

A SYSTEMIC REVIEW ON VRANA AND IT'S MANAGEMENT

Dr. Sombir Sheoran^{*1}, Dr. Bushra Khanam², Dr. Rahul Sher Khane³, Dr. Vyasadeva Mahanta³, Dr. Sanjay Kumar Gupta³

¹Final Year PG Scholar in the Department of Shalya Tantra, All India Institute of Ayurveda, New Delhi.

²Final Year PG Scholar in the Department of Prasuti Tantra and Stri Roga, All India Institute of Ayurveda, New Delhi.

³HOD and Professor in the Department of Shalya Tantra, All India Institute of Ayurveda, New Delhi.

Article Received on
16 Sept. 2019,

Revised on 06 Oct. 2019,
Accepted on 27 Oct. 2019

DOI: 10.20959/wjpr201912-16021

***Corresponding Author**

Dr. Sombir Sheoran

Final Year PG Scholar in the
Department of Shalya
Tantra, All India Institute of
Ayurveda, New Delhi.

ABSTRACT

Wound is discontinuity or break in the surface epithelium. An ulcer is a break in the continuity of the covering epithelium-skin or mucus membrane. It may either follow molecular death of the surface epithelium or its traumatic removal. It is estimated that 1 to 2 % of the population experience a chronic wound during their lifetime in developed countries. Chronic wounds have a significant impact on the health and quality of life of patients and their families, causing pain, loss of function and mobility, depression, distress and anxiety, embarrassment and social isolation, financial burden, prolonged hospital stays and chronic morbidity or even death. In Ayurveda, all

the *Acharyas* have discussed detailed review of *Vrana* and its management. During this time the knowledge of wound was its peak level. Being a good surgeon *Acharya Sushruta* knows the importance of wound in the practice. He has described in detail all types of traumatic and bodily injuries and its management with 60 measures.

KEYWORDS: Dosha, Vrana, Dushta Vrana.

INTRODUCTION**Definition**

The definition of *Vrana* implies the damage of a part of the body leading to discolouration. As the scar of a wound never disappears even after complete healing and its imprint persists

long, to lesion is called *Vrana*.

ETIOPATHOGENESIS

Entire etiological factors of the *Vrana* belong to either

1. Extraneous factor (*Agantuja*)
2. Intrinsic factor (*Nija*)

ETIOLOGICAL FACTORS

Causes of every disease are imbalance of *Dosha*, *Dhatu* and *Mala* due to theory of *Pragyaparadha* like *Heena Yoga*, *Atiyoga* and *Mithyayoga* of *Kala*, *Artha* and *Karma*.^[1] In other words, the entire etiological factors particularly for the *Vrana* belong to either extrinsic or intrinsic forces i.e. *Nija* and *Agantuja* factors.

✓ Extraneous factors (*Agantuja*)

Agantuja causes include different types of accidental injuries, poisonous adversity, cuts, contusion, bruise, etc. due to the affliction of sharp and blunt instruments such as *Shastra*, *Anushastra*, *Vadha*, *Bandha*, *Prapatana*, *Danshtra*, *Nakha* etc. factors opposite to *Nija Doshic* factors. All such influences are directly responsible for the production of *Vrana* in the body. These *AgantujaVrana* remain for some time free from imbalance of *Doshas*, thereafter they are presided over by the *Doshas*.

✓ Intrinsic causes of *Vrana* (*Nija*)

<i>Dosha</i>		<i>ACHARYA SUSHRUTA</i> ^[2]	<i>ACHARYA CHARAKA</i> ^[3]
<i>Vata</i>	<i>Ahara</i>	<i>Laghu, Katu, Lavana Ahara</i>	Intake of non-unctuous food, <i>Laghu, Ruksha Ahara</i>
	<i>Vihara</i>	Over administration of <i>Vamana, Virechana, Raktamokshana, Vyayama</i> and suppression of <i>Adharaniya Vega</i> ,	<i>Upavasa</i> , Sexual indulgence, Anxiety
<i>Pitta</i>	<i>Ahara</i>	<i>Ushna, Amla, Lavana, Kshara, Katu</i>	Excessive intake of <i>Ushana, Amla, Lavana, Katu</i> , Suffering from indigestion.
	<i>Vihar</i>	Sun stoke, Fire, Anger	Exposure to Scorching sun, Fire Exhaustion, Anger
<i>Kapha</i>	<i>Ahara</i>	Heavy, Sweet, Slimy, Shita, <i>Lavana</i>	Heavy, Sweet, Slimy, <i>Ahara</i> ,
	<i>Vihara</i>	Sleeping during day time and lake of exercise.	Lack of exercise.

The genesis of any disease i.e. Samprapti depends upon three factors

1. *Nidana*
2. *Dosha*
3. *Dushya*

Dosha

The *PrakuPitta* (Aggravated) *Doshas* attain a state of *Prasara* (Dissemination) during which they circulate in the whole body & where ever the *Kha-Vaigunya* (Disease prone area / space/ seat in the body) is present the circulating *Praku Pitta Doshas* lodges themselves at the site of *Kha-Vaigunya* (low vitality part of the body) and leads to the state of *Sanga* (Stagnation/Obstruction) which results in *Dushti* (Vitiation) of the related *Dhatu* and/or *Mala*. *Sushruta* has described in detail the provocative or exciting factors for each *Dosha* which include *Ahara*, *Vihara*, *Achara*, and climatic factors. Even though this description is in the context of *Vrana* the causative factors for the vitiation of *Doshas* are common for the other diseases also.

