



CASE REPORT

A CASE REPORT ON CHRONIC VENOUS LEG ULCER

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Abstract

Venous ulcers are the most common type of leg ulcers, especially in the elder population. This chronic debilitating condition develops due to venous insufficiency, and it substantially affects the quality of life. In *Ayurveda*, chronic venous ulcer can be correlated with *Dushtavranam*. And the treatment of *Vrana* is well described with sixty types of treatment modalities. A 74 year old female patient came to OPD with ulcer on lateral and medial aspect of the right ankle with severe burning sensation, pain, oozing, itching, and generalized edema of right lower limb below knee. As this *Vrana* presented with *pittapradhana sannipatha dosha lakshanas*; *pittahara*, *vrana ropana* and *sophahara* medicines were given with external treatment modalities like *kshalana*, bandage, and *jalukavacharana*. 43days of medication completely healed this *vrana*.

Introduction

Venous leg ulcers occur due to venous diseases¹. A venous ulcer with more than six weeks duration is considered as chronic. The prevalence of venous leg ulcers is between 0.18% and 1%. And it increases to 4% for the age above 65². Due to vascular insufficiency and incompetent perforators venous hypertension develops. This persistent venous pressure causes changes in micro-circulation. Initially, it causes increase in the size of capillaries, and later fibrosis develops. This leads to local hypoxia and subsequently result in ulceration³. The specific site of venous ulcer is below the knee and above the ankle, this area is known as “gaiter” area and around the medial malleolus⁴. Prevalence of chronic venous ulcers increases with age. Significant risk factor for developing this condition is old age, obesity, previous leg injuries, deep vein thrombosis, and phlebitis⁵. Treatment of chronic venous ulcer is challenging. Proper assessment and evaluation of ulcer help to select the treatment modality. Treatments like systemic and topical antibiotics, debridement, cleaning, dressing, compression therapy, surgical interventions, sclerotherapy, are selected based on the condition of the ulcer⁶. Even after proper management also, these ulcers may recur and can persist for years. Treatment of chronic venous ulcers causes economic hardship to the patient, and this condition reduces the quality of life physically and mentally⁷. Here, the present case is diagnosed as *dushtavranam*⁸ and treatments are selected based on the *dosha* predominance.

Case Report

A seventy-four-year old female, non-diabetic, non-hypertensive patient came to our O.P.D. with complaints of ulcers on the lateral and medial aspect of right ankle with severe burning sensation, pain, itching, and oozing of serous fluid with swelling of right lower limb below knee. The patient had bronchial asthma since adulthood and she was not on regular medication for that. For the last 20 years, she has been suffering from the varicose vein of long and short saphenous veins on the right lower limb. She had history of recurrent bleeding from these varicose veins. Gradually she developed hyperpigmentation of skin around the right ankle, later itching developed. An ulcer developed on the lateral aspect of the right ankle before 12 years. That ulcer wholly healed within one month on taking allopathic medication for which details are not available. After that, the ulcer again formed on the same site four times and healed with allopathic medication. But it took more time to heal. Recently patient again developed an ulcer on lateral aspect of the right ankle in September 2019. Patient took allopathic and *ayurvedic* medicines for the same. Still the ulcer's size increased over time, and another one developed on the medial aspect of the same ankle. She came to our O.P.D. on 18th January 2020, and was admitted.

On examination, the ulcer on lateral aspect of the right ankle was 6cm*6cm*1cm in size, almost vertically oval and situated just above the lateral malleolus. Its edge was sloping, and floor was covered with smooth and pale granulation tissue, slough was present and without any bleeding. It was associated with mild serous discharge. Hypo and hyper pigmentation of skin was present around the ulcer. On palpation, indurations was present over the edges, with no induration over the ulcer base. Grade 2 tenderness was present on palpation. Bleeding on touch was absent and the ulcer's base was not fixed to the deeper structures. The ulcer on the medial aspect of right ankle was 1cm*1cm*3mm in size. It was almost circular and situated above the medial malleolus. Its edge was sloping and floor covered with pale granulation tissue and slough and was associated with mild serous discharge. Pitting edema was present on the right lower limb below knee. Engorgement and tortuosity were found on long and short saphenous veins. Cardiovascular examination was performed, pulse rate-68/minute, heart rate- 68/minute, BP-126/82 mm of Hg and heart sounds were normal and S1, S2 heard. Arterial causes of ulcer were ruled out by the absence of claudi-

cation, normal blood pressure and presence of pulse on the dorsalis pedis and posterior tibial artery. Respiratory examinations were carried out, respiratory rate was 16/minute, rhonchi were present on auscultation. And patient's *agni* was good with *madyama koshta*.

Lab Investigations

Essential lab investigations done on the day of admission

Haemoglobin	10.2 g/dl	T.Cholesterol	167 mg%
RBC	3.89*10 ⁶ /uL	S. Urea	17 mg%
HCT	31.1%	S.Creatinine	0.5 mg%
MCV	80.2 fL	S. Uric Acid	3.0 mg%
WBC	8.1*10 ³ /uL	Total Bilirubin	0.9 mg%
PLT	443*10 ³ /uL	Direct Bilirubin	0.1 mg%
ESR	46mm/hr	SGPT	27 IU/L
FBS	106 mg%	SGOT	30 IU/L
PPBS	139mg%		

Treatments given

Medicines

Sl. No	Medicine prescribed	Dose	Duration
1.	<i>Guloochyadi kashayam + Punarnnavadi Kashayam</i>	90 ml bd before food	43 days from 18/1/2020
2.	<i>Guggulu Panchapalam choornam</i>	½ tsp bd after food with honey	43 days from 18/1/2020
3.	<i>Tab. sudarsanam</i>	1-0-1after food	43 days from 18/1/2020

