

A CASE STUDY OF PANCHVALKAL KWATH DHAWAN IN DUSHTA VRANA W.S.R. TO VARICOSE ULCER

Pardeshi Neetu Narayan*

P. G. Scholar Department of Shalya Tantra R. A. Podar Medical College (Ayurveda) Worli
Mumbai – 400018 (MS).

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*Corresponding Author

Pardeshi Neetu Narayan

P. G. Scholar Department of
Shalya Tantra R. A. Podar
Medical College (Ayurveda)
Worli Mumbai - 400018
(MS).

ABSTRACT

Aacharya Sushrut mentioned sixty measures for management of wound. *Panchavalkal* is the combination of five drugs, having properties like *shodhan* (cleaning) and *ropan* (healing) of wound. Individual drugs and in combination have a *kashaya rasa* (astringent) dominant and useful in the management of *vrana* (wound) as well as *shotha* (inflammation). A 44 years old male patient consulted in *Shalya tantra* OPD with complaints like swelling, itching, slough, pain and discharge from the infected wound at lateral aspect of ankle joint of right foot since about last 8 to 9 months. The case was diagnosed as *dushta vrana* w.s.r. varicose ulcer and treated with *Panchvalkal kwath dhawan* daily. During the treatment period, wound was assessed

routinely for pain, swelling, slough and discharge to observe the overall healing of the *dushta vrana* w.s.r. varicose ulcer. There are significant improvements in the healing of wound in one and half month of treatment. This case demonstrated that *dushta vrana* w.s.r. varicose ulcer can be treated with *Panchvalkal kwath dhawan*. **Aim:** To evaluate the result of treatment of *panchvalkal kwath dhawan* in case of *dushta vrana* w.s.r. to varicose ulcer. **Objective:** To evaluate the outcome of treatment with *panchvalkal kwath dhawan* in terms of pain, ankle flare, peripheral hyper pigmentation, size of ulcer, granulation tissue in case of *dushta vrana* w.s.r. to varicose ulcer.

KEYWORDS: Infected wound, *Panchvalkal kwath*, *dushta vrana*, varicose ulcer, healing.

INTRODUCTION

Varicose ulcer is also known as stasis ulcer or venous ulcer. Most of etiological factors include increased intravenous pressure secondary to DVT, chronic constipation, long standing occupation, etc.

Chronic long standing cases of varicose veins renders the valves present mainly in the long saphenous vein incompetent resulting in venous hypertension allowing blood proteins fibrinogen leakage causing varicose ulcer.

Deficiency in fibrinolysis causes fibrin to build up around vessels preventing oxygen and nutrients from reaching cells. These fibrin plugs causes ischemia resulting in delayed healing of wounds. It means that ischemic ulceration can be caused by progressive atherosclerosis which leads to ulceration and skin ischemia.

Venous ulceration is initiated by venous hypertension that develops because of inadequate calf muscle pump action and after the onset of valvular incompetence. Venous hypertension damages capillaries of skin and subcutaneous tissue. The proteolytic enzymes and free radicals are released, which escapes through the leaky vessel walls and damages the surrounding tissue leading to injury and ulceration. Chronic venous insufficiency and resulting venous hypertension causes venous ulcer.

Conservatively this disease can be manage with compression stockings, foot elevation, antibiotics and daily dressing of ulcer. While surgical management consist of ultrasound guided foam sclerotherapy, EVLA (endo venous laser ablation), RFA (radio frequency ablation), sapheno-femoral ligation, long saphanous vein stripping, skin grafting etc.

In *Ayurveda*, the comprehensive management of all *vranas* (wounds) is exclusively described by *Aacharya Sushruta* under *shashthi upakarma* (sixty procedures).

He has described the wound from its different aspects right from the definition, causes, types and their management in detail. While describing the types of *vranas*, he mentioned the term *dushtavrana* which is having clinical features which resembles to the non-healing type of wound according to present medical science. *Aacharya Sushruta* has also explained about *vranas* (wounds) which are located in the lower exretemities and eliminates pus or other discharge from below in upper direction (anti gravity drainage) are difficult to cure.

There are lot of drugs in different formulations, described for *vrana ropan* (wound healing) according to its site, types, chronicity but the management of *vranas*, particularly *dustavrana*s (non healing ulcers) is still a challenge for surgeons.

Panchavalkal kwath is a formulation made up of the bark of five trees viz. *Vaṭa* (*Ficus bengalensis* Linn), *Udumbara* (*Ficus glomerata* Roxb.), *Asvattha* (*Ficus religiosa* Linn.), *Parisa* (*Thespesia populenoides* L.) and *Plakṣa* (*Ficus lacor* Buch-Ham.), having properties of *shodhan* (cleaning) and *ropan* (healing) of wounds.

All five drugs have dominance of *kaṣhaya* (astringent) *rasa* which is useful in management of *shotha* (inflammations) as well as *vraṇa* (wounds).

In this case report, a patient suffering from varicose ulcer at lateral aspect of right foot, was treated with *panchavalkal kwath dhawan*, which led to the significant healing within around six weeks.

