

Role of *Chhedana Karma* (Debridement) along with *Jatyadi Taila* Application in Wound Management

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ABSTRACT

Wound healing is a compound process to achieve integrity of the disrupted tissues. Wound management is always been a challenge for the clinicians. *Shalya Tantra* (Ayurveda surgical science) owns various procedures and drug preparations for wound management. We report a case of 35 years old woman as a chronic wound on right breast. The treatment was planned with *Chhedana karma* (debridement) along with the local application of *Jatyadi taila* and regular dressing. Treatment took 7 weeks for complete healing. The open wound was effectively managed with Ayurveda management protocols indicated in the texts.

Key Words

Ulcer, wound, *Vrana*, *Ayurveda*, *Shalya Tantra*, *Chhedana karma*, *Jatyadi taila*

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INTRODUCTION

A wound is a break in the integrity of skin or tissues often, which may be associated with disruption of the structure and function¹. A wound is considered chronic if healing does not occur within the expected period². Infection is the major problem which interferes in wound healing. Diabetes increases the chances of wound infection³. Here, we report a case of 35 years old woman as an open wound on her right breast along with pain and pus discharge. The wound was successfully managed with Ayurveda protocols of wound management.

A detailed description is available in Ayurveda classics for wound management. A concurrence of deranged humours, affecting and appearing in a

particular part of the body, is called a boil or an ulcer (*Vrana*) which is derived from the root “*Vr*” to cover and is so called from the fact of its covering a particular part of the body or from its leaving a cicatrix which remains the whole life-time of the patient⁴. Ulcers which spontaneously suppurate and burst are hard to cure⁵. Various procedures and medicinal preparations are described for local application as well as oral intake.

Chhedana karma along with local application of *Jatyadi taila* is selected for the reported case. *Chhedana karma* is mentioned by *Acharya Sushruta* and is indicated for *Vrana vartma*(margins of ulcer) and in the condition of *Mamsa kotha* (sloughing)⁶. *Jatyadi taila* is an oil based formulation used for

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wound healing; mentioned in *Sharangdhar Samhita Madhyama khanda*. It contains *Jati, Nimba, Patola, Naktamala, Siktha, Madhuka, Kustha, Haridra, Daruharidra, Katurohini, Manjistha, Padmaka, Lodhra, Haritaki, Nilotpala, Tuthha, Sariva* and *Tila taila*⁷.

Patient Information-A 35 years old woman presented in *Shalya O.P.D*, Rishikul campus, U.A.U., Haridwar . She had complaints of a non- healing wound over right breast along with pain and pus discharge since 1 month. She firstly noticed boils on her right breast and then gradually an open wound appeared there. It increased in size over time and was not healing despite regular cleaning and dressing by some local doctor. Patient is a known case of Diabetes mellitus since 5-6 years and on medication. She also has history of multiple boils and abscess on both legs and back, for some of them, she has undergone I & D. The Patient has no history of Tuberculosis and is not alcoholic and non-smoker.

Clinical Findings-

A) General survey-

G.C. - good

B.P. - 140/ 80 mm of Hg

P.R. - 88 bpm

Spo₂- 98%

Pallor-absent in palpebral conjunctiva

Icterus-absent in bulbar conjunctiva

Cyanosis- absent

Clubbing- absent

Edema- absent

Lymphadenopathy- absent

B) Systemic Examination-

C.N.S. - Patient is conscious and well oriented to time, place and person.

