

**CLINICAL EFFICACY OF MADHUKADI YOGA IN THE
MANAGEMENT OF AGANTUJA VRANA (POST INSECT BITE
WOUND) - CASE STUDY**

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ABSTRACT

Surgeons in ancient India defined wound as the solution of continuity of the skin. The healing of wound is the natural mechanism of the body. There are mainly 2 types of wound i.e. *Nija* and *Agantuja*. Here I have reported a new case of post wound of insect bite on medial aspect of right ankle joint, presented with painful, severe itching, oedema, and irregular shaped wound since 2 months. A male patient of 68 years old consulted to OPD, Shree Gulabkunverba Ayurveda Hospital, Jamnagar, with above complaint. **Aims and objectives:** To evaluate the clinical efficacy of *Madhukadi Yoga* in the management of *Agantuja Vrana*. **Materials and Method:** This case was managed with External application of *Madhukadi Yoga* for 12 weeks. **Result and Conclusion:** This single case concluded that regular cleaning with *Phalatrikadi Kwatha* and local application of *Madhukadi Yoga* have healing activity in non-healing chronic wounds(*Agantuja Vrana*). This

formulation is safe, easy to apply and tolerable to the patient without any side effect. This formulation need to be tried in more number of cases.

INTRODUCTION

Surgeons in ancient India defined wound as the solution of continuity of the skin. *Sushruta*, father of Indian surgery has been documented different types of *Vrana* (wound) like *Nija vrana* and *Agantuja Vrana*. In *Nija* variety they have included all those causes where the

systemic involvement of the body found, where as in *Agantuja* variety, they have explained about *vrana* caused by the external factors mainly by Trauma, Insect Bite, Chemical Exposure etc.^[1] Wound healing is a complex phenomenon that results in restoration of anatomic continuity and function, accomplished by several processes which involve different phases including inflammation, granulation, fibrogenesis neovascularization, wound contraction and epithelization.^[2] Ayurveda, gives more importance to preventive measures and complete curing of a disease with a minimum chance of recurrence. *Acharya Sushruta* had advocated 60 procedures for wound care to meet the challenge of wound management.^[3] *Acharya Sushruta* has mentioned many effective yogas for wound management among them for *Ropana* purpose *Madhukadi Yoga*^[4] is selected. *Madhukadi Yoga* (*Madhu, Ghrita, Til Kalka, Nimba Patra Swarasa*) is a known *Vrana Ropana* formulation. As per Ayurveda *Shodhana* is equally important, so for *shodhana* purpose *Phalatrikadi kwatha*^[5] was selected. Hence considering the wound healing activity the drug it has been tried in this case and found effective in *Agantuja Vrana*.

CASE REPORT

A male patient of 68 years old consulted to OPD of Shree Gulabkunverba Ayurved Chikitsalaya, Jamnagar, presented with the post wound of insect bite on medial aspect of right ankle joint along with painful, severe itching, oedema, and irregular shaped wound since 2 months. Patient is not a K/C/O DM & HTN and not taking any medicine. Routine investigations were within normal limits. Before 2 months while sleeping at night patient experienced an Insect bite with moderate pain and Itching. Next day morning patient had visited civil hospital, Jamnagar with Inflammation, severe Itching and moderate pain at the site of Insect bite and took allopathic medicine for 1 month. After 1 month the inflammation converted into wound and they had started dressing of wound with Normal saline and Betadine Ointment but patient did not get any relief. So after 2 months he consulted to OPD of Shree Gulabkunverba Ayurved Chikitsalaya, Jamnagar

Vrana Pariksha (Local examination)

During the local examinations following findings were noted.

Site: medial aspect of right ankle joint.

Number: Single wound.

Edge and margin: Irregular.

Floor: hyper granulation tissue.

Base: Indurated, Present with Slough.

Discharge: Purulent.

Surrounding skin: reddish discoloration.

Tenderness: Present.

Regional Lymph node: Not enlarged and palpable.

AIMS AND OBJECTIVES

To evaluate the clinical efficacy of *Madhukadi Yoga* in the management of *Agantuja Vrana*.

MATERIALS AND METHODS

Preparation of *Madhukadi Yoga*:

1. *Goghrita* - 1 part
2. *Madhu* - 1 part
3. *Krishna tila* - seed powder 1 part
4. *Nimba Patra swaras* – 1 part

Madhukadi Yoga is a combination of *Madhu*, *Ghrita*, *Nimbapatra Swaras* and *Tila kalka*.

