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# A CLINICAL TRIAL OF VRANA DHOOPAN BY NIRGUNDYADI DHOOPA YOGA IN MANAGEMENT OF DUSHTA VRANA

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#### **ABSTRACT**

A wound is a break in the skin or mucous membrane or alteration in the integrity of the skin and underlying tissue. It can cause due to surgical incision, trauma, pressure, friction or poor circulation. Wound healing is a mechanism where the body attempts to restore the integrity of the injured part. But the factors like slough, infection, foreign body affects the process of normal healing. *Dushta vrana* is one of the *vrana* needs treatments for healing. It is necessary to remove maximum *dushti* by virtue of *shodhana*, *Krumighna*, *stravahara*, *Dahaprashamana* and *vranaropaka* drugs. *Acharya Sushruta* has described Shashti *upakrama* for the management of the wound. *Vrana Dhoopana* is one of them. A case of 25yrs male patient who presented complaints of infected postoperative wound (*dushta vrana*) was treated by *vrana Dhoopana* of *NIRGUNDYADI DHOOPA YOGA* enhances wound healing by reducing symptoms like *Strava*, *Shool*, *Durgandhi* etc. *Vedana Sthapana* and *vrana shodhan* properties of *NIRGUNDYADI DHOOPA* ultimately reduces pain and microbial load and thus enhance wound healing.

Keywords: Dushta vrana, shodhana, NIRGUNDYADI DHOOPA YOGA.

#### INTRODUCTION

*Vrana* is the phenomenon that consumes the tissue and on healing leaves '*vrana vastu*' i.e., permanent scar tissue. This definition is not limited to the cutaneous lesion but destructive lesions occurring in any tissue

of the body has been considered as *vrana* [1]. *Vrana* implies damage of the part leading to discolouration. The *vrana* has *doshik* involvement known as *dushta vrana*. *Dushta vrana* is one in which there is the

localization of doshas or getting vitiated by doshas. Vrana which has a foul smell, continuously flowing putrefied pus along with blood, abnormal colour, intense pain, for a long time and has smell etc. vrana lakshanas are high in intensity and which is almost opposite to shuddha vrana is dushta vrana [2,3]. Wound healing is a natural process. The defence mechanism of the body like phagocytosis and its local enzymatic action on dead tissue help to keep the wound clear but factors like a slough, infections, foreign body affects the process of normal healing. Dushta vrana is one of the varnas which needs treatment for healing, it is necessary to remove maximum dushti by virtue of shodhana, Krumighna, stravahara, dahaprashmana and vranaropaka drugs. Alleviating these inhibitory factors are the goal of shodhana chikitsa (by Dhoopana karma). Acharya Sushruta has described 'Shashti Upakrama' i.e., sixty measures for the management of wound to achieve goal approximation early healing without complication and acceptable scars. [4] Vrana Dhoopana is one of them. [5] Vrana Dhoopana simply means fumigation of vrana with the help of *Dhoopana dravya*. *Dhoopandravyas* are herbs

which produce fumes when heated. These *Dhoopana* herbs contain volatile substances like oils, tars and resins. When *Dhoopana dravyas* are provided heat, the volatile ingredients are liberated out to produce *dhoopa* (fumes). An attempt has been made by *vrana Dhoopana* of *NIRGUNDYADI DHOOPA YOGA* described in *Harita samhita. Vrana Dhoopana* of *NIRGUNDYADI DHOOPA YOGA* does the *shodhana* of *dushta vrana*, helps to remove all slough, dead tissue and *vrana* becomes *shuddha*. <sup>[6]</sup> Thus, enhances the woundhealing property by reducing symptoms like *Strava*, *shoola*, *Durgandhi* etc. So, for this study *vranadhoopana* of *NIRGUNDYADI DHOOPA YOGA* is used to analyse the therapeutic effect in management of *dushta vrana*.

#### AIM AND OBJECTIVES

To study the effectiveness of *vrana Dhoopana* of *NIRGUNDYADI DHOOPA YOGA* in the management of *dushta vrana*.

#### MATERIALS AND METHODS

**Type of study:** A single observational case study. **Study Centre:** Y.M.T. Ayurvedic Medical College and Hospital, Kharghar, Navi Mumbai.

#### **Materials**

Sr. No.	Dravya	Latin Name	Virya	Guna	Karma	Prayojyaga	Quantity
1	Nirgundi	Vitex	Ushna	Laghu	Vedanasthapak	Patra	1 Part
		negundo		Ruksha	Vranashodha		
					Vranaropak Jantughna		
2	Nimba	Azadiracta	Shita	Laghu	Kandughana	Patra	1 Part
		indica			Kaphapittashamak		
3	Devdaru	Cedrus	Ushna	Laghu	Krumighna	Kanda	1 Part
		deodara		Snigdha	Vedanasthapak		
					Vranashodhan		
4	Sarshapa	Brassica	Ushna	Tikshna	Jantughna	Beeja	1 Part
		campestris		Ruksha	Vedanasthapak		
5	Shuddha	Arsenic	Ushna	Snigdha	Kushtghna	_	1 Part
	hartal	Trisulphide			Krumihar		
6	Ghruta	Butyrum	Shita	Snigdha	Vishghna	_	1 Part
		Departum		Mrudu	Varnya		
7	Sharkara	_	Shita	Guru	Pittashamak	_	1 Part
				Snigdha			
8	Madhu	_	Shita	Laghu	Vranashodhak	_	1 Part
				Ruksha	Vranaropak		

Churna of Nirgundi patra, Nimb patra, Shuddha hartal, Sarshapa, Devdaru, Sharkara took in equal amount and mixed with *ghruta* and *madhu* and *vrana Dhoopana* done <sup>[6]</sup>.

