



Research Article

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

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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 Upakrama* 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 *Manjishtha, 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* etc⁶. *Taila* application is one among them which could be adopted when *Vrana* have *Utsanna mamsa*, *Asnigdha* and *Alpasravi*⁷.

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 the effect of *Vajraka Taila* in the healing of *Dushta vrana* by Dr.Sharanga Pani in 1985. Ayurvedic college Hyderabad
- Role of *Karanjadi Ghritha* in management of *Dushta vrana* by Dr.Chovatia N.M in 1988. Institution for PG teaching and research in Ayurveda Jamnagar
- 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 Ghritha* in *Dushta Vrana* by Dr.B Bindu in 1998 in Government Ayurvedic Medical College Kerala University Trivendrum.
- A study on effect of *Karpooora ghritha* 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*), *Haridra* (*Curcuma longa*), *Padma* (*Clerodendron serratum*), *Triphala -Amalaki* (*Embilica officinalis*), *Vibhitiki* (*Terminalia bellarica*), *Haritiki* (*Terminalia chebula*), *Tuth* (Copper sulphate), *Vidanga* (*Embelia ribes*), *Kutki* (*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) property⁸. The above mentioned drugs were identified under the guidance of HOD Dravya guna department, JIAR, 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 JIAR 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 application⁸.

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 part⁹. *Taila* application is one which could be adopted when *Vranas* have 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 wound¹⁰. *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^{11,12}. *Padma* is used in boils, herpes and blisters. It has antiulcer property¹³. *Haritaki* has wound

healing property. It is used in oral ulcers, non healing ulcers and chronic ulcers¹⁴. *Triphala* has anti infective property (anti bacterial, anti fungal and anti parasitic), analgesic & anti inflammatory property¹⁵. *Kutki* is used in wound cleaning (toileting). It has analgesic property locally¹⁶. *Vidanga* has analgesic property in local application. It is used in various skin disorders¹⁷. *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 property¹⁸. *Guduchi* has analgesic property & used in skin disorders¹⁹. Copper sulphate has anti bacterial and anti septic property. For wound toileting and cleaning copper sulphate is used²⁰. 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

Symptoms	Mean		Standard Deviation		Mean Difference	t	Degree of Freedom	p
	BT	AT	BT	AT				
Size of wound								
length	4.350	0.440	1.550	0.459	3.940	13.348	34.048	0.000
Breadth	3.037	0.190	1.082	0.313	2.847	13.846	33.833	0.000
Height	0.957	0.083	0.509	0.132	0.873	9.099	32.855	0.000
Pain	2.767	0.367	0.774	0.490	2.400	14.350	49.042	0.000
Discharge	1.867	0.100	0.571	0.305	1.767	14.939	44.298	0.000
Inflammation	1.600	0.500	0.675	0.509	1.100	7.131	53.912	0.000
Tenderness	1.800	0.400	0.761	0.498	1.400	8.429	50.000	0.000
Burning sensation	1.567	0.133	0.568	0.346	1.433	11.801	47.880	0.000
Itching	1.533	0.167	0.629	0.379	1.367	10.195	47.617	0.000
Odour	1.033	0.167	0.556	0.379	0.867	7.054	51.165	0.000
Colour	1.167	0.167	0.379	0.379	1.000	10.218	58.000	0.000



Figures: Before and after treatment

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

1. Sushruta, Sushruta Samhita, Part-I, Ayurveda Tatwa Sandeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastri, Sutrastana- Vrana prashna aadhyaya 21/40, Chaukhamba Sanskrit Sansthan, Varanasi, Edition-13, 2002, Page no.94.
2. Bhat M Sriram, Manual of Surgery (2013), 4th edition, Jaypee Brothers Medical Publishers (P) ltd. Page no.14.
3. Bhat M Sriram, Manual of Surgery(2013), 4th edition, Jaypee Brothers Medical Publishers(P) Ltd. Page no.5
4. Bhat M Sriram, Manual of Surgery (2013), 4th edition, Jaypee Brothers Medical Publishers(P) Ltd. Page no.17,18.
5. Bhat M Sriram, Manual of Surgery (2013), 4th edition, Jaypee Brothers Medical Publishers(P) Ltd. Page no.7
6. Sushruta, Sushruta Samhita, Part-I, Ayurveda Tatwa Sandeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastri, Chikitsasthana - Dvivraneeya Chikitsa 1/8, Chaukhamba Sanskrit Sansthan, Varanasi, Edition-13, 2002, Page no.4.
7. Sushruta, Sushruta Samhita, Part-I, Ayurveda Tatwa Sandeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastri, Chikitsasthana - Dvivraneeya Chikitsa 1/57-58, Chaukhamba Sanskrit Sansthan, Varanasi, Edition-13, 2002, Page no.8.
8. Sushruta, Sushruta Samhita, Part-I, Ayurveda Tatwa Sandeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastri, Chikitsasthana - Sadhyovrana chikitsa 2/73-74, Chaukhamba Sanskrit Sansthan, Varanasi, Edition-13, 2002, Page no.19.
9. Love and Baily, Short Practice of Surgery (2008), 25th edition, Norman S Williams, Edward Arnold (Publisher) Ltd. Page no.24.
10. Bhavamishra, Bhavprakash Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.111.

11. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.114
12. Nadkarni K.M., Indian Materia Medica (1999) Vol 1 Popular Prakashan Private Ltd. Page no.414-415.
13. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.103.
14. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.9.
15. Bhavamishra, Bhavprakasha Nighantu (2013), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.12.
16. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.72.
17. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.54.
18. Bhavamishra, Bhavprakasha Nighantu (2004), Dr. Krushnachand Chunekar, Chaukhambha Bharti Academy, Varanasi. Page no.351.
19. P.V.Sharma, Dravya guna vignana, Vol.2 (2005), Chaukhambha bharti academy, Varanasi, Page no.762.
20. HHA Dollwet and JRJ Sorenson (1985), Historic uses of copper compounds in medicines 'Trace Elements in Medicines' Vol -2, No.2, Page no. 80-87.

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