

**EFFECT OF PANCHAVALKALA KVATHA PRAKSHALANA AND  
ROPANA GHRITA IN MANAGEMENT OF DUSHTA VRANA****\*Dr. Brijesh Singh**

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(C.G.).**ABSTRACT**

**Background:** Wounds and there management are fundamental to the practice of surgery. In surgery of trauma, wound is frequently a primary pathology. In elective surgery, it is through the wound that access is obtained to deal with the underlying pathology. **Objectives:** To evaluate the Effect of Panchavalkala Kvatha Prakshalana and Ropana Ghrita in the management of Dushta Vrana. **Results:** Middle aged males of lower middle income group are sufferers; Panchavalkala Kvatha Prakshalana and Ropana Ghrita reduced the intensity of Lakshanas of Dusthavrana significantly. **Interpretation:** Panchavalkala drugs are having Kashaya Rasa predominance thus had

action of Stambhana, Kapha Shamana, Pitta Shamana, Rukshata, Kledashoshaka and Lekhana Guna which helps in reduction of Srava. Thus this help for Shodhana of Dushta Vrana. Ropana Ghrita are Pitta Shamaka, Shophahara and Vrana Ropaka property which helps in reducing Durgandha and Daha and increase healing effects and it prevents discolouration, contracture of wounds. **Conclusion:** Timely Panchavalkala Kvatha Prakshalana and Ropana Ghrita reduces the symptoms of Dushta Vrana by removing Pravruddha Dosha. Thus, we can confidently use Panchavalkala Kvatha Prakshalana and Ropana Ghrita for local treatment in management of the dusta vrana.

**KEYWORDS:** Vrana, Dushta Vrana, Ropana Ghrita, Prakshalana, Panchavalkala Kvatha.**INTRODUCTION**

Shalya Tantra an Ancient Indian Surgery deals with different kind of wounds and their management. Many times, non-healing Vrana pose a problem in surgical practice. Healing of Vrana is a natural process, but due to the interference of vitiated Doshas, Vrana becomes Dushta and normal healing process gets delayed<sup>1</sup>. Achieving better wound healing with

minimal scar and controlling the pain effectively are the prime motto of every surgeon. Ayurveda described different types of Dushta Vrana with clinical features, complications and different treatment modalities. If Vrana is left untreated or inadequately treated then there is chance of further worsening of the condition from curable to incurable stage to avoid this, different management principles are advised.

To achieve good approximation, early healing, acceptable scar, without complications Acharya Sushruta has elaboratively explained sixty types of procedures, among them Vrana shodhana and Ropan is one. Acharya Sushruta,<sup>[3]</sup> Bhavaprakasa,<sup>[4]</sup> Yogaratnakar,<sup>[5]</sup> Charaka<sup>[6]</sup> and Sarangdhara<sup>[7]</sup> have described different remedies of Panchavalkala drugs like Kvatha, Choorna and Lepa having Vrana Shodhana properties. However Sushruta has specifically indicated Nyagrodhadi Gana Kvatha Prakshalana for Shodhana of Dushta Vrana. As “Panchavalkala” drugs are included in Nyagrodhadi gana.<sup>[8]</sup> Ropana Ghrita has Manjistha, Sariva, Lodhra, Murva, Chandana, Sarjarasa, Madhuka & Madhuchistha as ingredients prepared by standard Ayurvedic method of preparation of Ghrita described in Sharangdhara Samhita. The present study is planned to evaluate the Shodhana and Ropana **“effect of Panchavalkala Kvatha Prakshalana and Ropana Ghrita in management of Dushta Vrana”**.

### Intervention

Panchavalkala Kvatha Prakshalana was done twice daily (Morning and Evening) for 15 minutes and gauze immersed in the Ropana Ghrita was kept on wound & over it a sterile pad was placed & bandaging of wound is done. Internally patients were administered Gandhaka Rasayana 2 tab twice daily.

