

## Ayurveda Management of Dusta vrana (stasis ulcer due to perforator incompetence) - A Case Report

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### ABSTRACT:

*Vrana* is a wide concept in medical field. According to *Ayurveda* there are mainly two types of *Vrana* i.e., *Nija* and *Agantuja*. When an Ulcer occurred from an injury or external wound then it termed as *Agantuja vrana* and when an ulcer developed due to any internal cause that is underline pathology in body or system is termed as *Nija vrana*. In present case study a chronic non healing ulcer in the right leg of a female subject was not cured from several years She was suffered from several years with persistent and recurrent originating ulcerated lesion in her right leg. After the Venous Doppler study of right leg, it was confirmed that the ulcer is due to the incompetence of perforators in above the right ankle joint. She was treated with western system of medicine along with surgery. When she has come to our OPD we clinically examined her and decided to treat her with the help of *Jalauka Avacharana* and internal medicine to provide a cost-effective treatment in our IPD of Institute of post graduate *Ayurvedic* education and research at Shyamadas Vaidya shastra pith Kolkata. After 28days of treatment result was good and satisfactory the ulcer was completely healed up. No recurrence of symptoms was observed in monthly follow up for six months. *Jalauka Avacharana* therapy is a cost effective, time saving procedure effective in the management of *Dusta vrana* with special reference to stasis ulcer due to perforator incompetence.

**KEY WORDS:** *Dusta vrana*, Leech application, perforators incompetence, *Raktamokshan*, stasis ulcer, *Triphala guggul*.

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### INTRODUCTION:

*Vrana* or ulcer is now a days very much common problem faced by people apart from traumatic wound (ulcer) there was various medical condition that has given origin to ulcer in human body like diabetic foot ulcer, due to varicose veins, leprotic ulcer, pressure ulcer etc. Eighty to eighty

five percent of leg ulcer are of venous origin, it is probable that approximately 1% of the population have or have had, a leg ulcer and that at any one time 30-40% of ulcer are active. Approximately 70% of those with active ulcer are over 70 years of age and there is a prevalence of 2% in the over 80s. <sup>[1]</sup> *Acharya Susrut in Chikitsas* than

first chapter, has elaborately describe the types of vrana. According to him *Vrana* is of two types, *Nija* and *Agantuja*.<sup>[2]</sup> *Agantuja* vrana occurs due to any injury by exogenous substance to human body, there after the dosas involved. In *nija* vrana there is vitiation of dosas in human body then the vitiated dosas effects the vrana vastus i.e., *Rakta*, *Mamasa*, *Twaka*, *Meda*, *Majja*, etc and manifested as *Vrana*. *Acharya* has mentioned special sign and symptoms to clinically evaluate the *Vrana* with separate *Varna*, *Gandha*, *Vedana*, *Shraba* & *Akriti* (Colour, Smell, Discharge, Sige and pain).<sup>[3]</sup> The progress of the healing of stated by several stages like, *Suddha Vrana*, *Ruhayamana Vrana*, *Sammyak rudha vrana*.<sup>[4]</sup> One another stages of *Vrana*, *Dusta vrana* has mentioned in context of *Chikitsa* there was no specific signs and symptoms of this types, but we can say that when the *Vrana* was affected by all three *Dosas*, with mixed discharge and pain and remain un healed from several years is known as *Dusta Vrana*. According to *Acharya Charak* *Dusta vrana* has twenty types.<sup>[5]</sup> Among the *Sasthi Upakrama* of *vrana Raktamokshan* is one of most potent and effective therapeutic procedure. As *Raktamokshan* is so much potent and effective therapeutic procedure that's why *Acharya Susrut* has coated *Siramokshan* as *Ardha chikitsa* of *Shalya tantra*.<sup>[6]</sup> From the various types of *Raktamokshan*, *Jalauka Avacharana* was used in vitiation *Pitta Dosha*, also *Jalauka* is best among the *Anushastra*.<sup>[7-8]</sup>

In *Dusta vrana* there was vitiation of *Rakta dhatu* and in this particular case there was vitiation of both *Rakta dhatu* and *Pitta dosha* in that case *Jalauka avacharana* is the best of choice.

