A CLINICAL STUDY TO EVALUATE THE EFFICACY OF SAMANGADI ROPANA TAILA IN THE MANAGEMENT OF DUSHTA VRANA (CHRONIC ULCERS)

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Received on: 02/08/2015 Revised on: 20/08/2015 Accepted on: 05/09/2015

ABSTRACT

Chronic ulcers are the problems and challenges for doctors in day today practice. An ulcer is the one of the type of wound which breaks integrity or continuity of skin or mucous membrane. Many studies have been carried out in Ayurveda for the management of chronic ulcers. *Shashti Upakarma* i.e. sixty types of wound management are the best therapies to deal for chronic ulcers. In the light of *Ayurvedic* knowledge, *Sushruta* described *Samangadi Ropana taila* as topical application in the context of *Vrana*. It contains *Manjishta, Haridra, Padma, Triphala, Tuth, Vidanga, Kutki, Haritaki, Guduchi* and *Karanja*. These drugs have *Vrana Shodhana* (wound cleaning) and *Vrana Ropana* (wound healing) properties.

The present study was carried out on all types of *Dushta Vrana* (chronic ulcer). The *Taila* was applied topically once daily for 30 days or till healing of wound whichever is earlier. In this study 30 patients were selected and the study was single blind clinical study to evaluate the efficacy of *Taila* by the subjective and objective criteria.

This study shown that, there were significant results found in Dushta vrana (chronic ulcer) by anti-infective (anti bacterial, anti-fungal and anti-parasitic) property. It also contains analgesic and anti-inflammatory property which reduces pain, discharge, inflammation, tenderness, burning sensation and itching which contribute healthy granulation tissue formation. Thus wound healing restored without producing any adverse effect.

KEYWORDS: Chronic ulcer, *Dushta vrana, Samangadi Ropana taila*, wound healing.

INTRODUCTION

Even after complete healing, the scar of a wound never disappears, its imprints persist lifelong and it is called as *Vrana*.¹

Ulcer is one of the type of wound which breaks integrity or continuity of skin or mucous 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 staged pathways such as haemostasis, inflammation, proliferation, matrix-synthesis, maturation, remodeling, epithelialisation and wound contraction³. Granulation tissue is proliferation of new capillaries and fibroblasts intermingled with red blood cells and white blood cells with thin fibrin cover over it. Healthy granulation tissue occurs in a healing ulcer⁴.

In Ayurveda, particularly *Sushruta* has mentioned various types of wound and their management. *Sushruta* has defined *Vrana* as the phenomenon which consumes the tissue and on healing leaves "*Vrana vastu*" i.e. Permanent scar tissue¹. This definition is not limited to cutaneous lesion but destructive 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 as the 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 healing⁵.

Hence efforts are made to keep wound clean during the stages of healing.

*Acharya Sushruta* was aware of this and thus he explained *Vrana shodhana* (wound cleaning) and later *Vrana ropana* (wound healing). The treatment aspect includes six different strategies i.e. *Shashti*...
upakrama for different conditions of Vrana like Lekhana, Shodhana, Ropana etc. Taila application is one among which could be adopted when Vrana have Utsanna mamsa, Asnydha and Alparsravi.

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

Some of the previous works carried on management of Vrana with Ayurvedic medications are as follows:

- A study on effect of Kshara taila in Dushta Vrana by Dr.Naryana in 1987 Government Ayurvedic Medical College Bangalore.
- Role of Kaseesadi Taila in Dushta Vrana by Dr.NB Mashetta in 1989 Government Ayurvedic Medical College Bangalore.
- Role of Karaskaradi Ghrita in Dushtra Vrana by Dr.B Bindu in 1998 in Government Ayurvedic Medical College Kerala University Trivendrum.
- A study on effect of Karpooora ghrita in Vrana ropana in 2002 by Dr.HS Shah in Institution for PG teaching and research in Ayurveda Jamnagar.
- A study on effect of Nimbadi taila in management of Dushta vrana by Dr. Rajesh Bhatt in 2002 in Banaras Hindu University Varanasi.

