



Case Report

Ayurvedic management of venous ulcer - a case report

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ABSTRACT

Vrana (ulcer), in Ayurveda is defined as a structural deformity in the skin and deeper structures (*gaatra avachurnana*), associated with *ruja* (pain), *srava* (discharge) etc and caused either by the vitiation of the *doshas* (humors of the body) or by trauma. *Vrana* is basically of 2 types- *Dushta vrana* and *Shudha vrana*. *Shudha Vrana* (acute ulcer) is easily treatable, whereas *Dushta vrana* is a chronic ulcer, mostly unresponsive to any treatment. Acharya Sushruta has described sixty methods for treating such *vrana*s (ulcers).

In this case, symptoms like *Deerghakalaanubandhi* (chronic), *Teevra ruja* (painful), *Teevra puti srava* (smelly discharge) etc. were suggestive of *Pitta pradhana Sarakta Tridoshaja Dushta vrana* on the left leg. Studies from India about the prevalence of venous leg ulcers (VLU) are limited. The chronic wound management strategies include compression therapy and antimicrobial therapy (if infected). However, in unresponsive cases, surgery (skin grafting) is done.

A 38-year-old non-diabetic, non-hypertensive female sought Ayurvedic treatment after a wound on her left leg did not respond to the conventional medicines even after 7 months of treatment. The ulcer was painful and foul-smelling, to the extent of disturbing her sleep and restricting her daily activities. Her Ayurvedic treatment comprised of *Patoladi kashaya*, *Kaishora guggulu*, *Guduchyadi kashaya*, *Manjishthadi kashaya* and *Avipathi churna*, orally and *Vrana prakshalana* (wound cleaning) and *Vrana lepa* (application of medicinal paste) externally.

Ayurvedic treatment was effective in healing the *Dushta vrana* completely in this case. This suggests the efficacy of Ayurveda in the management of chronic ulcers. However, a detailed study of the same with larger sample sizes will help to formulate a treatment protocol for such cases.

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1. Introduction

Dushta vrana, according to Acharya Sushruta, is a chronic ulcer, manifested in any part of the body, caused either by the *doshas* or trauma. When caused due to the *doshas*, it is called *Nija vrana* and when caused because of trauma; it is called *Agantuja vrana*. The *nija vrana* exhibits signs & symptoms in accordance with the *Dosa* affected [1]. Sushruta Samhita gives a detailed description of the various features of a *Dushta vrana*. The one which is *Atisamvrita* (excessively covered), *Ativivrita* (excessively uncovered), *Atikathina* (too hard), *Atimrudu* (too soft), *Utsanna* (excessively elevated), *Avasanna* (excessively depressed), *Atyushna* (cold), *Atisheeta* (hot)

to touch), differently coloured, ugly looking, suppurative, painful, associated with different types of discharges and which is chronic; is called a *Dushta vrana* [1].

Based on these symptoms, the patient was diagnosed with *Pitta pradhana Sarakta Tridoshaja Dushta vrana* on her left leg.

Venous leg ulcer (VLU) is the most severe presentation of chronic venous insufficiency. They have considerable impacts on patients; increased pain, impaired sleep, and reduced mobility are common, while socializing is avoided to reduce the risk of injury, and work capacity is impaired. Patients report feelings of powerlessness and hopelessness. Participants in VLU trials also report much reduced health-related quality of life at baseline compared with population norms [2]. The standard line of treatment followed by the practitioners of contemporary science, in such cases is wound dressing with antimicrobial drugs (if infected), compression therapy, anti inflammatory therapy and surgery. A study conducted by Jones et al. concluded that the chronic wound care practices are

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inconsistent with the evidence based recommendations for wound management [3]. In this case, chronicity which was of 7 months and the worsening of the condition over this time despite continued medication indicated that the wound was non-responsive to the treatment. Moreover, due to low financial stability, she could not afford to continue the expensive treatment and hence chose Ayurveda.

2. Patient information

A 38-year-old, non-diabetic, non-hypertensive female, home maker, complained of a non-healing wound on her left leg for 7 months. She had consulted three surgeons in the past who treated her with various medicines, but in vain. The details of the medicines prescribed are not known. She experienced severe pain in her leg, to the extent of disturbing her sleep. There was a severe watery discharge from the wound, making it difficult for her to walk. This was the first occurrence of such an ulcer on the leg, and the patient did not have any family history of the same.

