

## SHODHAN AND ROPAN EFFECT OF NIMBADI GHRITA KAVALIKA IN THE MANAGEMENT OF DUSHTA VRANA - A CASE STUDY

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### ABSTRACT

Wound and its management has been dealt with since the beginning of vedas till date and in spite of leaps modern science 'wound management' still remains a subject of speculation. Dushta vrana is one which discharges foul smelling pus or spoiled blood, has sinuses inside, remains for long duration, emitting foul smell and does not possess any features of clean ulcers. Wound dressings are conventionally only applied to shield the wound from external contamination, but they could also be functionalized with different therapeutic complexes to be delivered to wound sites. Acharya Sushrut has mentioned various ways of application of drug over vrana i.e in terms of pichu, kavalika, varti, vikeshika. In infected wound, one needs to evaluate shodhan (cleaning) and ropan (healing) effect. In ayurvedic samhitas, so many drugs are there which have Shodhan and ropan property. Nimba, darvi, yashtimadhu, madhu, ghrita are some of the drugs which are effective in Shodhan and ropan. Here a case study of a male patient suffering from an infected wound treated with nimbadi ghrita kavalika is observed and analysed.

**KEYWORDS:** Wound, dushta vrana, kavalika, nimbadi ghrit.

### INTRODUCTION

The science of Ayurveda has forever been treasure trove of knowledge with potent emphasis on practical application. Ayurveda aims at maintaining health, curing and preventing various diseases thereby giving human being a healthy life. Surgery as a science, quintessentially revolves around 'wound', may it is traumatic or pyogenic. Surgeon either has to create the wound during surgical procedure or treat the wound occurred by trauma, accidental conditions, vitiated doshas. Ayurveda has classified these as Neeja and Aagantuj vrana. If the endogenous factors i.e. vitiation of tridosha is responsible for the occurrence of vrana then it is known as Neeja Vrana. On the other hand, if the exogenous factors are responsible then it is called Agantuj vrana.

Dushta vrana is one which discharges foul smelling pus or spoiled blood, has sinuses inside, remaining for long periods, emitting foul smell and not possessing any features of clean ulcers. The skin acts as a protective barrier so an exposed wound is more likely to get infected. Whenever there is an open wound, nature

attempts to cover the wound to prevent infection. But this natural method is slow. However this natural healing is greatly accepted. The skin cover is fragile, thin and liable to break down and form another ulcer. Sometimes wounds are not able to heal naturally. Wound management by physicians/surgeons assist nature by the cleansing and removing of dead tissue from the wound & by the application of appropriate local dressing onto the wound.

Acharya Sushruta clearly summarized the treatment of vrana under shashthi upakramas and broadly divided the process as shodhan and ropan of vranas. Dressings with only bandages that have no active function in the healing process; one can use dressings incorporated with active ingredients. In Ayurveda number of plants are used to achieve the goal of shodhan and ropan. A selection of an appropriate initial wound dressing plays an important role in wound healing. A major impediment in wound healing is bacterial infection and its various complications. Growth of micro-organisms and secondary infections in the wounds has led to the overuse of antibiotics. The heavy use of antibiotics in dushta

vrana have led to other systemic complications. As the antimicrobial resistance is on the rise, new antimicrobials in the form of natural dressings, can be proven effective. This could be the safe, natural, cost effective, and easily available cure for wound and gratifies as apt ayurvedic modality in the management of wounds.

## MATERIALS AND METHODS

Review of ayurvedic samhitas for vrana was done and nimbadi ghrita kavalika was decided for use as a choice of treatment. Literature about wound was also studied. Here A case study of male patient suffering from infected wound is illustrated. He had wound at lateral aspect of right ankle joint since five days. He had complaints of pain and swelling at the wound site. He came to surgery opd of M. A. Podar hospital for treatment. After physical and local examination, we decided to do dressing with nimbadi ghrit kavalika. Blood investigations and blood sugar level were within normal limit.

### Preparation of nimbadi ghrita

#### Ingredients

Nimba - *Azadiracta indica*  
 Darvi - *Berberis aristata*  
 Madhuk - *Glyceria glabra*  
 Madhu - *Apis mellifera*  
 Goghrit - Clarified butter

#### Method of preparation of nimbadi ghrita

- Kwath of nimba, darvi, madhuk was prepared.
- 1 part goghrit was mixed with 1/6 part of kalka of nimba darvi and madhuk.
- Kwath was taken 4 times of goghrit.
- All this ingredients were subjected to conventional snehapak method.
- Ghrita was prepared in order to get desired characteristic of ghrita siddhi.
- This ghrita was packed in container and send for autoclaving.

### Preparation of nimbadi ghrit kavalika

- Kavalika was made at the time of dressing.
- Nimbadi ghrit with madhu was applied over the sterile gauze to make kavalika with aseptic precaution.



- This impregnated gauze was applied over the wound and bandage done.
- Alternate day dressing done for 7 days.

### Infected wound



### Nimbadi ghrita kavalika application



### After five days of kavalika application



After 7 days



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## RESULT AND DISCUSSION

Nimbadi ghrith acts as krimighna as it includes nimba, darvi which have tikta kashay ras, katu Vipak, and laghu Ruksha guna.

Madhu is tridoshashamak, due to its Madhur rasa kashay uparasa, Ruksha guna, sukshma marganusari. Pain in dushta vrana is due to vitiated vata dosha.

Madhur rasa of madhu pacifies vitiated vata dosha thus reduces pain. It pacifies pitta dosha due to its Madhur rasa and sheeta guna. Kapha is taken care by its kashay rasa and Ruksha guna. It acts with its Lekhan karma (desloughing action), kashay rasa and Ruksha guna.

Yashtimadhu is rujahar, ushna viryatmak, and its vatahar action helps to reduce the pain at wound site.

Laghu, Ruksha guna of nimba darvi help in reducing pus discharge.

Anti adherence effect due to kavalika and ropan property of yashtimadhu and madhu enhances the production of healthy granulation tissue.

Madhur rasa of madhu, ghrita gives nutrition to the tissue which help in granulation tissue formation.

## CONCLUSION

There was significant relief in pain, swelling, and discharge.

Desloughing action of nimbadi ghrita was noticeable.

Healthy granulation tissue formation was started.

No adverse effects were noted during treatment.

So, the present study shows that nimbadi ghrita kavalika is a safe, effective, non invasive modality for the management of the infected wound.

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