A CLINICAL STUDY TO EVALUATE THE EFFICACY OF MANJISHTHADI TAILA IN WOUND MANAGEMENT

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ABSTRACT:
An ulcer is the type of wound which breaks the integrity of skin and mucous membrane. Wound management has become a challenge for doctors. Many studies have been carried out in Ayurveda in context of wound healing. Sixty types of wound management are the best therapies to deal with vrana. They are known as Shashti Upkrama. In Ayurveda, Acharya Sushruta described Manjishthadi tail as Uttam vrana ropana. It contains manjishtha, rajni, padma, trivarga, tatha, vidanga, katuki, pathya, guduchi and karanja. These drugs have wound healing properties. The study was carried out on all types of wound. The Taila was locally applied once daily over wound till healing occurred. Study was carried out on 30 patients selected by exclusion and inclusion criteria. Significant results were found in terms of anti-infective property of Manjishthadi Taila. It reduced pain, discharge, itching and burning sensation resulting in healthy granulation tissue formation. Thus, wound healed without any side effects.

Key words: Manjishthadi Taila, vrana, wound, shasti upkrama

INTRODUCTION:
Scar of a wound never disappears even after complete healing, its imprints persist lifelong and is called as “Vrana”¹. Ulcer is one of the type of wound which breaks the integrity or continuity of skin or mucus membrane due to molecular death². Wound healing is complex method to achieve anatomical and functional integrity of disrupted tissue by various components like neutrophils, macrophages, lymphocytes, fibroblasts and collagen, in organized stage pathway such as haemostasis, inflammation, proliferation, matrix-synthesis, maturation, remodeling, epithelialisation and wound contraction³. Granulation tissue is proliferation of new capillaries and fibroblasts intermingled with RBCs and WBCs with thin fibrin cover over it. Healthy granulation tissue occurs in a healing ulcer.

In Ayurveda, particularly Susruta has mentioned 60 types of wound management. Susruta has defined vrana as phenomenon which consumes the tissue and on healing leaves “Vrana vastu” (permanent scar tissue). This definition is not limited to cutaneous lesions but destructing lesions occurring in any tissue of the body has also been considered as “Vrana”.

After injury, healing is a natural phenomenon and continues in sequential manner till the formation of healthy scar. Certain general factors such as age, obesity, malnutrition, vitamin deficiency, anaemia, malignancy, diabetes, HIV and immunosuppressive disease, infection,
poor blood supply, recurrent trauma etc which either alone or in combination influence the normal wound healing. Hence, efforts are made to keep wound clean during the stages of healing.

Acharaya Susruta was aware of this and thus he explained *vrana shodhana* (wound cleaning) and *vrana ropana* (wound healing). The treatment aspect includes 60 different stages, ie, Shashti Upakrama for different conditions of *vrana* like *lekhana, shodhana, ropana* etc. Taila application is one among them which could be adopted when *Vrana* have *utsanna mamsa, asnidha* and *alpasravi*.

Despite to advanced wound care, many clinicians and researchers are looking back into medical history and reexamining old herbal medicines with advanced tools and wisdom of the 21st century as herbal topical remedies are safe, have positive effect on general skin conditions including nourishing, moisturizing and sanitizing.

For this study, *Manjishtha* (*Rubia Cordifolia*), *Rajni* (*Curcuma longa*), *Padma* (*Clerodendrum serratum*), *Triphala* – *Amalaki* (*Embilica officinalis*), *Haritaki* (*Terminalia chebula*), *Vibhitaki* (*Terminalia bellirica*), *Tuth* (*Copper sulphate*), *Vidanga* (*Embelia ribes*), *Kutki* (*Picorrhiza kurroa*), *guduchi* (*Tinospora cordifolia*) and *karanja* (*Pongamia glabra*) have been selected from Susruta Samhita. These drugs were processed and prepared in form of Taila. It possesses *vrana shodhana* (wound cleaning) and *vrana ropana* (wound healing) property.

**MATERIAL AND METHOD:** This is a single blind clinical study, wherein 30 patients suffering from *vrana* were randomly selected from OPD and IPD of Shalya Tantra Department, University College of Ayurved, Dr. Sarvepalli Radhakrishnan Rajasthan Ayurved University, Jodhpur, Rajasthan.

**METHOD OF PREPARATION OF TAILA:** The above mentioned drugs were taken and made into *kalka*. The copper sulphate was added to *Moorchita Taila* and *paka* was done. After the *kalka* was mixed with the *sneha* and *paka* was done over *mriduagni* till all the water content was evaporated and till samyaka *sneha paka lakshana* were seen. *Manjishthadi Taila* was of *madhyama paka* which is useful for external application.

**CLINICAL STUDY:**

**Method of Collection of Data:** 30 patients of *vrana* were randomly selected

**Intervention:**

Wound was cleaned with Triphala qwatha. Debridement was done. *Manjishthadi Taila* was applied locally and bandaging was done.

