



AYURVEDA MANAGEMENT OF SADYVRANA: CASE STUDY

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ABSTRACT

An injury is the adverse effect of a physical force upon a person. The force involved in most injuries is mechanical. Coming to Wound healing it is a natural restorative response to tissue injury involves interaction of a complex cascade of cellular events that generates resurfacing, reconstitution and restoration of the tensile strength of injured skin. The major aspect of the management of the fresh wound is prevention of the infection and speedy healing. Reducing pain, discharge and less discoloration after recovery, The proper initial care of the fresh wound will definitely prevent the inadvertent complications, treatment protocol and medicine, here is an attempt with ayurvedic classical medication for patient with sadyovrana and study has shown satisfactory improvement.

Objective of the study: To evaluate the efficacy of the madhusarpi in management of sadyovrana. **Methodology:** Study carried out on the patient diagnosed with Sadyovrana, Wound initially cleaned with normal saline. necrotic tissue was removed and properly cleaned. By measuring dimensions of wound the size of gauze is selected and dipped in madhusarpi, soaked gauze is properly applied over wound and wound is closed with sterile dressing, wound be treated for 15 days duration. follow up will be done on alternative days of treatment.

KEYWORD: sadyovrana, madhusarpi, Shashthi Upakrama.

INTRODUCTION

Nirukti

Etymology of the word “Vrana”- The words derived from the root “Vriya” having the meaning of “to recover”, which is further suffixed by “ach” in the sense of Bhava. The “Ch” sound is elided and the form remains “Vran” + “a”. (Shabdakalpadruma).

Definition

1) Vrana Gatra Vichurnane, Vranayati iti Vranaha|| (su chi-1/6) Gatra- means tissue (tissue or part of body). Vichurnane means destruction, break, rupture and discontinuity (of the Body parts or tissue).

The destruction / break / rupture / discontinuity of body tissue / part of body is called Vrana

2) Savranoti Acchadayati Yasmat Tasmad Vrana Iti || After destruction, which gets covered is called as Vrana.

3) Vranayati iti Gatra Vaivarnya Karotii Iti Arthaha || The one which gives discoloration at its site is called as Vrana.

The scars of a wound never disappear even after complete healing and its imprint persists lifelong the lesion is called vrana. (Su.su-21)

Acharya Sushruta -The Father of Surgery has explained “Shashti Upakramas” for the treatment of the wound (Vrana). There are 60 different regimes for the purpose

of the wound healing. They cover all the aspect of the wound healing viz. rate, discoloration, scar formation etc. among them one is taken for the study that is madhu sarpi.

“The Disruption of normal anatomical relationships as a result of injury or more specifically of trauma”/ break in the continuity of soft parts of body structures termed as wound.

1)PARTIAL-thickness wounds involve outer layers of the skin, epidermis and superficial dermis, and heal by regeneration of epithelial tissue (skin).

2)FULL-thickness wounds involve a loss of dermis (deeper layers of skin and fat) and of deep tissue, as well as disruption of the blood vessels they heal by producing a scar.

Wound healing processes include.

1)Primary intention-wound edges are brought together, as in a clean traumatic/surgical wound.

2) Secondary intention -the wound is left open and heals by epithelization.

3) Third intention or delayed closure- the wound is identified as potentially infected, is left open until contamination is minimized, and is then closed.

Classification of Vrana

Vrana can be classified into different categories i.e.

1. Based on Nidana.

a) Nija Vrana

b) Agantuja Vrana

2. Based on the Avastha

a) Shuddha Vrana

b) Dushta Vrana

c) Ruhyamana Vrana

d) Roodha Vrana

Acc to Lakshanas: 1) Samanya 2) Vishesha

Acharya Sushruta classified Sadhyo Vrana into 6 types based on Lakshanas.

