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Research Article

### ROLE OF JALAUKAVACHARAN AND PANCHAVALKALA KASHAYA ON DUSHTA VRANA WITH REFERENCE TO INFECTED WOUND

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#### ABSTRACT

In practice, Dushta vrana is the most common encountered problem faced. Presence of infection is one of the factor which impair wound healing. A healthy wound heals with minimum scar as compared to infected wound. Therefore in this study all efforts are made to make Dushta Vrana into Shuddha Vrana. The objective of this study was to evaluate shodhana & ropana effect of Panchavalkala kashaya & Jalaukavacharana in Dushta Vrana compared with Jalaukavacharan only.

Clinically diagnosed 40 patients of Dushta vrana were randomly divided into two groups, each consisting of 20 patients. Group A treated with the Panchavalkala kashaya & Jalaukavacharan whereas Group B treated with Jalaukavacharan only.

On the basis of assessment criteria & overall result of treatment, the patients of Panchavalkala kashaya & jalaukavacharan group showed better result when compared to Jalaukavacharan only group.

Panchavalkala kashaya with Jalaukavacharan has provided better relief in most of signs & symptoms of the patients of dushta vrana in comparison to Jalaukavacharan Group.

**Keywords:** Dushta Vrana, Panchavalkala kashaya, Jalaukavacharan.

#### INTRODUCTION

Classics of Ayurveda especially Sushruta has emphasised details of wound & its management which occur either as a result of vitiated dosha or are traumatic in origin.

Acharya Sushruta "The Father of Indian Surgery" has explained Vrana in detail in his classical text "Sushruta Samhita" as a concourse of deranged humours affecting & appearing in various part of body which is derived from root "Vri- to cover" is so called from the fact of its covering a particular part of the body or from leaving a cicatrix which remains for the whole life of the patient.

While explaining the scope of Shalya Tantra Sushruta has mentioned Vrana Vinishchayart as a major part of Shalya Tantra.

Even though healing of Vrana is a natural process of the body, the Vrana should be protected from Dosha dushti & from various micro organisms which may hamper the natural course of Wound healing.

So, for early & uncomplicated healing of wound, treatment is necessary.

#### Aims & Objectives:

- To compare the effect of Panchavalkala kashaya & Jalaukavacharan with Jalaukavacharan only on Dushta Vrana.
- To reduce the slough in Dushta vrana.
- To promote granulation in Dushta Vrana.

#### MATERIALS AND METHODS

##### Design of study:

Clinically diagnosed 40 patients of Dushta vrana were randomly selected from IPD & OPD of Govt. Ayurved hospital, Nagpur. They were randomly divided into 2 groups, each consisting of 20 patients.

**Group A:** Panchavalkala kashaya Local application after cleaning the wound thoroughly with Normal saline once a day. In addition, Jalaukavacharan was done on alternate day.

**Group B:** Wound thoroughly cleaned with normal saline & dry dressing done daily. Jalaukavacharan was done on alternate day.

**Duration of study:** 15 days

##### Drugs:

Method of preparation of Kshiripatrak kalka.

- Ingredients: Vada (Ficus bengalensis) 1 part  
 Udumbara (Ficus glomerulosa) 1 part  
 Ashvattha (Ficus religiosa) 1 part  
 Plaksha 1 part  
 Paareesha 1 part

Barks collected were thoroughly cleaned with warm water & ashtamanshakashaya was prepared.

**Diagnostic Criteria:**

Diagnosis were made on the basis of Lakshana of Dushta vrana like pootipooya, daha, kandu, shopha, deerghakaleena, shonita strava, ateeva vedana.

**Selection of Patients:**

Patients were enrolled for trials according to Inclusion & Exclusion criteria.

A detailed pro forma was prepared for signs & symptoms of Dushta Vrana.

**Inclusion Criteria:**

- Patients suffering from Dushta Vrana within the size of 9x9 cm.

**Exclusion Criteria:**

- Leprotic ulcer
- Tuberculous ulcer
- HIV positive patients
- Hbsag positive patients
- Gangrenous ulcer
- Diabetic ulcer
- Anaemic patients
- Malignant ulcer
- Syphilitic ulcer
- Actinomycosis
- Gonorrhoeal ulcer
- Ischaemic ulcer
- Varicose ulcer

**Assessment Criteria:**

A) Pain:

- 0- No pain
- 1- Localised feeling of pain during movement only but not during rest.
- 2- Localised feeling of pain even during rest but not radiating
- 3- Localised continuous feeling of pain radiating & not relieved by rest.

B) Smell:

- 0- No smell
- 1- Bad smell
- 2- Tolerable, unpleasant
- 3- Foul smell, Intolerable.

C) Discharge:

- 0- Mention in detail about statistical tests used. discharge, dry dressing
- 1- Scanty discharge, occasional wet dressing
- 2- Often discharge, needs dressing daily
- 3- Profuse discharge, which needs frequent dressing.

