

A CASE STUDY OF *DUSHTA VRANA* (INFECTED WOUND) TREATED WITH
*NIMBAPATRADI GHRITA*Chandan Raskar^{1*}, Dhana Lilke², Vitthal Kasle³, Seema Giri⁴ and Suryakant Waghmare⁵

¹PG Scholar, Department of Shalyatantra, Government Ayurved College, Osmanabad Maharashtra, India.
^{2,3,4}Assistant Professor, Department of Shalyatantra, Government Ayurved College, Osmanabad Maharashtra, India.
⁵Associate Professor, Department of Shalyatantra, Government Ayurved College, Osmanabad Maharashtra, India.

***Corresponding Author: Chandan Raskar**

PG Scholar, Department of Shalyatantra, Government Ayurved College, Osmanabad Maharashtra, India.

Article Received on 30/06/2021

Article Revised on 19/07/2021

Article Accepted on 07/08/2021

ABSTRACT

“The destruction / break / rupture / discontinuity of body tissue / part of body, is called wound.” Infected wounds where bacteria or other microorganism have colonized cause either a delay in wound healing or deterioration of the wound. In *Ayurveda* such wounds are called as *Dushta Vrana* and drugs having *Shodhan* (cleansing) and *Ropan* (Healing) action are recommended for the management. A 52 years old patient with such infected wound was selected for study and treated with *Nimbapatradi Ghrita* (medicated clarified butter) for 30 days. Patient was assessed on the basis of parameters such as wound size, discharge, margins, granulation tissue, pain. The observations and results were analysed. It highlights the fact that *Nimbapatradi ghrita* is effective in management of *Dushta vrana*.

KEYWORDS: *Dushta vrana*, *Nimbapatradi Ghrita*, Infected wound.**INTRODUCTION**

A wound is break in integrity of skin or tissues often, which may be associated with disruption of structure and function.^[1] Where *Dushtavrana* (infected wound) is one of the stage or *Avastha* of *Vrana* exhibits the symptoms in the term of *Gandha, Varna, Strava* and *Aakruti*.^[2] In the treatment of *Dushtavrana* most important thing is time as well as good resistance power. If *Dushtavastha* is for longer time & it requires *Shodhan* to turn into *Shudhhavastha* for healing.^[3] In modern medicine some antibiotics and antiseptics have developed resistance in treatment of infectious wound. The healing process becomes diminished in chronic wounds due to reduced tissue regeneration, angiogenesis and neurological problem.^[4] *Acharya Sushruta*, while describing sixty *Upkramas* (procedures) for the treatment of the treatment of *Vrana* has indicated *Ghrita Kalpana* at no. 30. If used properly, the *Ghrita* removes the imbalance of *Doshas* in the *Vrana*, when infused with *shodhan dravya* (drugs with cleansing property) and *Ropana* (healing) properties.^[5] *Bhaishajya Ratnavali* has mentioned many useful formulations for *vrana chikitsa*, *Nimbapatradi varti* is one of them. Contents of it are *Nimba* (*Azadirachta indica*), *Daruharidra* (*Berberis aristata*), *Yashtimadhu* (*Glycyrrhiza glabra*), *Ghrita* (Clarified butter) and *Madhu* (Honey), all of which help in *shodhan* and *ropana* of *vrana*.^[6] Present study is an effort to see the effects, efficiency and clinical evaluation of

Nimbapatradi Ghrita in management of *Dushtavrana* which will be modification of *Nimbapatradi varti*.

AIMS AND OBJECTIVES

The aim of this study was to evaluate the clinical efficacy of *Nimbapatradi Ghrita* and to find cost effective and alternative *Ayurvedic* remedy for the management of infected wound.

MATERIALS AND METHODS

Present clinical study has been carried out in the OPD and IPD level in the *Shalyatantra* Department of Govt. *Ayurved* College, Osmanabad. Patient was selected irrespective of religion, race, occupation etc., fulfilling the selection & eligibility criteria and informed consent was taken.

Clinical study design

1 patient was selected.
Daily dressing of wound with *Nimbapatradi Ghrita* carried out for 30 day.

Preparation of drug

Preparation of *Nimbapatradi Ghrita* was done by using standard method given in *Sharangdhar Samhita*.^[7]

Investigations

In the patient, the following laboratory investigations were carried out before and after treatment.

1. Routine hematological examination: CBC- Leukocytosis present, BT-CT- Normal.
2. Biochemical examination of Blood sugar(R), Serum Creatinine, Blood Urea- Within normal limit.
3. Routine and microscopic examination of urine- Within normal limit.
4. HIV, HbsAg, VDRL- Negative.

Method of selection of study subject

The patient is selected for study irrespective of gender, religion, economic status, education and occupation.

Inclusion criteria

1. Patient diagnosed as *Dushtavrana* on upper and lower extremities.
2. Uncomplicated superficial wound, not involving the muscle.
3. Wound area not more than 10 x 10 x 1 cm.
4. Duration of wound not more than 1 month.
5. Patient of age group 15-60 yrs.
6. Patient irrespective of caste, religion, sex, economic status.
7. Patients who can give the written consent and regular follow up.

Exclusion criteria: 1. Diabetic ulcers. 2. Tuberculous ulcers 3. Lepromatous ulcers 4. Malignant ulcers 5. Trophic ulcers resulting from nerve diseases- tabes dorsalis, transverse myelitis, peripheral neuritis. 6. Patients of HIV infection. 7. Hepatitis B +ve (HBsAg). 9. Patients of Sexually Transmitted Diseases. 10. Patients of regional lymphadenopathy. 11. Wound area more than 10 x 10 x 1 cms. 12. Duration of wound more than 1 month.

