

# Study on the Efficacy of Aragwadhadi Gana Externally on Dushta Vrana w. s. r to Diabetic Ulcer

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**Abstract:** Ayurveda has immense of medicine and herb to solve health issues. All herbs have immense power to cure disease. So here in this study, evaluating the efficacy of Aragwadhadi gana as an external application on Dushta vrana. Ayurveic approaches to as Aragwadhadi Kashay and Aragwadhadi Tail. Here prepared two group A (control group) Povidone-iodine for cleansing and dressing.group B: Aragwadhadi gana Kashaya for cleaning and its taila for dressing.This procedure was followed daily for 4 weeks. Vrana was assessed weekly. Photographs of vrana were taken before and after treatment. Dushta vrana can be managed without the help of surgical management. Aragwadi gana showed significant effect in relieving Vrana srava, Vranatala, Vranaakar and Vrana vedana.

**Keywords:** Ayurveda, Vrana vedana, Dushta vrana, Aragwadhadi Kashay, Aragwadhadi Tail

## 1. Introduction

Man, the superior most of all the species is always remaining in search of One Prime Goal: The perfect health from the Vedic era to the space age [1], all the researches have been directed by eminent scholars to achieve the same. But due to today's lifestyle diabetes and its complications like diabetic ulcers are the fulminating problems [2, 3].

Ancient Acharyas and their counterparts in this era tried and are still trying their best to keep the man young and healthy. Sushruta the father of Indian surgery has scientifically classified systemically a wealth of clinical material and the principles of management which are valid even today. Further, he was the first to recognize the similar basic pathology of all thermogenic injuries-hot or cold; he coined the word 'ShitaDagdha' (cold burn), a term which has come in modern surgery only recently [4]. He conceived of total management of the disease from the earliest stage of vitiation of humor to total recovery in which he insisted on bringing back the site of the lesion to normalcy in all respects. Thus it may well be said that Sushruta's management was more thorough than even what is conceived today. Today wound is said to have healed when epithelialization is complete [5]. But Sushruta would employ 'Vaikritapaham' [6] measures which will bring back the normal color and surface and even hairs [7], thus he can be rightfully called the originator of plastic surgery. For dushta Vrana he has given special attention and different line of treatment. A close study of Ayurveda reveals that several plants were used to achieve the goal Vrana-Ropana. Work has been done so far in this direction by various scholars.

In the present study, the local application of a drug named Aragwadhadi tail after cleaning with Aragwadhadi kashay on diabetic wounds is done. Sushruta has advised

Aragwadhadi Gana Kashaya and Taila in the management of Dushta Vrana [8, 9]. The same things are described in Vagbhat for Dushta Vrana and Prameha.

The ingredients used for the preparation of this herbal healer are from Aragwadhadi gana which have been recommended as a good wound healer in our classical texts. Along with this drug Povidone Iodine is selected for comparative assessment [10].

## 2. Material and Methods

### Drug Preparation

- Aragwadhadi Kashay
- Aragwadhadi Tail

### Aragwadhadi Kashaya

All the drugs from Aragwadhadi Gana were taken in the same proportion, 16 parts of water were added to it and boiled till 1/8<sup>th</sup> part of water remain behind, It was filtered well and preserved in bottles.

### Aragwadhadi kashya shidha tail

**Kashaya preparation:** One part of all drugs from aragwadhadi gana was taken, 4 parts of above kashay were added to it and boiled till 1/4<sup>th</sup> part of water remained behind.

**Kashya shidha tailpreparation:** 1 part of murchhit taila taken and 4 parts of Kashaya was added to it, above mixture was boiled till tail shidhi lakshanas were seen.

### Materials used for the assessment of trial drug

Patients attending the OPD and IPD of Shalya department were selected. Detailed clinical history and pathological

investigations of all patients were done according to CRF.

The following materials were used during thesis work.

- Povidone-iodine application to Group-A patients.
- Aragwadhadi kashay and tail application to Group-B patients.

### 2.1 Method

Sample size : 60 patients divided into 2 groups as A) control group and B) trial group.

Control group (group A)- Povidone-iodine for cleansing and dressing.

Trial group (group B)- Aragwadhadi gana Kashaya for cleaning and its taila for dressing.

Duration- This procedure was followed daily for 4 weeks. Vrana was assessed weekly. Photographs of vrana were taken before and after treatment.

Both these groups were continued with hypoglycemic drugs on which already they are or changed accordingly.