Dushya

Dhatu Upadhatu and *Mala* are considered as *Dushya* generally which get *vitiated* or disturbed by *Doshas*. In case of *Vrana*, *Sushruta* has described the *Ashta Vrana Vastus* i.e. *Twacha*, *Mamsa*, *Sira*, *Snayu*, *Asthi*, *Sandhi*, *Koshtha* and *Marma* which are the *Dushyas* and get vitiated by the *Praku Pitta Doshas* leading to *Vrana* formation.

Before formation of a *Vrana*, *Vrana-shopha* is the initial stage with the sign and symptoms of the particular *Dosha* involved and if handled properly at the proper time, chances are there that this *Vrana-shopha* instead of taking the shape of *Vrana* may subside uneventfully.

Sushruta has clearly mentioned these stages of etiopathogenesis under the heading of *Shat-Kriyakala* (Six stages of any disease occurrence) on the basis of which the stage of the disease, the treatment and the prognosis can very well be evaluated in a particular case.

Shat-Kriyakala

An attempt has been made to evaluate the signs and symptoms of *Vrana* in terms of the six stages (*Shat-Kriyakala*) mentioned in *Sushruta Samhita* are as follows.



I. Sanchaya

Due to the *Nidana Sevena* the accumulation of *Doshas* occur at their own site. Here the general body symptoms appear according to *Dosha* i.e. little swelling, mild pain. This is first opportunity to stop the further progress in disease manifestation. This is the stage, where the disease can be checked as well as cured if proper care is taken.

II. Prakopa

As general body symptoms like pricking pain in abdomen gastric disturbances, thirst, burning sensation, a version of food etc occur. This is second stage in the disease progression. Here accumulated *Doshas* exaggerate and gradual increase in general body symptoms with increase swelling and pain.

III. Prasara

In this stage the vitiated *Dosha* (s) will overflow the limit of their own space like the overflowing of water-dam. *Vata Dosha* is the main architect which possesses the power to initiate movement and with its association the *Praku Pitta Doshas*, sometime singly or in two or all the three together with *Rakta* lead to spread of the disease. The *Raktavahini* (Blood vessels) are involved in causation of *Vrana* and there is spread of the vitiation of the *Twaka & Mamsa Dhatu* causing local symptoms like redness and pain.

IV. Sthana Samshraya

At this stage the prodromal symptoms of the disease become manifested. In this *Kriyakala*,^[4] *Doshas* get further excitation and extended to other parts of the body and get lodged as well as localized and this localization affects the pertaining structure for the onset of disease. The localization of the *Prakupita Dosha* takes place due to “*Srotovaigunya*” i.e. the pathological impairment of the related “*Srotas*” and leads to “*Dosha-Dushya-Sammurchhana*” that is “*Pakwa Avastha*” of *Vrana-shopha*.

V. Vyaktatawastha

At the stage of *Vyakti*, the disease is manifested in its full course with all the characteristic symptoms. In this stage,^[5] the *Dushti* of *Twaka & Mamsa Dhatu* occurs with involvement of

all *Dosha* and ultimately, due to bursting of *Shopha* and formation of *Vrana*, *GatraVichurnan* (destruction) of the tissue takes place. Herewith, clinical features like pain, tenderness occurs because of *Vata Dosha*, redness and burning is more due to *Pitta Dosha*; and excessive swelling, pus formation and itching are due to *Kapha Dosha*.

VI. Bhedawastha

Bheda is the stage^[6] in which the disease may become chronic or incurable with the symptoms of a *Vrana* giving rise to several structural changes. At the stage of *Vyakta Avastha* if it is not treated here, then it leads to various complications of *Vrana* as described by *Acharya Sushruta* and *Acharya Charaka*, of 10 types and of 16 types respectably.

According to *Sushruta* the progress of the disease can be checked by proper management at any stages of *Vrana*. The deranged humors, if checked in their accumulating stage then only it will fail to exhibit any further development. But if left untreated, they will gain further strength and intensity in the course of their development leading to the chronicity of the disease.

Further, *Charaka* has mentioned a special pathogenesis of *NijaVrana* in the “*Dwivraniyama Adhyaya*” that the three *Dosha*- *Vata*, *Pitta* and *Kapha*, being provoked by their respective etiological factors and getting lodged in different regions, produce ulcers or wounds of various types.^[7]

Characters of Vrana

All the ancient *Acharyas* are in agreement that every *Vrana* either *Nija* or *Agantuja* will occur in any of body tissue, which they have called as *Vrana Vastu* and they are as-

1. *Twaka* 2. *Mamsa* 3. *Sira* 4. *Snayu* 5. *Asthi* 6. *Sandhi* 7. *Koshtha* 8. *Marma*.

Acharya Sushruta, a prime surgeon of his era gave an elaborate description about wound and its management. How deeply he know about art of healing? It can be understand by glancing over following beautiful verse.