MATERIAL AND METHOD

Procedure

Panchavalkal kwatha was prepared as per the general methodology of *kwatha* preparation. *Panchvalkal* coarse powder and water are taken in a ratio of 1:16 and boiled till it gets reduced to it's 1/8th part.

CASE REPORT

A 44 years old male patient of *vata pittaja* predominant *prakṛti*, suffering from *dushta vrana* w.s.r. varicose ulcer, visited the outpatient clinic of *Shalya Tantra*, in our institute for treatment.

He had the following characteristics

Thin build, dry skin, dry hair, unstable gait, and prominent vessel like characters which are indicative of *vata* predominant *prakṛti*. Some *pitta prakṛti* dominant characters such as fair complexion, moles on skin, grey hair, reddish eyes and excess sweating were also observed. He had a non vegetarian and spicy diet and was working as a building construction labourer.

The patient had complaints which included dull aching pain at right leg associated with gradual onset of mild oedema over right lower limb, discharge from infected wound, discolouration and itching around right ankle flare since 8-9 months.

The laboratory investigation for blood, urine, and stool were conducted and found within normal limits. Chest X-ray and Venous Doppler Study of right lower limb were done and no abnormal signs were detected.

Local examination

Site of ulcer: lateral aspect of right ankle joint.

Size of ulcer: 4 cm x 2.5 cm x 0.5 cm.

Shape: oval.

Smell: foul smell

Discharge: ++.

Hyper pigmentation: ++.

Epithelisation: +.

Edges: fibrosed and slopping.

Ankle flare: positive.

Local temprature: normal.

Granulation tissue: +.

Arterial pulsation : dorsalis pedis and posterior tibial pulses are normal.

Diagnosis: non healing varicose ulcer.

Treatment plan

After assessment of wound, it was washed with normal saline.

Daily *panchvalkal kwath dhawan* of the wound, 2 times a day at morning and evening for around 10 minutes. Every time freshly prepared *panchvalkal kwath* was used. This was followed by daily dressing with gauze piece. Finally roller bandage was wrapped around. Total duration for treatment was six weeks. During the treatment assessment was done on day1, day7, day14, day21, day28, day35, day42. Changes occurring within the treatment period has been noted on the criteria of assessment.

Adjuvant treatment

The patient was advised to apply regular stocking or crepe bandage and to rest as much a possible with foot elevation.

During the treatment, patient was advised a diet which included green vegetables, fruits, rice, roti (bread) and plenty of water. Patient was instructed not to consume non-vegetarian, spicy

food, oily food, junk foods and alcohol. He was also advised to avoid long sitting and riding/travelling during the course of treatment.

OBSERVATION

Parameters of observations included Ankle flare, Peripheral hyper pigmentation, Size of ulcer, granulation tissues and relief in pain. Patient was observed on above parameters on every week for six weeks.

Table: 1 Parameters and grading for observations.

Parameters	Grade			
Ankle flare	Base line 100%	3 = 75%	2 = 50%	1 = 25%
Peripheral Hyperpigmentation	Base line 100%	3 = 75%	2 = 50%	1 = 25%
Size of Ulcer	Base line 100%	3 = 75%	2 = 50%	1 = 25%
Granulation tissue	Base line 0%	1 = 25%	2 = 50%	3 = 75%
Pain	Base line 100%	3 = 75%	2 = 50%	1 = 25%

Table: 2 Progressive Report.

Parameters	Day 1	Day 7	Day 14	Day 21	Day 28	Day 35	Day 42
Ankle flare	Base line 100%	75%	50%	50%	25%	0%	0%
Peripheral Hyperpigmentation	Base line 100%	75%	75%	50%	50%	25%	25%
Size of Ulcer	Base line 100%	75%	50%	50%	25%	25%	0%
Granulation tissue	Base line 0%	25%	50%	75%	50%	25%	0%
Pain	Base line 100%	75%	50%	50%	25%	0%	0%

RESULTS

With *panchvalkal kwath dhawan* and adjuvant supportive management as discussed above, the wound significantly healed within six weeks. i.e. patient was cured from none healing ulcer.

DISCUSSION

Potential action of *panchvalkal kwath*

In this study, *Pancavalkala kwath* played important role in maintaining local hygiene of *dushta vrana* w.s.r. varicose ulcer, *sodhana* (cleaning) as well as *ropaṇa* (healing) of the varicose ulcer. The wound was repeatedly cleaned with freshly prepared *Panchavalkal kwath* applied daily. The *Pancavalkal kwath* has antimicrobial activities. Hence, this *kwath* potentiates the healing process by preventing infection at the wound site. In this case wound was healed without any complications due to the *Panchavalkal* used in the form of *dhawan*.

CONCLUSION

With the above discussed treatment plan, the none healing varicose ulcer significantly healed within around six weeks. On the basis of this case study, we can roughly conclude that *Ayurveda* can give a ray of hope in the treatment of varicose veins and ulcer. None of the complications like severe bleeding, wound infection or hypersensitivity were observed during the therapy. This therapy proves to be effective, time saving, affordable and acceptable treatment. Though treating none healing "Varicose ulcer" is a difficult task, we have managed to treat it with "*panchvalkal kwath*" along with conventional *Ayurvedic* methods of wound care.

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