

A Single Clinical Case Study of *Dashanga Lepa* and Z Paste in the Management of *Vranasopha* (Cellulitis)

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ABSTRACT

Introduction: Cellulitis is spreading inflammation of the subcutaneous tissue & fascial planes. It may be superficial & deep. Infection may follow scratch, wound or incision. It is commonly due to streptococcus pyogenes and other gram-positive organism. It is generally treated with antibiotics, anti-inflammatory, antipyretic and analgesic medication. It can progress to suppuration, sloughing and gangrene. *Vranashopha* can be associated with cellulitis. *Acharya Susrutha* highlighted the importance of *vrnanashopha* which is a localized swelling in part of body involving *Twak & Mamsa Dhatu*. It is explained as earlier phase of *Vrana*. In *Ayurveda Ekadasha/Saptopakrama* treatment have been explained. **Aim:** the Aim was to evaluate the role of ayurvedic & modern treatment modalities in *Vranasopha*. **Materials and Methods:** Case-A, a 43 years male patient was apparently normal before 15 days gradually noticed pain & swelling in right dorsum of right leg associated with itching and blisters, which was treated with *Dashanga lepa* & Case-B, a 52 years male was apparently normal before 10 days later complained of swelling & pain in left foot since 10 days, which was treated with Z-paste. **Result:** Both studies showed marked improvement in swelling & pain reduction. **Discussion:** *Dashanga lepa* and Z paste treatment were applied on 2 different patient suffering from cellulitis. *Dashanga lepa* which is clinically used as an anti-inflammatory agent, contain 10 commonly and easily available, which all are having good effect on *vrnanashopha* and in cellulitis z paste treatment modalities were adopted which contains zinc oxide & glycerol which has antibacterial property & promotes wound healing.

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KEYWORDS: cellulitis, *Dashanga lepa*, *Vranashopha*, z -paste

INTRODUCTION

Cellulitis is spreading inflammation of the subcutaneous tissue and fascial tissue which is usually caused by bacterial infection like streptococcus pyogenes, staphylococci pyogenes and gram-positive organism. Infection may follow scratch or wound or insect bite or incision. The organism on skin and its appendages gain entrance to dermis and multiply to cause cellulitis. Most common site of infection seen in face, lower limb, upper limb and scrotum.¹ cellulitis has incidence rate of 24.6/1000 persons- years, a higher incidence of cellulitis in males of all ages and that most cellulitis cases (78%) received treatment in outpatient settings. Lower extremity was the most common site of cellulitis among both males and females.² Cellulitis is common

in diabetes, immunosuppressed people and old age. The affected part becomes swollen, tender and hot. The condition starts with redness, itching and stiffness at the site of inoculation. Part becomes brawny and edematous and pitting pressure. cellulitis leading to suppuration, sloughing or even gangrene formation.³ Cellulitis is treated with antibiotics, anti-inflammatory, antipyretic, analgesic, limb elevation and glycerin magnesium sulphate dressing.⁴

Vranashopha can be associated with cellulitis. *Acharya Sushruta* defined *Shoppha* as localized swelling involving skin and the underlying flesh. *Shoppha* which may be even or uneven, massive and knotty or nodular in consistency and explained about

its consistency and explained about its classification, symptoms, complication and management. Vitiated *Vata* dosha displaces *Kapha*, *Pitta* and *Rakta* to different sites of body, this doshas accumulates in between *Twak* and *Mamsa* which result in *Shopha*.⁵ *Vranashopha* has classified into 3 progressive stages as *Amawastha*, *Pachyamanaawastha* and *Pakwawastha* and also described *vranashopha* into 6 types.⁶ *Acharya Sushruta* mentioned 60 types of *Upakramas* of *Vrana* and *Vrana Shopha* from *Apatarpana* to *Virechana*. *Sushruta* explained *Alpea* has first *Upakrama* in *shotha*.⁷ *Sushruta* explained 3 types of *Lepas* which reduces *Shopha* and *Vedhana*.⁸ *Sushruta* explained that *Alepa* is *heetakara* in *Avidagdha shopha* which eliminates *Daha*, *Kandu* and *Peeda* which also does *Twak Prasadhana*, *Mamsa* and *Rakta prasadhana* and said that *Daha prashamana* is the main function of *lepa*.⁹

Here *Dashanga lepa* which is having antibacterial property and anti-inflammatory and Z Paste which is having zinc oxide and glycerol having healing and anti-bacterial property by its hygroscopic action are used in case of *vranashopha*(cellulitis).

CASE REPORT

CASE-A (*Dashanga lepa*)

Chief complaints:

C/O 43 Year, male patient complaining of pain, swelling of dorsum right leg, associated with itching & blisters, with on and off fever since 15 days.