Upon Ayurvedic consultation, the patient was diagnosed with *Pitta pradhana Sarakta Tridoshaja Dushta Vrana* (an ulcer predominant of all the three doshas of the body especially *Pitta Dosa*) based on the symptoms like *Krishna Rakta varna* (blackish red colour), *Amanogna darshana* (ugly looking), *Atyartha gandha* (foul smelling), *Atyartha vedanavan* (painful), *Paka*, and *Ragata* (inflamed & red coloured).

3. Clinical findings

The patient was examined thoroughly. Bowel, appetite and micturition were normal. She had disturbed sleep due to pain. Her review of systems and vital signs were within normal limits. An oval-shaped ulcer was present on the lower lateral aspect of the left leg just above the lateral malleolus.

Roga pariksha (examination of the diseases) revealed *Krishna Rakta varnayukta* (deeply pigmented), *paka ragayukta* (inflamed), *atyartha gandhayukta* (odorous), *Amanogna darshaniya vrana* (ugly looking wound) on the left leg.

Rogi pariksha (examination of the patient)- Patient with *Pitta kapha prakriti*, *Alpa upalipita jihwa* (slightly coated tongue), *Pittaja nadi*, *anavabadha mala* (normal bowel movements), normal *Shabda* and *sparsha* presented with a *Vrana* (ulcer) on the left leg.

4. Diagnostic assessment

The diagnosis was made based on the clinical findings. An oval shaped ulcer which was approximately 6 cm x 3.3 cm x 0.7 cm in size was present on the lower lateral aspect of the left leg, just above the lateral malleolus. It had sloping edges and the floor was covered with thick red granulation tissue. There was serous purulent discharge from it and the surrounding area was eczematous and pigmented. A few varicose veins were present in the area below the ulcer. Varicosity on the left calf region tested positive for Trendelenburg test and negative for Mose's sign. A palpable pedal pulsation confirmed it to be a varicose ulcer and differentiated it from a deep vein thrombotic ulcer. Doppler study confirmed the absence of DVT. Fig. 1a shows the photograph of the ulcer before the treatment.

5. Therapeutic intervention

The patient was prescribed the following Ayurvedic medicines-

1. *Guduchyadi kashaya* [4] - 15ml + 45 ml of warm water-in the morning.

2. *Patoladi kashaya* [4] - 15ml + 45 ml of warm water-in the morning.
3. *Kaishora guggulu* [4] -2 tabs (200 mg each) in the evening.
4. *Guggulu panchapala churna* [5] - 10 gm-in the morning and evening.
5. *Avipathi churna* [4] - 10 gm at bedtime.
6. *Vrana ropaka churna* [a combination of *Arogya vardhini ras* [4] (100 mg), *Triphala guggulu* [4] (100 gm) & *Gandhaka rasayana* [5] (100 gm)] - 10 gm twice daily.

Once the pain and discharge reduced, *Manjishtadi kashaya* [4] in a dose of 15 ml + 45 ml of warm water-in the evening and *Vrana lepa* (application of medicated paste on the ulcer) with *Vrana ropaka churna* were added to attain *Rakta prasadana* (purify Rakta humor) and *Vrana ropana* (wound healing).

Table 1 mentions the successive order of oral medicines along with their effects.

Other treatments involved-

1. *Vrana prakshalana* (wound cleaning) with *Triphala kashaya*-twice daily.
2. *Vrana lepa* (application of medicated paste on the ulcer) with *Vrana ropaka churna*-twice daily.

Table 2 mentions the successive order of treatments with their effects.

Diet and regimen: Diet and regimen play a very important role to abet the effect of treatments. Here, the patient was advised to follow a diet and regimen which would help to balance *Pitta, Rakta and Vata doshas*. The patient was asked to avoid spicy, sour, oily, fermented, and refrigerated food items. She was advised to avoid sun exposure, sleeping in the day and staying late at night.

6. Follow up and outcomes

After the initial 15 days of treatment, the ulcer started to heal. The pain & discharge got reduced and the patient got the confidence to continue the treatment. Gradually, the ulcer showed more signs of healing and at the end of 60 days; it had healed completely. Fig. 1b, c show the photographs of the ulcer on the 30th and 60th days of treatment. A follow up after 6 months confirmed the non-recurrence of the ulcer (Fig. 1d).

