



Research Article

A CLINICAL STUDY OF *HARIDRADI MALHAR* (OINTMENT) IN THE MANAGEMENT OF *NIJA VRANA*

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ABSTRACT

The *Vrana* (ulcer) is considered the core subject of *Shalya tantra*. *Vata*, *Pitta* and *Kapha* are aggravated by their respective causative factors that get lodged in the exterior of the body to give rise to *Nija vrana* (endogenous ulcer). *Nija vrana* are frequently encountered problem in present era produced commonly by the morbid *Doshas* of the body. In the present study, *Haridradi taila* (ointment) is selected which is mentioned by Acharya Sushruta in the context of *Vrana*. It contains *Kasis*, *Kutaki*, *Jati*, *Haridra*, *Tagar*, *Agaru*, *Daruharidra*, *Deodaru*, *Priyangu* and *Lodhra*. These ten ingredients possess the properties of both *Shodhan* and *Ropan* (cleaning and healing). It was used topically in the type of chronic wounds daily one time for 30 days or till the healing of the wound, whichever is earlier. It is a single-blind clinical study where 20 patients were selected and divided into two groups 10 patients each. Experimental group patients wounds were treated with a dressing having *Haridradi* ointment and control group patients' wounds were treated with Framycetin ointment and dry gauze bandaging. It reduces pain, burning sensation, itching, decreases discharge, oedema and helps in gradual improvement in floor and granulation tissues as compared to control group. *Nija vrana* (chronic wounds) management with Ayurvedic remedies is one of the major areas of research, hence it can be speculated that *Haridradi* ointment possesses sufficient efficacy in *Vrana shodhan* and *Vrana ropan* (cleaning and healing of the wound) without creating any adverse effect.

INTRODUCTION

In the contemporary situation of medical science and day-to-day upgrading biotechnology, this work will contribute towards new research. Ever since life originated human being has been susceptible to injury, which made them think about healing from a very early stage of development.

In Ayurveda, particularly *Sushruta* has mentioned various types of *Vrana*,^[1] and their management^[2] which is of the prime importance of any surgical practice or procedure. In the recent past brilliant progress of surgery in various fields has immensely reduced the incidence of wound infection by decreasing the impediments associated with wound healing to a certain limit, still wound management

continues to be a subject of speculation. After the injury, healing is a natural phenomenon that continues in a sequential manner until the formation of a healthy scar. Usually, nature takes complete care during healing. The defense mechanism of the body like phagocytosis and its local enzymatic action on dead tissue help to keep a wound clean, but at times when the infection is the massive surface area of the wound is very large and slough or narcotic tissue is too much, this auto cleansing mechanism becomes inadequate.^[3] Acharya Sushruta was aware of these facts and has indicated the process of which these impediments can be removed thus paving way for uninterrupted healing. For the management of *Nija vrana*, he incorporated a number of drugs broadly classified into *Vrana shodhan* and *Vrana ropan* (cleaning and healing of the wound). The process i.e., *Shodhana* and *Ropana* have been therapeutically grouped under seven headings *Kashaya*, *Varti*, *Kalka*, *Sarpi*, *Taila*, *Rasakriya* and *Avachoorana*.^[4]

It is a need of an hour to find out a rotational and optimal healing compound for the wound

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management in a better way, hence it is important to find out a single and effective formulation that possesses both *Shodhan* and *Ropan* (cleaning and healing) properties. For this study, ten drugs have *Shodhan* the property of both and *ropan* viz. *Kasis*, *Kutaki*, *Jati*, *Haridra*, *Tagar*, *Agaru*, *Daruharidra*, *Deodaru*, *Priyangu* and *Lodhra* are the ten drugs of *Taila* (ointment) that have been selected from *Sushrut Samhita* Su.Su.36/16,27.^[5] These drugs were processed and prepared in the form of *taila*.^[6] Then *Taila* mixed with Beeswax (*Sikth*) to make an ointment. Although the description of these drugs is available at several places in Ayurvedic classics an effort is made to know the efficacy of these drugs in combination for the management of *Nija vrana*. (endogenous ulcer)

AIMS AND OBJECTIVES

To assess the efficacy of *Haridradi* Ointment (*Malahar*) on the healing effect of *Nija Vrana*.

MATERIALS AND METHODS

The material for the study was provided by Ayurvedic as well as modern surgical classical texts. The work was carried out in the Government Ayurvedic College and Hospital, Nagpur.

DRUG CONTENTS

In Ayurveda the drug having the properties of *Kashaya*, *Tikta Rasa* have been stated for *Vrana Shodhana* and the drugs having the properties of *Madhur*, *Kashaya* rasa have been stated for *Vrana Ropan*. The drugs which have selected for *Vrana upakrama* is described by Acharya Sushruta in Su. Su.36/16,27 has the properties of both *Vrana shodhan* as well as *Vrana ropan*. It contains *Kasis*, *Kutaki*, *Jati*, *Haridra*, *Tagar*, *Agaru*, *Daruharidra*, *Deodaru*, *Priyangu* and *Lodhra*.

