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Review Article

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A COMPREHENSIVE REVIEW ON THE MANAGEMENT OF SADHYO VRANA W.S.R. TO TRAUMATIC INJURY

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traumatic injuries.

ABSTRACT

Sadhyo Vrana, as described in Ayurveda, refers to an acute wound that develops instantly following trauma. It corresponds to modern traumatic injuries caused by mechanical, physical, or accidental factors. An injury is the adverse effect of a physical force upon a person. The force involved in most injuries is mechanical. The incidence of wound trauma is very large globally. The number of patients with wounds presenting to the emergency department and to the general practitioners is more as compared to any other health problem. Occasionally, patients with minor and superficial injuries turn into major complications. Complicated wounds are the major cause of absentees at the working place and hospitalizations. Proper management of Sadhyo Vrana is essential to prevent complications like infection, delayed healing, chronic ulceration, and scarring. This review aims to analyze classical Ayurvedic concepts alongside contemporary surgical and wound management principles to establish an integrative approach for better outcomes in the management of

KEYWORDS: Sadhyo Vrana, wound, traumatic wound, accidental injury, wound healing etc.

INTRODUCTION

Trauma is one of the leading causes of morbidity worldwide, and the resulting wounds require immediate attention. In Ayurvedic literature, the term Sadhyo Vrana (sudden wound) has been explained by Acharya Sushruta as an injury produced by external factors such as sharp instruments, accidents, bites, burns, or blunt trauma. These injuries often demand emergency management, which involves both local and systemic measures.

The incidence of wounds as a health problem is sharply rising. The exact figures are lacking from many countries, but it is not an uncommon condition. India accounts for over 20% of the world's trauma related death. [1] India has a high injury specific mortality rate, with around 2.1 deaths per 1.000 live birth. [2] In 2022, there were 4,61,312 road accidents, resulting in 1,68,491 deaths and injuries to 4,43,366 persons. [3] India reported over 150,000 traumatic brain injuries related deaths and nearly 500,000 injuries annually. [4]

Sadyo vrana are those which occur suddenly due to trauma/injury. [5] As per Acharya Sushruta, Sadyo vrana or accidental caused are of innumerable shape and size. So that as per shape, size, severity and weapon used, Sadyo vrana is explained in infinite number considering in six type i.e. chhinna, bhinna, viddha, kshataja, pichchita and ghrishta. [6&7]

While modern medicine relies on surgical debridement, antisepsis, antibiotics, and advanced wound care dressings, Ayurveda emphasizes Shodhana (cleansing), Ropana (healing), and Rasayana (rejuvenation) therapies. An integrative review of these methods can provide holistic strategies for managing traumatic wounds.

AYURVEDIC CONCEPTUALIZATION OF SADHYO VARANA

Etymology & Definition

Sadhyo Vrana is defined as a wound that occurs suddenly due to external trauma (Aagantuja Nidana).

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| Sadyo | vrana are those which occur suddenly due to trauma/in | njury. |
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| Aagantuja vrana is due to external causes such as assault, fall, trauma, hitting, due to dental, |
| nail contacts, poison contacts, fire & weapons etc. |
| (O CO C 8 /8) |
| Sadyo vrana is presented on the different parts of the body shown with different kinds of the features as per caused by weapons with various types of edges. It is characterized by pain, bleeding, swelling, and tissue discontinuity. |
| Etiology (Nidana) |
| • Trauma by sharp or blunt instruments (Shastra, Astra, Bhinna, Chinna). |
| • Accidental causes like falls, bites, burns, or road traffic injuries. |
| Surgical procedures also result in iatrogenic Sadhyo Vrana. |
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| Different kind of sadyovrana is on different parts of the body caused by weapons with various types of edges. Traumatic ulcers has a variety of shapes. |
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| Agantu Vrana is due to external causes; such as assault, fall, trauma, hitting, due to dental, nail contacts etc. |
| Shapes of traumatic wounds |
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| • आयत (□ □ □ broad) |
| • □ □ □ □ □ □ □ □ □ □ quadrangular) |
| • □ □ □ □ □ (friangular) |
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| • |
| • □ □ □ □ □ (\(\bar{e}\)xtensive) |
| • |
| • |
| • यव |
| Wound are develoveped by vitiation of vatadi dosha or torn itself are called as aagantuja |
| vrana. Those vrana are not made by surgeon. |
| Importance of shape of traumatic wound |
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| Those surgeons who known all the features, shape and complications about the vrana. He never fear with complicated and bad looking vrana. |
| Types |
| 1. |
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| Sadyovrana are innumerable and localized in deferent parts of the body, these are classified |
| as of eight types they are; (in Ashtanga hrudaya) |
| 1. Grista |
| 2. Avakrtta |
| 3. Vichinna |
| 4. Pravilambi |
| 5. Patita |
| 6. Viddha |