For this study, Samanga or Manjishta (Rubia cordifolia), Haritra (Curcuma longa), Padma (Clerodendron serratum), Triphala – Amalaki (Emblica officinalis), Vibhitiki (Terminalia bellarica), Haritiki (Terminalia chebula), Tuth (Copper sulphate), Vidanga (Embelia ribes), Katki (Picrorhiza Kurroa), Haritaki (Terminalia Chebula) Guduchi (Tinospora Cordifolia) and Karanja (Pongamia Glabra) have been selected from Sushruta Samhita. These drugs were processed and prepared in the form of Taila. It possesses Vrana shodhana (wound cleaning) and Vrana ropana (wound healing) property. The above mentioned drugs were identified under the guidance of HOD Dravya guna department, IJAR, Jammu.

MATERIAL AND METHOD

This is a single blind clinical study, wherein thirty patients suffering from Dusta vrana were randomly selected from OPD & IPD of Shalya tantra department IJAR hospital, Nardni, Jammu.

METHOD OF PREPARATION OF TAILA

The above mentioned drugs were taken and made into Kalka. Then copper sulphate was added to the Moorchita taila and Paka was done. After the Kalka was mixed with the Sneha and Paka was done over Mruduagni till the complete water content was evaporated and till Samyak sneha paka lakshana were seen. Samangadi Ropana taila was of Madhyama paka, which is useful for external application.

CLINICAL STUDY

Method of collection of data

30 patients complained of Dushta vrana randomly selected.

INTERVENTION

Dushta vrana cleaned with eusol. Dead tissue, debridement removed. Samangadi ropana taila applied locally over the wound and bandaging done.

Duration of Treatment: 30 days or till healing of wound whichever is earlier.

INCLUSION CRITERIA

- Patients aged between 10-60 years.
- Patients of either sex will be taken.
- Patients of all types of Dushta vrana with maximum history of four weeks.

EXCLUSION CRITERIA

1) Patients suffering from degenerative diseases.
2) Patients with uncontrolled Diabetes Mellitus.
3) Patients suffering from Diabetic foot.
4) Patients suffering from lesions like Tuberculosis, Syphilis etc.
5) Patients having pre-gangrenous or gangrenous changes.
6) Patients suffering from Osteomyelitis.
7) Patients suffering from HIV and Immunodepressant diseases.
8) Vrana present on all movable and highly moving joints.

ASSESSMENT CRITERIA

The criteria will be grouped as subjective and objective criteria. All features of wound were recorded before treatment, during each visit and after treatment in the Proforma.

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

These were recorded on the basis of score adopted with grading (0, 1, 2, 3 & 4)

DISCUSSION

Wound healing is a mechanism whereby the body attempts to restore the integrity of the injured part. Taila application is one which could be adopted when Vrana has raised granulation, little unctuous and discharge. Samangadi ropana taila cited by Acharya Sushruta in the context of Vrana contains Manjishta, Haridra, Padma, Haritaki, Trivarga, Vidanga, Kutki, Tuth, Karanja and Guduchi. All the mentioned drugs in Samangadi ropana taila possessed Vrana shodhana and Vrana ropana property. All the drugs have Katu, Tikta, Kashaya rasa. They absorbed Kleda from Vrana. The Rasa have Kapha and Pitta shamaka property. These drugs restored Vrana shodhana property. Thus these properties served the above purpose.

Probable mode of action of Samangadi ropana taila on Dushta Vrana: Manjishta has wound healing property; it soothes, reduces the pain and heals the wound. Haridra has analgesic and anti inflammatory property locally. It is used in contused wound and chronic ulcers. It has wound cleaning and wound healing property. All the drugs restored Vrana shodhana property. Thus these properties served the above purpose.

