

**To Study The Effect Of Panchavalkal Kwath Dhavan And Panchavalkal Avachurnan  
On Dushta Vrana**

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**Abstract**

Classics of *Ayurveda* has emphasized at various places to take care of wounds which occurs either as a result of vitiated *Doshas* or of Traumatic origin. Even though, the healing of *Vrana* is a natural process of the body, the *Vrana* should be protected from *Dosha Dushti*, which may afflict the *Vrana* and delay the normal healing of *Vrana*. A wound is a break in the integrity of the skin or tissue often, which may be associated with disruption of the structure and function. Wound healing is the body response to injury in an attempt to restore normal structure and function. In recent years various efforts were made in the field of wound healing, especially as local treatments but healing remains the prime objective of physicians. Along with orally administered drugs, drugs used for local application play a very important role in wound healing. Keeping all these things in view, drugs like *Panchavalkal* have been selected after reviewing literature. This case study is entirely based on clinical observation. Duration of study conducted for 15 days administered with *Panchavalkal* for *Kwath Dhawan* and *Avachurnan*.

**Keywords: Dushta Vrana, Panchavalkal, Kwatha, Churna, Avachurnan, Dosha, Infected Wound.**

**Introduction**

Healing of the wound, this process is a natural response in the body. Of course, if the wound does not have any *doshic* involvement or infection, the wound will heal in two weeks. *Vrana* of more than a week is called *Dushta Vrana*.<sup>[1]</sup> *Acharya Sushruta* describes that Destruction, breakage, or discontinuity of body tissues or parts of the body is called "*vrana*."<sup>[2]</sup> *Vranashotha* has three progressive levels: That is. *Amawastha* (early stage of the inflammatory process), *Pachyamanawastha* (true stage of inflammation) or *Pakwawastha* (suppurative stage). The wound healing process described by *Sushruta* still retains its place today.<sup>[3]</sup> *Vrana* is an important topic of academic perspective, patient care, recent technology

and drug research, for easier and effective management. In the old text, many of the medicines and techniques of *Vrana's Shodhana* and *Ropana* are discussed. According to *Acharya Sushruta*, *Vrana* has 60 treatments, with the main management by *Vrana* being *Vrana Shodhana* and *Ropana*.<sup>[4]</sup> This study by *Vrana Shodhan* combines selected plant drugs *Panchavalkal*, five herbs with properties such as wound *shodhana* (cleaning) and *Ropana* (healing). Certain factors that affect wound healing include bacterial infections, lack of nutrition, drug products, and wound areas. All chronic wounds contain endemic bacteria, and the process of wound healing can still occur in its presence. Therefore, it is not the presence of bacteria<sup>[1]</sup>, but an interaction with the host that determines the effect of an organism on chronic wound healing. However, factors such as the relative number of microorganisms and their pathogenicity and immune deficiency combined with host responses determine whether the chronic wound is infected or indicates signs of delayed healing. Wound infection is defined as the presence of replicating microorganisms within the wound, causing subsequent host responses to heal. Therefore, it is important to recognize infection as soon as possible. Signs and symptoms of local infection are redness (erythema), fever, swelling, pain, and loss of function. The smell of foul and pus can be associated with this. Finally, local bacterial stress continues to increase, spreading systemically, leading to sepsis. It leads to sepsis. Sepsis can lead to sepsis and multiorgan failure if not actively treated.<sup>[2,3]</sup> There are several factors that affect the bacterial stress of chronic wounds and increase the risk of infection. This includes the number of microorganisms in the wound, their pathogenicity, and host factors. Experimental studies have shown that wound repair can occur when there are organisms above 1°C per gram of tissue, regardless of microorganism type. In the Indian context, formal explanations of wound care in three major *Ayurvedic* texts (*Bruhatrayee*) were lively. *Charaka Samhita*, *Sushruta Samhita*, *Astanga Sangraha*. These documents not only describe *Vrana* (various types of wounds), but also present systematic classifications along with management teams that include various systemic and local medicines and preparations. *Sushruta* is the father of surgery in 1000 BC. The concept of BC and *Vrana* worked well. He not only provided detailed explanations of the various types of wounds, but also presented descriptive pathogenesis of the wound along with their management. Sixty different procedures for the treatment of wounds were described, along with numerous herbal remedies he used as a local applicant for healing. His techniques are primarily categorized as *Vrana Shodhana* and *Vrana Ropana*. He supported the external use of a variety of medications in these categories. One of them is *Nyagrodhadi Varga*, mentioned in *Vrana Ropana Kashaya*,

including *Panchavalkala*.<sup>[8]</sup> Clinically *Panchavalkala* is a group of barks of five trees including *Vata*, *Ashwattha*, *Udumbara*, *Parisha* and *Plaksha*.