### Inclusive and Exclusive criteria

#### Inclusive criteria

- Patients above 18 years of age
- Patient of either sex
- Diabeticulcer
- Controlled diabetes mellitus

#### Exclusive criteria

- The ulcer is other than a diabeticulcer.
- Ulcer secondary to any malignancy
- Immuno-compromised patients like HIVetc.
- Osteomyelitis
- Patients with systemic infection and those with the locallymphatic spread of infection.
- Gangrenousulcer
- Uncontrolled diabetes mellitus

#### Criteria for withdrawal

During the course of the trial, if any patient developed seriousconditions which require urgent medical/surgical attention, such patients were withdrawn from the study and were treated asdropouts.

#### Investigations

- CBC withESR
- BSL fasting andpostprandial
- HIV tridotmethod
- VDRL
- HbA1C

C.B.C and BSL were done before and after treatment. BSL was checked midwhile to assure controlled diabetes. HIV, VDRL, HbA1C were done before treatment.

#### Research Design

It was a comparative study. Here Povidone-iodine was taken as a control group and Aragwadhadi gana was put under trial.

### Method of assessment of treatment

The Vranavedana (Pain), Srava (Discharge), Vranaakar (Size), and Vranatal (Granulation tissue) were recorded before and after the treatment. The difference in the two group values was assessed and analyzed.

### Criteria for Assessments:

#### Subjective Criteria

- Vrana vedana (Pain)

#### Objective Criteria

- Vrana srava (Discharge)
- Vranatala (Granulation tissue)
- Vranaakar (Size)

## 3. Observation and Result

Table showing Comparison of Symptoms reduction in percentage between Group-A and Group-B

S.No	Symptoms	Group- A	Group- B
1	Vedana (Pain)	67.27	76.93
2	Tala (Granulation tissue)	64.12	73.17
3	Srava (Discharge)	66.17	73.07
4	Akar (Size)	44.61	67.53

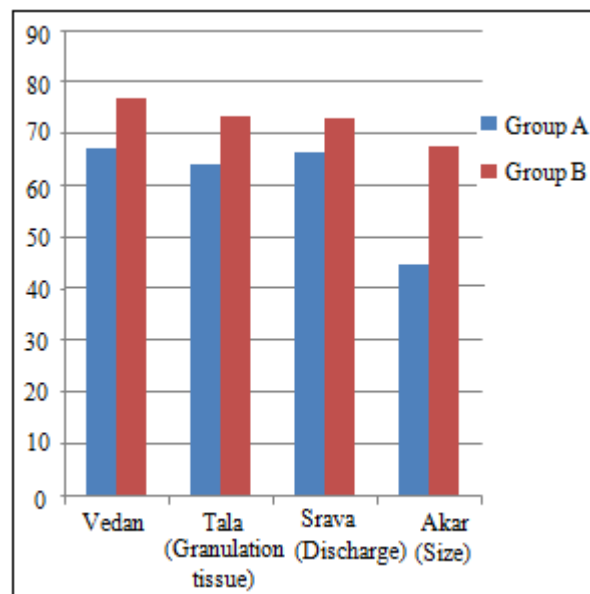
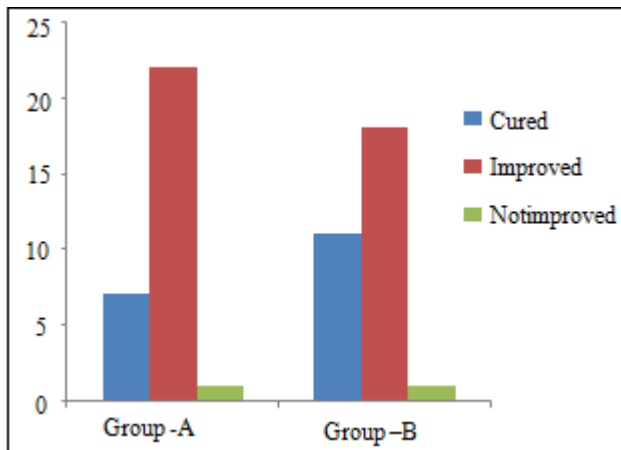


Table showing the Result After treatment in Group –A and Group–B

Result	Group - A	Group– B	Total
Cured	7	11	18
Improved	22	18	40
Not improved	1	1	2



It is observed that maximum cured patients are from groupB, maximum improved patients are from group-B