Here it is said that, when we are managing a wound, we should not be in hurry otherwise it will lead to complications, *Shodhana* (purification) of wound should be our prime intension after that we can go for *Ropana* (healing). In the same way modern surgical science advice for proper wound toileting, it makes a healthy environment and base for proper wound healing.^[8]

Table no 2: Showing Classification of Vrana.

<i>Vrana</i>	<i>Sushruta</i> ^[9]	<i>Charaka</i> ^[10]	<i>Vagbhata</i> ^[11]
<i>Shuddha</i>	+	-	+
<i>Dushta</i>	+	-	+
<i>Nija</i>	+	+	+
<i>Agantuja</i>	+	+	+

Table no 3: Showing Classification of Vrana According To Acharya Sushruta.

<i>Shabda</i>	<i>Sparsha</i>	<i>Akriti</i>	<i>Dushta vrana</i>
<i>Kshveda</i> <i>Ghurghura</i> <i>Jvalanita</i> <i>Pavanvat</i>	<i>AtyarthVedana Dahante Pittaja</i>	<i>Ayata</i> <i>Chaturasra</i> <i>Vritta</i> <i>Mandala</i> <i>Triyasra</i> <i>Ardhachandra</i> <i>Kutila</i> <i>Vishala</i> <i>Sharavasadasa</i> <i>Yavamadhya</i>	<i>Vataja</i> <i>Pittaja</i> <i>Kaphaja</i> <i>Raktaja</i> <i>Agantuja</i>

Table no 4: Showing Classification of Vrana According to Sharangdhar.^[13]

Cause and factors	<i>Dushta Vrana</i>
<i>Agantuj</i>	15 types of <i>Vatadi Vrana</i>
<i>Dehaj</i>	
<i>Shuddha</i>	
<i>Dushta</i>	

Table no 5: Showing Classification of Vrana According to Vagbhata.

<i>Dushta Vrana</i>
1. <i>Vataja</i>
2. <i>Pittaja</i>
3. <i>Kaphaja</i>
4. <i>Raktaja</i>
5. <i>Sannipataja</i>

Table no 6: Showing *Sthana* of Vrana According to Brihatrayi.

S.No	<i>Acharya Sushruta</i>^[13]	<i>Acharya Charaka</i>^[14]	<i>Acharya Vagbhata</i>
1	<i>Twak</i>	<i>Twak</i>	<i>Twak</i>
2	<i>Mansa</i>	<i>Mansa</i>	<i>Mansa</i>
3	<i>Sira</i>	<i>Meda</i>	<i>Sira</i>
4	<i>Snayu</i>	<i>Sira</i>	<i>Snayu</i>
5	<i>Asthi</i>	<i>Snayu</i>	<i>Asthi</i>
6	<i>Sandhi</i>	<i>Asthi</i>	<i>Sandhi</i>
7	<i>Koshtha</i>	<i>Antarashraya</i>	<i>Koshtha</i>

Table no. 7: Showing Varna (colour) of the Vrana (Wound).^[15]

S. No	Involvement of Dosha	Colour (Varna)
1	Vata	Bhasma Kapota Asthi Varna, Aruna, Krishna
2	Pitta	Neela, Peeta, Harita, Shyava, Krishna, Rakta, Kapila, Pingala
3	Kapha	Shweta, Pandu
4	Rakta	Neela, Peeta, Harita, Shyava, Krishna, Rakta, Kapila, Pingala
5	Sannipataja	SarvaVarna Yukta

VRANA GANDHA^[16]

1. Ghrita
2. Taila
3. Vasa
4. Puya
5. Rakta
6. Shiyava
7. Amla
8. Putika

AKRITI OF VRANA

According to Sushruta Samhita^[17]

1. Deergha
2. Chaturasra
3. Vritta
4. Triputaka

According to Ashtanga Hridaya^[18]

1. Vritta
2. Pruthu
3. Chatushkona
4. Triputa

Table no.8: Showing Vrana Srava according to prognosis.^[19]

Prognosis	Srava
Asadhya	PulakodakaSamana Srava
	KsharodakaSamana Srava
	KalayambySamana Srava

Table no. 9: Showing *Vrana Srava* according to *Sthana*.

According to the <i>Sthana</i> ^[20] / <i>Vranavastu</i>	<i>VranaSrava</i>
<i>Tvaka</i>	Yellowish, Watery.
<i>Mamsa</i>	Thick, Ghee like
<i>Sira</i>	Excessive bleeding, after suppuration pus discharge.
<i>Snayu</i>	Thick, Mucoid and blood stained discharge.
<i>Asthi</i>	Mix discharge with blood and bone marrow.
<i>Sandhi</i>	Discharge less in rest condition but mixed with pus and blood and pus exudates come out on movement.
<i>Koshtha</i>	Blood, Urine, Stool, Pus, and watery or serous discharge.

Table no. 10: Showing *Vrana Srava* according to *Dosha*.