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| 7. Bhinna8. Vidalita | |
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 $(\Box \Box \Box \Box 2/8-9).$

Ancient physicians said that accidental wounds are of innumerable shapes; all those are classified into six in brief. (By Susruta)

- 1. Chinnam (cut)
- 2. Bhinnam (punctured)
- 3. Vidha (punctured)
- 4. Kshata (crushed)
- 5. Pichitam (contused)
- 6. Grista (lacerated)
- **3.** In Ashtanga sangraha 15 types of sadyovrana have been mentioned.
- 1. Chinnam (5)
- A. Grista,
- B. Avakrutta,
- C. Vichinna,
- D. Vilambitha,
- E. Pathitha
- 2. Vidham (8)
- A. Anuvidham,
- B. Uthundditham,
- C. Athividdham.
- D. Nividdham,
- E. Anubhinnam,
- F. Bhinnouthunditham,
- G. Athibhinnam,

| Н. | Vibhinnam |
|-------------|---|
| 3. 1 | Pichidam (2) |
| A. | Savranam, |
| B. | Avranam |
| 4.] | In madhava nidhana six types of classification have been mentioned. |
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| i. | Chinna vranam (excised wound) |
| ii. | Bhinna Vrana (stab wound) |
| iii. | Viddha Vrana (punctured wound) |
| iv. | Kshata Vrana (deep incised wound) |
| v. | Pichita Vrana (crushed and lacerated wound) |
| vi. | Grustam (abrasion) |
| Sa: | manya Lakshana |

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5)

- 1. Grista (Abrasion) is that which exudes lasika alone or mixed with little of blood associated with burning sensation.
- 2. Avagrtha (deep stab wound) is severe than grista.
- 3. Vichinna (Wound with very deep incision) is still more severe than avagratha
- **4. Pravilambi** (semi amputated) is that in which only the bone remains in the place.
- 5. Patita (a wound with complete amputation) is that in which the injured part has fallen off from the body.
- 6. Viddha (Punctured wound) is a wound with small orifice caused by a foreign body any where on the body except the koshta.

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- 7. Bhinna (wound with perforation of internal organs) like viddha that cause in koshta.
- **8. Vidalita (Crushed wound/ lacerated wound)** is that which occurs due to hitting, squeezing and crushing of bones, found containing marrow and blood inside and has become thick.

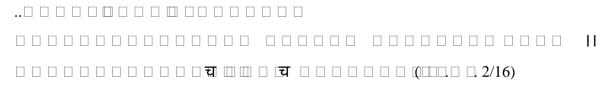
| become thick. |
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| Visesa Lakshana's |
| 1. Chinna |
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| Wound which is oblique or straight, broad including falling off of the part of the body is |
| known as china Vrana (cut/incised wound). A complete severance of part or member of the |
| body is also designated by this name. In this sadyovrana the affected part is completely |
| separated from the body. |
| 2. Bhinna-nidana |
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| $(\Box \Box \Box \Box 2/11)$ |
| Asayas punctured by the tip of kuntha (dagger) sakti (lance/rod), rooshti (arrow like sharp |
| instrument), khatga (stab with sword), visana(horns of animals) etc and excluding little |
| quantity of fluids are features of Bhinna Vrana.it includes a perforation of any cavities or |
| receptacles of the body. |
| Koshta bhinna lakshana |
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When koshta punctured, it become filled with blood and it leads to fever and burning sensation, blood comes out through urinary tract, anus, mouth, nose, also general symptoms like fainting, dyspnoea, thirst, flatulence, lack of desire for food, non elimination of feaces urine flatus sweating, red colour of the eyes, smell of iron coming out from the mouth, bad smell of the body and pain in the regions of heart and flanks.