C.V.S. - S₁, S₂ audible, no added sound

R.S. - Bilateral chest clear

C) **P/A Examination-** Abdomen is of normal size and shape, soft and non- tender; no fluid thrill; normal bowel sound audible

D) Local Examination-

a. Inspection-

i. Number- 1

ii. Site- inner quadrant of right breast

iii. Shape- oval

iv. Size- length- 8- 10 cm

breast Left breast

Width- 3-4 cm

v. Margins-Inflamed, Edematous

vi. Edge- Undermined

vii. Floor- covered with greenish slough

viii. Discharge- purulent, foul- smell

ix. Adjacent area- pigmented and the breast along with nipple increased in size

b. Palpation-

i. Temperature- Raised

ii. Tenderness- Present

iii. Induration in surrounding area- Present

Therapeutic focus and assessment-

Considering the state of wound, treatment is planned with *Jatyadi taila* for local application following *Chhedana Karma*. *Chhedana* (debridement) was performed without using anesthesia because of necrosis of tissues, no pain was there.

Result- After application of *Jatyadi taila*, condition of wound improved and amount of slough gradually reduced. At the end of 7 weeks- the wound was healed completely.

DISCUSSION

The presentation of open wound is displayed in (fig-1). Debridement is a good approach in

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managing wound. It provides the benefits of removal of necrotic tissue and bacteria and senescent cells, as well as the stimulating activity of growth factors.



Figure 1 Before treatment



Figure 2 After *Chhedana Karma* (Debridement)

Angiogenesis has also been shown to be stimulated by sharp surgical debridement⁸. Thus, debridement helped to remove slough and promoted healing of wound. *Jatyadi Taila* was locally applied on the wound as presented in the (fig-3) and regular dressing was done.



Figure 3 *Jatyadi Taila* application

Jatyaditaila is an oil based formulation, given in Ayurvedic texts in the reference of wound

healing. It is indicated for non-healing wounds in *Sharangdhara samhita*⁹. After debridement, the wound is free from almost all the slough as it is shown in (fig-2). The drugs, *Manjishtha*, *Daruharidra*, *Madhuka*, *Lodhra* having both the properties, i.e., *Shodhana* and *Ropana*¹⁰. *Tuttha* works as *Vrana-Shodhana* and anti-bacterial activity of *Tuttha* is proved against *Escherichia coli* and *Staphylococcus aureus*¹¹. *Daruharidra* has anti-microbial and anti-inflammatory properties¹². *Haridra* possesses antibacterial, antifungal and anti-inflammatory activities¹³. The anti-inflammatory property and Vitamin A is found in turmeric¹⁴. *Lodhra* has anti-inflammatory and wound healing activity¹⁵. *Madhuka* has pantothenic acid, lecithin, biotin, niacin, manganese, calcium, calcium salts, proteins, and nucleic acids for wound healing¹⁶. Wound healing activity and anti-microbial activity of *Jati* has been proved¹⁷. *Nimba* has wound healing effect, anti-bacterial and anti-inflammatory effect¹⁸. *Patoladigana* has *Vranaropaka* (~wound healing), *Raktashodhaka* (~detoxifies blood), *Kandughna* (~reduces itching), *Krimighna* (~anti-microbial) properties¹⁹. Water extract of *Karanja* (*Pongamiapinnata* Linn) leaf is applicable in the management of wounds²⁰. Anti-microbial activity and wound healing activity of *Siktha* (bees wax) has been proved²¹. *Kushtha* has been mentioned in *Lekhaniya Mahakashayain Charaka Samhita*²². It may help in scraping slough. *Katuki* (*Picorhizakurroa*) is found to be anti-ulcerogenic²³. *Sariva* has antioxidant, anti-

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inflammatory, antimicrobial properties²⁴. So it may help in healing wound. Hence, all the ingredients in *Jatyadi taila* have full potential in promoting wound healing. Gradually, healthy granulation tissue appeared in the wound as shown in (fig-4) and wound contracture happened (fig-5). The wound healed completely in 7 weeks (fig-6).

Jatyaditaila is found to be very effective in the management of ulcers. Hence, *Jatyadi taila* can be applied as an Ayurvedic approach for the management of ulcers.



Figure 4 Healthy granulation tissue



Figure 5 Wound contracture



CONCLUSION

It can be concluded that *Chhedana Karma* (Debridement) along with local application of

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