



To Evaluate The Clinical Efficacy Of Nimbapatra Darvayadi Lepa In Dusta Vrana- A Case Study

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Abstract-

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Vrana and process of healing is the core of *shalya tantra*. In classics of *Ayurveda* especially *Sushruta* as well as other acharyas has elaborately gives a detailed description of wound and its management. Therefore in present study by *Nimbapatradarvyadi Lepa*, all effort are centralized to keep the wound clean and also to enhance wound healing.

A 56 years male patient suffering from a 36 cm non healing ulcer over his left leg over tibia since 40 days, after getting blunt trauma, came to *shalyatantra* OPD and he was treated with *nimbapatradarvyadi lepa* after proper debridement and cleaning with NS every day for 90 days. Gradually *vrana vedana* (pain), *srava* (discharge), *gandha* (smell), *pariman* (size) decreased. After 90 days the wound is completely healed.

As this *lepa* has *vrana sodhana*, *lekhana*, *tridosahara*, *krimighna*, *vedana sthapana* property, and this drug has near neutral pH that is why this *lepa* shows effective result for proper healing in this case.

Key words: *vrana*, *nimbapatradarvyadi lepa*, healing.

Introduction:

In *Shalya tantra*, *vrana* is most important and complicated disease due to its various *nidana*, *doshic* involvement; and complications and examination as well as treatment procedures.

Dustavrana is excessively damaged condition, characterized by vitiation of *mamsa* and *medodhatu* by *doshas* and manifested as *Durgandhayuktapuyam* (pus), *Vedana* (pain), *Ushnata*, *Shopha*, *Kandu*, *Raga* and also *Durgandhayukta Rakta* with no intention to heal.¹

As the science have advanced newer procedures like various types of dressing, bio-debridement, enzymatic debridement, negative pressure therapy, maggot therapy, topical application of collagen, insulin, oxygen therapy, stem cell & gene therapy etc. but the oldest remedies still lead the race. *Sushruta*, pioneer of surgery in his treatise *Sashti Upakrama*, elaborately describes the management of *vrana* from its early stage of vitiation of *doshas* to total recovery. The ancient procedures in the management of wound mainly divided into purification therapy (*Shodhana*) and local applications (*Ropana*) of natural resources, which helps to heal the wound faster without any complication. Topical application of *ghrita*, *taila*, *malahara*, drugs in the form of *lepa* is very important procedure for healing

of wound. Here *nimbapatradarvyadi lepa* as mentioned in *sharangadhar samhita* is taken to treat this case.²

Case report:

Type of study: observational single case design.

Study center: ShriShiddharood Charitable Hospital, Bidar

A 56 years old male patient came to *Shalya* OPD with complaining of a 36 cm non healing ulcer at left leg in front of tibia, after getting blunt trauma 40 days ago. The ulcer shows blackish discoloration, foul smelling discharge and pain since 30 days.

The patient was treated with various types of medications and advised for skin grafting by many physicians; lastly he came to ShriSiddharoodh charitable hospital and attended *shalya tantra* OPD for better management.

There was no history of DM, HTN or any other systemic disorder. All vital parameters were with in normal limits. And the patient was hemodynamically stable with anxiety.

Local examination:

A big ulcer with purulent discharge and irregular margin seen in front of tibia of

left leg which having 36 X 11 X 0.5 cm dimensions emits unpleasant tolerable smell. Lower portion of ulcer, above lateral malleolus was tender and there is local rise of temperature felt.

Preparation of lepa:

Nimbapatra kalka was prepared freshly and mixed with *daruharidra*, *yastimadhu* powder, *tilakalka*, honey, *goughirta*. All ingredients were taken in equal quantity and mixed well.

Method of application:

Every morning the ulcer was exposed and debrided properly. Then the ulcer was washed with NS properly. One single layered gauge piece was cut according to the area of ulcer then smeared with *goughirta* and placed it on the ulcer. Then one thick layer of lepa (about 0.5cm) applied, then covered with sterile dressing pad and after that bandaging was done.

Assessment parameters: \

Assessment was done on the basis of *Vedana* (pain), *srava* (discharge), *gandha* (smell), *mamsankura* (granulation tissue), *parimana* (size of wound) & *varna* (colour).³

Results:

The clinical features of *dusta vrana* were improved after 10 days. After 30 days fresh granulation tissue appeared, gradually the size of the ulcer getting reduced, after 90 days the wound is completely healed with minimal scar.