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If organ of trunk are wounded or injured then there is accumulation of blood inside, fainting, pain in the region of heart and flanks, fever, burning sensation, thirst, flatulenc, lack of desire for food, obstruction of faeces, urine and flatus, dyspnoea, sweating, redness of eye, smell of iron from mouth etc.

Amasaya bhinna lakshana



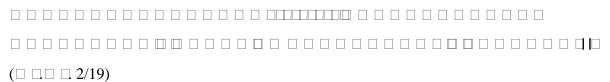
If the blood accumulation is in the amasaya (stomach) the person vomits blood (haematemesis), has profound flatulence and excruciating pain.

Pakwasaya bhinna lakshana



If it is in pakwasaya there will be pain, feeling of heaviness, coldness of the area below the umbilicus and bleeding through the orifices (anus).

3. Viddha sadyovrana (punctured wound)



When a pointed weapon hits the body or an organ, the vrana so causd is called viddha vrana there is no perforation or rupture of internal organs the effected part wound of entry will have inverted wound margins and the wound of exit will have everted or projected wound margin.binna vranas and viddha differ in the context that thre is damage to internal viscera in bhinna which is absent in viddha type. In this skin, muscles and bones only are injured.

| 4. Kshata sadyovrana(deep incised wounds) |
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| Wound which has neither cut the body part (chinna):greatly dividing into parts)nor the body |
| part is punctured(bhinna), actually, but having the symptoms of both, the wound being |
| irregular (in shape and level) should be understood as kshatavrana (crushed wound). In this |
| the anatomical and structural arrangement of tissues is sornewhat damaged, the injury having |
| a zigzag and deep appearance. usualy happens with knives, axe, sickles etc. |
| 5. Pichhita sadyovrana (lacerated wounds) |
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| These are crushed wounds happening in train accidents, running over by the wheels of heavy |
| vehicles, very severe attack with axe, heavy rods etc. any part of the body with local bone |
| crushed between the folds of adoor or by a blow becomes extended and covered with blood |
| and marrow is called a piccita (thrashed) wound /ulcer. The affected muscles and underlying |
| bone loose their anatomical position and continuation. There are chances of multiple and |
| open fracture in this case. fortunately bleeding is les in these injuries because the cut end f |
| blood vessels are closed, because of crushing sepsis and gas gangrene are very common. |
| 6. Ghrusta sadyovrana (abrasions and bruises) |
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Any part of the body losing its skin, either by assault or otherwise(rubbing on hard

surface/rough surface etc) accompanied with watery exudation is described as grista Vrana

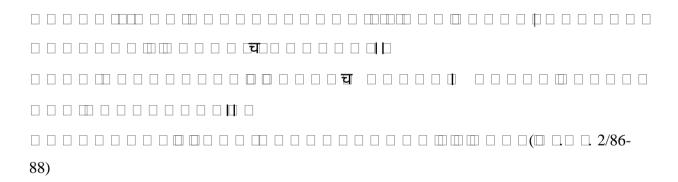
(abrasive wound). In this type of vrana due to sangarsha(friction) whole skin or a layer of skin is scrapped off. accompanied by ushna, srava and vedhana in that region.

Sadyovrana Chikitsa

Accidental wounds (sadyovrana) should be treated for seven days with astringent and sweet drugs, cold and unctuous measures; afterwards treatments described earlier should be followed.

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In case of dustha Vrana, purification both upward (vamana) and downward (virechana) direction, food which cause thinning of the body and blood letting should be done first, the wound should be washed with decoction of drugs of either rajavrksadi gana or surasadi gana; medicated oil with same drugs is good for cleaning wound: kshara or oil that prepared with ksara may be used for the purpose.



Sapthahika chikitsa/sapthavitha chikitsa for sadhyovrana

In Ashtanga hrudaya;

The following are Sapthahika chikitsa for the first seven days beneficial for traumatic wound / acute wound. After seven days when the severity subsides, the treatments described previously should be adopted.