Ulcers of the lower part of the leg, the ankle and the foot are common problems faced by the surgeons all over the world. The basic cause of the venous ulcer is abnormal venous hypertension in the lower third of

the leg. The terms "varicose ulcer", " post thrombotic ulcer" and "gravitational ulcer" are also used as synonyms of venous ulcer.<sup>[9]</sup> When the calf pump and the main deep veins are normal, even the slightest movements empty the superficial veins lowering the superficial venous pressure. The main pathway of the venous drainage of the ankle skin in the erect posture is via the ankle perforating veins. When the valves of this vein are damaged there will be local venous hypertension. This condition is aggravated by obstructed main deep veins. Post-canalisation of the thrombosed deep veins leads to destruction of the valves of the deep veins and this becomes the main contributing cause for ankle venous hypertension. The most Majority of venous ulcers follow many years of venous disease, so the patients are usually of the age group of 40 to 60 years. Women are affected far more often than men.<sup>[10]</sup> Discomfort and tenderness of the skin, pigmentation and eczema exist for months or years before a venous ulcer develops. The ulcer is painful in the beginning but once it settles down and becomes chronic it becomes painless. Venous ulcers are mainly formed in lower part of the leg on its medial side. These are never seen above the junction of the middle and upper thirds of the leg.<sup>[11]</sup>

#### CASE HISTORY:

A 52 years female patient named Lakhi paul, presented with a non-healing ulcer on medial surface over medial malleolus in right leg for last 2 years there was pain and discomfort and itching sensation around the area of ulcer. She was diagnosed as right-side varicose veins form last two years bellow knee joint with right side perforator incompetence in medial side of right leg above ankle joint. She has received various type of treatment like –

Surgical- Perforator ligation of right lower limb.

Medical- Tab Co-amoxiclav (625), Tab (PCM 650), with wound healing cream, from western system of medicine.

On physical examination we found, pallor-negative, icterus- negative, cyanosis -negative, oedema -negative, clubbing-negative, CVS-s<sub>1</sub>, s<sub>2</sub> audible, Cheats -B/L clear, Temp -98.4°F, Bp -112/78 mm/hg, Pulse -76/min.

Local examination of the ulcer /wound: (Fig-2)

*Acharya Charak* has mentioned three methods of examine a *Vrana* 1) *Darshan* 2) *Sparshan* 3) *Prashana*.<sup>[12]</sup> In modern science there was mentioned that an ulcer should properly examined by the following points.

[13]

Exterior:

Site- on medial surface over medial malleolus in right leg.

Shape- round in shape.

Surface-flat surface.

Colour-pinkish red in colour.

Tenderness -mild.

Edge – Punched out edge.

Interior :( Floor)

Discharge -there was no discharge at the time of examination.

Surrounding:

Blackish discolouration of surrounding skin.

Margin – The wound was well margined by fibroid tissue on it.

Blood reports: All the pathological test reports were satisfactory. She has normal blood sugar label both (FBS&PPBS) with lipid profile and other blood parameter

Imaging: USG of lower limbs venous Doppler study (Fig-1): Bilateral lower limbs venous system shows – mild subcutaneous oedema noted in right lower leg over medial malleolus & dilated incompetent perforator noted in right leg (one is 5 cm bellow right knee other is 5cm above medial malleolus).

## **THERAPEUTIC INTERVENTION AND TIME LINE:**

The patient was admitted in female of institute of post graduate ayurvedic education and research at SVSP Kolkata, for the therapeutic procedure and medical management. The treatment protocol was deigned after the proper assessment of the present condition, biomedical parameters and after properly done *Roga Pariksha* and *Rogi pariksha*.

*Rkatamokshan* by *Jalauka* was selected as the main line of treatment.

Medicine: Medicines and therapeutics are enlisted in table no1).

Materials required for the procedure (*Raktamokshan*): Surgical gloves, sterilised kidney treys, Povidone iodine solution, Surgical needle, sterile cotton balls, Sterile gauze pieces, Bandage, and *Nirvisha Jalauka* 6 pieces, haridra powder 100gms.

