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Role of *Sakshaudra Nimbadi Ghrita* in Symptomatic Relief of *Dushtavrana*

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ABSTRACT

Skin is very important organ of human body which covers and protects body from all external shock and infections. Various exogenous or endogenous factors may damage skin which further resulted wound or ulcer known as *Vrana* in ayurveda science. According to *Sushruta Vrana* need to be treated at initial state otherwise it becomes difficult to treat and termed as *Dushtavrana*. Ayurveda provides various approaches for the management of *Vrana* such as; use of herbs, ayurveda formulation and *shodhna chikitsa*. The traditional text of ayurveda recommended various ayurveda formulations for the management of *Dushtavrana*, considering this fact present study was planned to assess efficacy of *Sakshaudra Nimbadi Ghrita* in the treatment of *Dushtavrana* (Infected wound).

KEYWORDS

Ayurveda, Vrana, Dushtavrana, Sakshaudra Nimbadi Ghrita



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INTRODUCTION

Ayurveda the traditional science of life passes knowledge of traditional healing from generation to generation. The ancient text of Ayurveda along with *Veda* described details about diseases their cause and treatment modalities. Ayurveda mentioned various divisions which dealt with different aspects of life and healing. *Agnivesh Tantra* and *Dhanwantri Tantra* are practicing today for the healthcare management.

The *Vrana* resembling wound which is a pathological condition occurs as a consequence of injury. *Shashtiupakram*, *Apatarpana*, *Aalepa*, *Parisheka*, *Abhyanga* and *Sweda* are some *upakrama* described in ayurveda for the management of *Vrana*. The major *shtana* of *Vrana* are *Mamsa*, *Twaka*, *Snayu*, *Asthi*, *Sira*, *Sandhi* and *Koshta*^{1,2}. **Figure 1** described common initiating factors of *Vrana*.

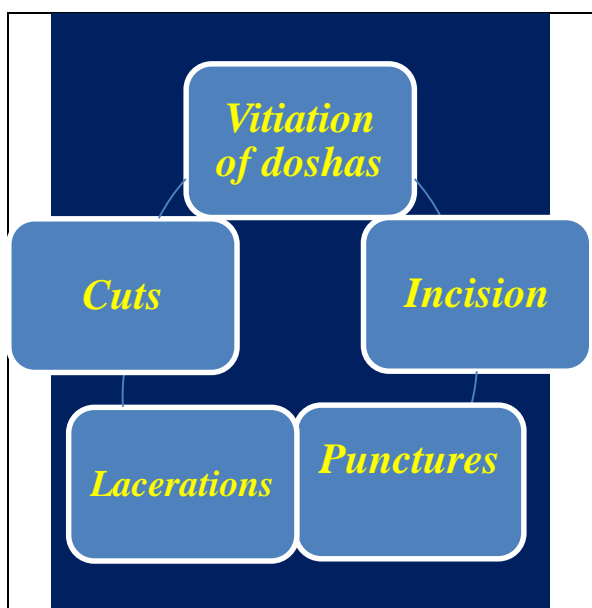


Fig 1 Initiation factors of *Vrana*

The healing of *Vrana* is affected by various factors such as; diet, age, vitamin deficiency and presence of diseased conditions. The delay in healing process of *vrana* resulted *Dushtavrana* which sometimes become difficult to treat without para-surgical approaches of *Shalya Tantra*. Ayurveda mentioned different formulations for the healing of *Dushtavrana*. Considering this fact present study was planned to measure efficacy of *Sakshaudra Nimbadi Ghrita* in the management of *Dushtavrana*.

AIM

To study the efficacy of *Sakshaudra Nimbadi Ghrita* in the management of *Dushtavrana*.

OBJECT

To reassess the efficacy of indigenous module of treatment in the management of *Dushtavrana*.

RATIONALE FOR STUDY

Ayurveda surgery mainly dealt around management of *Vrana* and ulcers. Ancient text mentioned various *upakramas* for the treatment of *Vrana* including; local application of herbs, use of oral medicine and surgical treatment, *Sakshaudra-*



nimbadi ghrī which may possess *Varna-Nashak* properties.

MATERIALS AND METHODS

The patients of either sex were selected from O.P.D. and I.P.D. of *shalya tantra* Department at Govt. Ayurveda College and Hospital, Nanded. Total 60 patients were selected of this study and divided into two groups each comprising of 30 students as follows:

- **Group A:** Treated with *Sakshaudra Nimbadi Ghrī* (experimental group).
- **Group B:** Treated with Betadine liquid (control group).

After selection patients were advised for daily follow up and dressing up to 21 days and after words.

Inclusion Criteria:

- Patient having classical case of *Varna*.
- Patients were ready to participate and follow up protocol.
- Patients without severe complication.
- Patients of either sex.
- Patient belongs from age between 5 to 60 years.

Exclusion Criteria:

- Patients those were not ready to participate in study.
- Patients with severe complications.

➤ Patient having age less than 5 year and more than 60 year.