S. No.	<i>Dosha</i> ^[21]	<i>Srava</i>
1	<i>Vata</i>	<i>Shyava</i> , <i>Mastu</i> (curd), <i>Kshara</i> , or like meat washed water
2	<i>Pitta</i>	<i>Gomeda</i> , <i>Gomootra</i> , <i>Sankha</i> , <i>Kasaya</i> , <i>Madhvika</i> <i>Taila</i>
3	<i>Kapha</i>	<i>Navaneeta</i> (like butter), <i>Kasisa</i> , <i>Majja</i> , <i>Vasa</i> (fat)
4	<i>Sannipataj</i>	<i>Narikelodaka</i> , <i>Priyanguphala</i> , <i>Kanjeeka</i> , <i>Aarokodhaka</i> , <i>Yakrutu</i> ,

Table no. 11: Showing *Vrana Pareeksha*.

<i>ACHARYA SUSHRUTA</i> <i>PanchendriyaPariksha</i> ^[22]	<i>ACHARYA CHARAKA</i> <i>Trividha Pariksha</i> ^[23]
<i>Darshanendriya-Akriti</i> , <i>Varna</i> , <i>Srava</i> , <i>Sthana</i>	<i>Darshana-VarnaPariksha</i> of <i>Vrana</i> and <i>Vranita</i> both
<i>Ghranendriya-Gandha</i>	<i>Sparshana- Ushnata</i> , <i>Sheetata</i> , <i>Mriduta</i> , <i>Kathinya</i>
<i>Karnendriya-Shabda</i>	<i>Prashna- Hetu</i> , <i>Vedana</i> , <i>Lakshana</i> , <i>Kala</i>
<i>Sparshendriya- Ushnata</i> , <i>Sheetata</i> , <i>Mriduta</i> , <i>Kathinya</i>	
<i>Rasnendriya Pariksha</i> is contraindicated in <i>Vrana</i> .	

Lakshanas of Shuddha Vrana

The *Lakshanas* (symptoms) of *ShuddhaVrana* are- Unaffected by the three *Dosha*, Edges with a slight blackish colour and having healthy (pink or red and even) granulation tissue, absence of *Vedana* (pain) and *Srava* (discharge).

Table no. 12: Showing Lakshanas of *Shuddha Vrana*.

Sushruta ^[24]	<ul style="list-style-type: none"> * Recent origin. * Unaffected by the three <i>Dosha</i>. * Edges with a slight blackish colour and having granulation tissue. * Absence of pain. * Absence of secretion. * Even surface throughout the wound area. * Slimy surface. * Regular surface. * No discharge
Charaka ^[25]	<ul style="list-style-type: none"> * Colour of wound is reddish black. * Moderate pain. * No any type of elevation and depression
Sangrahaakar ^[26]	<ul style="list-style-type: none"> * No pain. * No discharge. * Colour of wound is blackish. * Even margins, slight elevation in the middle. * Opposite character of <i>Dushta Vrana</i>.
Hridayakar ^[27]	<ul style="list-style-type: none"> * Surface of wound is just like tongue. * Soft. * Wound is Un acute. * Surface is smooth and normal. * Absence of pain and secretion.
Madhava Nidana ^[28]	<ul style="list-style-type: none"> * Wound surface is just like tongue. * Very soft. * Slimy. * Painless. * Not too Much discharge.

Dushta Vrana

Dushta Vrana (chronic wounds), which is difficult to heal. *Dushta Vrana* is one in which there is localization of Vitiated *Dosha Vata*, *Pitta* and *Kapha*. Lakshanas of *Dushta Vrana*- *Samruta* (Narrow mouthed) *Kathin*, (Hard) *Avasanna*, (Depressed) *Vedanarvan*, (painful) *Vivruta* (Wide mouthed) *Ushna*, (Hot) *Daha*, (Burning sensation) *Paka* (Suppuration) *Raga* (Redness) *Puyasravya* (Discharging pus) *Amanojnadarshana* (With ugly look) *Kandu*, (Itching) *Shopha* (Swelling) *Pidaka*-(With boils) *Mrudu*, (Soft) *Bhairava* ,(Frightful), *Putimamsasirasnayu* (Full of pus, muscles, vessels, ligament)

Lakshanas of Dushta Vrana

***Sushruta*^[29]**- Extremely narrow or Wide mouthed, Too soft, Elevated/Depressed, Black / red / white coloured, Too cold or Hot, Full of slough / pus /Veins / flesh / ligaments / putrid pus, Upward or oblique course of suppuration, Pus runs in to cavity & fissures cadaverous smell, Burning sensation, Redness, Itching, Pustules crop up around secrete with blood.

Charaka^[30] No specific Lakshanas mentioned by Charaka, but by classification it is characterized in 12- White, Depressed path, Too thick path, Too yellow, blue, blackish, grey Black foul smelling, Wide cavity filled with pus, Narrow mouth.

Astangahridaya^[31]-Too hard/Too soft, Too elevated/Too Inverted, Too hot/Too cold, Colour of Vrana is Red / Pandu /black, Severe painful Burning sensation, Inflamed, Redness and itching is present, Chronic in nature.

Madhavanidana^[32]- Purulent profuse blood stained discharge, Large cavity, Foul smelling, Severe painful, Opposite Lakshanas of Shuddha Vrana.