METHOD OF PREPARATION of Drug

Haridradi Ointment was prepared in Government Ayurvedic College and Hospital, Nagpur, Rasashastra and Bhaishajya kalpana Department. The above mention drugs were taken in equal quantity. *Haridra*, *Jati* and *Priyangu* were taken in Kalka form, fine powder of *Kasis* and *Kwatha* was prepared of remaining components. The *Siddha Taila* was taken four times to the total ten components. The *Siddha taila* was prepared by standard method. In this preparation liquid wax in 1/4 proportion to the oil and mixed gently in oil. The prepared ointment was sterilized before the application

Clinical Study

Source of Data- The patients attending OPD and IPD with complaint of *Nija vrana*. Government Ayurvedic College and Hospital, Nagpur

Method of Collection of Data- The total 20 patients were studied in two groups.

Group A- Application of *Haridradi* Ointment- Experimental group

Group B- Application of Framycetin Ointment- Controlled group

Intervention: The *Nija Vrana* carried with the any type of contamination or foreign materials were removed and wound was cleaned with distilled water. After irrigation of *Vrana Haridradi* Ointment on sterile gauze was applied on the site of *Vrana* and bandage done

Duration of Treatment: 30 Days

Inclusion Criteria: All types of *Nija Vrana* with minimum history of two weeks irrespective of age, sex, religion, marital status and economical status selected randomly.

Exclusion Criteria: Patients having complication of *Vranas* like fibrosis, tetanus, cellulitis, erysepalus, gangrane, actinomycosis and also malignant, leprotic, varicose, tropical, and poisonous wounds were not included.

Criteria of Assessment

For observation and statistical analysis patient's response was assessed based on subjective and objective criteria. The subjective parameters of odor (smell), tenderness, discharge, pain, colour, inflammation, size and shape and itching were recorded on the basis of score adopted with grading (0, 1, 2, & 3). After completion of treatment assessment of scar was done on the basis of gradation (0, 1, 2, & 3).

OBSERVATION AND RESULT

The present study revealed that incidence of *Nija vrana* was more common in age group 11 to 30 years were more common in numbers i.e., 52.5% followed by 31 to 50 years 25%. In sex wise distribution maximum patients were male 60%. Religion wise Hindus patients were maximum 87.5%. In marital status unmarried people were afflicted i.e. 57.5%. The socio economic status wise distribution patients belonged to poor class much more in number 75%. Educational status shows below HSC were more 52.5%. In dietary habit people taking mixed diet were more afflicted i.e., 65%. Duration wise distribution shows duration of 1 to 7 were more 55%. According to type of *Dosha Dwandwaj* type of *Vrana* was found more i.e., 52.5%.

Preparation of Haridradi Malahar (Ointment)



Drug used to prepare Haridradi ointment



Sidha Taila and Siktha (Beeswax)



Kwath preparation using Kwath dravya



Prepared Haridradi Malahar (Ointment)

Table 1: Effect of Therapy on Different Signs & Symptoms In Patients of Group A

Symptoms	Mean Score		% Relief	SD	SE	T	P
	B.T.	A.T.					
Odour	2.0	0.2	90.0	1.317	0.416	4.323	= 0.02
Tenderness	2.5	0.4	84.0	0.568	0.180	11.699	=< 0.001
Discharge	1.7	0.4	76.47	0.675	0.213	6.091	=< 0.001
Pain	3.1	0.4	87.09	0.675	0.213	12.650	=< 0.001
Colour	1.8	00	100	0.422	0.133	13.500	=< 0.001
Inflammation	2.3	0.2	91.30	1.197	0.379	5.547	=< 0.001
Size & Shape	1.8	00	100	0.632	0.200	9.000	=< 0.001
Itching	1.7	0.1	94.11	1.578	0.499	3.207	= 0.011

Table 2: Effect of Therapy on Different Signs & Symptoms in Patients of Group B

Symptoms	Mean Score		% Relief	SD	SE	T	P
	B.T.	A.T.					
Odour	1.1	0.0	100	1.370	0.433	2.538	= 0.032
Tenderness	2.5	0.2	92.0	0.483	0.153	15.057	=< 0.001
Discharge	2.2	0.0	100	0.632	0.200	11.000	=< 0.001
Pain	2.9	0.0	100	0.738	0.233	12.429	=< 0.001
Colour	1.8	0.0	100	0.919	0.291	6.194	=< 0.001
Inflammation	2.4	0.0	100	0.699	0.221	10.854	=< 0.001
Size & Shape	1.5	0.0	100	0.707	0.224	6.708	=< 0.001
Itching	2.1	0.0	100	1.197	0.379	5.547	=< 0.001