*Poorvakarma*: The patient was seated comfortably and vitals were measured. The area -above medial malleolus was cleaned *Haridra* powder water.

*Pradhanakarma* (Fig- 5): Then the leeches were applied over the ulcerated area and allowed to suck the blood, when they were properly begun to suck, gauge pieces rinsed with water placed over them. After one and halves hours, they were removed from the site by applying of *Haridra* powder over them, when the sign of sucking pure blood was appears. And they were placed in kidney trey for *Vaman* with the help of *Haridra* powder. After the vomiting they were kept in another pot safely.

*Paschatkarma* (Post-operative procedure): The place was well cleaned and bandaging done by roller bandage after applying of *Yastimadhu Churna* and *Ghrta*. Vitals were measured. Patient was advised to give rest to her leg. Bandage was removed by next day morning.

Table- 1: Treatment plan with duration:

Date	Clinical condition of the patient
8 <sup>th</sup> November 2022	First visit to OPD of Institute of post graduate ayurvedic education and research at Shyamadas Vaidya shastra pith Kolkata.
11 <sup>th</sup> November 2022	Admitted to IPD of same institute.
12 <sup>th</sup> November 2022	Advised 1. <i>Triphala guggul</i> (500mg) 2-tab twice daily after meal. 2. <i>Guggul tiktakam kashayam</i> 20 ml twice daily with 20 ml of Luke warm water. 3. <i>Udvartanam</i> by <i>Triphala churna</i> mixed with bala <i>Guduchyadi oil</i> in upward direction.
15 <sup>th</sup> November 2022	First sitting of <i>Jalauka avacharana</i> done.
20 <sup>th</sup> November 2022	Second sitting of <i>Jalauka avacharana</i> done.
25 <sup>th</sup> November 2022	Third sitting of <i>Jalauka avacharana</i> done.
30 <sup>th</sup> November 2022	Fourth sitting of <i>Jalauka avacharana</i> done.
5 <sup>th</sup> December 2022	Fifth sitting of <i>Jalauka avacharana</i> done.

Table-2: Finding of results:

Parameters	First sitting	Second sitting	Third sitting	Fourth sitting	Fifth sitting
Size and shape	3 cm	2.5cm	2.1cm	1.5cm	.2cm
Edge	Punched out edge	Sloping edge	Sloping edge	Normal	Normal
Surrounding skin /colour	Blackish	Brownish	Light brownish	Nearer to normal	Nearer to normal
Pain	Mild tender	Absent	Absent -	Absent	Absent

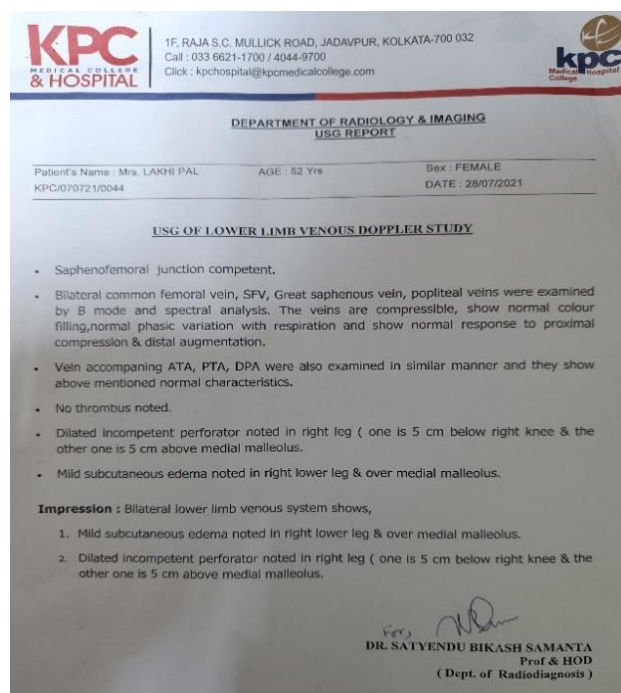


Fig-1: Lower limb venous Color doppler report



Fig-2(8/11/2022)