**Statistical Analysis**

**Table showing Vrana srava (Discharge) within Group A and Group B patients in Vrana before and after treatment**

T-Test within the sample								
	B.T	A.T	Diff. In mean	S.d	S.E	T-Value	Diff	P-Value
Group-A	2.267	0.7667	1.5	0.504	0.09202	13.05	29	<0.0001
Group-B	2.6	0.7	1.9	0.596	0.1088	13.71	29	<0.0001

**Table showing Vrana tala (Granulation tissue) within Group A and Group B patients in Vrana before and after treatment**

T-Test within the sample								
	B.T	A.T	Diff. In mean	S.d	S.E	T-Value	Diff	P-Value
Group-A	2.6	0.9333	1.667	0.6397	0.1168	13.81	29	<0.0001
Group-B	2.733	0.7333	2	0.6397	0.1168	15.77	29	<0.0001

**Table showing Vranaakar (Area) of the wound in square cms within Group A and Group B patients in vrana before and after treatment**

T-Test within the sample								
	B.T	A.T	Diff. In mean	S.d	S.E	T-Value	Diff	P-Value
Group-A	77.27	42.8	34.47	83.14	15.18	6.729	29	<0.0001
Group-B	85.93	27.9	58.03	35.29	6.443	7.997	29	<0.0001

**Table showing Vrana vedana (Pain) of the wound within Group A and Group B patients in vrana before and after treatment**

T-Test within the sample								
	B.T	A.T	Diff. In mean	S.d	S.E	T-Value	Diff	P-Value
Group-A	1.833	0.6	1.233	0.6215	0.1135	6.495	29	<0.0001
Group-B	2.167	0.5	1.667	0.5724	0.1045	9.898	29	<0.0001

**4. Discussion**

**4.1 Incidence**

In this present clinical study, it was observed that the maximum percentage of patients i.e. 28.22% were seen in age groups between 51-60 years. In this study, it was observed that the maximum number of patients were males

i.e 73.04%, and females were 26.56%. The maximum number of patients was literates. The maximum number of patients belonged to the middle-class income group i.e.34. It was observed that maximum patients i.e.46 were taking veg diet and 14 were taking mixed diet. The maximum number of vranas were encountered on leg and foot i.e. 36.7% and 35%. Next came the forearm where 15% were seen. Among the 60 patients, 51 patients were married. 4 patients Unmarried and 5 patients were widows. It was observed that;before treatment maximum patients were having seropurulent and purulent discharge i.e 31 and 28 patients respectively, whereas after treatment maximum patients were having no discharge and serous discharge i.e.18 and 39 respectively. It was observed that before treatment 7 patients had no pain, 4 patients had mild pain, 31 patients had moderate pain and 18 patients were suffering from severepain. It is observed that maximum cured patients are from group-B

**4.2 Effect of treatment**

In this present study, Aragwadhadi gana Kashaya for cleaning and its taila for dressing is used in Dushta vrana.

- 1) Effect of treatment with Aragwadhadi gana on Discharge (Vranasrav) shows that the p-value is <0.0001, which is highly significant. It suggests that treatment is effective in managing Discharge (Vrana srav).
- 2) Effect of treatment with Aragwadhadi gana on Granulation tissue (Vranatala) shows that the p-value is <0.0001, which is highly significant and effective in the reduction of Granulation tissue(Vranatala).
- 3) Effect of treatment on size of Vrana size shows that thep- valueis <0.0001, which is highly significant in the reduction of the Vrana size.
- 4) In the case of Pain (Vrana vedana ) p-value is <0.0001, which suggests the treatment is highly significant in the reduction of Pain (Vranavedana).

**4.3 Probable Mode of Action**

Aragwadi gana is a unique combination of Tikta rasa having kledashoshana, vranashodhan and ropan action which are directly helping in the healing of vrana. Tikta and katu rasa are kapha shamak in nature, so it is very useful in Madhumehajanya vrana. Katu rasa of these dravyas are krimihara and vrana shodhak. The pharmacological properties like Antimicrobial, antifungal, anti-inflammatory, antiseptic, and antihistamine, etc helps in woundhealing.

**5. Conclusion**

- 1) Dushta vrana can be managed without the help of surgical management.
- 2) The age group above 50 years is more prone to Dushtavrana.
- 3) Aragwadi gana showed significant effect in relieving Vrana srava, Vranatala , Vranaakar and Vrana vedana. It was analyzed scientifically by standard statisticalmethod.
- 4) Overall effects show that 11 patients were cured, 18 were improved and there was no improvement in 1patient.

- 5) This study requires further research with the help of investigative methods.

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