

# A Clinical Study to Evaluate the Efficacy of Vipareeta Malla Taila in Dusta Vrana

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## **Abstract-**

*Dusta vrana* management is a common problem, encountered by medical practitioners all over the globe. i.e. non-healing chronic ulcer. Without early and optimal intervention, the wound can rapidly deteriorate and leading to amputation of the affected limb. Studies reveal that it is difficult to achieve the complete aim of wound management with a single drug. In the present study *Vipareeta Malla Taila* is selected from *Bhaishajaya Ratnavali* and *Yogaratanakar*. It consists of *Sindoor, Kushta, Hingu, Rason, Chitrka Root, Langali, Hartal, Sharpunka, Shudh Tutha and Shudh Samundrafena* etc. These drugs having properties of *Vrana Shodhana* (cleansing), *Ropana* (healing), *Vedanashamana* (analgesic), *Shothaharana* (anti-inflammatory and reducing swelling) and bactericidal. It is single blind clinically study where 15 patients were selected. The patient were treated with *Vipareeta Malla Taila*. *Vipreetmala Taila* mentioned by *Acharya Yogratnakar* in the context of *Vrana* chapter is found efficacious in wound healing. The drug initially acts as a debriding agent removing slough and necrotic tissues & subsequently paves way for smooth & uninterrupted healing of the ulcer. Topical application of *Vipreetmala Taila* reduces pain, burning sensation and itching. It also decreases discharge, edema and also helps in gradual improvement in floor & granulation tissue. The semi occlusive dressing of *Vipreetmala Taila* provides moist environment which enhances epithelialization, prevent scar formation and can be easily removed from wound surface without causing pain or damage to the new growing epithelium. Hence from the present clinical study, it can be speculated that *Vipreetmala Taila* possess sufficient efficacy in *Vrana Shodana* & *Vrana Ropana* without producing any adverse effects.

**Keywords - *dusta vrana, ropana, shodhana, vipatreeta malla taila, wound healing.***

## **Introduction-**

The most commonly occurring condition in shalyatantra is *vrana*. While explaining the scope of shalyatantra, it has mentioned *vrana vinishchayartham* as a major part of shalya-tantra. Infected wound (*dustavrana*) is a long-standing ulcer with profuse discharge and slough when clearing slough and enabling drug to reach the healthy tissue is more important. A variety of drugs and formulation have been tested for the clinical efficacy in *dustavrana* and yielded good results. Healing of ulcer is a natural complex process but healing gets affected by infection amount of tissue injury, contamination etc. In spite of the advances that have been made. The process of wound healing is almost same at the terminal stages, whereas at initial stages it shows some differences and includes a number of cellular and molecular phases till the process of healing is completed<sup>[1]</sup>.

The management of chronic wounds are still a challenge for the clinician. *Sushruta* the father of surgery has described. The management of wound in his treatise. It is the best description ever in the history of medical sciences in case of wound management. The work has been summarized in *shasti upakrama*<sup>[2]</sup>(sixty different aspect for wound management by him). Rasakriya are explained as to as to be used for Shodhana and Ropana of Vrana<sup>[3]</sup>. The principle of management are valid even today. Application is one of the *upakaramas*.Yogaratanakar mentioned application of *vipareeta malla taila* for *vrana shodana* and *ropana*.

There is no doubt that the art of surgery revolves around the vrana and essence is uncomplicated healing. A follower of *shalya tantra* need to establish the effective *ayurvedic* management of the *dusta vrana*. Hence this is effort to find a simple and effective treatment for the *dusta vrana*.

