

Management of Non Healing Ulcer with Local Application of *Yashtimadhu Ghrita (Glycyrrhiza Glabra L.)*: A Single Case Study

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Abstract

A non healing ulcer occurs due to variable conditions like diabetes mellitus, varicose ulcer, arterial ulcer, badly crush injuries, etc. The management of non healing ulcer is quite difficult task to the doctor and a terrifying for the suffering patient even many options are available. In *Ayurveda*, these non healing ulcers can be correlated with *Dushta Vrana* which is difficult to heal. Sushruta mentioned many formulations for healing of *Dushta Vrana* among them *Yashtimadhu Ghrita (Glycyrrhiza glabra L.)* is one of the *ghrita* formulations. In this study, a male patient of 38 years, presented with a non healing ulcer at medial malleolous of right foot. The ulcer was developed due to post accidental wound debridement. The patient had taken treatment and local dressing with antiseptic from last one year without much improvement in wound. The routine laboratory investigations were within normal limit. The wound was treated with local application of *Yashtimadhu Ghrita* daily once followed by *Manjisthadi Kwath* (10 ml two times) and *Rasayana Choorna* (5 gm two times) orally. This case study showed wound healing activity *Yashtimadhu Ghrita* by local application.

Keywords: *Dusta Vrana*; *Glycyrrhiza Glabra*; Non Healing Ulcer; *Yashtimadhu Ghrita*; Wound.

Introduction

A non healing wound is wound that do not heal within three months (predictable amount of time) are often considered as chronic wound. These wounds cause severe emotional and physical stress to patients and create significant financial burden on patients. Without cleaning and regular dressings, the ulcers usually spread quickly. It can be very painful and may decrease mobility and quality of life. The incidence of non healing chronic ulcer by badly accidental injuries is 0.1 per 10,000 individuals [1]. According to *Sushruta*, such conditions are considered as *Dushta Vrana* [2]. In *Ayurveda*, this condition is considered as *Dushta Vrana* which is difficult to heal because they are produced by vitiated *Doshas* inside the body[3]. *Sushruta* has described 60 measures

which includes local as well as the systematic use of different drugs and treatment modalities for the management of *Vrana*. *Dushta Vrana* can be treated effectively by *Ghrita* and *Taila* preparations. Among *Ghrita* *Karpuradi*, *Manjisthadi* and *Karanjadi*; while in *Taila* *Jatyadi*, *Pilu*, *Durovadi*, *Asthishrinkala* showed effective in wound healing [4]. There are so many research works have been carried out for the management of chronic and non healing wounds, but still it is a big challenge for the medical professionals to deal this problem broadly. In this case, *Yashtimadhu Ghrita* was locally applied along with oral medication e.g. *Manjisthadi Kwath* and *Rasayana Choorna* and showed effective in healing of non healing wound within 2 months.

Case Report

A male patient of 38 years, presented with non healing ulcer on the lateral aspect of right ankle joint since two and half year consulted in the Outdoor Patient Department (OPD) of *Shalya Tantra*. Patient was thoroughly examined locally as well as systematically. The local findings revealed a reddish large ulcer with sloping edges, along with mild serous discharge around lateral malleolus of the right leg.

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The ulcer measured 5 cm in length, 3 cm in width, and 2 cm in depth with previously operated scar and blackish discoloration around right ankle joint and feet (Figure 1). Patient was having history of badly accident before two and half year that he was operated (debridement done) in private hospital and regular dressing was done with antiseptic solution till last one year but there was no any improvement in the ulcer.

Patient was addicted to tobacco chewing but had stopped it since the last one year. He was habituated to standing for 8-10 hours in his business for the past 22 to 30 years. There was no history of any chronic illness such as diabetes mellitus and hypertension. X-ray of ankle joint and the arterial color Doppler study of the affected lower limb was normal. The laboratory investigations counts were within normal limit and no organism was isolated in discharge culture. The diagnosis was made as non healing ulcer due to post traumatic wound after debridement. The wound became chronic wound/ non healing because the ulcer was developed after accidental injury. There is less chance of healing due to poor blood supply at the ankle joint, most movable joint during walking and the base of ulcer is bone.