Action of Shada Rasa in wound healing^[33]

- a. **Madhura Rasa**: having the properties like *Balkrita* and *Sandhanakar* both are helpful in healing
- b. **Amla Rasa**: produces *Vidaha* (burning sensation) and form *Puya* (pus) in wound.^[34]
- c. **Lavana Rasa**: acts as *Vrana Shodhana* due to *Vishleshan* and *Lekhana Karma*.
- d. **Katu Rasa**: having the properties like *Vrana Shodhana* *Kushthaghna*, *Krimighana* and *Lekhana*.^[35]
- e. **Tikta Rasa**: It dries up *Kapha* and *Puya* (pus) give strength to *Twak* and *Mamsa Dhatu*.
- f. **Kashaya Rasa**: having *Vrana Shodhakaa Ropak* and *Kleda Shoshaka* properties.

MANAGEMENT OF VRANA

Though there are two types of *Vrana*, *Nija* and *Agantuja* the line of management is same except in the initial stage. *Agantuja Vrana* after seven days if not healed considered as *Nija* and the treatment remains like that of *Nija Vrana*. *Sushruta* has widely narrated the management of *Sharirika Vrana* starting from the stage of *Vrana Shotha*. In *Sutra-sthana* he has mentioned it under seven main headings, while coming to *Chikitsa* these seven principles are elaborated into sixty varieties. He further gives special emphasis to the diet and regimen to the wounded for quick healing and to avoid complications. Similarly under the heading “*Vaikritapaham*” he includes cosmetic measures as well as to combat the deformities if any arising due to *Vrana*.

Sushruta has divided the entire course of treatment in connection with a disease under three headings as

1. *Purvakarma* 2. *Pradhanakarma* 3. *Paschatkarma*.

In connection with surgical treatment the *Purvakarma* is considered as the Pre-operative measure, which includes the preparation of the materials for surgical procedure, and preparation of the patient to make him fit for operation. *Pradhanakarma* is the operation proper which includes the eight surgical measures. *Paschatkarma* means the post-operative care which includes all the measures for the complete healing of the wound and the wounded areas restores the normal colour and surface without any abnormality.

The medicines he advocated for the management includes local application to subside the *Vrana-shloka* in the primary stage, local washing to get the wound clean and devoid of infection, fumigation and other internal medicines for healing purpose and lastly cosmetic medicines.

Table Showing Shashti Upakrama (sixty measures of wound management)^[36]

S.No.	Upakrama	Indications
1	<i>Apatarpana</i>	Advised in full of <i>Dushit Vrana</i> , <i>Dhatu</i> and <i>Mala</i> .
2	<i>Aalepa</i>	In <i>Vrana Shloka</i> and in extremely painful <i>Vrana</i>
3	<i>Parisheka</i>	Pouring of medicated liquid in <i>Vrana Shloka</i> , it pacifies, <i>Dosha</i> quickly.
4	<i>Abhyanga</i>	Used for softening of <i>Vrana Shloka</i>
5	<i>Swedana</i>	Fomentation is indicated in painful, extended <i>Vrana Shloka</i>
6	<i>Vimlapana</i>	The gentle massage done in fixed, with less painful <i>Vrana Shloka</i> .
7	<i>Upanaha</i>	In non-suppurated and partly-suppurated <i>Vrana Shloka</i>
8	<i>Pachana</i>	<i>Aalepa</i> of <i>Teekshna</i> and <i>Ushna Dravyas</i> for <i>Paka</i> of <i>Vrana Shloka</i>
9	<i>ViSravana</i>	It is bloodletting, useful in new <i>Vrana Shloka</i> , <i>Vedanayukta</i> , <i>Visham</i> and <i>Savisha Vrana</i> .
10	<i>Snehapana</i>	Internal use of <i>Sneha</i> , indicated in person with complicated wound, emaciated one.
11	<i>Vamana</i>	In person with <i>Kapha Dushti</i> and <i>Shloka-Yukta Vrana</i>
12	<i>Virechana</i>	In <i>Vata-Pittaj Vrana</i> and in chronic wounds
13	<i>Chhedana</i>	Excision of <i>Kathin</i> , <i>Sthira</i> , <i>Apaki</i> and <i>Snayukothayukta Vrana</i> .
14	<i>Bhedana</i>	In <i>Puyayukta</i> , <i>Utsangi</i> and <i>Gatiyukta Vrana Shloka</i> .
15	<i>Darana</i>	Spontaneous bursting of <i>Vrana Shloka</i> by application medicine indicated in children, elderly,
16	<i>Lekhana</i>	Scraping done in <i>Sthula Shloka</i> and <i>Vrana</i> and which bursts repeatedly.
17	<i>Eshana</i>	Explore with hair, finger, probe, In sinuses, wound with foreign body, those extending in wrong tract, and having pockets
18	<i>Aaharan</i>	It means excision of foreign body mainly from narrow mouthed wounds
19	<i>Vyadhana</i>	Puncturing with <i>Shastra</i> to remove <i>Puya</i> and <i>Dosha</i> , only done in <i>Pakva Vrana</i>
20	<i>Seevana</i>	Suturing in wide mouth wound, with no infection inside.
21	<i>Sandhana</i>	Means to rejoin, indicated in wound without suppuration
22	<i>Peedana</i>	In suppurated, narrow mouthed and in <i>Vrana</i> those are present at

