

Clinical Efficacy of *Madhukadi Yoga* in the management of *Dusta Vrana* (Post surgical non healing wound) - A rare case report

Joyal Patel^{1*} Pashmina Joshi²

¹ Assistant Professor, ² Associate Professor, Department of Shalya Tantra, Shree Gulabkunverba Ayurveda Mahavidyalaya, Gujarat Ayurved University, Jamnagar, Gujarat. Pin -361008. India

*Corresponding author: email: drjoyal.patel@gmail.com Mob: 09824718110

Abstract:

“The destruction / break / rupture / discontinuity of body tissue / part of body, is called *Vrana*.” The healing of wound is the natural mechanism of the body. Naturally wound will heal in one week if no *Doshic* invasion (infection) takes place. Wound in lower extremity are generally caused by venous insufficiency, arterial insufficiency, and diabetic neuropathy. These wounds may hamper the quality of life of patient. Here we reported a case of non healing wound after surgery of fracture of shaft of right tibia bone. A male patient of 70 years old consulted to OPD, Shree Gulabkunverba Ayurveda Hospital, Jamnagar, with with painful, hypertrophied, irregular shaped wound on anterior aspect of tibia since 6 months. He was unable to bear weight on the affected leg (right lower limb). This case was managed with a local application of *Madhukadi Yoga* and almost healed within 8 weeks. This case concluded that regular local application of *Madhukadi Yoga* is helpful in non healing wound.

Key Words: *Dusta Vrana*, Post Fracture of shaft of right tibia bone, non healing wound, *Madhukadi Yoga*

Introduction:

Wound (*Vrana*) is an injury to the body (as from violence, accident, or surgery) that typically involves laceration or breaking of a membrane (as the skin) and usually damage to underlying tissues.^[1] It represents a difficult problem which significantly affects the quality of life of patient by pain, localized infection, and systemic symptoms.^[2] Venous insufficiency,^[3] arterial insufficiency, and diabetic neuropathy are major conditions for developing wounds in lower extremity.^[4] In *Ayurveda*, these types of

etiology can be consider under *Dusta-Vrana*, which is difficult to heal. *Dushta* is one in which there is localization of *Dosha vata, pita and kapha*. *Vrana*, which had a bad smell, has abnormal color, with profuse discharge, intense pain and takes a long period to heal. *Dushta Vrana* is a long standing ulcer where removing debris enabling drug to reach healthy tissue is more important. In this context we can understand it as a non-healing ulcer. In spite of the advances that have been made, the management of chronic wounds is still a challenge for the clinician. *Sushruta* was

quite aware of the importance of wound management and has described *Shashthi Upakramas* (sixty measures) for management of *Vrana Ropana* (wound healing).^[5] *Ayurveda*, gives more importance to preventive measures and complete curing of a disease with a minimum chance of recurrence. *Madhukadi Yoga* (*Madhu, Ghrita, Til Kalka, Nimba Patra Swarasa*) is a known *Vrana Ropana* formulation.^[6] Hence considering the wound healing activity the drug it has been tried in this case and found effective in non-healing multiple ulcers.

Case Report:

A 70 year male patient, consulted to outpatient department of Shree Gulabkunverba Ayurveda Hospital, Jamnagar; was presented with painful, hypertrophied, irregular shaped, deep wound over anterior aspect of tibia developed since 6 months after of tibia fracture (1 year ago) which was earlier managed with external fixation. Patient was unable to bear weight on his affected lower limb. Patient had no previous history of hypertension (HTN) and diabetes mellitus (DM). According to patient history after surgery multiple ulceration were progressively developed after the successful management of tibial fracture with Minimally Invasive Percutaneous Plate Osteosynthesis (MIPPO) technique. Patient was advised to complete bed rest till recovery. During that period he observed that multiple deep wound on anterior aspect of tibia which were progressively increasing and are not

healing after proper medication. These wounds were not healed with all attempts of modern medicine so patient approached to Ayurveda hospital. Patient was examined and found multiple chronic wounds with tendency of discharge, severe pain and on touch bleeding. The diagnosis was made as non-healing multiple wounds. This case was planned with aim to evaluate the effect of *Madhukadi Yoga*.