Take all the above mentioned drugs in equal quantities (1 Part) and mix well before applying and make it paste form. Fresh paste was prepared every day before using in wound.

Application of drug

Daily, once in the morning, dressing was done with *Madhukadi Yoga* after cleaning it with *Phalatrikadi Kwath* and bandaged the wound. The assessment of the wound was done on the basis of relief in symptoms i.e. pain, itching, size of wound and discharge.

Observation of wound





RESULTS AND DISCUSSION

As per Ayurveda, in case of *Agantuja Vrana*, the *tri-doshas* were not vitiated in initial stage, later it will vitiate and the symptoms are manifested.^[6] In this case after Insect bite, vrana was formed after 1 month and further it converted into *Dusta Vrana* at the time of 1st consultation i.e. after 2 month. Even though wound healing is a natural process, it is inhibited by various factors. Deranged *Doshas* cannot be treated with a single drug all the times. Therefore number of drugs of different properties is described as *Vrana Shodhaka* and *Vrana Ropaka* in the management of wound. Drugs which contain *Katu*, *Tikta*, *Madhura* and *Kashaya Rasa* are more useful. *Ropana* is always associated with *shodhana* because a wound cannot be healed if it is not *shuddha*.

In this case consent has been taken and the prognosis of the disease was explained to the patient and his relatives. The assessment was made on the basis of changes observed in the signs and symptoms of wound. The parameters of pain, swelling, discharge along with condition of floor, margin, granulation tissue and size of wound were recorded. To assess the healing photographs of wound were taken on weekly intervals. Patient visited to Civil Hospital, Jamnagar after insect bite (Fig-1). On 1st consultation patient came with unhealthy wound (Fig-2). On 1st week unhealthy tissue was removed by debridement and regular

dressing (Fig-3). On 3rd week, wounds were observed into smaller sized with good epithelialisation (Fig-4). On 5th week, granulation tissue formation was observed (Fig-5). During this treatment wound healing was progressively favorable in 7th and 8th week (Fig. 6 & 7). After 10th week wound sized was remarkably reduced with healthy contraction of wound margins (Fig. 8 & 9). On 12th week complete healed wound was observed (Fig. 9).

Madhu is considered as good *shodhaka dravya*, due to its *sukshmat* it enters very small pores around the wound site and does not allow any infections to enter the site. *Goghrtia* has a soothing property. It forms a thin film over them and that allows early epithelization of wound. It also protects wound from invasion of any micro organisms. *Tila Kalka* is soothing and instant pain relieving since it pacifies *vata*. Sesamol a chemical present in *tila* has a phenol ring and acts as an anti inflammatory drug. Neem contains many active ingredients such as nimbidin, nimbin, and nimbidol with anti-inflammatory, anti-bacterial, anti-fungal and anti-viral^[7] properties that may help it accelerating the wound healing process. In addition, neem contains an excellent amount of amino acids, vitamin and mineral that is very important in wound healing processes in proliferation phase.^[8] So in nut shell *Madhukadi yoga* enhance the speed of process of healing by promoting epithelialization, reducing inflammation by eliminating *tikshna guna* of *pitta* and relieving pain, reducing wound contracture, by keeping the edges soft by reducing *rukshata* of *vayu*, it reduces the risk of secondary infection and *Kapha* is counteracted by *Madhu*.^[9] *Madhu* is pacifying the three vitiated *Doshas*, i.e, *Vata*, *Pitta*, and *Kapha* by multiple actions attributable to its *Madhura* (sweet) *Rasa*, *Kashaya* (astringent) *Uparasa*, *Ruksha* (dry) *Guna*, *Sheeta* (cold) *Virya*, *Madhura Vipaka*, and *Sukshma Marga Anusari* (ability to permeate in microchannels) *Prabhava*. *Madhura Rasa* gives nutrition to the tissue, which helps in granulation tissue formation, while *Kashaya Rasa* provides *Lekhana* (scraping) that helps in deslough, preparing the wound for healing. Thus *Madhu* has excellent properties to heal the wound by virtue of its *Sodhan* (purification), *Ropana* (healing) and *Sandhana* (union) actions.^[10] Honey is a hyperosmolar medium, preventing bacterial growth. Because of its high viscosity it forms a physical barrier, and the presence of the enzyme catalase gives honey antioxidant properties.^[11] Honey has been shown to be useful in the prevention of hypertrophic scarring and post-burn contractures.^[12] Honey is a very effective agent for dressing of split-thickness skin graft.^[13] Due to faster rate of healing and reduced or absence of wound contracture phenomenon the ulcer remains open and the secretions which otherwise get collected in and

hamper the healing process, get cleaned rapidly. This process adds to the regeneration of tissue and minimum scarring, fibrosis of the wound edges.