		<i>MarmaStahana</i>
23	<i>Shonitasthapana</i>	Inducing haemostasis in surgical wounds, traumatic wounds or bleeding by any mean.
24	<i>Nirvapana</i>	Cold compress in <i>Pittaj</i> , <i>Daha-Yukta</i> , <i>Jwara -YuktaVrana</i> .
25	<i>Utkarika</i>	Poultice indicated in <i>Ksheenmamsi</i> , <i>AlpaSravi</i> , and <i>TodayuktaVranas</i> .
26	<i>Kashaya</i>	Decoction in <i>Dushta</i> as well as <i>ShuddhaVrana</i> for washing purpose
27	<i>Varti</i>	Plastered over with <i>Shodhana Dravya</i> and indicated in <i>Puyayukta</i> , <i>Dushta</i> and <i>SuddhaVranas</i> .
28	<i>Kalka</i>	Application of medicated paste, <i>Shodhana</i> and <i>RopanaKalka</i> are applied in <i>Dushta</i> and <i>ShuddhaVrana</i> respectively.
29	<i>Sarpi</i>	Medicated <i>Ghruta</i> is applied locally in <i>Vrana</i> with <i>Pitta</i> , <i>Rakta</i> , <i>Dushti</i> and <i>Agantuja</i> and <i>VishajaVrana</i> .
30	<i>Taila</i>	Application of medicated oil for <i>Shodhana</i> and <i>Ropana</i>
31	<i>Rasakriya</i>	Decoctions of medicated <i>Dravyas</i> further boiled and when achieve <i>GhanaAwastha</i> and it is applied over <i>Vrana</i> . Used for <i>Shodhana</i> and <i>Ropana</i> purpose.
32	<i>Avachurnaana</i>	Sprinkling of <i>Churna</i> , in <i>Twakasthita Vrana</i> <i>DurgandhaYuktaVrana</i> .
33	<i>Vrana Dhoopana</i>	In <i>VedanaYukta</i> , <i>SravaYuktaVranas</i> fumigation with <i>Dravyas</i> like <i>Yava</i> , <i>Ghruta</i> etc.
34	<i>Utsadana</i>	Elevation meanly indicated in <i>AlpamamsiVrana</i> , <i>Vataj</i> , <i>Vata-pittaj</i> and <i>RukshaVrana</i> .
35	<i>Avasadana</i>	Lowering down of <i>Unnatamamsa</i> of <i>Vrana</i> by using <i>AvasadanDravyas</i> .
36	<i>Mrudukarma</i>	Softening in <i>Vataj</i> , <i>Kathin</i> , <i>AlpamamsiVrana</i>
37	<i>Darunkarma</i>	In <i>MruduVrana</i>
38	<i>Ksharakarma</i>	In <i>Chirkari</i> , <i>Kandu</i> , <i>Kleda</i> and <i>SravaYuktaVrana</i>
39	<i>Agnikarma</i>	For treating <i>Atiraktasravi</i>
40	<i>Bastikarma</i>	Medicated enema used in <i>Vataj</i> , <i>Ruksha</i> , <i>Chirakari</i> , situated at <i>Adhakaya</i> and <i>ShalyayuktaVrana</i> and
41	<i>Uttara Basti</i>	In case of <i>Ashmarijanya</i> and <i>MutrasrotogataVrana</i>
42	<i>Patradana</i>	Leaves of plants according to <i>Doshadushti</i> in <i>Vrana</i> they are heated or cooled and applied over <i>Vrana</i> .
43	<i>Krimighana</i>	In <i>KrimiyuktaVrana</i> , washing or local application of <i>KrimighanaDravyas</i> are used
44	<i>Bruhana</i>	Use in <i>Vataj</i> , <i>Ruksha</i> , <i>ChirakariVrana</i> and in <i>Krush</i> and <i>ShoshiRogi</i>
45	<i>Vishaghna</i>	In <i>VishjanayaVrana</i>
46	<i>Shirovirechana</i>	In <i>Urdhvajatrugata</i> and <i>Vranas</i> those are caused due to <i>KaphaPradhanDoshadushti</i> .
47	<i>Nasya</i>	<i>ShulayuktaVrana</i> , <i>UrdhvajatrugataVrana</i>
48	<i>Kavalgraha</i>	Medicated gargle, indicated in <i>Urdhvajatrugata</i> , <i>Mukhagata</i> , <i>JivhagataVrana</i>
49	<i>Dhoomapana</i>	<i>Urdhvajatrugata</i> in <i>KaphaVataJanayaShotha</i> , <i>Srava</i> and <i>VedanaYuktaVrana</i> .
50	<i>Madhu</i>	In <i>Sadyo Vrana</i> for <i>Ropana</i> purpose
51	<i>Sarpi</i>	Applied in <i>Agantuja</i> and <i>PittaraktajVrana</i> for <i>Shodhana</i> and

		<i>Dahasaman</i> purpose.
52	<i>Yantra</i>	Removal of <i>Shalya</i> seated in narrow mouthed or deep seated <i>Vrana</i>
53	<i>Krishanakarma</i>	Blackening of white discoloured area by application of medicinal drug
54	<i>Pandukarma</i>	For implication of natural colour of wound and surrounding tissue.
55	<i>Pratisarana</i>	To regain the natural colour of skin by applying medicated <i>Churna</i>
56	<i>Romasanjanana</i>	Measure to produce hairs at completely healed wound or scar area.
57	<i>Romashatana</i>	To remove the hairs because hairs at wound site obstruct healing.
58	<i>Bandha</i>	Bandaging protect the wound from infection, makes it pure and soft, so facilitate healing.
59	<i>Ahara</i>	All patients with <i>Vrana</i> should take light diet, in small quantity and easily digestible food.
60	<i>Rakshavidhana</i>	<i>Vrana</i> patient should be protective from disease causing microorganism by following <i>Yama</i> and <i>Niyama</i>