**Table no -1 Description of ingredients of Vipreetmala taila:<sup>[4]</sup>**

Dravya	Synonyms	Latin name	Family	Rasa	Guna	Veerya	Vipaka	Doshakarma
<i>Sindoor</i> <sup>[5]</sup>	<i>Girisindoor, nagabhu shana, manglaya.</i>	Eng-red oxide of mercury	_____	_____	<i>Ushna</i>	_____	_____	<i>Tridoshashamaka, malabhedaka. vrana shodana and ropana</i>
<i>Kustha</i> <sup>[6]</sup>	<i>Kutha, kuth, indian costus root</i>	<i>Saussurea lappa</i>	Asteraceae	<i>Tikta</i>	<i>Laghu, rooksha, teekshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavaatahara, vedanasthaapana</i>
<i>Hingu</i> <sup>[7]</sup>	<i>Hinguka, atugra, Hing, asfoetida, eng</i>	<i>Ferula foetida</i> Regel., <i>Ferula narthex</i> Bioss	Fam. Umbelliferae	<i>Katu</i>	<i>Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>vedanasthaapana, shooplprashamana, vatahara.</i>
<i>Lahshuna</i> <sup>[8]</sup>	<i>Garlic lahasun, lasan, rasona, vellulli</i>	<i>Allium sativum</i> linn.	Liliaceae	<i>Madhura, katu, tikta, kasha va.</i>	<i>Snigdha, tikshna, pichchila, guru, scara</i>	<i>Ushna</i>	<i>Katu</i>	<i>Shotha, kushta, ajeernashoola, vrana</i>
<i>Chitraka</i> <sup>[9]</sup>	<i>Chita, chitrak, chitro</i>	<i>Plumbago zeylanica</i> linn.	Colchicaceae	<i>Katu</i>	<i>Laghu, ruksha, teekshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Lekhana, shothahara, swedajanana, deepana, pachana.</i>
<i>Kalihari</i> <sup>[10]</sup>	<i>Kalihari, langali, agnishikha, kaanthala</i>	<i>Gloriosa superba</i> linn.	Liliaceae	<i>Katu</i>	<i>Tikta, teekshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Krimighna, deepana, raktashodhaka, rasayana</i>
<i>Hartala</i> <sup>[11]</sup>	<i>Haratala, talaka, hartala</i>	Eng. Orpiment	_____	<i>Katu</i>	<i>Snigdha, ushana</i>	<i>ushana</i>	_____	<i>Sleshmarogahara, raktadoshara, vatahara, vishahara</i>

<i>Sharpunka</i>	<i>Sarpokha, empali, bansa, paavali</i>	<i>Tephrosia purpurea</i>	<i>Fabaceae</i>	<i>Tikta, kashaya</i>	<i>Laghu, ruksha, tikshana</i>	<i>Ushana</i>	<i>Katu</i>	<i>Shothaghna, jantughna, vranropaka, kushthagha, raktashodhanax</i>
<i>Shudhuth</i>	<i>Sasyaka, tuttha, mayurathutha, sikhigrivan, tamragarbha.</i>	<i>Cupri-sulphas</i>	—	<i>Katu, kashava, tikta</i>	<i>Laghu, vishada</i>	—	—	<i>Vishaghna, rasayana, balya, lekha, bhedana.</i>
<i>Sudhsamundraphena</i>	<i>Samundraphen, phenaka, dindira, abdhija, samundr aja</i>	<i>Eng-cuttle fish</i>	—	—	—	<i>Sheeta</i>	—	<i>Lekhana, deepana, pachana</i>
<i>Vatsanabha</i> <sup>[12]</sup>	<i>Aconite, balnag, nagpuri, mitha visha.</i>	<i>Aconitum chasmanthum</i>	<i>Ranunculaceae</i>	<i>Madhura</i>	<i>Laghu</i>	<i>Ushana</i>	<i>Madhura</i>	<i>Kapha-vata hara jwaragna</i>
<i>Tila Taila</i>	—	—	—	<i>Ushna, teekshana, Vikasi, sukshama</i>	<i>Madhur, Tikta &amp; Kshaya anurasa</i>	<i>Usna</i>	<i>Madhur</i>	<i>Vata- Kapha Shamaka, lekha, krimighana</i>

**Photographs during vipareetamalla taila preparation**



**Raw Drugs**



**Drugs after Grinding**



Soaked Drugs in Water



Oil during heating



Oil During Preparation



Labelled Oil Bottles after Preparation

## Material and methods

### Source of data

This clinical study is planned to evaluate the effect of *vipareeta malla taila* in the management of *dusta vrana*. In this clinical study 15 patient have been selected from OPD and IPD of shalya tantra department of jammu institute of Ayurveda and research an allied hospital in the vicinity of jammu. Data was collected based on detailed proforma designed for the study.