Probable mode of action of Samangadi ropana taila is anti infective property (anti fungal, anti bacterial, anti parasitic), analgesic & anti inflammatory property. Kutki is used in wound cleaning (toileting). It has analgesic property locally. Vidanga has analgesic property in local application. It is used in various skin disorders. Karanja is anti infective (anti fungal, anti bacterial, anti parasitic) and has wound healing property. It is used in various skin disorders specially eczema, dermatitis, scabies, herpes etc. It has local anti inflammatory property. Guduchi has analgesic property & used in skin disorders. Copper sulphate has anti bacterial and anti septic property. For wound toileting and cleaning copper sulphate is used. Thus Vrana shodhana and Vrana ropana performed.

RESULT

The present study revealed that incidence of Dushta vrana was more common in age group 41-50 years i.e. 40% followed by 20% in 20-40 years and 51-60 years. Maximum patients were male i.e.67%. Maximum patients were Hindu i.e. 87%. Maximum patients were from rural area. Incidence of addiction showed in 37% patients were addicted to alcohol and smoking. Maximum number of Dushta vrana were located in lower limbs i.e. 60% were having type of Utsanna-36.67%, Alapsravi-26.67%, Anishtgandi-36.67%. 7% patients have diabetic ulcers. Associated lesions i.e. local dermatitis found in 10% of patients. The shape of Vrana maximum was oval shaped 37% followed by irregular 33% and round 30%.

Table 1: Statistical analysis on overall parameters

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>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>
<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>
<td>13.348</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>
<td>13.846</td>
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<tr>
<td>Height</td>
<td>0.957</td>
<td>0.083</td>
<td>0.509</td>
<td>0.132</td>
<td>0.873</td>
<td>9.099</td>
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<tr>
<td>Pain</td>
<td>2.767</td>
<td>0.367</td>
<td>0.774</td>
<td>0.490</td>
<td>2.400</td>
<td>14.350</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>
<td>14.939</td>
</tr>
<tr>
<td>Inflammation</td>
<td>1.600</td>
<td>0.500</td>
<td>0.675</td>
<td>0.509</td>
<td>1.100</td>
<td>7.131</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>
<td>8.429</td>
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<td>Burning sensation</td>
<td>1.567</td>
<td>0.133</td>
<td>0.568</td>
<td>0.346</td>
<td>1.433</td>
<td>11.801</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>
<td>10.195</td>
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<tr>
<td>Odour</td>
<td>1.033</td>
<td>0.167</td>
<td>0.556</td>
<td>0.379</td>
<td>0.867</td>
<td>7.054</td>
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<tr>
<td>Colour</td>
<td>1.167</td>
<td>0.167</td>
<td>0.379</td>
<td>0.379</td>
<td>1.000</td>
<td>10.218</td>
</tr>
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</table>

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CONCLUSION

The study evaluation of efficacy of Samangadi ropana taila in the management of Dushta vrana (Chronic ulcer) revealed.

Samangadi Ropana taila found efficacious in wound healing. The Taila remove slough and necrotic tissues and it act for smooth healing of ulcer. Local application of Samangadi Ropana taila has analgesic effect. It reduces pain, burning sensation and itching. It also reduces discharge.

It has anti inflammatory property. Thus it reduces edema and inflammation of ulcer and surrounding areas which help in gradual improvement in wound healing with healthy granulation tissue formation.

The oily dressing of Samangadi ropana taila provides moist environment that enhances epithelialization prevent scab formation 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 Samangadi ropana taila in the management of Dushta vrana has impetus remarkable result with Vrana shodhana and Vrana ropana properties without any adverse effects.

REFERENCE


Mohod Poonam et al. Efficacy of Samangadi Ropana Taila in the Management of Dushta Vrana (Chronic Ulcers)


Cite this article as:

Source of support: Nil, Conflict of interest: None Declared

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