Table 3: Showing Effect of Therapy on Size & Shape by Paired t Test in Both Groups of Nija Vrana

S.No.	Parameters	Group	Mean \pm SD		Mean Difference	SED.	t	P
			B.T.	A.T.				
1	Length	Haridradi Oint (Group A)	3.025 \pm 1.76	0.625 \pm 0.87	2.4 \pm 1.83	0.409	5.8679	P<0.001
		Framycetin Oint (Group B)	2.65 \pm 1.565	0.912 \pm 1.098	1.737 \pm 0.908	0.203	8.556	P<0.001
2	Breadth	Haridradi Oint (Group A)	2.1 \pm 1.35	0.3875 \pm 0.6411	1.7125 \pm 1.507	0.337	5.0816	P<0.001
		Framycetin Oint (Group B)	1.675 \pm 1.195	0.525 \pm 0.589	1.15 \pm 0.824	0.184	6.25	P<0.001
3	Depth	Haridradi Oint (Group A)	0.8425 \pm 0.742	0.125 \pm 0.275	0.742 \pm 0.664	0.148	5.013	P<0.001
		Framycetin Oint (Group B)	0.567 \pm 0.659	0.187 \pm 0.291	0.38 \pm 0.458	0.102	3.725	P< 0.01

DISCUSSION

Wound healing is a normal physiological event which outsets immediately after injury and keeps on in sequential manner till the formation of healthy scar. *Taila* application is one which could be adopted when *Vranas* have raised granulation.^[7]

Nija vrana through *Samhita* is focused in accordance with the modern surgical description. *Haridradi taila* (ointment) *Kalpana* has narrated by Sushruta along with other various modalities for clinical trials. The local application of *Haridradi* ointment in *Nija vrana* reduces the odour, inflammation, tenderness, discharge, size & shape, colour and itching significantly and promotes for healing of *Nija vrana*. Acharya Sushruta described *Taila kalpana* in *Shashti upakrama*. Ten ingredients having the properties of both "*Shodhan* and *Ropan*" (Su.Su.36/16&27). These are *Kasis*, *Kutaki*, *Jati*, *Haridra*, *Tagar*, *Agaru*, *Daruharidra*, *Deodaru*, *Priyangu* and *Lodhra*. All the mention drug possesses *Vrana shodhan* property. As *Vrana* becomes *Shuddha* healing process can be augmented for smooth and uncomplicated healing. These drugs also possessed *Vranaropan* property. *Kashay* and *Tikta rasa* as mentioned in *Kaidev Nighantu* have *Kapha* and *Pitta shamak* property.^[8] Ointment is to be prepare because convenient to carry than *Taila* and using for long time in *Vrana*.

Mode of Action of Drug

On the basis of above description and clinical findings probable mode of action *Haridradi Taila* (ointment) on *Nija vrana* can be hypothetically postulate.

Considering all the properties of compound drug i.e., *Haridradi* Ointment its *Kashaya Tikta rasa* checks the excessive reactionary inflammation in earlier phase (*Pittakaphaghna*), squeezes out toxins and necrotic tissue thus checks excessive exudation

(*Kleda- Puya-Shieshma-Shoshan*) and thus facilitates wound healing (*Ropana*). Its *Katu rasa* reduces local discharge (*Kleda upshoshana*), irritation (*Kandu prashmana*) acts as a anti-infective (*Krimighna*), by its *Strotoshodhan* property, *Ushna Virya*, *Laghu-Ruksha-Tikshna guna* it penetrates in deep tissue and debride the wound. *Madhur vipaka* and *Snigdha guna* help in removal of any debris left. It also helps in growth of destroyer *Vrana adhisthana*, *Jeevaniya*, *Bruhaniya* and *Preenan* property and this facilitate *Ropana* by regeneration and organization of various tissue (*Ksheenakshata sandhankaro*).^[9,10]

CONCLUSION

- The present study entitled "A clinical study of *Haridradi Malahar* (Ointment) in the management of *Nija Vrana*" was disposed into various sections like observations, analysis and results can be concluded as follows.
- According to Sushruta *Saptashodhan* and *Saptaropan* was described for the treatment of *Vrana*. Among 10 *Dravyas*, 3 *Dravya* act as *Vranashodhak* and remaining were acts as *Vrana ropak*. The drug initially acts as a debriding agent-removing slough and necrotic tissues and subsequently paves way for smooth and uninterrupted healing of the wound.
- The local application of *Haridradi Malahar* i.e., ointment in *Nija Vrana* reduces odour, inflammation, tenderness, discharge, size-shape, colour and itching significantly and promotes for the healing of *Nija Vrana*.
- The dressing of *Haridradi* Ointment 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.

- From the present clinical study it can be speculated that *Haridradi* Ointment possesses sufficient efficacy in *Vranashodhan* and *Vranaropan* without producing any adverse effects.

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