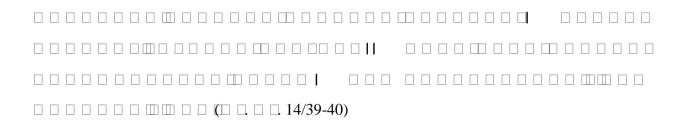
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1) Sechana/parisheka

| Sadyovrana which has severe pain should be immediately (sechana) washed in warm |
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| yastigruta or bala taila. |
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| 2) Lepana |
| In order to mitigate the heat of the wound, drugs which poses astringent taste, cold potency, |
| sweet taste and unctuous properties should be made use of for lepana. |
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| 3) Sandhanam |
| In traumatic wound which are wide, in order to promote healing, honey and ghee should be |
| specially made use of, so also treatment which mitigate pitta and are cold. |
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| (Ah Ut 26/) |
| 4) Vamana |
| 5) Virechana |
| 6) Fasting |
| 7) Blood letting. |
| When accompanied with severe swelling, purification of the body in the upper (emesis) and |
| lower parts (purgation) and fasting are beneficial, frequent bloods letting also after |
| consumption of food. |
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| 25) |
| Methods of preventing bleeding are four types |
| 1. Sandhana- joining the edge of the wound |
| 2. Skandana- promoting clotting |

- **3. Pacana-** promoting to pakwaavastha.
- **4. Dahana-** burning/ cauterization.

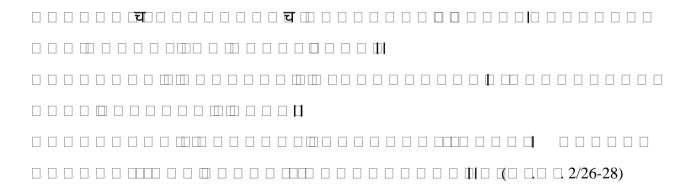
Astringents (drugs) join /unite the edges of wound, and make the blood to colt, ash or alkali adheres there and closes the wound and burning (by fire/thermal cauterization) constricts the veins.



According to susrutha & vagbata the treatments for sadyovrana were classified according to nature of bleeding. They are; bleeding type and non bleeding type.

Samanya chikitsa for non-bleeding type

In piccita and grista wound bleeding is less, because of stasis inside the wound, there will be feeling of severe burning sensation and formation pus. Then in order to mitigate the heat of the wound and overcome burning sensation and pus formation, paste of drugs should be applied cold or cold liquid should be poured on the part.

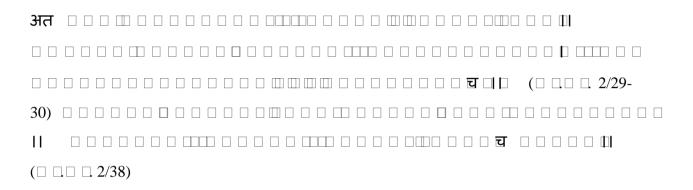


Chhina Vrana visesa chikitsa

The sadyovrana which has been displaced should be replaced in its usual site. sutured and anointed with medicated oil, if the ear, (pinna) is displaced, it should be sutured (at the proper place) and should also be filled with medicated oil.

If the krikatika (cricoids cartilage) is found cut and air is coming through it. it should be placed in proper place sutured without leaving ay space in the middle and then badaged. It is ideal to bathe the site with goat's ghee.

When the extremity has been completely severed then the wise physician should burn the wound by fire, then apply oil and apply kosa of bandage and take, measures for healing the wound.



Comparative Analysis

Both Ayurveda and modern medicine emphasize early wound cleansing, removal of necrotic material, and closure of wound edges.

Ayurvedic dressings use herbal preparations with proven antimicrobial and wound-healing properties, while modern medicine employs antiseptics, antibiotics, and synthetic dressings.

Rasayana therapy in Ayurveda corresponds to nutritional and immune-boosting supplements in modern care.

Integrated approaches (e.g., herbal formulations with modern surgical techniques) can enhance healing, minimize infection, and reduce scarring.

Challenges in Management

- Delayed Presentation patients often come late with contaminated wounds.
- Antibiotic Resistance a growing concern in trauma care.
- Limited Awareness of Ayurvedic Wound Management in modern practice.
- Need for Evidence-Based Integration scientific validation of Ayurvedic formulations for wider acceptance.

CONCLUSION

Sadhyo Vrana, when correlated with traumatic injuries, demands prompt and effective management to prevent complications. Ayurveda offers time-tested methods like Shodhana, Ropana, and Rasayana therapy, which, when integrated with surgical and medical approaches, can yield superior outcomes. Future research and clinical trials are essential to establish standardized integrative protocols for wound management.

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