Vrana Pariksha (Local examination):

During the local examinations following findings were noted.

Site: On anterior aspect of tibia

Number: Multiple

Edge and margin: Irregular

Floor: hyper granulation tissue

Base: Indurated, Present with Slough

Discharge: Purulent

Surrounding skin: normal pigmentation

Tenderness: Present.

Regional Lymph node: Not enlarged and palpable.

Preparation of *Madhukadi Yoga*:

- *Goghrita* - 1 part
- *Madhu* - 1 part
- *Krishna tila* - seed powder 1 part
- *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.

Methodology or application of drug:

Wounds were cleaned daily with *Panchvalkal Kwatha*. After cleaning of wound, *Madhukadi Yoga* was applied and covered with sterile gauze pieces and

bandaged daily once in the morning hours. The assessment was done on the basis of relief in symptoms i.e. pain, size of wound and discharge.

Observations of wound:

Fig-1: 1st day



Fig-2: 1st week



Fig-3: 3rd week

After debridement of wound:

Fig-4: 5th week



Fig-5: 7th week



Fig-6: 8th week

Result and Discussion:

Wound healing is completed in three phases: Inflammatory, proliferative and remodelling. Granulation, collagen maturation and scar formation are some of the other phases of wound healing which

run concurrently but are independent of each other. *Ropana* is always associated with *shodhana* because a wound cannot be healed if it is not *shuddha*. Even though 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 *Dushta Vrana*. Drugs which contain *Katu*, *Tikta*, *Madhura* and *Kashaya Rasa* are more useful. *Dushta vrana* is one of the *Vranas* which needs treatment for its healing, to achieve the main goal of healing, it is necessary to remove the maximum *Dushti* by the virtue of *Shodhana*, *Sravahara*, *Dahahara* and *Vrana ropana*. Drugs should be *Amapachaka*, *Tridosahara*, *Krimihara*, *Vishahara*. *Puyanirharana*. Alleviating these inhibitory factors is the goal of *Sodhana Chikitsa*. At the end of *Sodhana Chikitsa*, *Vrana* becomes *Shuddha Vrana* and *Ropana Cikitsa* has to be followed further. Various causes of non healing ulcer needs to be evaluated like arterial ulcer, venous ulcer, neurogenic ulcer, tropic ulcer etc and treatment is to be done accordingly.

In this case the prognosis of the disease was explained to the patient and consent has been taken that if condition is bad or any septicemia occurs then he will be shifted to civil hospital. The daily dressing was started and observed for improvement in discharge, granulation tissue, and wound size contractions were observed weekly. On the 1st day, wounds were associated with hyper granulated tissue, irregular edge and slough. Peripheral skin was observed unhealthy granulation tissue [Fig-1]. On 1st week, wound margins were present with slight unhealthy tissue with epithelialization with reduced discharge by

debridement and regular dressing [Fig-2]. On 3rd week, wounds were inherited into smaller sized with good epithelialisation [Fig-3]. During this treatment wound healing was progressively favourable. After 5th, 7th and 8th week; wound sized was remarkably reduced with healthy contraction of wound margins [Fig. 4, 5, 6].

Cow ghrtia 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 microbes. *Madhu* is a very good *Vrana shodhaka*. Due to its *sukshmat* it enters very small pores around the wound site and does not allow any infections to enter the site. When cleansed it also does disloughing of the wound. *Tila Kalka* is soothing and instant pain relieving since it pacifies *vata*. *Seasemol* 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 believed to act by '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.

Panchavalkala is a formulation with *Kashaya Rasa* (astringent taste) predominance and by the action of *Rasa*; it acts as a *Stambhaka* (arresting) and *Grahi* (that holds).^[14] It also must be *Atitwak Prasadaka* (cleanses the skin and removes all the dirt from here).^[15] Due to all these properties, it must have reduced the *Srava* (discharge).

The *Stambhana* effect might also be attributed to the *Sheeta Veerya* (cold in potency) of the drug.^[16] Pharmacological action of *Panchavalkala* proves that all five drugs of *Panchavalkala* are found to have anti-inflammatory, analgesic, antimicrobial and wound healing properties.^[17-20]

Conclusion:

This single case concluded that regular cleaning with *Panchavalkal Kwatha* and dressing (local application) of *Madhukadi Yoga* have healing activity in non-healing chronic wounds. 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.