### Methods-

Ulcer are cleaned with distilled water and a sterlized gauze dipped in *vipareeta malla taila* was used and bandaging was done. Along with daily dressing of vipareeta malla taila the patient were treated with *triphala guggulu* and *gandhaka rasayan*. Results are assessed with comparative study of features before and after treatment with proforma designed for study.

Duration of treatment-Treatment was carried out till ulcer healed

Follow up-After completion of the treatment patient were followed up at every week for a period of two months.

### Inclusion criteria-

Patient having features of *dusta vrana* having chronicity more than 21 days are selected for the study.

Patient suffered from *dusta vrana* of all types.

### Exclusion criteria –

Patient suffering from gangrene.

Patient with systemic features of sepsis.

Patient suffering from specific ulcer like malignant ulcers, tubercular ulcers, leprotic ulcers.

Patient with multiple systemic disorder.

#### **Assessment Criteria -**

The assessment criteria were listed according to details of clinical features found in the Ayurvedic texts and contemporary Medical books. The criteria were grouped as subjective and objective.

- All the features were recorded before treatment, during each visit and after treatment in the Performa.

#### **Objective & Subjective Criteria**

- Pain
- sensation
- Itching
- Smell
- Tenderness
- Discharge
- Granulation tissue
- Swelling

#### **Scoring pattern**

##### **Pain**

- 0- no pain
- 1- localized feeling of pain during movement but tolerable
- 2- localized feeling of pain during movement which affects the movement
- 3- localized feeling of pain even during rest but not disturbing the sleep
- 4- localized continuous feeling of pain disturbing the sleep also.

##### **Burning sensation**

- 0- No burning
- 1- Little, localized & some time feeling of burning sensation
- 2- Moderate localized & some time feeling of burning sensation
- 3- More localized & often burning sensation which does not disturbed sleep
- 4- Continuous burning sensation which disturbed sleep.

##### **Itching**

- 0- No itching
- 1- Slight, Localized itching sensation
- 2- Moderate Localized itching sensation
- 3- More, Localized & often itched but not disturbs sleep
- 4- Continuous itching which disturbed the sleep.

##### **Smell**

- 0- No smell
- 1- Minimum bad smell

- 2- Moderate bad smell
- 3- Unpleasant but tolerable
- 4-Foul smell which is intolerable

**Tenderness**

- 0 – No tenderness
- 1 – Mild (tenderness after squeezing)
- 2 – Moderate (tenderness after touching with pressure)
- 3 – Severe (tenderness just touching with soft object).

**Discharge**

- 0 – No discharge / dry dressing
- 1 – Scanty occasionally discharge and little wet dressing
- 2 - Often discharge and with blood on dressing
- 3 – Profuse continuous discharge which needs frequent dressing

**Granulation tissue**

- 0 – Healthy granulation tissue
- 1 – Pale granulation tissue
- 2 – Less granulation tissue
- 3 – No evidence of granulation tissue

**Investigation-**

Haemoglobin percentage-(14-17gm/dl normal range)

Total leucocyte count-4500-1100/L

Erythrocyte sedimentation rate-0-22mm/hr

fasting blood sugar-70-126mg/dl

Urine routine and Microscopic,

Wound swap culture and sensitivity

x-ray of wound site (if necessary).

All type of investigation help us for the proper diagnosis ,treatment and prevention in dusta vrana.The proper glycemic control can have a significant impact in the rate of wound healing in a diabetic patient.In some cases wound healing is delayed due to increase of total leucocyte count and ESR.So investigation has major role in every chronic wound patient.

## Photographs of before and after treatments

**Figure 1- Chronic infected Wound  
below Scrot**



**Figure 2 Chronic Wound On Planter  
side of Right Foot**



**Table 2: Statistical analysis of clinical recovery in the signs and symptoms after treatment**

Sr. No.	SIGN AND SYMPTOM	MEAN SCORE		DIFFEERENCES IN MEAN	PAIRED T TEST			
		B.T.	A.T.		S.D.	S.E.M	t value	t value
1	Pain	3.07	0.4	2.3	0.617	0.159	16.750	<0.001
2	Burning Sensation	2.4	0.0	2.4	0.639	0.165	14.929	<0.001
3	Itching Sensation	1.9	0.0	1.9	1.279	0.330	5.850	<0.001
4	Tenderness	2.5	0.1	2.4	0.507	0.130	18.330	<0.001
5	Discharge	2.2	0.0	2.2	0.593	0.153	14.789	<0.001
6	Smell	1.0	0.0	1.0	1.222	0.315	3.378	<0.001
7	Swelling	1.8	0.0	1.8	0.676	0.174	10.31	<0.001
8	Granulation Tissue	1.4	0.0	1.4	0.632	0.163	8.57	<0.001