D) Slough tissue :

- 0- No slough
- 1- Upto 25% wound covered with slough
- 2- Upto 50% wound covered with slough
- 3- Upto 75% wound covered with slough

E) Granulation tissue:

- 0- >50% wound covered with granulation.
- 1- 25-50% wound covered with granulation.
- 2- Upto 25% wound covered with granulation.
- 3- <25% wound covered with granulation.

**Laboratory Examination:**

- > CBC, ESR
  - > Urine R & M
  - > HIV
  - > HBsAg
  - > BSL F & PP
  - > Wound C/S, if required.
- } For inclusion & Exclusion criteria

**OBSERVATION AND RESULTS**

Pain	Group A	Group B	In between group
Wilcoxon W	-	-	312.0
Z value	-3.901	-3.126	-2.783
P Value	<0.001	<0.005	<0.005
Interpretation	<b>HS</b>	<b>S</b>	<b>S</b>

Discharge	Group A	Group B	In between group
Wilcoxon W	-	-	278.50
Z value	-3.893	-3.502	-3.685
P Value	<0.001	<0.001	<0.001
Interpretation	<b>HS</b>	<b>HS</b>	<b>HS</b>

Smell	Group A	Group B	In between group
Wilcoxon W	-	-	269.00
Z value	-3.769	-3.275	-3.685
P Value	0.001	0.001	0.001
Interpretation	<b>HS</b>	<b>HS</b>	<b>HS</b>

Granulation	Group A	Group B	In between group
Wilcoxon W	-	-	224.00
Z value	-4.093	-3.317	-5.285
P Value	<0.001	<0.001	<0.001
Interpretation	<b>HS</b>	<b>HS</b>	<b>HS</b>

Slough	Group A	Group B	In between group
Wilcoxon W	-	-	368.00
Z value	-3.578	3.272	-1.214
P Value	<0.001	<0.001	>0.005
Interpretation	<b>HS</b>	<b>HS</b>	<b>NS</b>

**Effect on Breadth:**

Breadth	Group A	Group B	In Between group
Mean	1.90000	0.80000	1.95
Standard deviation	0.96791	0.8335	0.99868
Standard error mean	0.21643	0.18638	0.22331
t value	8.779	4.292	3.954
P value	<0.005	<0.005	<0.005
Interpretion	<b>S</b>	<b>S</b>	<b>S</b>

**Effect on Length:**

Length	Group A	Group B	In Between group
Mean	2.05	1.10	2.00
Standard deviation	0.99868	1.1192	1.025
Standard error mean	0.22331	0.25026	0.2294
t value	9.180	4.395	2.651
P value	<0.005	<0.005	>0.005
Interpretation	S	S	NS

HS: Highly significant, S: Significant, NS: Non significant

**Before treatment**



**After treatment**



**Assessment Criteria for total effect of therapy:**

The relief evaluated under following categories:

- 1) Completely relieved: >75% relief in sign & symptoms.
- 2) Markedly improved: 50-75% relief in sign & symptoms.
- 3) Improved: 25-50% relief in sign & symptoms.
- 4) Unchanged: <25% relief in sign & symptoms.

**DISCUSSION**

Wounds have been occurring as long as existence of life. The earliest reference to vrana is found in rigveda in context of war injuries. The process of wound healing is a normal

physiological phenomenon which starts right after an injury and continuous in sequential manner till the formation of healthy scar. Usually this process does not require any attention except keeping wound clean. The wound of Lepars, or acquired by Visha, or nutritional deficient or Diabetic patients, as mentioned in classics are difficult to cure. Vishajushtanam can be considered as contamination of wound either by foreign material or infection.

The Ayurvedic classics are full of various drugs and preparations for management of Dushta vrana. Out of all these, Panchavalkala was selected which having both Shodhana as well as Ropan property.

In the present study, Panchavalkala by virtue of its kashasya rasa causes improvement in following manner:

- 1) Shodhana: Makes wound free from debris and discharge.
- 2) Lekhana: removal of slough and unhealthy granulation tissue.
- 3) Peedana: helps in expulsion of collected pus from wound area.
- 4) Kledopashoshcheti: reduces exudates.
- 5) Ropana evam sandhankara: enhances wound healing by creating atmosphere which facilitates regeneration of tissues.
- 6) Sheshma raktapitta prashamana: decreases inflammation
- 7) Stambhana: checks excessive bleeding and wound exudates.

All the above characters help in wound bed preparation and enhance normal wound healing. Checks excess collagen to prevent ugly scar.

Whereas jalaukavacharan improving circulation, raktashodhana helps in wound healing.

**CONCLUSION**

- 1) It can be concluded from study that Panchavalkala along with jalaukavacharana was better in providing relief to the patients of Dushta vrana in comparison to Jalaukavacharana only.
- 2) Panchavalkala along with jalaukavacharan can be more efficient enough to convert Dushta vrana into shuddha vrana when compared to Jalaukavacharan only.

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