### Method of Prakshalana

The Method of Prakshalana was arbitrarily set to have uniformity among all the patients. 200 ml of Panchavalkala Kvatha which was Sukhoshna was taken in an autoclaved bowl by filtering from sterilized cotton cloth for about 10 cm areas of Vrana. Then wounded leg was kept in sterilized tub and repeated instillation of Kvatha was done on Vrana for about 15 minutes from the height of about 10 cm above the wound. Then the Vrana was dried using dry sterile gauze.

### Ingredients and its proportion of Ropana Ghrita<sup>[9]</sup>

- Madhuchista, 1 part

- Madhuka, 1 part
- Lodra, 1 part
- Sarjarasa, 1 part
- Manjista, 1 part
- Chandana, 1 part
- Moorva and 1 part
- Ghrita. 28 part

### **Method of preparation of Ghrita**

Preparation of Ghrita is done by using 1 part of Kalka Dravya, 4 parts of Ghrita and 16 parts of Drava Dravya as mentioned in Snehapakavidhi Adhaya.

### **The Method of Dressing**

Sterile dry gauze impregnated with Ropan Ghrita was kept over the Vrana & on it a sterile pad was placed and dressing was done. All these procedure was performed wearing a sterile glove.

### **Subjective criteria**

#### **Vedana/Pain**

0- No pain

1- Localized feeling of pain during movement only but not during rest

2- Localized feeling of pain during rest but not disturbing sleep

3- Localized continuous feeling of pain, radiating & not relieving by rest

#### **Burning sensation**

0- No burning

1- Little localized & some time feeling of burning sensation

2- More localized & often burning sensation which does not disturbed sleep

3- Continuous burning sensation with disturbed sleep

### **Objective criteria**

#### **Gandha/Smell**

0- No smell

1- Bad smell

2- Tolerable unpleasant smell

3- Foul smell which is intolerable

**Varna/Colour**

0- Pinkish red

1- Slight red

2- Reddish Black

3- Pale yellow/ Blackish

**Srava/Discharge**

0- No discharge/ dry dressing

1- The gauze is slightly moist

2- After opening the bandage the gauze is completely wet

3- The bandage moist completely within 24 hrs

**Akruti /Shape**

0- Adhere margins

1- Smooth, even & regular margins

2- Rough, regular & inflamed margins

3- Rough, irregular & inflamed margins

**Overall Assessment of the Effect of the Therapy**

The overall effect of the therapy was assessed in terms of Complete Remission, Marked Improvement, Improvement and Unchanged.

Complete Remission- 100% improvement in all the 6 Lakshanas

Marked Improvement- 100% improvement in any 3-5 Lakshanas

Improvement- 100% improvement in any 1-2 lakshanas

Unchanged- No response at all

**Effect of Panchavalkala Kvatha prakshalana and Ropan Ghrita in the Dushta Vrana**

20 patients of Dushta Vrana were treated with Panchavalkala Kvatha Prakshalana and Ropan Ghrita. Its effects on various signs and symptoms were as follow.

**Effect of Panchavalkala Kvatha and Ropan Ghrita on Varna**

Before the treatment all patients had Vikruta Varna. Panchavalkala Kvatha Prakshalana and Ropan Ghrita significantly ( $P < 0.001$ ) improved the colour of the wound by 3.5% at end of

first day, by 31% at the end of 2<sup>nd</sup> day, by 40.5% at the end of 3<sup>rd</sup> day, by 59.6% at the end of 4<sup>th</sup> day and 71.9% was observed at the end of 7<sup>th</sup> day of the therapy (Table-01).

Further analysis of the daily improvement in the color of the ulcer showed that complete improvement of Varna was noticed only on the 7<sup>th</sup> day of the treatment and it was noticed in 20% (Table-07).