➤ Patients of *Dushtavrana* also suffering from other diseases like: lepromatous ulcer, *Kshayaj Vrana*, *Madhumrhaj Vrana*, *Updanshaj Vrana*, *Kushthaj Vrana*, *Arbudaj Vrana* and *Kothaj Vrana*.

DRUG:

- *Sakshaudra Nimbadi Ghrī*
- Povidone Iodine (Betadine liquid)

Ingredients of *Sakshaudra Nimbadi Ghrī* and their properties³⁻⁹

Nimba : Antimicrobial property

Til : Emollient and *Vranashodhak* properties

Ghrī : Shooting and *Vranaropak* properties

Honey : *Anupana*, anti inflammatory and debridement healing effect

MATERIALS:

- Artery forceps
- Distilled water
- Scissors
- Gauze pieces
- Bandage
- Cotton pads
- Transparent graph paper.

METHOD:

The Vrana karma or treatment was carried out by the following procedure:



A. **Cleaning of Vrana:**

Cleaning of *Dushtavrana* carried out to remove contamination or foreign materials with distilled water.

B. **Application of Sakshaudra Nimbadi Ghrith and Betadine liquid:**

Drug was applied on wound topically; *Ghrith* was kept on sterile gauze piece and applied directly on wound with the help of sterile gauze piece. Same procedure was applied for betadine liquid.

C. **Dressing:**

The dressing was changed daily after 24 hours in both groups.

FOLLOW UP

The whole treatment was carried out for 21 days and observations were made on the basis of relief in signs and symptoms of *Dushtavrana*.

ASSESSMENT CRITERIA

Size/Shape of wound, discharge, granulation and slough were considered as assessment criteria for study, in the present article beneficial effects of therapy on the basis of two parameters; size/shape and discharge were discussed.

Following assessment criteria was adopted for observation and statistical analysis of the signs and symptoms score as a measure of treatment efficacy:

1. Size and Shape:

Transparent graph paper were kept on wound and all smallest squares were

counted from margin of the wound (1 smallest square is of 1 mm x 1 mm) and size is expressed in mm² unit. To magnify the image convex lens was used.

2. Discharge:

Discharge was observed as a measure of treatment efficacy in the form of quantity of discharge which was measured using dry gauze piece (6x6 cm):

- i. Severe discharge (+++) :
When 03 or more gauze piece soaked.
- ii. Moderate (++) :
When 02 gauze piece soaked.
- iii. Mild (+) :
When 01 gauze piece soaked.
- iv. Nil (0) : No discharge.

RESULTS

The total effect of therapy was assessed in terms of cured, improved and not-cured.

Following criteria was adapted to measure effect of therapy:

- i. **Cured:**
Complete relief in the sign and symptom score; size and discharged etc. Complete healing of the *Dushtavrana*.
- ii. **Improved:**
Average improvement (50% to 75%) in signs and symptoms.
- iii. **Not-cured:**
Improvement less than 50% in signs/

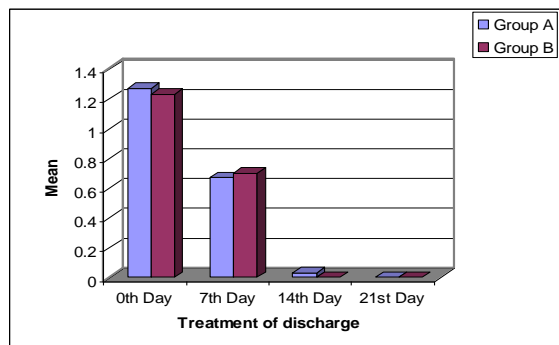


symptoms, size and shape.

Statistical Analysis

To assess the result of the study, both objective and subjective findings were

Fig 2 Effect of Treatment on Discharge recorded before, during and after treatment.



The most leading clinical features of *Dushtavrana* were taken as subjective and objective parameter for analysis. Subjective parameters were converted into objective parameter by method of gradation. The level of significance was set as 5% ($P=0.05$) and the significance was tested by applying paired and unpaired 't' tests.

Table 2 Difference between two follow ups period on discharge

Group A	X	S.D.	S.E.	't'	P
0 th day – 7 th day	0.60	0.50	0.09	6.67	$P<0.05$
7 th day – 14 th day	0.63	0.49	0.09	7.00	$P<0.05$
14 th day – 21 st day	0.03	0.18	0.03	1.00	$P>0.05$
Before – After	1.27	0.52	0.09	14.11	$P<0.05$
Group B	X	S.D.	S.E.	't'	P
0 th day – 7 th day	0.53	0.63	0.12	4.42	$P<0.05$
7 th day – 14 th day	0.70	0.47	0.09	7.78	$P<0.05$
14 th day – 21 st day	0.00	0.00	0.00	0.00	$P>0.05$
Before – After	1.23	0.57	0.10	12.3	$P<0.05$

EFFECT OF TREATMENT ON SIZE OF WOUND:

EFFECT OF TREATMENT ON DISCHARGE:

The discharge reduced within 14 day in group A and in group B discharge reduced within 7 days as shown in **Table 1** and **Figure 2**.