Sr. No.	Type of Agantuja Vrana	Lakshanas
1	Chinna	Extensive cut injury oblique or straight, separation of Parts of body.
	(Su.Chi.2/10) (Ma.Ni.43/3)	
2	Bhinna	Perforation of Asaya and mild discharge.
	(Su.Chi.2/11) (Ma.Ni.43/4)	
3	Viddha	Deep injury Without Perforation of Asaya.
	(Su.Chi.2/19) Ma.Ni.43/11)	
4	Kshata	Neither a cut injury nor a perforation but exhibits the nature of both uneven shaped.
	(Su.Chi.2/20) Ma.Ni.43/12)	
5	Picchita	Crushed injury extended filled with blood and Bone marrow.
	(Su.Chi.2/21)(Ma.Ni.43/13)	
6	Ghrishta	Rub injury skin gets peeled off, burning sensation and Discharge.
	(Su.Chi.2/22) Ma.Ni.43/14)	

Some other types of Agantuja vrana are as follows.

Sr.No.	Types of Agantuja Vrana	Sushruta	As.sam.	As.hr.	Sha.sam.
1	Avakrta	----	+c	+	----
2	Anuviddha	----	+v	----	----
3	Atividhha	----	+v	----	----
4	Anubhinna	----	+v	----	----
5	Atibhinna	----	+v	----	----
6	Avrana	----	+p	----	----
7	Avikrta	----	----	----	+
8	Bhinna	+	----	+	+
9	Bhinnotundita	----	+v	----	----
10	Chhinna	+	+	----	+
11	Ghrishta	+	+c	+	+
12	Ksata	+	----	----	----
13	Nilambita	----	+c	----	----
14	Nividhha	----	+v	----	----
15	Nipatita	----	----	----	+
16	Pichhita	+	+	----	----
17	Patita	----	+c	+	----
18	Pravalambita	----	----	+	----
19	Prachalita	----	----	----	+
20	Savrana	----	+p	----	----
21	Uttundita	----	+v	----	----
22	Viddha	+	+	+	+
23	Vicchinna	----	+c	+	----
24	Vibhinna	----	+v	----	----
25	Vidalita	----	----	+	----
26	Vilambita	----	----	----	+

(+C: This all type of agantuja vrana comes under Chhinna category)

(+V: This all type of agantuja vrana comes under Viddha category)

(+P: This all type of agantuja vrana comes under Pichhita category)

Description of some other Agantuja Vranas in classical texts.

Name	Lakshanas
Avakrta (As. Sa.Ut. 31/3)	Injury in skin and little portion of muscle.
Anuviddha (As. Sa.Ut. 31/4)	Injury of muscular tissues.
Atividhha (As. Sa.Ut. 31/4)	Perforation of the part and peeping outside the skin of the other side.
Anubhinna (As. Sa.Ut. 31/4)	Perforation of the Kostha.
Atibhinna (As. Sa. Ut. 31/4)	Injury in Kostha.
Avrana (As. Sa. Ut. 31/5)	Injury without vrana with mild local temperature.
Avaklipta (Sa. Pu. Kh. 7/76)	Injury with cutting type of pain, breaking of irregular extremities, loss of strength.
Bhinnotundita (As.Sa.Ut. 31/4)	Injury to the Kostha.
Nirbhinna (As. Sa. Ut. 31/4)	Injury to the Kostha by a shalya and it pierces the opposite side.
Nirviddha (As. Sa. Ut. 31/4)	Perforation of part totally.
Nishalyo vrana (Ma. Ni. 43/15)	Mild tender, mild inflammation.
Nipatita (Sa. Pu. Kh. 7/76)	Bone brakes in to many places, abnormal deformities.
Patita (Sa. Pu. Kh. 7/76)	Complete cut off of an organ.
Pracchalita (Sa. Pu. Kh. 7/76)	Injury to Asthi dhatu and causes vitiation of vayu
Pravilambita (As. Hr. Ut. 26/4)	Injury where the bone has not cut completely destroyed. Inactivity of sense organs Different type of pain, bloody discharge.
Savrana (As. Sa. Ut. 31/5)	Injury with vrana, painful and Oozing.
Sasalyasyavrana (Ma. Ni. 43/15)	Injury due to the vrana, inflammation, blackish in color.
Uttundita (As. Sa. Ut. 31/4)	Injury to the deep portion with protrusion to other side.
Vicchinna (As. Sa. Ut. 31/3)	Injury to the deep skin and greater portion of the muscle involved.
Vilambita (As. Sa. Ut. 31/3)	Injury up to the bone ligaments and muscles coming out from the vrana mukha.
Vidalita (As. Hr. Ut. 26/5)	Crushed injury along with bonemarrow damage, severe pain.

