

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 taila* as *Uttam vrana ropana*. It contains *manjishtha*, *rajni*, *padma*, *trivarga*, *tutha*, *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* etc⁴. *Taila* application is one among them which could be adopted when *Vrana* have *utsanna mamsa*, *asnigdha* and *alpasravi*⁵.

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

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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.

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 or smoking. Maximum no. of chronic ulcer were located in lower limbs i.e. 60% were having type of *utsanna* – 36.67%, *alpasravi* 26.67%, *anishtgandi* – 36.67%. 7% have diabetic ulcer. Associated lesions i.e. local dermatitis found in 10% of patients. The shape of maximum wound were oval shaped 37% followed by followed by irregular 33% and round 30%.

Table : 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, 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 part⁷. *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* :

Manjishtha has wound healing property, it soothes reduces the pain and heals the wound⁸. *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 (triphal)* 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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