References:

1. Marks R. Nonmelanotic skin cancer and solar keratosis. *Int J Dermatol* 1987;12: 201-205.
2. Panuncialman J, Falanga V. Unusual causes of cutaneous ulceration. *Surg Clin North Am*. 2010. 90(6): 1161-80.
3. Fernandes LP, Lastória L. Venous ulcer: epidemiology, physiopathology, diagnosis and treatment. *International Journal of Dermatology*. 2005. 44:449-456.

4. Frykberg R, Harvey C. Role of Neuropathy and high foot pressures in Diabetic Foot Ulceration. *Diabetes Care*. 1998; 21(10): 1714-19.
5. Acharya YT. Sushruta Samhita, Nibandhasangraha commentary, Chikitsa Sthana, Chapter 1/Chaukambha Surabharati Prakashan, Varanasi, Reprint-2010 P-3.
6. Acharya YT. Sushruta Samhita, Nibandhasangraha commentary, Chikitsa Sthana, Chapter 1/Chaukambha Surabharati Prakashan, Varanasi, Reprint-2010 P-3.
7. Subapriya R, Nagini S, Medicinal properties of neem leaves; a review. *Curr Med Chem Anticancer Agents*, 2005; 5(2): 149-160.
8. Chundran NK, Husen IR, Rubianti I, "Effect of Neem Leaves Extract (*Azadirachta Indica*) on Wound Healing. *Althea Medical Journal*, June 2015;2(2): 199-203.
9. Joshi Pashmina. Management of Parikartika (Fissure-in-ano) with Dantyaristha, Madhukadi Yoga and Kshara application, IPGT&RA, PG thesis submitted to Gujarat Ayurved University, Jamnagar 2004.
10. Dudhamal 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): 209-11.
11. Bangroo AK, Khatri R, Chauhan S. Honey dressing in pediatric burns. *J Indian Assoc Pediatr Surg*. 2005;10: 172-175.
12. Baghel PS, Shukla S, Mathur RK, Randa R. A comparative study to evaluate the effect of honey dressing and silver sulfadiazene dressing on wound healing in burn patients. *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. Mishra SB, Vaishya SR, Shri Bhavamishra, Bhavprakash, Poorva Khanda. *Mishraprakaranam*, 6/192, Chaukambha Sanskrit Bhawan, Varanasi, 8th edition, 2012. p.187
15. Vaidya BH, Vagbhata, Ashtanga Hridaya, Sutrasthana, Rasabhedeya Adhyaya, 10/21; Chaukambha Orientalia Publication, Varanasi, 9th edition, 2002. p. 176.
16. Asolkar LV, Kakar KK, Chakraborty OJ; A Glossary of Indian Medicinal Plants with Active Principal; Publications and Information Directorate, Council of Scientific and Industrial Research; New Delhi, 1965, Part-I; p. 81.
17. Sukhlal MD. In vitro antioxidant and free radical scavenging activity of some *Ficus* species. *Pharmacogn Mag*. 2008; 4:124-8.
18. Patil VV, Pimpikar VR. Pharmacognostical studies and evaluation of anti inflammatory activity of *Ficus bengalensis* linn. *J Young Pharm*. 2009;1: 110-1.
19. Mousa O, Vuorela P, Kiviranta J, Wahab SA, Hiltunen R, Vuorela H. Bioactivity of certain Egyptian *Ficus* species. *J Ethnopharmacol*. 1994; 41:71-6.

- | | |
|---|--|
| 20. Thakare NV, Suralkar AA.
Antinociceptive and anti-inflammatory
effects of Thespesia populnea bark | extract. Indian J Exp Biol. 2010;
48:39-45. |
|---|--|

Guarantor: Corresponding author is guarantor of this article and its contents.

Conflict of interest: Author declare that there is no conflict of interest

How to cite this article:

Patel J, Joshi P. Clinical Efficacy of Madhukadi Yoga in the management of Dusta Vrana (Post surgical non healing wound) - A rare case report. Int. J. AYUSH CaRe. 2017;1(2):7-13.