Treatments of *NijaVrana* are starting from the primary stage of *Vranashopha*. *Sushruta*'s seven principles in the management are as follows.^[37]

1. *Vimlapana*
2. *Avasechana*
3. *Upanaha*
4. *Patana*
5. *Shodhana*
6. *Ropana*
7. *Vaikritapaham*

All the sixty measures (*Upakarmas*) can be taken under the above said seven principles and grouped such as.

Vimlapanam^[38]

This is aimed for dissolving the *VranaShotha* in its primary stage by subsiding the Vitiated *Doshas*. This is carried out by gentle massage over the swelling with the help of fingers. The action can be achieved with the help of the following measures as:

1. *Apatarpana*
2. *Alepana*
3. *Parisheka*
4. *Abhyanga*
5. *Sweda*
6. *Vimlapanam*.

Avasechanam^[39]

This is aimed to resolve the inflammation by draining or expelling the vitiated *Doshas*. *Dalhana* has clarified that the *Avasechana* procedure should be adopted as per the condition e.g. *Doshika* involvement. Four measures are included in this *Upakrama* as follows.

1. *ViSravana*
2. *Snehana*
3. *Vamana*
4. *Virechana*

Upanaha^[40]

This helps in bringing the *Shotha* to the *Pakvavastha* and includes two procedures as,

1. *Upanaha*
2. *Pachana*

***Patana*^[41]**

This is the surgical procedures to drain out the pus and other decomposed substances in the *Shopha* already formed. This constitutes nine measures as,

1. *Chhedana* 2. *Bhedana* 3. *Darana* 4. *Lekhana* 5. *Eshana* 6. *Aharana* 7. *Vyadhana* 8. *Vyadhana* 9. *Sivana*.

***Shodhana and Ropana*^[42]**

This measure of management is for debridement of the infected wound and to support the healing process.

There are thirteen measures under this,

1. *Sandhana* 2. *Pidana* 3. *Shonitasthapana*
4. *Nirvapana* 5. *Utkarika* 6. *Kashaya* 7. *Varti*
8. *Kalka* 9. *Sarpi* 10. *Taila* 11. *Rasakriya*
12. *Avachurnaa* 13. *Dhumpana*.

***Vaikritapaham*^[43]**

It is mentioned mainly to save the patient from different types of deformities after the healing the wound i.e. for cosmetic purpose and consists of twenty six measures as follows.

1. *Utsadana* 2. *Avasadana* 3. *Mridukarma* 4. *Darunakarma* 5. *Ksharakarma* 6. *Agnikarma* 7. *Krushnakarma* 8. *Pandukarma* 9. *Pratisarana* 10. *Romasanjanana* 11. *Romapaharana* 12. *Bastikarma* 13. *Uttarabasti* 14. *Bandhana* 15. *Patradana* 16. *Krimighna* 17. *Brihanakarma* 18. *Vishaghna* 19. *Shirovirechana* 20. *Nasya* 21. *Kavala* 22. *Dhuma* 23. *Madhusarpi* 24. *Yantra* 25. *Ahara* 26. *Rakshavidhana* as *Sandhana*, *Ropana*, etc. among sixty measures for the management of *Vranathirteen* measures are mentioned for the purpose of *Shodhana* and *Ropana* for better understanding these measures are described here.

Table Showing, *Upadrava* (complication) of *Vrana*.

S. No.	<i>Acharya Sushruta</i> ^[44]	<i>Acharya Charaka</i> ^[45]			
1	<i>Jwara</i>	1	<i>Jwara</i>	11	<i>Unmade</i>
2	<i>Vamana</i>	2	<i>Chhardi</i>	12	<i>Ruja</i>
3	<i>Vepathu</i>	3	<i>Vepathu</i>	13	<i>Kasa</i>
4	<i>Grahani</i>	4	<i>Atisara</i>	14	<i>Shwasa</i>
5	<i>Moorchha</i>	5	<i>Moha</i>	15	<i>Visarpa</i>
6	<i>Apatanaka</i>	6	<i>Apatanaka</i>	16	<i>Sirastambha</i>
7	<i>Pakshaghata</i>	7	<i>Pakshaghata</i>		
8	<i>Pipasa</i>	8	<i>Trishna</i>		
9	<i>Hanugraha</i>	9	<i>Hanugraha</i>		
10	<i>Hikka</i>	10	<i>Hikka</i>		

CONCLUSION

While discussing “*Vrana*” (the wound) *Acharya Sushruta* did not limit the *Vrana* to only cutaneous tissue, but made it clear that any destructive lesion in any body tissue is known as *Vrana*. He has described *Vrana Vastu* (sites of lesion), under which he includes *Twaka* - *Mamsa* - *Sira* - *Snayu* - *Asthi* - *Sandhi* - *Koshtha* - *Marma*,