Discussion:

Effect on *vedna*: pain and tenderness was completely reduced after 30 days. This may be due to *madhura rasa* and *sita veerya* of *lepa* which reduces *vata* and *pitta*.

Effect on *sraava*: Firstly purulent discharge was present which was gradually reduced and serous discharge seen after 30 days. This may be due to *madhura*, *kashaya* and *tikta* rasa predominance, *vrana sodhaka* property; and *lekhana* effect of the *lepa*; as *welas* antioxidant effect, antimicrobial effect.

Effect on *gandha*: unpleasant smell present at the beginning then after 28 day it completely reduced. As this *lepa* has the predominance of *katu*, *tikta rasa* it shows *vrana shodhaka* and *rakta prasada* property and *ghrita* gives a specific smell which have significant effect on reducing *gandha*.

Effect on *mamsankura*: As this *lepa* contains *ghrita* and *madhu* which are *tridosha shamak* and the *lepa* is predominant in *guru guna* which gives stability to the formed *mamsankura*. And *tila* has *snehana* action which gives nutritional support to the newly formed tissue; it also helps in collagen tissue formation by inhibiting lipid peroxidation. *Tila*, *nimba* and *daruharidra* has antioxidant (reduces oxidative stress) property which inhibits lipid peroxidation and DNA cleavage.^{4,5} Also *yastimadhu* and *tila* epithelialization improves fibroblastic activity and gives the stability to the collagen fibers.⁶

Effect on varna: As this *lepa* has *tikta rasa* predominance and *yastimadhu* has *raktaprasadaka*, and *tila*, *nimba*, *goghrita*, *yastimadhu* are *varnya* in action. *Tila* has the effect on collagen fiber maturation, *yastimadhu* and *tila* both have the effect on wound contraction these make this *lepa* effective in restoration of skin colour.⁷

Vrana is a *tridoshajavikara*, *shoola* (caused by *vata*⁸) may be pacified by the *madhura rasa* and *snigdha guna*. *Pitta* (causes *paka*⁸) may be mitigated by the virtue of its *tikta*, *kashaya*, *madhura rasa* and *sheetaveerya*. *Kapha* (cause of *gandha*⁸) may be mitigated by *tikta*, *katu*, *kashaya rasa*, *laghu*, *ruksha guna* and *katu vipaka*. As *Nimbapatradarvyadi lepa* has *varnya* and *rakta prasadaka* properties, it may help in removing the *vrnavastu* (scar). When the drug was subjected for preliminary phytochemical analysis it shows presence of tannins, flavonoids, saponins, sterols,

proteins thus it acts as anti-inflammatory, provides a protective membrane and gives nutrition to the granulation tissue⁹ by this *Nimbapatradarvyadi lepa* may help to reduce the *vedana*, *gandha*, *srava* and *mamsankura*. Thereby may leads to *sodhana* and *ropana* of *Vrana*.

Conclusion:

- This treatment modality of *dustavrana* is cost effective, easily prepared, easily applicable, *shodhana* as well as *ropana* property and can be conducted at OPD level.
- Unnatural discharge was seen during 1st 14 days of the treatment. But in next 14 days the discharge gradually decreased. This may be because of the *lekhana*, *vrnapachana* and *vrnashodhana* property of the *lepa*. In spite of that it is found to be effective drug in the management of ulcer.

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Day 1

Day 7

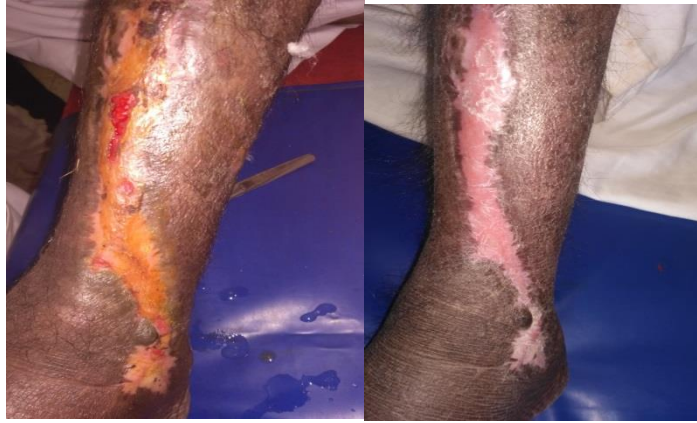
Day 35



Day 45

Day 50

Day 60



Day 75

Day 90