#### **CASE REPORT**

A 25 years male patient came to YMT Ayurvedic Medical College and Hospital with complaints of the infected postoperative wound at natal cleft associated with pain, discharge, foul smell at the wound site.

### Investigation

Hb – 10.2gm%, TLC – 12200 cu/mm, DLC – P – 53%, L – 42%, E+M – 4%, BSL (Random) – 120mg/Dl, Triple H – Negative

#### **TREATMENT**

- Firstly, informed written consent was taken.
- *Vrana Dhoopan* of *NIRGUNDYADI DHOOPA YOGA* was done to the wound by exposing the wound to the smoke coming out from specially designed *Dhoopan Yantra* <sup>[7]</sup>.
- Fumes are exposed to the wound for 15 minutes after cleaning the wound with sterile water.
- After Vrana Dhoopan dressing of wound done.
- This procedure was done for 10 days, and assessment was done on 0, 7<sup>th</sup>,14<sup>th</sup>,21<sup>st</sup> days <sup>[8]</sup>.

Figure 1: Dhoopan procedure







Figure 2: Wound before and after Vrana Dhoopan.









#### **RESULTS**

The subjective and objective parameters show improvement in the clinical symptoms. Symptomatic Assessment: (As per criteria of assessment shown in table no 2)

Sr. No.	CRITERIA	1 <sup>ST</sup> DAY	7 <sup>TH</sup> DAY	14 <sup>TH</sup> DAY	21 <sup>ST</sup> DAY
1	Shool (Pain)	2	1	0	0
2	Strava (Discharge)	3	2	1	0
3	Gandha (Foul smell)	1	0	0	0
4	Granulation	0	1	2	2
5	Size of wound	3	3	2	1

#### DISCUSSION

A significant result was obtained when the wound was subjected to Dhoopan. Fumigation of wound encouraging granulation tissue formation relieved from pain, discharge and cleans wound. Potent analgesia is produced, it relieves pain instantly and significantly. There was a reduction in pain due to ushna guna of Dhoopana drvyas and ushnata of Dhoopana itself. Also, heat and fumes cause vasodilation, allowing an increase in local blood circulation. The heating of Dhoopana dravyas causes evaporation of volatile oils, resins and gums present in them. Nimb promotes wound healing activity through increased inflammatory response neovascularization. Flavonoids and agnuside present in nirgundi have antibacterial activity with antiinflammatory and analgesic action inhibiting the prostaglandin biosynthesis. Shudhha hartal provides the effect of antiseptic (vishghna) action with healing (vranaropaka) properties although it is mentioned in visha gana. Ghruta have Preenana (contentment) property because of which, they cause Dhatu Vardhana (increasing body tissue). As the drug has Snigdha Guna (Unctuous property), it helps to pacify Vata, which vitiates in Vrana. Due to its Sheeta Guna (cooling), it helps in normalizing vitiated *Pitta*, thus helping in pacifying Daha (burning sensation) property. As the drug helps in *Poshana* (nourishment); leads to healthy scar formation and due to its Twakvarna prasadana (improves skin health) property and causes Savarnikarana (natural skin complexion). Also, it has vishghna property, which reduces the toxicity of hartal. Madhu is believed to act by Sukshma Marga Anusari (ability to permeate in microchannels) Prabhava. Madhura Rasa gives nutrition to the tissue, which helps in granulation

tissue formation, while *Kashaya Rasa* provides *Lekhana* (scraping) which helps in desloughing, preparing the wound for healing. Thus, Madhu has excellent properties to heal the wound by virtue of its *Shodhana* (purification), *Ropana* (healing), and *Sandhana* (union) actions.

#### CONCLUSION

NIRGUNDYADI DHOOPA vranadhupana is effective in dushta vrana, there is a significant difference in the score of parameters shoola, Strava, vrana gandha before and after treatment by NIRGUNDYADI vranadhupana. The results found with NIRGUNDYADI DHOOPA vranadhupana are encouraging and it can be used in the routine management of dushta vrana.

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**TABLE 3:** 

SR NO	PARAMETERS	GRADE	DESCRIPTION		
1	Shoola	0	No pain		
	(pain)	1	Mild (Pain relieving without analgesics)		
		2	Moderate (Pain relieving with analgesics)		
		3	Severe (Pain not relieving with analgesics)		
2	Strava	0	No discharge		
		1	Scanty serous discharge &little wet dressing.		
		2	Often discharge and pus on dressing		
		3	Profuse pus discharge which needs frequent dressing.		
3	Gandha	1	Foul smell present		
		0	Foul smell absent		
4	Granulation	3	Complete granulation.		
		2	More granulation (>75%) &less pus (<25%).		
		1	Equal granulations and pus.		
		0	Less granulations (<25%).		
5	Size of wound	0	Less than 1 Sq.cm.		
		1	1 to 2 Sq.cm		
		2	2 to 3 Sq.cm		
		3	3 to 4 Sq.cm		

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**Conflict of Interest: None Declared** 

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