta symptoms of *Siragat vata janya dusta vrana* can be co-related to varicose ulcer and the treatment regime for these kinds of *vrana* has been explained in sixty measures of wound management.^[8]

'*Sira*' and '*Snayu*' are the bi product (*updhātu*) of *Rakta* (blood) and '*Sariva ghana vati*' has '*Raktaprasadniya*' character. Hence, it facilitates the formation of Healthy Newer tissues and also strengthens the blood vessels, thus correcting venous valvular dysfunction. As per Ayurvedic texts, *Sariva* purifies the *Raktadhātu* due to its *Raktaprasadniya* character. Further,

once *Rakta* is purified, its bi-product (*updhātu*) i.e. *Sira* (veins), and its kinematics also gets pacified, thus may correct venous valvular dysfunction when used internally along with the adjuvant treatment.^[9]

The present study was carried out to establish potent *Ayurvedic* adjuvant treatment for healing varicose ulcers and reducing edema, hyperpigmentation by getting rid of venous stasis. On the basis of this study, we can conclude that Ayurveda can give a ray of hope in the treatment of varicose ulcers.

PROBABLE MODE OF ACTION-

Tikta-kasaya rasa; madhura vipaka; sheetvirya; tridosashmaka; dipaniya, and dahanashamak, shothahar are the properties of *sariva*. So, basically, it helps in decreasing in local swelling and inflammation.

Jatyadi taila is good *Shodhna* (cleansing) and *Ropana* (healing) drug. Most of the ingredients used in *Jatyadi taila* are *Sshothahara* (anti-inflammatory), *Vedanasthapana* (analgesic) and *Ropaka* (wound healing), which are important requirements of healing of a wound and relieving pain too. The ingredients like *Nimba patra* (*Azadirachta indica*) and *Daruharidra* (*Berberi aristata DC*) are antibacterial and promote wound healing.^[10]

CONCLUSION:

With this and adjuvant *Ayurvedic* treatment, the non-healing varicose ulcer completely healed within 45 days. On the basis of this case study, we can conclude that Ayurveda can be helpful in the treatment of varicose veins and ulcer.

Jatyadi taila and *Sariva ghana vati* remarkably also showed a significant decrease in venous congestion and resulting in a reduction of edema and hyperpigmentation and increase granulation and result into wound healing. This daily dressing of patients with *Jatyadi taila* is effective, time-saving, affordable, and acceptable treatment.

The complication with such therapies are wound infection, hypersensitivity, and bleeding. None of such complications was observed in this study. In view of no adverse effects and affordable economically by all, it can be recommended in combination for adjuvant treatment of varicose ulcer.

FUTURE SCOPE AND LIMITATIONS:

The multicentric trial can be carried out with larger sample size.

In the future, it can be used as an alternative option to avoid modern treatment and surgery.

Histopathology study to prove the mechanism of healing of varicose ulcer with *jatyadi taila* can be done.

Conflict of Interest: None

REFERENCES:

1. Davies AH. The seriousness of chronic venous disease: a review of real-world evidence. *Adv Ther.* 2019; 36(Suppl 1):5-12. <https://doi.org/10.1007/s12325-019-0881-7>
2. Marinel LO, Roura J, Verdú Soriano J. National consensus conference about lower limbs ulcers (C.O.N.U.E.I.) [Internet]. 2018 [cited 2020 Sep 17]. Available from: <https://gneaupp.info/wp-content/uploads/2018/04/CONUEIX2018.pdf>
3. Concise Textbook Of Surgery by Somen Das, 8th edition, published by S. Das publication 2014, old mayor's court Calcutta, chapter no-16, diseases of vein, page no268-269.
4. Bailey & love's short practice of surgery by Norman S. Williams CRC press, Taylor & Francis Group 2013, 26th edition chapter- 57 page 908-911.
5. Sushrut Samhita Chikitsastan- Dr. Anantramram Sharma Vol- 2 chikitsathan edition 2001, chapter 1, dwivariyachikitsam, shlok no-8 page no146.

6. Dravyaguna Vijnyan [study of the essential medicinal plants in ayurveda] vol-2 by Dr.J.L.N.Sastry, Chaukhambha orientalia publishers, 2010 edition, chapter 75, Sariva, page no348,349,350.
7. Bhavaprakash Nighantu(Indian material medica) by Bhavamishra, commentry by prof. Krishanchand Chunekar, Chaukhambha bharti academy publishers, edition-2005, chapter 3, page no 257.
8. Dr. Dwivedi Amarprakash et,all, Management of Sirajanya Dushta Vran w.s.r. to Varicose ulcer, International journal of Ayurvedic and Herbal Medicine, 7(4), July-Aug.2017, Pg.no 2724-2732
9. Dr Dwivedi Amarprakash et.all, Management of non-healing Varicose Ulcer in Ayurveda, International Ayurvedic Medical Journal, 1(3), May- June 2013.
10. Baswa M. Rath CC, Dash SK, Mishra RK, Antibacterial activity of karanj (pongamia pinnata) and neem (Azadirachta indica) seed oil: a preliminary report. Microbios 2001;105(412): 183-89.