Assessment Criteria

1. Wound Size

1.	Nil	0
2.	0-2.5 cm	1
3.	2.5-5 cm	2
4.	5-7.5 cm	3
5.	7.5-10 cm	4

2. Discharge

1.	Absent	0
2.	Serous	1
3.	Sero-purulent	2
4.	Purulent	3
5.	Purulent with foul smelling	4

3. Granulation Tissue

1.	Wound closed/ Healthy granulation tissue	0
2.	Mild granulation	1
3.	Pale granulation	2
4.	Unhealthy Granulation	3
5.	Slough	4

4. Appearance of margin

1.	Scar formed epithelized	0
2.	Blue with entire wound	1
3.	Blue with angry red color at same place	2
4.	Red color / Slough indurated	3
5.	Inflamed margin	4

5. Pain according to VAS

1.	No Pain	0
2.	Mild Pain	1-3
3.	Moderate Pain	4-6
4.	Severe Pain	7-10

Other

1. Photographical evidence of Wound Before and After Treatment.
2. Size of Wound before and After Treatment.

OBSERVATION AND RESULT

1. Wound Size

	Before Treatment	After Treatment
Size	4 cm x 4.5 cm	1 x 1.6cm
Score	2	1

2. Discharge

	Before treatment	After treatment
	Purulent	Absent
Score	3	0

3. Granulation Tissue

	Before treatment	After treatment
	Unhealthy Granulation	Mild granulation
Score	3	1

4. Appearance of margin

	Before treatment	After treatment
	Slough indurated	Scar formed epithelized
Score	3	0

5. Pain

	Before treatment	After treatment
	Moderate Pain	Mild pain
Score	5	1

6. Photographic evidence



DISCUSSION

The word *dushta* literally means a putrified ulcer- the wound that has got vitiated.^[8] The muscular tissues are afflicted with sensitization (*praharsha*) and scatteredness/disintegration of the blood (*rudhiramvikira*) basically cause severe kind of *dushta vrana*. Effects obtained after treating wound with *Nimbapatradi Ghruta* are as below:

1. Effect on Pain: -Pain and tenderness was markedly reduced at the end of treatment. Throbbing pain which was present at the beginning was completely reduced at the end of 2nd week as the purulent discharge decreased because of the *shodhana* properties of *Nimbapatradi Ghruta*.
2. Effect on color: Change in color occurred when *Dushta vrana* progressed to *shuddha avastha*. During second week slough was reduced and color of wound floor became pinkish with progressive healthy granulation ahead.
3. Effect on discharge: At 2nd week purulent discharge disappeared with serosanguinous one which gradually reduced further. At end of 3rd week discharge stopped completely. This was may be due to *shodhan* and *ropan* properties of *ghruta*.
4. Effect on granulation: Unhealthy granulation was replaced by healthy granulation at end of second week.
5. Effect on margin: Indurated sloughy margin was epithelized well at second week with proper wound contraction and scar formation at end of fourth week.
6. Effect on wound size- Size of the wound was 4 x 4.5 cm initially which reduced to 1 x 1.6 at end of 4th week which is approximately 91% reduction in wound size.

CONCLUSION

Nimbapatradi Ghruta can be very good substitute for local application formulations with excellent *Shodhan-Ropan* properties. It is simple formulation with few drugs and easy preparation method which can be effectively used for *Dushta vrana*.

ACKNOWLEDGEMENT

The author is grateful to Department of *Shalya Tantra*, Government *Ayurved* college, Osmanabad.

REFERENCES

1. Sriram Bhat M. SRB''s Manual of surgery, Wound and wound healing, 5th ed. Jaypee Publication, 2016; 11.
2. Dr.Anantaram Sharma, Acharya Priyavat Sharma *Sushrut Samhita –Sushrut Vimarshini hindi vyakhya*, Chaukhamba Surbharti Prakashan – Sutrasthan 22/7.
3. Ambika Datta Shatri ,*Sushruta Samhita*(Hindi Translation). Part 1. ed. 2005.Varanasi; Chaukhamba Sanskrita sansthana, 95.
4. P. Ronan O'Connell, Norman Williams, Christopher Bulstrode. Wound tissue repair and scars. Bailey and Love's Short Practice of Surgery. 25th ed. London,United Kingdom: A Hodder Arnold Publishers Ltd., 2008; 24-31
5. Dr.Anantaram Sharma , Acharya Priyavat Sharma *Sushrut Samhita –Sushrut Vimarshini hindi vyakhya*, Chaukhamba Surbharti Prakashan-Chikitsasthan 1/55, 163
6. Kaviraj Ambikadutta Shastri, Vranashoth chikitsa-47/45,*Bhaishajya Ratnavali-Vidyotini hindi Vyakya Vimarsh*, Chaukhamba Sanskrit Sansthan, 564
7. Dr.Shailaja Shrivastav, Madhyam Khand,Adhyay 9/1, *Sharangdjar Samhita-“ Jeevanprada” Savimarsh vyakhya*, Chaukhamba Orientale Varanasi, 215.
8. Lochan K, Byadgi PS. (Ed.), (1st Ed.). Encyclopaedic Dictionary of Ayurveda, Delhi, *Chaukhambha Publications* 2015; 246.