**Duration of Treatment:** 30 days

**INCLUSION CRITERIA:**

- Patient aged between 10-60 years
- Patient of either sex
- Patient of all types of wound with H/O of maximum 4 weeks

**EXCLUSION CRITERIA:**

- Patient with uncontrolled DM
- Patient suffering from Diabetic foot
- Patient suffering from lesions like TB, Syphilis etc
- Patient suffering from degenerative diseases
- Patient suffering from osteomyelitis
- Patient suffering from HIV or any other immunodepressant disease
- Wound present on movable or highly movable joints

**ASSESSMENT CRITERIA:**

The criteria was grouped as subjective and objective criteria. All features of wound were recorded BT, during visit and AT

**SUBJECTIVE CRITERIA:**
1. Pain
2. Burning sensation
3. Itching
4. Discharge
5. Odour

OBJECTIVE CRITERIA:
1. Size and shape
2. Tenderness
3. Colour
4. Inflammation

OBSERVATION:
Present study revealed that incidence of chronic ulcer was more common in age group 41-50 years, i.e. 40% followed by 20% in 20-40 years and 51-60 years.

Table: Statistical analysis on overall parameters:

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean</th>
<th>Standard Deviation Mean difference</th>
<th>T</th>
<th>Degree of freedom</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of wound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>4.350</td>
<td>0.440</td>
<td>1.550</td>
<td>0.459</td>
<td>3.940</td>
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<tr>
<td>Breadth</td>
<td>3.037</td>
<td>0.190</td>
<td>1.082</td>
<td>0.313</td>
<td>2.847</td>
</tr>
<tr>
<td>Height</td>
<td>0.957</td>
<td>0.083</td>
<td>0.509</td>
<td>0.132</td>
<td>0.873</td>
</tr>
<tr>
<td>Pain</td>
<td>2.767</td>
<td>0.367</td>
<td>0.774</td>
<td>0.490</td>
<td>2.400</td>
</tr>
<tr>
<td>Discharge</td>
<td>1.867</td>
<td>0.100</td>
<td>0.571</td>
<td>0.305</td>
<td>1.767</td>
</tr>
<tr>
<td>Inflammation</td>
<td>1.600</td>
<td>0.073</td>
<td>0.509</td>
<td>0.379</td>
<td>1.100</td>
</tr>
<tr>
<td>Tenderness</td>
<td>1.800</td>
<td>0.400</td>
<td>0.761</td>
<td>0.498</td>
<td>1.400</td>
</tr>
<tr>
<td>Burning sensation</td>
<td>1.567</td>
<td>0.133</td>
<td>0.568</td>
<td>0.346</td>
<td>1.433</td>
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<tr>
<td>Itching</td>
<td>1.533</td>
<td>0.167</td>
<td>0.629</td>
<td>0.379</td>
<td>1.367</td>
</tr>
<tr>
<td>Odour</td>
<td>1.033</td>
<td>0.167</td>
<td>0.556</td>
<td>0.379</td>
<td>0.867</td>
</tr>
<tr>
<td>Colour</td>
<td>1.167</td>
<td>0.167</td>
<td>0.379</td>
<td>0.379</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Figures before, during and after treatment

RESULT: On applying Manjishthadi Taila topically on randomly selected 30 patients, relief was seen in various signs and symptoms – like size of wound, tenderness, color, inflammation, pain, burning sensation, itching, discharge and odour. The local application of Taila...
enhanced vrana sodhana and vrana ropana process.

**DISCUSSION:** Wound healing is a mechanism whereby the body attempts to restore the integrity of the injured part. Taila application is one which can be adopted when vrana have raised granulation and discharge. All the mentioned drugs in Manjishthadi Taila possess vrana shodhana and vrana ropana property. All the drugs have katu, tikta and kshaya rasa. They absorb kleda from vrana. The rasa have kapha and pitta shamaka property. These properties served the above purpose.

Probable mode of action of Manjishthadi Taila:

- **Manjistha** has wound healing property, it soothes reduces the pain and heals the wound. **Rajni** (Haridra) has analgesic and anti-inflammatory property locally. It is used in contused wound. It has wound cleaning and wound healing property. Padma is used in boils, herpes and blisters. It has anti-ulcer property. **Trivarga** (triphala) has anti-infective property (anti-bacterial, anti-fungal and anti-parasitic), analgesic and anti-inflammatory property. **Tutha** has anti-bacterial and anti-septic property. Copper sulphate is used in wound cleaning. **Vidanga** has analgesic property in local application. It is used in various skin disorders. **Kutki** is used in wound cleaning. It has analgesic property locally. **Haritaki** has wound healing property. It is used in oral ulcers, non-healing ulcers and chronic ulcers. **Guduchi** has analgesic property and used in skin disorders. **Karanja** is anti-infective (anti-fungal, anti-bacterial and anti-parasitic) and has wound healing property. It is used in various skin disorders like eczema, dermatitis, scabies, herpes etc. It has local anti-inflammatory property.

**CONCLUSION:**

The study revealed clinical evaluation of Manjishthadi Taila in wound management. Manjishthadi Taila has been found efficacious in wound cleaning and wound healing. The Taila remove slough and necrotic tissue and it act for smooth healing of chronic ulcer. Local application of Manjishthadi Taila has analgesic effect. It reduces pain, burning sensation and itching. It also reduces discharge. It has anti-inflammatory property. Thus it reduces oedema and inflammation of wound and surrounding areas which help in gradual improvement in wound healing with healthy granulation tissue formation. The oily dressing of Manjishthadi Taila provides moist environment which enhances epithelialization and can be easily removed from wound surface without causing pain or damage to the new growing epithelium.

Thus, the clinical study on efficacy of Manjishthadi Taila in the management of wound has remarkable result with vrana shodhana and vrana ropana property without any adverse effects.

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