1.PAIN -The statistical analysis revealed that the mean score of pain was 3.07 before the treatment which was reduced to 0.42 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

2.ITCHING (KANDU) -The statistical analysis revealed that the mean score of Itching (Kandu) was 1.9 before the treatment which was reduced to 0.9 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

3.SMELL (GANDHA)- The statistical analysis revealed that the mean score of Smell (gandha) was 1.0 before the treatment which was reduced to 0.0 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

4.BURNING SENSATION -The statistical analysis revealed that the mean score of Burning sensation was 2.4 before the treatment which was reduced to 0.0 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

5.DISCHARGE -The statistical analysis revealed that the mean score of discharge from ulcer was 2.2 before the treatment which was reduced to 0.0 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

6 -The statistical analysis revealed that the mean score of swelling was 1.8 before the treatment which was reduced to 0.0 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

7.TENDERNESS- The statistical analysis revealed that the mean score of tenderness was 2.5 before the treatment which was reduced to 0.1 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

8.GRANULATION TISSUE- The statistical analysis revealed that the mean score of granulation tissue was 1.4 before the treatment which was reduced to 0.0 after the treatment & this change is statistically highly significant ( $p<0.001$ ).

### Discussion-

*Sushruta* in his book *Sushruta Samhita* narrates a detailed account on ulcer. Its etiology, classification, features and prognosis have been elaborately explained. While enumerating the treatment aspect, he explains 60 procedures that are to be followed based on different situations which holds good, in various types of wounds or based on different stages of wound healing or for complications that have arisen after improper healing. Wound healing is completed in three phases: Inflammatory proliferative and remodeling. Granulation, collagen maturation and scar formation<sup>[13]</sup> are some of the other phases of wound healing which run concurrently but are independent of each other. Some patient on admission had no sensation of pain though tactile sensation was not completely deprived. After 2 weeks of daily application of the oil, he began to experience pain at the site of wound as it healed. Incidentally the oil also had positive effect on the fungal infection in the web space in a duration of 20 days. During the course of study, the patient did not report any kind of inconvenience with respect to odor or sensation. Approximately 2 ml of the oil was employed which was sufficient to moisten the gauze and wound site. There are numerous medicated oils available today, but *Vipareeta malla Taila* was chosen for this study because of its peculiar indication where it can be used even when the patient isn't following the right diet or regimens as prescribed for proper wound healing. An attempt was made to explore the Shodhana and Ropana properties of the trial drug scientifically. Vrana ropan involves Shodhana followed by Ropana, two stages happen practically subsiding local Shotha by removal of local Dhatu dhusti, followed by initiation of Ropana process<sup>[15]</sup> i.e., contraction and covering of wound by epithelial layers.

### Conclusion-

In this study 15 patient of *dusta vrana* were treated with *vipareeta malla taila*. Most of the patients suffering with *dusta vrana* belonging to lower socio-economic group and common side effected in lower limb. This study had revealed local *shodhana* with oral medication has significant role in healing of *dusta vrana*. The oil does not pose any discomfort to the patient as it did not possess any impleasant odour which could have prevented the patient from continuing with the treatment. The nature of the medicament prevented the gauze to adhere to the wound and hence repeated change of dressing everyday did not pose any disturbances to the wound or to the patient. It is a cheap and cost effective remedy for *dusta vrana*. *Vipareeta malla taila* was found to be an ideal formulation that can be adopted for all *dusta vrana*.

**Result-***Vipareeta malla taila* initially acts as a debriding agent removing slough and necrotic tissues. It reduces pain burning sensation,itching,decrease discharge oedema, and helps in gradual improvement in floor and granulation tissue. Probably due to the above properties it hastens the wound healing process which helps in reduction of wound size.

**Scope for further study-**This study is carried out on sample size of 15 patient. Patient having different types of ulcer such as arterial and venous etc. was selected in this study. Further study may be conducted with large sample size and particular type of ulcer.

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