Table 1 Effect of Treatment on Discharge

Follow up	Group A		Group B	
	Mean	SD	Mean	SD
0 th Day	1.27	0.52	1.23	0.57
7 th Day	0.67	0.48	0.7	0.47
14 th Day	0.03	0.18	0	0
21 st Day	0	0	0	0

Study observed that difference between two consecutive follow up was significant but it was insignificant in 3rd and 4th follow up for group A. Reduction of discharge in Ist and IInd follow up was significant ($P<0.05$) in Group B, but it was insignificant in 3rd follow up. Hence it was concluded that discharge was reduced significantly in both groups within 14 days as shown in **Table 2**.

Study observed that wound size decreased slowly in both groups; however reduction in size was significant at initial stage as



compared to later stage as shown in **Table**

3 and Figure 3.

Table 3 Effect of Treatment on Size of Wound

Follow up	Group A		Group B	
	Mean	SD	Mean	SD
0th Day	577.07	230.21	534.93	605.9
7th Day	198.97	155.6	340.73	545.8
14th Day	27.57	51.83	171.63	488.6
21st Day	1.47	8.03	39.1	164.3

Size of wound reduced significantly in both groups after 1st and 7th day of treatment.

Group A observed better results in wound

Table 4 Difference between Two Follow Ups period on Size of Wound

Group A	X	S.D.	S.E.	't'	P
0th day – 7th day	378.1	91.9	16.78	22.53	P<0.05
7th day – 14th day	171.4	113.63	20.75	8.26	P<0.05
14th day – 21st day	26.1	45.63	8.33	3.13	P<0.05
Before – After	575.6	224.32	40.96	14.05	P<0.05
Group A	X	S.D.	S.E.	't'	P
0th day – 7th day	207.77	690.37	126.04	1.65	P>0.05
7th day – 14th day	169.10	106.24	019.40	8.72	P<0.05
14th day – 21st day	132.53	329.91	060.23	2.20	P<0.05
Before – After	509.40	569.47	103.97	4.90	P<0.05

DISCUSSION

The present study witnessed comparable study on efficacy of *Sakshaudra-nimbadi Ghrita* with respect to modern medicines in *Dushtavrana*. *Sakshaudra-nimbadi Ghrita* helped to reduce the size of wound appreciably and reduction in size was observed more with traditional drug as compared to modern medicine. *Sakshaudra-nimbadi Ghrita* also offered relief in discharge quantity which was reduced remarkably. The study found that

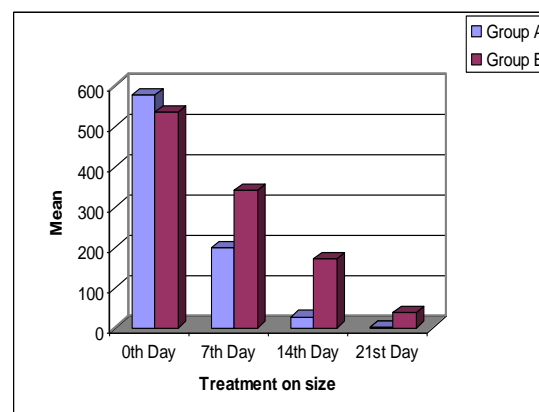


Fig 3 Effect of Treatment on Size of Wound size reduction, however difference in both groups was insignificant as shown in table 4.

local application of medicated gauze soaked with *Sakshaudra Nimbadi Ghrita* helped to manage *Dushtavrana*, the sign and symptoms such as; slough, discharge, granulation and burning sensation relieved significantly. In present investigation no incidences of infections were observed during course of study, which may be due to the antibacterial activity of *Sakshaudranimbadi Ghrita*. Study suggested that *Sakshaudranimbadi Ghrita* also possess anti inflammatory,



Vranashodhak and *Vranaropak* properties. The modality of treatment was less time consuming and easy to conduct since preparation of drug (*Sakshaudra-nimbadi Ghrita*) is not very tedious and cumbersome process. Further study on large population was recommended to validate findings of study.

CONCLUSION

Sakshaudra-nimbadi Ghrit and Betadine liquid both were equally effective for the management of “*Dushtavrana*”. *Sakshaudra-nimbadi Ghrita* was found to be very effective in the management of *Dushtavrana*. Ingredients of *Sakshaudra Nimbadi Ghrita* such as; *Nimba, Til, Ghrita* and *Honey* offers antimicrobial, shooting, anti inflammatory, *Vranaropak* and *Vranashodhak* properties thus offers appreciable healing effect in *Dushtavrana*. It may also act in the various type of *Vrana* for which further studies may be planned in future on large population. Finally it was concluded that *Sakshaudra-nimbadi Ghrit* may be used effectively as Ayurveda medicine in the management of *Vrana* and *Dushtavrana*.



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