**Fig-3:(18/11/2022)**



**Fig-4: (27/11/2022)**



**Fig-5: During raktamokshan**



**Fig-6: (1/12/2022)**



**Fig-7: (6/12/2022)**



**Fig-8: (10/12/2022)**

### RESULT AND DISCUSSION:

The wound was completely healed up and the surrounding skin colour has almost become normal, associated complaints disappears after five sitting of *Jalauka avacharana* with the internal medicine. Finding of result has been given in the table no-2. In this particular case report, there was a chronic recurring ulcerated area for more than two years. It was a *dusta vrana* and also *Nija vrana* occurs due to *Sthansamshraya* of doshas in the leg above the *Gulpha sandhi* which is the site of *Khavaigunya*. It has been observed that all the three doshas are involved, with predominance of *Vata Pitta* associated with *Rakta dusti*, *Mamsa dusti* and *Sira Saithillaya*. The main therapeutic procedure *Raktamokshan* is effective to reduce the aggravation of *Rakta dhatu* and *Pitta doshas* mainly, when the *dusta Rakta* were expelled out *Pitta dosha* also expelled out.

The internal medicine, *Triphala guggul* contained *Guggul*, as a main ingredient and also contained *Triphala* and *Pippali*. On the basis of formulations, it has the properties like *Vrana sodhan* and *Vrana ropan*.<sup>[14]</sup> *Guggul* itself has *Kapha Vata hara* activity

and also *Srota Sodhak*. *Triphala Kapha Pittahgni* and act as a *Rasayan*.<sup>[15]</sup> *Guggul tikthaka kashayam* is an *Ayurvedic Kashaya* based formulation possesses blood purifying, anti-inflammatory and anti-infective properties. It is *Kapha-Vata hara*, *Kledahara*, *Chhedaniya*, *Lekhaniya* and has both *Vrana-Shodhana* and *Vrana -Prasadana* activities. It contains *Nimba*, *Guduchi*, *Vasa*, *Patola*, *Kantikari* etc as *Tikta dravya* and also *Guggul* helps to heal wounds, ulcers sinus, abscess and deep-seated skin conditions.<sup>[16-17]</sup>

### Probable mode of action according to modern:

Leech application has peripheral vasodilator effects due to vasodilator constituent in the leech saliva, which improves blood circulation and corrects ischemia around the wound, thus promotes wound healing. Leech application has Anti-inflammatory action on nerves due to presence of substance like *Bdellins* & *Eglins* in the saliva which prevents leukocyte accumulation in the surrounding vessels, thus inhibits release of inflammatory factors which causes chronic wound to heal.

Leech application corrects venous hypertension, reduces vascular congestion due to presence of Carboxypeptidase A inhibitors, Histamine like substances & Acetylcholine, this prevents leakage of proteins and isolation of extra cellular matrix. After Leech application expulsion of impure blood takes place, due to which local vitiated doshas (toxins & unwanted metabolites) are removed. Similarly, it facilitates more fresh blood supply & promotes wound healing by formation of newer tissues. Due to improved blood circulation, skin discoloration is corrected and venous valvular dysfunction is also pacified. Thus, it breaks the pathogenesis of "varicosity" at cellular level and helps in wound healing.

**CONCLUSION:**

This particular therapeutic procedure set for this case study that is Raktamokshan procedure with internal medication and *Udvartan* in *Pratiloma* direction has a beneficial effect to relieving the symptoms of chronic venous ulcer and to healed up the ulcer. By removing the pressure of blood resulting from venous stasis and increased microcirculation over the affected site, it also repaired the valvular disfunction with remoulding the venous stasis. Thus, we can say that the selected module is safe and cost effective and helpful treatment for the patient of chronic venous ulcer. Venous ulcer with perforator incompetence is a complicated and low progress challenging medical condition. In such condition ayurvedic treatment also can play an important role in giving result to the patient.

**Limitation of study:**

The modalities used to treat the case of chronic ulcer may be applicable to treat similar case but there should be proper understanding of *Doshas* and *Dushyas* and

other diseases condition properly. This observation endorses a step toward the validating practice of *Ayurvedic* intervention in venous ulcer. Moreover, further study of same diseases with large sample size is required to generate evidence.

**Patients consent:**

Patient's consent has taken properly for the procedure

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