History of present illness:

A 43 year old Muslim patient, laborer, N/K/C/O DM, Hypertension, thyroid disorders, complaints of pain, swelling, itching over the dorsum of right foot since 6 month for which he consulted local medical practitioner and was prescribed some medication but there was no any relief and from the last 15 days symptoms got aggravated, pain, swelling and redness over dorsal aspect of right foot associated with on and off fever, so with these complaints they approached Shalya tantra department of SJG Ayurvedic Medical College and Hospital for management.

History of past illness:

N/K/C/O DM, Hypertension, thyroid disorder or any other comorbidities.

Family history:

Nothing significant to the presenting symptoms.

Ashtavidha parisha:

Nadi: *Parkrita*, *hamsa gati*

Mala: *Prakrita*, regular once day.

Mutra: *Prakrita*, 5-6 times/day

Jihva: *Lipta*

Shabda: *Prakrita*

Saprsha: *Anushnasheeta*.

Drik: *Prakrita*.

Aakriti: *Madhyama*.

Examination of patient:

Personal history:

Diet: mixed

Appetite: good

Bowel: hard stool 2 t/day

Micturition: no burning, 4-5 times/day

Sleep: sound

Habits: tobacco chewing, alcohol since 10 years

Vitals:

Bp- 120/80 mmhg

Respiratory rate: 18cpm

Pulse rate: 72bpm

Temperature: 99.8°F

Systematic examination:

CVS: S1 S2 Heard, no murmurs.

RS: Equal air entry B/L lungs field, NVBS

P/A: Soft, no organomegaly

Examination of foot:

Swelling over dorsum of right leg and foot

Redness over distal 1/3rd of anterior aspect of right leg and dorsum of foot.

Multiple blisters over dorsum of right foot

Hyperpigmented, scaly, itchy, maculopapular lesions over anterior aspect of proximal 1/3rd of right leg and lateral aspect of distal 1/3rd of right leg and foot.

On palpation:

Size – mentioned in table -1

Tenderness -right leg and foot.

Raised temperature ++

Dorsalis pedis and posterior tibial artery well palpated.

No distal neurovascular deformity.

Capillary filling rate less than 2 sec.

Investigation:

Hb: 10.2 mg/dl

RBS: 77.00mg/dl.

ESR: 120MM/HR

Serum creatinine: 1.5mg/dl

Platelet count: 1.02 lakhs/cu mm

WBC count: 12,500 cells/cu mm

HIV – non reactive

HBSAG- non reactive

HCV- non reactive.

Diagnosis: *Vrana Shopha*

Treatment:

Dashanga lepa (table-4) of required quantity was taken and ½ spoon of *Haridra churna* was added to the *churna* then mixed with Luke warm water, wait for the Lepa to dry later Lepa was washed with Luke warm water later *Yasti Madhu* tail applied and dressing done.

Dashanga lepa + haridhra churna BD (figure-1).

Oral medication:

Manjistadi Kashaya 10ml TID

Punarnavadi kahsya 10ml TID

Arogyavardhini vati 1 TID BF

Gokshuradi guggulu 1 BD AF

Sudharshana ghana vati 1 sos AF

CASE -B (Z Paste)

Chief complaint:

A male patient of 52year complaints of pain and swelling in left foot since 10 days.

History of present illness:

A 52year male patient, Hindu, farmer, not a N/K/C/O DM, hypertension, thyroid and no other comorbidities complaints of pain and swelling in left foot since 10 days with no other past history like fever, nausea, vomiting, cold, cough etc, and not undergone any surgical intervention came with above said symptoms for management of swelling.

History of past illness:

N/K/C/O DM, Hypertension, thyroid disorder or any other comorbidities.

Ashtvidha pareeksha:

Nadi: Prakrita.

Mala: Prakrita, regular once day.

Mutra: Prakrita, 6-7times/day

Jihva: Alipta

Shabda: Prakrita.

Sparsh: Anushnasheeta.

Drik: Prakrita.

Aakriti: Madhyama.

Examination of patient:

Personal history:

Diet: vegetarian

Appetite: good

Bowel: clear, 1 t/day

Micturition: no burning, 4-5 times/day

Sleep: sound

Habits: no any habits

Vitals:

Bp- 120/80 mmhg

Respiratory rate: 18cpm

Pulse rate: 72bpm

Temperature: 99.8 F

Systematic examination:

CVS: S1 S2 Heard, no murmurs.

RS: Equal air entry B/L lungs field, NVBS

P/A: Soft, no organomegaly.

Examination of foot:

Swelling over the dorsum of left leg and foot.

Redness over 1/3rd of left leg.

Palpation:

Size (mentioned in table-2).

Tenderness ++ over dorsum of left leg.

Raised temperature+.

Dorsalis pedis and posterior tibial artery well felt.

No vascular deformity.

Investigation:

Hb: 11 mg/dl

RBS: 82.00mg/dl.