Shuddha Vrana

The Shuddha Vrana is also considered as one among 16 types of Nija Vrana. Before treatment it is important to know about the Shuddha and Ashuddhataa of Vrana.

Because the prognosis and treatment are different. The Lakshanas of Shuddha Vrana according to various Acharya's are as follows.

Lakshana of Shuddha Vrana

Sushruta samhitha (Su. Su.23/18, Su. Chi. 1/7)	Charaka samhitha (Ch. Chi. 25/86)	Astanga. Sangrha (As. San.Ut-29/12)	Astanga. Hridaya (As.Hr. Ut-25/11)	Mzdav. Nidana.
Surface of wound is just like tongue (Jihwa talabho)	Color of wound is reddish black (Naatirakta, pandu ,shyava)	No pain (Nirujatwam)	Surface of wound is just like tongue (Jihwa talabho)	Wound surface is just like tongue (Jihwa talabho)
Recent origin (Navotita)	Mild pain (Na ati ruk)	No discharge (Nirasrava)	Soft (Mrudu)	Very soft (Mrudu)
Unaffected by the three Dosh (Trividha dosha Anakranta)	Elevation and depression are absent (Nautasanno, Nautsangi)	Color of wound is blackish (Shayava Varnata)	Surface is smooth and normal (Slakshana)	Slimy (snighda)
Edges with a slight blackish colour and having granulation tissue (Shyava Varna Pidika Yukta)		Even margins, slight elevation in the middle (Samaaustha Madhyata)	Absence of pain and secretion (Vigat Vedana Nirasrava)	Painless (Vigat Vedana)
Absence of pain (Vigata vedana)		Opposite character of Dushta Vrana		Not too much discharge (Nira srava)
Absence of secretion (Nirasrava)				
Even surface throughout the wound area (Suvyavasthita)				
Slimy surface (snighdanta)				
Regular surface (samavastita)				

Pancha Lakshana

The laxanas of Vrana can be discussed under the heading of Pancha Lakshanas as Akrti, Gandha, Varna, Srava and Vedana.

1. Akrti

Acharya Sushruta describes different shapes of the wound such as Ayata, Chatusra, Vrittha, and Triputaka. Madhumehajanya Dushta Vrana as Atisamrutha, Ativivruha, Utsanna, and Avasanna, In the context of Agantuja Vrana - Ardachandrakara, Vishala, Kutila, Sharava, Yavamadyasta, Madhumehajanya Vrana is having Vishamakrti.

2. Gandha

Acharya Sushruta emphasized the Vikruta Gandha of various Vranas. the cardinal signs which possess a great value to access involved Doshha and Dhathi, the pradhanyata of vata produce katu gandha, pitta produces teekshna gandha, kapha produces aama gandha.

3. Varna

Discoloration takes place at the site of Vrana irrespective of place in every individual but the nature of discoloration varies with respect to involvement of Doshha. Vata produces bhasma, Krishna, kapota/ asthi Varna, pitta produces neela, harita, peeta, kapila Varna, kapha produces shweta / pandu Varna. Sannipataja dushti leads to mixed Varna at wound site.

4. Srava

Acharya Sushruta has explained different kinds of discharges observed in a Vrana based on different sites & Doshha involved. Those are as follows.

Srava according to the site involved

1. Tvacha Sthitha Vrana: There will be watery discharge or slightly yellowish discharge when the Vrana is in skin.

2. Mamsa Sthitha Vrana: If the wound is situated over the Mamsa the discharge will be like that of ghee, which is very dense, whitish and sticky.