Table 3 timeline of events.

7. Discussion

The patient had consulted three surgeons and had taken many courses of antibiotics and anti-inflammatory drugs for the past 7 months, however, the ulcer did not heal. This made her mentally weak and annihilated. This was a major limitation in the case. The patient being non-diabetic and non-hypertensive, and strictly adhered to all the diet regimen and timely medicine intake as instructed.

Incompetence of the valves of the superficial and deep veins of the leg result in venous hypertension. Fibrin gets excessively deposited around the capillary beds leading to elevated intravascular pressure. This fibrin decreases the oxygen permeability by 20-fold leading to tissue hypoxia causing impaired wound healing. Various inflammatory cells get trapped in the fibrin and promote severe uncontrolled inflammation, preventing proper regeneration of the wound [6].

Samprapti (pathophysiology)- From the Ayurvedic point of view, this was a case of *Pitta pradhana Sarakta Tridoshaja Dushta*



Fig. 1. a: Before treatment, b: During treatment, c: After treatment, d: After 6-month follow-up.

Table 1
List of internal medicine with their possible effects.

Serial No.	Medicine	Dose	Possible effect
1.	<i>Guduchyadi kashaya</i>	10 ml + 20 ml of warm water- once daily	<i>Pitta vata shamana</i> (alleviates <i>Pitta& vata</i> humours)
2.	<i>Patoladi kashaya</i>	10 ml + 20 ml of warm water- once daily	<i>Pitta vata shamana</i> (alleviates <i>Pitta& vata</i> humours)
3.	<i>Manjishtadi kashaya</i>	10 ml + 20 ml of warm water- once daily	<i>Rakta pradaka</i> (enriches <i>Rakta</i> humour)
4.	<i>Kaishora guggulu</i>	2 tablets daily.	<i>Tridosha hara</i> (alleviates all the humours) <i>Vrana ropaka</i> (healing)
5.	<i>Avipathi churna</i>	10 gm at bedtime.	<i>Pitta vata shamana</i> (alleviates <i>Pitta& vata</i> humours)
6.	<i>Guggulu panchapala churna</i>	10 gm- twice daily	<i>Tridosha hara</i> (alleviates all the humours) <i>Vrana ropaka</i> (healing).
7.	<i>Vrana ropaka churna</i>	10 gm- twice daily	<i>Tridosha hara</i> (alleviates all the humours) <i>Vrana ropaka</i> (healing).

vrana. The patient was habitual to food like fermented cuisines, sour soups, Masha (black gram), chilchilma fish (prawns), curd, chicken, and food made of the refined floor. Her daily regime comprised a 3-h sleep after lunch, lack of exercise, and sedentary

lifestyle. All these wrongful ways of living resulted in the vitiation of *Pitta & Kapha doshas* and because of their long association, it eventually caused *Rakta dushti* (vitiation of the *Rakta*) as well. Chronicity paved the way for the vitiation of *Vata dosa* (*vata*

Table 2

List of treatments with their possible effects.

Serial No.	Treatment	Possible effect
1.	Vrana prakshalana (wound cleaning) with <i>Triphala kashaya</i> .	<i>Tridosha shamana</i> (alleviates all the 3 humours of the body). <i>Vrana ropaka</i> (healing).
2.	Vrana lepa (application of medicated paste) with <i>Vrana ropaka churna</i> .	<i>Tridosha shamana</i> (alleviates all the humours of the body). <i>Vrana ropaka</i> (healing).

Table 3

Timeline of events.

Date	Follow-up	Observations
10.06.2020	The patient develops an ulcer on her left leg. Consults a surgeon who prescribes her medicines	The ulcer starts healing
30.06.2020	Follow up visit to the surgeon. Asked to continue the same medicines.	Improves but does not heal
03.08.2020	The ulcer becomes more painful. Consults another surgeon. Medicines prescribed.	The ulcer starts healing.
10.09.2020	The ulcer continues to be painful, discharge increased. Consults another surgeon. Medicines prescribed.	Shows no signs of healing.
02.12.2020	Ayurvedic consultation Prescribed medicines for <i>Ama pachana</i> , <i>Vrane shodhana</i> & <i>Vrana ropana</i> .	Pain & discharge reduced, ulcer starts healing
16.12.2020	1' followup. Granulation tissur increased oedema & pigmentation around the ulcer reduced, ulcer healing. Prescribed medicines for <i>Rakta prasadana</i> .	Pain & discharge reduced, ulcer starts healing
02.02.2021	2 follow up. Pt c/o itching around the ulcer. 50% of the ulcer healed, scar formation started. Same medicines continued.	The ulcer completely healed.