**Aim:** To Study the Effect of *Panchavalkal Kwath Dhavan* and *Panchavalkal Avachurnan* in the management of *Dushta Vrana*.

### Objectives

- 1) Study the details of *Dushta Vrana* and *Panchavalkal* as per Ayurvedic treatise.
- 2) Correlation of *Dushta Vrana* as per modern text.
- 3) To collect the comprehensive data about *Panchavalkal*.
- 4) To evaluate the role of *Panchavalkal Kwatha Dhavan* and *Panchavalkal Avachurnan* in management of *Dushta vrana*.

### Patient Information

A 49 year old, male patient presented with a history of non-healing wound at heel region of right foot since 2 months. He reported symptoms of pain, burning sensation, and foul-smelling discharge from the wound. On local examination, the wound was found to be 2.5 cm in diameter with 3mm depth and covered with slough and emitting discharge with foul smell. Hyperpigmentation was seen at the ankle region of right foot. There was mild tenderness on touch.

### Correlation Of Dushta Vrana With Modern Texts

In *Ayurveda*, *Dushta Vrana* is often correlated with chronically infected ulcers or wounds in modern medicine. This is characterized by properties as foul odor, pain, longer healing, and output. All of these can be observed with non-healing ulcers. The Ayurvedic text describes the treatment of *Dushta Vrana* using a variety of methods, including herbal means, surgical interventions such as *Kshar Karma* (alkaline application), and other procedures that promote healing.

The Ayurvedic *Dushta Vrana* refers to wounds that do not heal properly due to the presence of *doshas* (*Vata*, *Pitta*, *Kapha*) and pathogens.<sup>[12]</sup>

### Modern Correlation

It is generally thought to be similar to chronic, non-healing ulcers, infected wounds, and convulsive ulcers in modern medicine. These ulcers are characterized by persistent symptoms such as pain, discharge, and slow healing processes.<sup>[9]</sup>

### Clinical Features

Symptoms of *Dushta Vrana* include:

1. Foul odour (*durgandha*).
2. Pain (*Vedana*)
3. Chronic (*Chiracari*: The wound remains for a long time without actual healing).

#### 4. Pus discharge (*Atipoooyasrava*)

##### **Materials**

No. of patients – 1

Selection of patients – from Hospital IPD / OPD.

Duration of Treatment – 15 Days.

##### **Methods**

During the initial assessment, the wound was cleaned with normal saline and gauze and the slough was gently debrided. There was fresh bleed from the wound bed. It was later washed with freshly prepared *Panchavalkal Kwatha* for 10 mins, followed by *Avachurnan* with *Panchavalkal churna* and dressing with gauze was done. This treatment regimen was followed twice daily for a period of 15 days.

##### **Criteria For Assessment**

Scoring of all signs and symptoms according to severity were given marks from 0-3 as follows

- PAIN
  - 0 – No pain
  - 1 – Occasional pain (once or twice a day)
  - 2 – Intermittent Pain (over 2-3hrly)
  - 3 – Continuous Pain
- DISCHARGE
  - 0 – No discharge
  - 1 – Scanty discharge, mild soakage of dressing.
  - 2 – Often discharge with blood/pus-soaked dressing.
  - 3 – Profuse discharge which needs frequent dressing.
- GRANULATION
  - 0 – Complete granulation
  - 1 – more than 75% granulation and less pus.
  - 2 – 50% granulation and pus.
  - 3 – less than 25% Granulation and more pus.
- SIZE
  - 0 – Size of wound  $\leq$  1cm
  - 1 – size of wound between 1cm to 5cm.
  - 2 – size of wound between 6cm to 10cm
  - 3 – size of wound  $>$  10cm

##### **Criteria For Assessment Of Overall Effect**

1. Marked Improvement – 76% to 100% relief in signs and Symptoms along with Healing of Wound.
2. Moderated Improvement – 51% to 75% relief in signs and symptoms.
3. Mild Improvement – 26% to 50% relief in signs and symptoms.
4. No Improvement – Upto 25% relief in signs and symptoms.