3. Siragata Vrana: If the wound is situated on the vessel, then there will be excessive hemorrhage. If there is suppuration, pus flows out copiously like that of water flowing from a pipe. This type of discharge will be thin, slimy, sticky and blackish in little quantity.

4. Snayu Sthitha Vrana: If the wound is situated over the Snayus, then the discharge will be oily, thick and similar to the mucoid nasal discharge and it will be somewhat mixed with blood and appears to be solid.

5. Asthi Sthitha Vrana: If Vrana is over the bone or if bone gets traumatized, cracked or bursts due to Doshha, then the discharge will be mixed with bone marrow (Majja), blood and it will be Snigdha.

6. Sandhi Sthitha Vrana: When the Vrana is situated over the joints the discharge does not come out even on pressure, but when there is flexion, extension, elevation, depression or by running, coughing and straining it comes out in little quantity. It will be slimy, sticky and appears as if churned with blood.

7. Koshtha Sthitha Vrana: When the Vrana is situated in the abdomen, the discharge comes out mixed with blood, urine, feces, pus and water.

8. Marma Sthitha Vrana: The discharges of the Vrana that are caused in the Marma Sthanas have not been explained separately, as they have been included in Twagadi Sthitha Vrana.

“Vrana srava” according to dosha involved (Su. Su. 23/9)

Vrana Dosha	Vrana srava
Vata	Rough, Blackish, like frost, Yoghurt, Alkaline water, Washing of meat, Rice water.
Pitta	Gomeda gem, Cow's urine, Ash powder of conchshell, Astringent water, Madhavika oil like.
Kapha	Like Butter, Kasis, Bone marrow, Rice cake, water of Coconut, Fat of pig.
Rakta	Like Pitta but more bloody discharge
Sannipataj	Water of Coconut, vinegar, liver, juice of Mudga.

5. Vedana: Natures of Vedana in vrana are as follows:- Todavat, bhedavat, chedanavat vedana when vata is predominant, Osha, chosha, paridaha, dhoomayanavat vedana due to pitta, Kandu, suptata, liptata, nyunyata, sheetalata due to kapha.

SADHYA SADHYATA

Sukha Saadhya Vrana

According to involved tissues possibilities of wound healing is explained i.e. healing becomes difficult as the Uttarottara Dhatu^{1a} involves. with qualities like Vayastha, Pranavaan, Dhrutha, Satvavaan' the patient wound can be healed easily.

Krichrasadhya Vrana

If the Vranita is not a Vayastha, Pranavaan, Dhrutha, Satvavaan and who are Vriddha, Krusha, Alpapraana, Bheeru, then wound healing will be difficult. The Vrana of persons suffering from Kushtha, Shoshita and Vishajushta Vrana which is recurring at the same site are difficult to heal.

Yaapya Vrana

Madhumehajanya vranas are yapya. The Vranas such as Avapaatika, Niruddha Prakasha, Sanniruddha Guda, Visarpa, Jatara Sthitha, and skin lesions where maggots are present, bone fracture, Urahkshata, Vrana Granthi, etc are yapya.

Asaadhya Vrana

- Vrana which is elevated like Maamsapinda, Atisrava, Pooyayukta and with Vedana, having edges like ashwa bhagoshta.
- Indurated and protruded like Goshringa, Discharging Dushta Rudhira, Mrudu Mamsankura, Tanu, Sheeta, Picchila Sraava, madyotsanna.
- Koshtastha Vrana having discharges Mootra, Pureesha etc. and having discharges of Pooya and Rakta, Sarvotogatha.
- Vranas in alpa Maamsa person discharging Pooya, Rakta, associated with Arochaka, Avipaaka, Kaasa, Swaasa like Upadravas. Bhinna Vrana in Shira, Kapaala, followed by appearance of Mastulunga, features of all the 3 vitiated Doshas, with Kaasa & Shvaasa are incurable.