Phalatrikadi kwath acts as a tridosha shamaka (pacifying the Vitiated dosha), Shotha-hara (anti inflammatory), rasayana^[14] (antioxidant, Initiate healing), Due to its tikta-kashaya rasa^[15] properties, it must have reduced the *Srava* (discharge). Pharmacological action of *Phalatrikadi kwath* proves that all eight drugs of *Phalatrikadi kwath* are found to have anti-inflammatory, analgesic, antimicrobial properties.^[16]

CONCLUSION

This single case concluded that regular cleaning with *Phalatrikadi Kwatha* and local application of *Madhukadi Yoga* have healing activity in non-healing chronic wounds (*Agantuja Vrana*). This formulation is safe, easy to apply and tolerable to the patient without any side effect.

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REFERENCES

1. Ambikadatta Shastri, Sushruta Samhita, Purvardha, sutrasthana 22, Chaukhambha Sanskrit Sansthana, 12th ed, 2001; 95.
2. Clark RA. Wound repair: an overview and general consideration. In: Clark RA, Hensen PM, editors. Molecular and Cellular Biology of Wound Repair. New York: Plenum Press, 1996; 473-88.
3. Shastri A.D, Sushruta Samhita, Poorvardha Chikitsa sthana 1/8, Varanasi: Chaukhamba Sanskrit Sansthan, 2010; P.5.
4. Acharya YT. Sushruta Samhita, Chikitsa Sthana, Chapter-1/69, Nibandhasangraha commentary, Chaukhamba Surabharati Prakashan, Varanasi, Reprint, 2010; P-3.
5. Vaidya Dayal Parmar, Charaka Samhita, part-2, 1st ed. Chikitsa sthana, 6/40, Sarasvati Pustak Bhandar, Ahmedabad, 2001-2002, P172.
6. Vaidya Dayal Parmar, Charaka Samhita, part-2, 1st ed. Chikitsa sthana, 25/09, Sarasvati Pustak Bhandar, Ahmedabad, 2001-2002; P.544.

7. Naveen Kumar Chundran, Ike Rostikawati Husen, Irra Rubianti, "Effect of Neem Leaves Extract (*Azadirachta Indica*) on Wound Healing. *Althea Medical Journal*, June 2015; 2(2): 199-203.
8. Subapriya R, Nagini S, Medicinal properties of neem leaves; a review. *Curr Med Chem Anticancer Agents*, 2005; 5(2): 149-6.
9. Joshi Pashmina (2004), Management of Parikartika (Fissure-in-ano) with Dantyaristha, Madhukadi Yoga and Kshara application, IPGT & RA, GAU.
10. Dudhmal TS, Gupta SK, Bhuyan C, case report: Role of Madhu in the management of Dushta Vrana, *International Journal of Ayurveda Research (IJAR)*, 2010; 1(4): 209-211.
11. Bangroo AK, Khatri R, Chauhan S. Honey dressing in pediatric burns. *J Indian Assoc Pediatr Surg*, 2005; 10: 172-175.
12. Bhagel PS, Shukla S, Mathur RK, Randa R. A comparative study to evaluate the effect of honeydressing and silver sulfadiazine dressing on wound healing in burn patient. *Indian J Plast Surg*, 2009; 42: 176-81.
13. Emsen IM. A different and safe method of split thickness skin graft fixation: medical honey application. *Burns*, 2007; 33: 782-7.
14. Chunekar KC, Bhavprakash Nighantu, Guuduchiyadi varga 3/7-8, Chaukhambha Bharti Academy, Varanasi, reprint, 2010; 257.
15. Chunekar KC, Bhavprakash Nighantu, Haritakyadi varga 1/89-94, 1/152, Chaukhambha Bharti Academy, Varanasi, reprint, 2010; 67.
16. Nirmal Kumar, Anil Kumar Singh. Phalatrikadi Kvatha – A Ayurvedic hepatoprotective drug. *International Journal of research in pharmacy and chemistry (IJRPC)*, 2013; 3(3): 591-594.