### Observations

Parameters	0 <sup>th</sup> Day	5 <sup>th</sup> Day	10 <sup>th</sup> Day	15 <sup>th</sup> Day
Pain	2	2	1	0
Discharge	3	2	2	1
Granulation	2	1	1	0
Size	1	1	1	0

### Results

Studies indicate that the Pharmacological action of *Panchavalkalais* found to have Anti-inflammatory and Antimicrobial properties. Early researches explain that tannins present in *Nyagrodha*(*Vata*) and *Udumbara* are antioxidants and blood purifiers with anti- inflammatory actions. They hence might have helped to decrease the swelling. The phytosterols and flavonoids are anti- inflammatory and analgesic. Tannins also proved to have antimicrobial property which might have reduced the discharge. Hence these constituents in the *Panchavalkala* might have helped in regression of signs and symptoms. *Panchavalkal Kwatha* is herbal based and effective anti-microbial and enhances wound healing, it can be a drug of choice in the management of diabetic wound. Further research can be continued with larger sample to justify these observations.

<i>Dravya</i> <sup>(1,5,6,7)</sup>	Properties Of <i>Panchvalkal</i> ( <i>Guna</i> )	Action( <i>Karma</i> )
1) <i>Nyagrodha</i>	❖ <i>Rasa</i> = <i>Katu</i> , <i>Tikta</i> , <i>Kashaya</i> ❖ <i>Guna</i> = <i>Laghu</i> , <i>Ruksha</i> , <i>Teekshna</i> ❖ <i>Veerya</i> = <i>Ushna</i> ❖ <i>Vipaka</i> = <i>Katu</i> ❖ <i>Doshghnata</i> =	<i>Varnya</i> , <i>Visarpadaahagna</i> , <i>Yonidoshruta</i> , <i>Vyanga</i> <i>naashanama</i> , <i>Raktapittavinashana</i>
2) <i>Udumbar</i>		<i>Vranashodhana</i> , <i>Ropana</i> , <i>Raktapittaghna</i>
3) <i>Ashvathha</i>		<i>Varnya</i> , <i>Yonivishodhana</i> , <i>Raktadaahashaman</i>
4) <i>Plaksha</i>		<i>Vranayonigadaapaha</i> ,

5)Parish	Kaphapittaghna	Raktapittahruta, Raktadoshahara,Murcha- pralaapbhramanaashana
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### Discussion

In this study, *Panchavalkala* played important role in maintaining local hygiene of the *Dushta Vrana*, *Shodhana* (cleaning) as well as *Ropana* (healing) of the *Vrana*. The wound was cleaned with *Panchavalkal Kwatha* and was sprinkled with *Panchavalkal churna* as *Avachurnan* for a period of 15 days daily. Hence, this drug potentiates the healing process by preventing infection at wound site. In this case wound was healed without any complications. On the basis of this case study, we can roughly conclude that *Ayurveda* is a ray of hope in treatment of *Dushta Vrana* or Chronic Infected Wounds. This therapy proves to be effective, time saving, affordable and acceptable treatment.

### Conclusion

Ayurvedic treatments are effective in treating *Dushtavrana*. *Vrana Chikitsa* is explained in detail as *Shusruta* describes *Shashtirupakrama*. However, management of chronic ulcers with the principles of *Agad Tantra* appears to be effective. Chronicity in *Vrana* makes treatment difficult. In these circumstances, analysis of *Doshavastha* gives faster healing and lower complications. Based on clinical observations, drug therapy in study with *Panchavalkal* has analgesic, anti-inflammatory, and antimicrobial properties may be concluded. No unwanted effects were found during treatment. Because of its effectiveness and low cost, it is better to find it with administering wounds. The current study aimed to find effective treatments for *Vrana* using Ayurvedic procedures. Even with the sophisticated management protocols made available by Bioscience, some *Vrana* are still very difficult to cure. Non-healing, non-healing traumatic wounds are pigmented, painful ulcers that can develop into severing and sepsis. Despite the difficulty of chronic, non-healing ulcers, the goal of treatment is to transform the *Dushta Vranato Shuddha Vrana* as soon as possible. The situation in this type of *DushtaVrana* is considerably improved using the Ayurvedic concept of *Vrana* management. *Ayurveda* is a great treatment technique that achieves intended goals along with *Chikitsa*, lifestyle and nutritional management.

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