humour) resulting in extreme pain. All the features of *Dushta vrana* as mentioned by Acharya Sushruta, were clear in this case. So, a *Tridosahara* (alleviates all the *doshas* of the body) and *Rakta prasadaka* (purifies the Rakta) line of treatment was planned.

Samprapti vighatana (decipher of pathophysiology)- *Guduchyadi* and *patoladi kashayas* contain drugs like *saptachada* (*Alstonia scholaris*), *ativisha* (*Aconitum heterophyllum*), *Aragwadha* (*Cassia fistula*), *Amrita* (*Tinospora cordifolia*), *patha* (*Cissampelos pareira*), *musta* (*Cyperus rotundus*), *katukarohini* (*Picrorhiza kurroa*), *ushira* (*Vetiveria zizanioides*) etc. which are *tikta rasa pradhana* (bitter in taste) and of *Sheeta veerya* (cold attribute) in nature. They alleviated the *Pitta Vata* and *Rakta doshas*. *Manjishtadi kashaya* which contains *Manjishta* (*Rubia cordifolia*), *Triphala*, *Vacha* (*Accorus calamus*), *Devadaru* (*Cedrus deodara*), etc acted as *rakta prasadaka* (purifies Rakta humour). *Avipathi churna* contains *Trikatu* (a group of *Zingiber officinale*, *Piper nigrum* & *Piper longum*), *trijata* (a group of *Elatattaria cordamomum*, *Cinnamomum zylanicum* & *Cinnamomum tamala*), *Ambhoda* (*C. rotundus*), *krimighna* (*Embelia ribes*), *amalaki* (*Embelica officinalis*), *trivrit* (*Operculina terpepethum*) and sugar. It is one of the best medicine which alleviates the *Pitta* humour. *Guggulu panchapala churna* contains *Guggulu* (*Commiphora mukul*), *Triphala* (group of *Terminalia chebula*, *terminalia bellerika* & *Embllica officinalis*), *Danti* (*Ballospermum montanum*). Both are *vrana shophha hara* (alleviates ulcers & oedemas). The wound was washed with *Triphala kashaya* (decoction prepared out of *Terminalia chebula*, *Terminalia bellerika* & *Embllica Officinalis*), which had an anti-inflammatory effect. Application of a paste of *vrana ropaka churna* had a *Ropana* (healing) effect.

8. Conclusion

The chronic venous ulcer which had not healed for 7 months despite many courses of antibiotics and anti-inflammatory therapy, healed in 60 days with Ayurvedic intervention. This suggests the efficacy of Ayurvedic therapy in the healing of chronic ulcers. Non-recurrence of the ulcer even after 6-months of the stoppage of medicines indicates the complete reversal of pathology in the venous level itself. However, a detailed study of the same with

larger sample sizes will help to formulate a treatment protocol for such cases.

9. Patient perspective

"I had pain in both my legs since 2 years. Since I do a job standing for a long time, I thought it is because of that. I would also get swelling in my legs especially, in my left leg often, with the prominence of veins. Gradually, I developed itching on my left leg which later became a wound. Initially, I neglected it but, when it did not heal, consulted a surgeon. He prescribed few medicines, but the wound remained the same. The condition got worsened and I was unable to sleep or walk. Latter, I consulted two more surgeons, but in vain. Then I decided to try out Ayurvedic treatment. The doctor prescribed me *Kashayas*, *Churna*, *Tablets*, a *Kashaya* to wash the wound and a *lepa* to be applied. He gave me a diet regimen to be followed. In the first 15 days itself the pain and discharge from the wound reduced and it increased my confidence. I continued to follow all the instructions by the doctor and at the wound gradually healed. I am thankful to god and to the doctor".

Informed consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images are made available for verification by the editor of the journal.

Author contribution

Both the authors made equal contribution in treating the case, documenting it and structuring the manuscript.

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