ESR: 18mm/hr

Serum creatinine: 1mg/dl

Platelet count: 2.05 lakhs/cu mm

WBC count: 10,500 ells/cu mm

HIV – non reactive

HBSAG- non reactive

HCV- non reactive.

Diagnosis: Cellulitis.

Treatment:

Z paste(table-5) dressing was continued for 3 days (figure -2).

Oral medication:

T. cefakind cv 1 BD 5 AF

T.cymolife ap 1 BD AF

T. coolrab xt 1 BD BF

Discussion:

Vranashopha is managed in early stages to avoid more tissue damage. *Acharya Sushruta* has described management required for different stages of *Vranashopha* in *Saptopakrama*: like in *Amawastha* the *Upakrama* told are *Vimlapana*, *Avasechana*, *Upanaha*. In *Pakwawastha*, *Patna*, for *Vrana chikitsa*: *Sodhana* and *Ropana* are told. Later *Vaikritapana* has been mentioned.¹¹ As *Acharya Sushruta* has said if *dosha* are eliminated in stage of accumulation itself, the disease will not progress to further stages. so, in this case when the *sopha* was

noticed, *Dashnaga lepa* was applied to reduce *Shopha*.

In case -A application of *Dashanga lepa*, having *Kashaya*, *Tikta*, *Katu* and *Madhura rasa* and possess qualities of *Utsadana*, *Ropana* and *Vrana Sodhana*. In *Avidagdha sophia alepa* is said to be *Heetakara*. Which does *dosha Shamana*, *Daha*, *Kandu*, *Pida Shanti*. *Twak prasadhana*, *Mamsa* and *Rakta prasadhna*.

Case-B Z paste application zinc oxide with glycerol where zinc oxide was found effective in healing which is active against both gram positive and gram-negative organism and glycerol gives, smoothening effect.¹² Zinc oxide promotes healing and protect the affected area from further irritation or infection. Where Presence of topical steroid ointment or cream used under the bandage will be absorbed efficiently, making it sufficient to apply once a day.

Conclusion:

Acharya Sushruta explained the management of every stage of *Vrunasotha* in detail. here *lepa* was used to eliminate the *doshas*, has it been said that *Lepa* if applied for *Sopha* in *Apakwaavstha* to make it *Pakwa* and in early-stage application of *Lepa* helps to eliminate *Dosha* without making it *Pakwa* and hence doesn't allow further progress of *Sopha* towards *Vrana*. Z paste has as the same effect which reduces the inflammation has zinc oxide has good healing property.

Here in case A *Dashnaga lepa* was applied for 7 days and in Case 2 application of Z paste was done for 3 days.

In case A cellulitis was more prognosed in comparison to case B according to the measurement of swelling and the day of onset. Based on this we can conclude that both *Dashanga lepa* and Z-paste have equal effect in management of cellulitis.

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Table-1 Measurement of case- A

	Before treatment	After treatment
Mid -calf	36cm	35cm
Mid- foot	29cm	27cm
Ankle	25cm	23cm

	Before treatment 1 st day	4 th day	After treatment
Mid -calf	36 cm	36 cm	35 cm
Mid- foot	29 cm	28 cm	27 cm
Ankle	25cm	24 cm	23 cm

Table – 2: Measurement of case -B

	Before treatment	After treatment
Mid- calf	35cm	33cm
Mid- foot	25cm	24cm
Ankle	25cm	24cm

Table -3 Time period for both cases

Treatment	Days
Dashanga lepa (Case-A)	7 days
Z-paste (Case-B)	3 days

Table-4: composition of Dashanga Lepa.¹⁰

SL. NO	Ingredients	Latin name	Family	Part used	proportion
1	shirisha	Albizzia Lebbeck Benth.	Fabaceae	Root	1 part
2	Madhuyasthi	Glycyrrhiza glabra Linn.	Fabaceae	Root	1 part
3	Raktachandana	Pterocarpus santalinus Linn.	Fabaceae	Heart wood	1 part
4	Tagara	Valeriana Wallichii DC.	Valerianaceae	Root	1 part
5	Ela	Elettaria cardamomum maton	Zingiberaceae	Seed	1 part
6	Haridra	Curcuma Longa Linn.	Zingiberaceae	Rhizome	1 part
7	Druharidra	Berberis aristata DC.	Berberidaceae	Stem	1 part
8	Jatamansi	Nardostachys Jatamansi DC.	Caprifoliaceae	Root/rhizome	1 part
9	Kustha	Saussurea lappa C.B	Asteraceae	Root	1 part
10	Hriversa	Pavonia odorata wilid.	Malvaceae	Root	1 part

Table-5: composition of Z-Paste.

1	Zinc oxide
2	Glycerol
	
Before treatment- 1 st day.	
Application of lepa.	



Figure 1: application of *Dashanga lepa*.

Figure-2 application of Z-paste.