Ayurveda considers three basic physiological factors-*Vata*, *Pitta* and *Kapha*, named as *Tridosha*. These three *Doshas* when present in balanced state in body, maintain normal function and when they become imbalanced leads to a disease. The disease process (pathogenesis) has a sequential pattern distributed over a period of time.^[46]

According to *Ayurveda*, the *Vrana-shopha* (inflammatory swelling), *Granthi* (scrofula), *Vidradhi* (abscess) are the condition occurring in fifth stage of *Shad Kriya-Kala* and thus appears to be the *Purvarupa* of *Vrana*. Further, it has been said that in case of *Nija Vrana* (wounds due to internal cause) all six stages take place but in *Agantuja Vrana* (traumatic wound) trauma takes place first, followed by five stages of *Shad Kriya-Kala*.

REFERENCES

1. Acharya Vidyadhar Sukla, Prof. Ravi Datt Tripathi. Charak Samhita. Delhi: Chaukhamba Sanskrit Pratishthan, 2011; Sharir sthan 1/98: 692.
2. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan. 19/66: 91.
3. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. Chikitsa Sthan 25/10: 592.
4. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutra-sthan. 21/33: 105.
5. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.21/34: 106.
6. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.21/35: 106.

7. Acharya Vidyadhar Sukla, Prof. Ravi Datt Tripathi. Charak Samhita. Delhi: Chaukhamba Sanskrit Pratishthan, 2011. Chikitsa-sthana 25/10: 605.
8. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.05/38: 22.
9. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsa Sthan 1/3: 396.
10. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. Chikitsa Sthan 25/06: 592.
11. Vagbhata Astangahrdaya. Commentary: Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri. Pt. Hari Sadasiva Sastri editor. Varanasi. Chaukhamba Surbharti Prakashan, 2016. uttar-sthan chapter 25/2-4: 864.
12. Dr. Brahmanand Tripathi. Sarangadhara Samhita. Hindi commentary. Varanasi: Chaukhamba Surbharati Prakshan, 2017; 70.
13. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.23/03 107.
14. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. Chikitsa Sthan 25/26.
15. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/110: 108.
16. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. chapter 25/27: 593.
17. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/05: 108.
18. Vagbhata Astangahrdaya. Commentary: Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri. Pt. Hari Sadasiva Sastri editor. Varanasi. Chaukhamba Surbharti Prakashan, 2016. Sutra-sthan 28/18.

19. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/10: 109.
20. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/08: 108-109.
21. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/08: 109.
22. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.10/04: 43.
23. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. Chikitasa sthana 25/22: 592.
24. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitasa-sthan.01/07: 397.
25. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. chapter 25/86: 595.
26. Vagbhata. Astangasangraha. Prof. Jyotir Mitra, Dr Shivprasad Sharma editor. Varanasi. Chaukhamba Sanskrit series office, 2012. chapter 29/12: 774.
27. Vagbhata Astangahrdaya. Commentary: Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri. Pt. Hari Sadasiva Sastri editor. Varanasi. Chaukhamba Surbharti Prakashan, 2016. uttar-sthan chapter 25/11: 865.
28. Sri Madhavakara. Madhava Nidanam. with Vidyotini Hindi Commentary itor by Sri Sudarsana Sastri. Prof. Yadunandana Upadhyaya editor. Varanasi. Chaukhamba Prakashan, 2014; 42/8: 124.
29. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.22/07: 108.
30. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba

- Surbharti Prakashan, 2014; 25/24-25: 592.
31. Vagbhata Astangahrdaya. Commentary: Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri. Pt. Hari Sadasiva Sastri editor. Varanasi. Chaukhamba Surbharti Prakashan, 2016. uttar-sthan chapter 25/2-4: 864.
 32. Sri Madhavakara. Madhava Nidanam.with Vidyotini Hindi Commentary itor by Sri Sudarsana Sastri. Prof. Yadunandana Upadhyaya editor. Varanasi. Chaukhamba Prakashan, 2014; 42: 123-124.
 33. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan. 42/09-10: 185.
 34. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014. Sutrasthana 26/43.
 35. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.42/8: 185.
 36. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsa-sthan. First chapter.
 37. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Sutrasthan.17/17-18: 84.
 38. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsasthan.1/22: 399.
 39. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsaasthan.1/17: 399.
 40. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsaasthan.1/23: 399.
 41. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsaasthan.1/33-45: 400-401.

42. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsaasthan.1/09: 398.
43. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsa-sthan. 1/8: 397.
44. Sushruta. Sushrutasamita. With Nibandha Sangraha commentary of Dalhanacharya edited by Vaidya Yadavji Trikamji. Varanasi: Chaukhamba Surbharati Prakshan, 2014. Chikitsa-sthan. 1/139: 408.
45. Agnivesa. Carakasamhita. With Ayurveda Dipika commentary of Acharya Cakrapanidatta. Edited by Acharya Vaidya Yadavji Trikamji. Varansi: Chaukhamba Surbharti Prakashan, 2014; 25/29-25: 593.
46. Vijay K Shukla, Raj Mani, Management of Wound Healing, New Delhi: Jaypee Brothers Medical publisher; First Edition, 2007; 182.