**Table No. 01: Effect of Panchavalkala Kvatha and Ropan Ghrita on Varna of Dushta Vrana**

Days of treatment	Mean		% of Improvement	SD (±)	SE (±)	't' values	'P' values
	BT	AT					
1 <sup>st</sup>	2.85	0.10	3.5	0.30	0.06	1.66	<0.10
2 <sup>nd</sup>	2.85	0.80	31.0	0.41	0.09	8.88	<0.001
3 <sup>rd</sup>	2.85	1.15	40.5	0.58	0.13	8.84	<0.001
4 <sup>th</sup>	2.85	1.70	59.6	1.70	0.10	17.0	<0.001
7 <sup>th</sup>	2.85	2.05	71.9	0.39	0.08	25.62	<0.001

#### **Effect of Panchavalkala Kvatha and Ropan Ghrita on Vedana**

All the patients of this series had Vedana. Panchavalkala Kvatha Prakshalana and Ropan Ghrita highly significantly ( $P < 0.001$ ) relieved the pain at the end of first day by 6.38%, by 29.78% at end of 2<sup>nd</sup> day.

At the end of 3<sup>rd</sup> day 51.06% relief was observed, at the end of 4<sup>th</sup> day 63.82% relief was seen and at the end of 7<sup>th</sup> day 89.36% relief was found (Table-02).

Further analysis of the daily improvement in the pain of the ulcer showed that complete improvement of Vedana was noticed in 5.2% patients on the 3<sup>rd</sup> day, in 21.1% on the 4<sup>th</sup> day and 73.6% on 7<sup>th</sup> day of the treatment (Table-07).

**Table No. 02: Effect of Panchavalkala Kvatha and Ropan Ghrita in Vedana of Dushta Vrana**

Days	Mean		% of Relief	SD (±)	SE (±)	't' values	'P' values
	BT	AT					
1 <sup>st</sup>	2.35	0.15	6.38	0.36	0.08	1.87	< 0.05
2 <sup>nd</sup>	2.35	0.70	29.78	0.47	0.10	7.00	< 0.001
3 <sup>rd</sup>	2.35	1.20	51.06	0.61	0.13	9.23	< 0.001
4 <sup>th</sup>	2.35	1.50	63.82	0.60	0.13	11.53	< 0.001
7 <sup>th</sup>	2.35	2.10	89.36	0.71	0.16	13.12	< 0.001

### Effect of Panchavalkala Kvatha and Ropan Ghrita on Srava

Srava was present in various grades in all the patients of Dushta Vrana. Panchavalkala Kvatha Prakshalana and Ropan Ghrita highly significantly ( $P < 0.001$ ) decreased the Srava, by 21.42 % at the end of 1<sup>st</sup> day, by 42.85% at the end of 2<sup>nd</sup> day, by 64.28% at the end of 3<sup>rd</sup> day, by 82.14% at the end of 4<sup>th</sup> day and by 100% at the end of 7<sup>th</sup> day.(Table-03).

Further analysis of the daily improvement in the discharge of the ulcer showed that complete improvement of Srava was noticed in 52.6% patients on the 4<sup>th</sup> day of the treatment and on the 7<sup>th</sup> day the complete relief was found in all the patients (Table-07).

**Table No.03: Effect of Panchavalkala Kvatha and Ropan Ghrita on Srava of Dushta Vrana**

Days	Mean		% of Relief	SD (±)	SE (±)	‘t’ values	‘P’ values
	BT	AT					
1 <sup>st</sup>	2.80	0.60	21.42	0.50	0.11	5.45	< 0.001
2 <sup>nd</sup>	2.80	1.20	42.85	0.52	0.11	10.90	< 0.001
3 <sup>rd</sup>	2.80	1.80	64.28	0.48	0.10	18.00	< 0.001
4 <sup>th</sup>	2.80	2.30	82.14	0.81	0.18	12.77	< 0.001
7 <sup>th</sup>	2.80	2.80	100	0.60	0.15	18.66	< 0.001

### Effect of Panchavalkala Kvatha and Ropan Ghrita on Gandha

Out of 20 patients only 15 patients had Gandha of various grades. Panchavalkala Kvatha Prakshalana and Ropan Ghrita provided highly significant ( $P < 0.001$ ) relief in the Gandha in all the days of the treatment. At the end of 1<sup>st</sup> day decrease in Gandha was 16.27%, at end of 2<sup>nd</sup> day decrease was 44.18% , at the end of 3<sup>rd</sup> day decrease was 53.48%, at the end of 4<sup>th</sup> day decrease was 81.39% and there was 97.67% reduction in Gandha at the end of 7<sup>th</sup> day of the treatment (Table-04).