HONEY/ MADHU; Madhu (Honey) (Bhavprakash)

Honey possessing gunas as explained in classical (makshika) is considered for the analysis. (Su.Su.45/132, 142).

Madhu properties

1. Rasa- madhura
2. Uparasa - kashaya
3. Guna- ruksha
4. Vipaka - madhura

Prabava-sukshma marga anusari (ability to permeate in microchannels) it is having yogavahi action that is Synergistic to other medicines, tridoshahara.

SARPI [GHEE]**(Bhavprakash) acc to SNEHA PAKA VIDHI**

The Milk of Cow is used for making curd and butter milk from it. The butter is isolated form butter milk by centrifugation. The isolated butter is given heat until it is converted into Ghee (phenodgama lakshanas). Ghrita preparation methods as explained by acharyas.

Properties (cha. Su. 27/231,32)

- RASA** - Madhur
- Virya** - Sheeta
- Vipak** - Madhura
- Guna** - Mrudu, Shlakshna, Guru.
- Doshghnata** - Vataghna & Pittaghna

Gosarpi-It is madhur in rasa, madhur in vipaka & sheetvirya. It alleviates vata, pitta & visha. (Su. Su.

45/97), Sarpi has Rakshoghna property (Su. Su. 45/66) Here Rakshoghna means antimicrobial.

Brief Data about the patient

A female patient by name ABC 27year from local area of mysore, Karnataka, India.

Chief complaint

Patient complaints of sadyovrana with shoola and srava over left palm and back of right elbow joint since 2hrs

Associate complaints: Bhrama and vepatu

History of present illness

Patient was apparently normal 2hrs back, while travelling in two-wheeler met with a Road traffic accident had multiple sadyovrana over left palm and over posterior aspect of right elbow joint with blood discharge and pain so for these complaints she came and consulted our hospital.

Drug history and family history- Nothing contributory

Examination findings

CNS- Conscious and well oriented, Deep and Superficial reflexes – normal.

CVS- S1S2 Heard.

RS- Normal vesicular bronchial breath sounds heard.

Per abdomen – Soft, non-tender, no organomegaly.

ON- Examination of wound:

Multiple ghrista vranas (abraded wound) over posterior aspect of right elbow joint - 2mm* 1mm*1mm

Over left palmer aspect -2mm* 1mm* 2mm

Over dorsal aspect of hand -1mm * 1mm

Swelling +.

Discharge ++

Burning sensation ++

Induration ++

MATERIAL AND METHODS

Study carried out on the patient diagnosed with Sadyovrana, First local and systemic examination were carried out, Wound initially cleaned with normal saline. necrotic tissue was removed and properly cleaned. By measuring dimensions of wound, the size of gauze is selected and dipped in madhusarpi, soaked gauze is properly applied over wound and wound is closed with sterile dressing, wound be treated for 15 days duration. follow up will be done on alternative days of treatment.

DURATION-- 15 days duration, Depending upon **subjective** and **objective** criteria.

Follow up -- Follow up will be done on every alternative day for the period of 15 days.

Before and After treatment.

Sl.no	Pain	Burning sensation	Discharge	Odema	Induration	Size of the wound
1 ST DAY	3+	2+	2+	2+	3+	2mm*1mm*1mm 2mm*1mm*2mm 1mm*1mm
3 RD DAY	3+	1+	2+	1+	2+	2mm*1mm* 1mm 2mm*1mm*2mm 1mm*1mm
5 TH DAY	2+	1+	1+	1+	1+	1mm*1mm 2mm*1mm

7 TH DAY	2+	Nil	1+	Nil	1+	1mm*1mm 1mm*1mm
9 TH DAY	1+	Nil	Nil	Nil	Nil	All wounds Healing
15 TH DAY	Completely Healed	Nil	Nil	Nil	Nil	Completely healed

Pictures



DISCUSSION

Wound healing is a complex and dynamic process with the wound environment changing with the changing health status of the individual. To establish these facts on the modern parameters a thorough study is need of the hour. And there is no reference of adverse effects, local or systemic toxicity and resistance of the drugs used for this study till date, mode of action of drug with reference shows.