External therapies

Sl.No	Procedure	Medicine used	Duration
1.	<i>Kshalana</i>	<i>Yashti+ Thriphala Kashaya+ 1 Pinch of tankana</i>	42 days - from 19/1/2020
2.	<i>Vrana Bandhana (Bandage)</i>	<i>Grated papaya + haridra choornam</i>	37 days - from 19/1/2020
3.	<i>Vrana Bandhana (Bandage)</i>	<i>Triphala mashi+ Honey</i>	5 days - from 24/2/2020
4.	<i>Jaluka avcharanam</i>		2 times on 25/1/2020 and 14/2/2020

Kshalana (Washing or cleaning) of ulcer was done with around 1 litre of *yashti* and *thriphala kashaya* with one pinch of *tankana*. *Kshalana* was performed 2 times in a day- before and after bandage. And was continued till the complete healing of ulcer. Bandage was initially done with grated papaya and *haridra choornam*. After proper *kshalana*, the ulcer was wiped with cotton and a single layer gauze piece was placed over the ulcer. Above this around 1 table-spoon of grated papaya mixed with 2 pinches of *haridra choornam* was placed and bandage was done. The dressing was usually applied during the morning at 10 O'clock and removed during the evening at 4 O'clock. After removing the application, *kshalana* was performed. After that the ulcer was covered with a gauze piece. This was continued for 37 days. After that bandage was done with *thriphala mashi* and honey. The dressing was done in the same manner and this was continued for the next five days. *Jalukavacharanam* was done two times with medium-sized two *jaluka* over the ulcer. Patient was advised to do limb elevation in recumbent position.

Result and Discussion

As the ulcer was having *pittapradhana lakshanas*, internally *Guloochyadi kashaya*⁹ was given, which is *pit-takaphahara* in nature and reduces *daha*(burning sensation). Along with this *Punarnavadi kashaya*¹⁰ was provided, which is *kaphapittahara* and *sophahara*. These both *kashayas* are having *tiktharasa* and *rakthasuddhikara* in nature. *Guggulu panchapala choorna*¹¹ is told in the context of *bhagandhara chikitsa* and is effective in the controlling the infection of *vrana*. *Tab. Sudarsana*¹² is *pittasamana* and reduces inflammatory response in body.

Externally *kshalana* was done by *Yashtimadhu* and *Triphala kashaya* with *Tankana*. *Yashtimadhu* is *vatapittahara* and is *vrana sodhana* and *ropana*. Due to *madhura rasa* and *pittasaamna* it reduces the burning sensation¹³. *Triphala* have *vrana ropana* property and it reduces the *kleda* there by checks oozing from the ulcer¹⁴. *Tankana* is having *kapha visleshaka*, *vrana nasaka* and *vrana ropana* property thereby it reduces the tissue inflammation and helps in healing¹⁵. Bandaging was done with a mixture of grated papaya and *haridra choornam*. Papaya was introduced to India by Portuguese in the 16th century¹⁶. So papaya is not mentioned in *ayurveda* classics. Later *nighantus* like

Saligrama nighantu of 19th century said about papaya¹⁷. It is having *krimihara*¹⁸ action and used as an excellent wound debriding agent. Some studies showed that enzymes like papin and chymopapan present in papaya help to remove necrotic debris in ulcer and induce the growth of healthy granulation tissue¹⁹. It also increases wound's hydroxyproline content, which is an indicator of collagen content of granulation tissue. And it has an anti-bacterial activity also²⁰. *Haridra* is having *vrana hara*, *kanduhara*, *krimighna* action and is good for *twak* and is *varnyam*²¹. Studies show that curcumin present in turmeric reduces the secretion of cytokines in the wounds and promotes wound healing. Turmeric also helps in wound healing due to its anti-inflammatory and antibacterial properties. It also has antioxidant activity²². After doing this bandage for 3-4 days, the ulcer became devoid of slough, healthy granulation tissue formed and oozing reduced. Then it started to heal from the edges. Later bandage was done with *Triphala mashi* and honey. *Triphala mashi* told in the treatment of *Upadamsa* in *Yogaratanakara*²³. It has a *vrana ropana* property. *Madhu* is having *vrana sodhana*, *sandhana* and *ropana* action²⁴. Honey has anti-inflammatory and antibacterial properties and it promotes rapid wound healing²⁵. *Jalukavacharana* especially indicated in *pittapradhana rakthadushti*²⁶. In this case, the patient was presented with *pittapradhana sannipatha lakshana's*. So *Jalukavacharana* was performed at the ulcer, giving an immediate reduction in the symptoms like burning sensation and itching. Studies shows that leech saliva is having substances with antithrombolytic, anticoagulant, anti-inflammatory and pain relieving action. There by it relieves the venous congestion, improve circulation, and promote healing²⁷. The chronic venous ulcer on the lateral side healed by 43 days of medication. But hypo pigmentation was there at the site of healed ulcer.

Date	Size of ulcer	
	Lateral	Medial
18 th January 2020	6cm*6cm*1cm	1cm*1cm*3mm
18 th February 2020	4cm*2cm*5mm	Healed completely
1 st march 2020	Healed completely	

18/1/2020

Ulcer on the lateral side



Ulcer on the medial side



18/2/2020



1/3/2020



Conclusion

Venous insufficiency is the main cause for development of venous leg ulcer. In this geriatric patient with recurrent chronic venous leg ulcer was completely healed with 43 days of *ayurvedic* treatments. This case study shows effective management of the venous leg ulcer through *ayurvedic* intervention. Need to conduct a study with adequate sample size following same treatment methods in similar conditions for scientific validation.

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