Further analysis of the daily improvement in the foul smell of the ulcer showed that complete improvement was noticed in 46.6% patients on the 4<sup>th</sup> day and on 7<sup>th</sup> day the complete relief was observed in 93.3% patients (Table-07).

**Table No.04: Effect of Panchavalkala Kvatha and Ropan Ghrita on Gandha of Dushta Vrana**

Days	Mean		% of Relief	SD (±)	SE (±)	‘t’ values	‘P’ values
	BT	AT					
1 <sup>st</sup>	2.15	0.35	16.27	0.48	0.10	3.50	< 0.001
2 <sup>nd</sup>	2.15	0.95	44.18	0.68	0.15	6.33	< 0.001
3 <sup>rd</sup>	2.15	1.15	53.48	0.81	0.18	6.38	< 0.001

4 <sup>th</sup>	2.15	1.75	81.39	1.11	0.25	7.00	< 0.001
7 <sup>th</sup>	2.15	2.10	97.67	1.29	0.28	7.50	< 0.001

### Effect of Panchavalkala Kvatha and Ropan Ghrita on Akruti

All patients of this series had various grades of Vikriti in Akruti. The Panchavalkala Kvatha Prakshalana and Ropan Ghrita corrected the Vikriti in Akruti highly significantly at the level of  $P < 0.001$ . At the end of 1<sup>st</sup> day the improvement in shape of ulcer was 21.05%, at the end of 2<sup>nd</sup> day 31.57% improvement was seen, at the end of 3<sup>rd</sup> day improvement was 45.61%, at the end of 4<sup>th</sup> day it was 64.91% and 71.92% improvement was observed at the end of 7<sup>th</sup> day of the treatment. (Table-05).

Further analysis of the daily improvement in the shape of the ulcer showed that complete improvement of Akruti was noticed only on the 7<sup>th</sup> day of the treatment which was noticed only in 20% patients (Table-07).

**Table No. 05: Effect of Panchavalkala Kvatha and Ropan Ghrita on Akruti of Dushta Vrana**

Days	Mean		% of Relief	SD (±)	SE (±)	‘t’ values	‘P’ values
	BT	AT					
1 <sup>st</sup>	2.85	0.60	21.05	0.50	0.11	5.45	< 0.001
2 <sup>nd</sup>	2.85	0.90	31.57	0.30	0.06	15.00	< 0.001
3 <sup>rd</sup>	2.85	1.30	45.61	0.47	0.10	13.00	< 0.001
4 <sup>th</sup>	2.85	1.85	64.91	0.36	0.08	23.12	< 0.001
7 <sup>th</sup>	2.85	2.05	71.92	0.39	0.08	25.62	< 0.001

### Effect of Panchavalkala Kvatha and Ropan Ghrita on Burning Sensation

All patients of this series had various grades of burning sensation. The Panchavalkala Kvatha Prakshalana and Ropan Ghrita reduced burning sensation statistically significantly at the level of  $< 0.001$  of P value on all the 7 days of the treatment. At the end of 1<sup>st</sup> day reduction was 20%, at the end of 2<sup>nd</sup> day 41.81% reduction was seen, at the end of 3<sup>rd</sup> day reduction was 58.18%, at the end of 4<sup>th</sup> day the reduction was 87.27% and 98.18% reduction was observed at the end of 7<sup>th</sup> day (Table-06).

Further analysis of the daily improvement in the burning sensation of the ulcer showed that complete improvement in this symptom was noticed on the 3<sup>rd</sup> day in 5% patients and on the 4<sup>th</sup> day it was in 70% patients. On the 7<sup>th</sup> day of the treatment complete relief in burning sensation was found in 95% patients (Table-07).