Intervention

The wound was cleaned with normal saline and then applied *Yashtimadhu Ghrita* on ulcer once daily (Figure 2). The dressing was continued until complete healing achieved and the result was assessed at regular intervals. Along with local dressing; *Manjisthadi Kwath* and *Rasayana Choorna* were administered orally twice a day for 2 months.

Observations

The characteristics of *Dushta Vrana* like *Ativivrita* (broad base), *Utsanna* (elevated margin), *Raktavarna* (reddish), *Srava* (secretion), *Shopha* (swelling), *Dirghakalanubandhi* (chronic) were noted in the wound [5-6]. The ulcer was cleaned daily with normal saline and then *Yashtimadhu Ghrita* was applied in adequate quantity. Wound was bandaged after covering with sterilized gauze and cotton pads. It was noted that healing was started with the formation of healthy granulation tissue. The margin of wound became bluish showing growing epithelium. The wound started to contract by filling of tissue from the base of wound day by day (Figure 3-4). The dressing with *Yashtimadhu Ghrita* was continued, and after one month it was observed that wound size was markedly reduced with normal skin coloration at the healed



Fig. 1: Non Healing ulcer at ankle joint



Fig. 2: Application of *Yashtimadhu Ghrita*



Fig. 3: Wound status after 3 weeks



Fig. 4: Wound status after 4 weeks



Fig. 5: Wound status after one and half month



Fig. 6: Complete healed wound after 2 months

area [Figure 5]. On the completion of 2 months the wound was healed completely with minimum scar tissue formation [Figure 6].

Discussion

In the treatment of all types of wounds and inflammations *Yashtimadhu* is considered as the drug of choice. In inflammatory conditions of the eye and various types of *Vrana*, *Chakradutta* has advocated the use of this drug. *Acharya Charaka* has advocated the use of this drug in *Vataja* and *Raktaja* diseases at various places. In *Sushruta Samhita* also described its use in pain in various surgical and medical diseases [7-8]. According to *Acharya Sushruta*, among the 60 measures of wide-ranging wound management, *Ghruta* is indicated in cases of chronic wound which is vitiated with *Pitta* dosha, deep seated and unwilling to heal [9]. *Yashtimadhu* has *Madhura Rasa*, *Sheeta Virya*, *Madhura Vipaka* and is *Vata-Pitta Shamaka* [10]. Moreover, studies conducted on modern scientific parameters have proved the healing, anti-ulcer, anti-inflammatory and skin regeneration activity of *Yashtimadhu* [11]. Sodium glycyrrhizate possessed anti ulcer activity and stimulation of regeneration of skin.

Wound became clean with healthy granulation on 21st day as *Yashtimadhu Ghruta* is having the ability to disinfect and destroy the micro organisms in cases of ulcers due to *Vrana Shodhana* and *Vrana Ropana* Properties. Signs and symptoms such as pain, discharge, discoloration, etc., are considered due to active involvement of *Vata* and *Pitta*.

The *Madhura Rasa* and *Vipak*, *Sheeta Virya*, *Snigdha Guna* of *Yastimadhu Ghruta* pacified the vitiated *Doshas* and rendered relief in pain, discharge which were proven helpful in the healing process of wound. After application of the *Yastimadhu Ghruta*, the wound became clean and healing phase.

There was a significant increase in granulation tissue showing good healing effect after 1 month. The wound became contacted markedly and complete wound healing was observed by 2 months. After wound healing, there was little formation of scar tissue.

Along with this local application, oral medication like *Manjisthadi Kwath* also acted as a *Raktashodhan Karma* (Blood purification) and *Rasayana Choorna* was acted as *Rasayana Karma*.

These are also helpful for healing of ulcer. There were no any adverse events noted throughout the treatment. The dressing of *Yastimadhu Ghruta* in

chronic wound is found to be cost effective, safe, and easy to implement.

Conclusion

This single case study highlighted the local application of *Yastimadhu Ghritha* was found very effective and shown excellent healing effect in a case of chronic and non healing wounds.

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