- In traumatic wounds local brajaka Pitta gets aggravated causes increase in local Ushma. Shopha and dhaha, also local Vata gets aggravated due to loss of dhatu (Dhatukshaya). It results in shoola. Being Sheeta virya Ghrita acts as Pittashmana, snigdha property acts as Vatashamaka. Thus, Ghrita being Pitta-Anilharam alleviates both Vata and Pitta, Also Ghrita by its Agnideepaka property (the property of improving catalysitic activity).
- The pus formation in the wound and septic manifestations of the wound are caused by Rakshas (microbes). The process of killing those Rakshas was coined as Rakshoghna. The Rakshoghna property of Ghrita thus can be correlated to the anti microbial activity of Ghrita.
- The kashaya rasa and katu vipaka help in Shodhana (debriding/ cleansing) of the wound.
- Sarpi causes improvement in local dhatwagni leads to rapid replacement of lost dhatu which in turn results in rapid healing called as Ropana (replacement of lost tissue).
- Varnya property of sarpi retains the natural skin color even after healing.
- The other important property described is Vishahara. Refers to the toxins liberated by infecting

microorganisms at wound site are neutralized by the Vishahara action of Ghrita.

- The chedana property of Madhu is nothing but the separation of dead tissue from the surrounding healthy tissue, Madhu helps to decrease discharge by its Ruksha guna. Also, after proper Shodhana of the wound, it helps in healing and bringing together the cut edges by its Sandhana property.
- Madhu also possesses the property of Agnideepana, which works in the same way as that of Ghrita i.e acts on local Dhatwagni. The Varnya property contributes in healing by preserving the natural skin color i.e. Savarnikaranam.
- The penetration of the drug deep into the tissue and at cellular level is achieved by Sukshma Marga Anusari property of Madhu.
- The pittashamaka property, Madhura rasa and Madhura vipaka of Ghrita is useful for healing and new tissue formation.
- Ghrita helps in Ropana by formation of new tissue, Madhu helps for shodana by its Kashaya and katu rasa.
- When sneha guna combined with sukshma anusari property, the penetrating power increases and drug gives better results. This explains the Kshato ushmano nigraha action of the combination based on Ayurvedic Principles.
- The work of modern science was initially directed to the antimicrobial activity only. Not much attention was given to the other aspects of wound healing like rapidity, scar formation and less discoloration. In last few decades the view has changed. The agents which enhance healing of wound are being searched. Also, the agents which offer better quality healing are being searched. Here is an attempt to clinically document the result of madhusarpi on sadyovrana

CONCLUSION

- The drug madhu and sarpi showed significant cleansing(shodana) and healing effect (ropana) on patients with sadyovrana.
- The combination have direct reference of tridosahara property, rakshoghna, varnya, vishahara, sandhanakara, ropaka, shodaka and sukshmamarga anusari property. Which is very ideal qualities of drug to treat vranas and it has shown the evident result.
- The combination of drug possesses anti-microbial, anti-inflammatory, analgesic, antioxidant and nutritive effect & can be used as topical application, as they contain several important properties that make it ideal as a dressing agent for wounds.
- The combination is effective as they contain – Pro-inflammatory mediators, moist environment with

low PH, Nutrients for wound healing along with deodorizing effect.

- Ghee thought to provides medium for honey by its lipophilic nature to act at the cellular level providing needed nutrients, enzymes and appropriate environment for wound healing.
- The relentless emergence of antibiotic-resistant strains of pathogens, together with the retarded discovery of novel antibiotics has led to the need to find alternative treatments.
- Now the scenario is changing and the whole world is looking towards the science-based Evidence based ayurvedic medicine for the management of infection. These are time tested and effective remedies being in use since thousands of years. In this age of research it's the time to explore them and apply clinically.

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