**Table No. 06: Effect of Panchavalkala Kvatha and Ropan Ghrita on Burning Sensation of Dushta Vrana**

Days	Mean		% of Relief	SD (±)	SE (±)	't' values	'P' values
	BT	AT					
1 <sup>st</sup>	2.75	0.55	20.00	0.51	0.11	5.00	< 0.001
2 <sup>nd</sup>	2.75	1.15	41.81	0.36	0.08	14.37	< 0.001
3 <sup>rd</sup>	2.75	1.60	58.18	0.50	0.11	14.54	< 0.001
4 <sup>th</sup>	2.75	2.40	87.27	0.51	0.11	21.81	< 0.001
7 <sup>th</sup>	2.75	2.70	98.18	0.47	0.10	27.00	< 0.001

**Table No. 07: Complete Relief Shown by Patient (%) in Symptoms on Various Days of Treatment**

Symptom	% of Patient 1 <sup>st</sup> Day	% of Patient 2 <sup>nd</sup> Day	% of Patient 3 <sup>rd</sup> Day	% of Patient 4 <sup>th</sup> Day	% of Patient 7 <sup>th</sup> Day	% Patient with No relief on 7 <sup>th</sup> day
Varna	0	0	0	0	20	80
Vedana	0	0	5.2	21.1	73.6	26.4
Srava	0	0	0	52.6	100	0
Gandha	0	0	0	46.6	93.3	6.7
Akruti	0	0	0	0	20	80
Burning Sensation	0	0	5	70	95	5

**Overall Effect of the Panchavalkala Kvatha Prakshalana and Ropan Ghrita:**

Considering the overall response of the patients to the therapy with Panchavalkala Kvatha Prakshalana and Ropan Ghrita showed that in this series the 5% patients had complete remission, 85% of patients got marked improvement and 10% patients showed improvement. None of the patients of this series remained unchanged (Table- 08).

**Table No. 08: Overall Effect of the Panchavalkala Kvatha Prakshalana and Ropan Ghrita on the 20 Patients of Dushta Vrana**

Grades of Response	No of Patients	Percentage
Complete remission	1	5
Marked improvement	17	85
Improvement	2	10
Unchanged	0	0

**CONCLUSION**

In this study 20 patients of Dushta Vrana were subjected to Panchavalkala Kvatha Prakshalana and Ropan Ghrita to achieve Vrana Shodhan and Ropan.



- Maximum patients were suffering from wound in lower limb, this may be because lower limbs are more prone for accidents and trauma and Buerger's disease which also commonly involve the lower limbs.
- Dushta Vrana can be understood as infective wounds, arterial wounds and varicose ulcers in view of the contemporary science.
- Prakshalana of the Dushta Vrana with Panchavalkala Kvatha and applying of Ropan Ghrita on wound over provided highly significant relief of 71.9% in Varna, 89.3% relief in Vedana, 100% reduction in Srava, 97.6% reduction in Gandha, 71.9% improvement in Akruti and 98.1% reduction in burning sensation.
- Panchavalkala Kvatha Prakshalana and Ropan Ghrita is more effective in relieving the symptoms such as Srava, Daha, Gandha in comparison to other symptoms such as Akruti and Vedana.
- By the virtue of Shodhana, and Ropan Srava Hara, Daha Hara, and Vrana Ropana actions of Panchavalkala, the local Dhaatu Dushti was ceased.
- Panchavalkala used as Kvatha for the Prakshalana of the ulcer helps to achieve local hygiene, debridement and to facilitate healing.
- Proper management with timely Prakshalana with Panchavalkala Kvatha and dressings with Ropan ghrita gradually reduces infection and facilitate wound healing.
- Overall response of the patients to the therapy with Panchavalkala Kvatha Prakshalana and Ropan Ghrita showed that in this series the 5% patients had complete remission, 85% of patients got marked improvement and 10% patients showed improvement. None of the patients of this series remained unchanged

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