

## Dushta Vrana: Simplified

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### Abstract

Surgical outpatient departments are always flooded with Dushtavrana cases and details of Dushtavrana as cited in the treatises are not being simplified yet, as the many of the studies are targeted on evaluating the efficacy of potential wound healing drug. This article attempts to make the dushtavrana verse simpler with pictorial examples.

**Keywords:** Dushta vrana; Vrana; Shalya tantra.

### How to cite this article:

Sathish H S, Rashmi T M, Mithun B, Narmada M G, Ahalya S/Dushta Vrana: Simplified /Indian J Ancien Med Yog. 2021;14(4): 123-134.

### Introduction

Cases of Dushtavrana are routine in the OPD of Ayurvedic Surgical Science, Shalya Tantra (Ayurvedic surgical science), and diagnosing the same on the basis of Doshic lines is tedious task to the clinician, as the descriptions of the Dushtavrana cited in the texts contain two extremes, like, it can either be too minute like in a trivial scratch or in case of Sinus or too wide usually observed as in chronic bed sores or pressure ulcers. This article attempts to detail the description in the simpler form along with the illustration.

**Vrana Shophā:**<sup>1</sup> Vrana Shophā or Inflammatory Swelling is generally the preceding or precursory to Dushtavrana, it has three phases<sup>2</sup>, unripe or Ama avastha, Suppurative or Pachyamana Avastha

(Intermediary stage) and fully ripened or Pakwa avastha.<sup>3</sup>

### Review Methodology

Literary details pertaining to “Dushtavrana” has been collected from various texts of Ayurveda and other relevant materials screened from electronic databases ‘Google’ and ‘Google Scholar’ on the current subject till July 2020. Appropriate keywords related to “Dushtavrana” both in Ayurvedic and contemporary science were used for the search. This article is aimed to simplify the details of Dushtavrana as scripted in Ayurvedic treatise and present it in clinically appealing style with pictorial examples.

## Observation and Discussion

### Stage of Vrana formation:

*Vrana*: The term Vrana refers to breach or discontinuity in skin or epithelial membrane. In Sushruta's treatise, contextual usage of term Vrana is; an incision, an ulcer, an abscess, a burn and a sinus.

*Vranashotha*: Any pathological ulcer or Nija vrana manifest after the "shotha" or inflammation stage, hence premonitory stage of Vrana is expressed as "Vranashotha". (Fig. 1 & 2)



Fig. 1: Stage of Vrana formation. Classification of Vrana.



Fig. 2: Vranashotha.

### Classification of Vrana

Acharyas	Types of Vrana
Sushruta	15 - Nijavrana 6 - Sadyovrana
Charaka	20 types 15 - Nijavrana
Vagbhata	6 - Sadyovrana 6 - Dushta Vrana
Kashyapa	15 - Nijavrana 7 - Sadyovrana
Sharangadhara	15 - Nijavrana 8 - Sadyovrana

षण्मूलोऽष्टपरिग्राही पञ्चलक्षणलक्षितः ।  
षष्ट्या विधानैर्निर्दिष्टैश्चतुर्भिः साध्यते व्रणः ॥

- Shanmoola or six causative factor - Vata, Pitta, Kapha, Rakta, Sannipata and Agantu.
- Ashtaparigrahi or eight adhishtana - Twak (Integument system), Mamsa (Muscle), Sira (Vessels), Snayu (Tendon), Asthi (Bone), Sandhi Majja (Bone marrow), Koshta (Gastrointestinal system) and Marma (Vital points).
- Panchalakshana - Clinical features which can

be perceived by using five senses of visual, tactile, gustatory, olfactory and hearing – srava, gandha, akruti, vedana and varna are the factors perceived.

- Shashti Upakrama – 60 therapeutical options to treat the ulcer.
- Managed by four limbs of treatment.

#### ***Dushta vrana:***

The term Dushta vrana is christened for a chronic ulcer with high microbial load with high scores of pain and associated symptoms and with delayed or non healing nature. Understanding the details of the Dushta vrana is pivotal in prognosis and formulating the therapeutical plan. Hence in this study, an attempt is made to simplify the descriptions of the Dushta vrana.

#### ***Ati Samvruta***

The word “Samvruta” means concealed or tiny or minute. It refers to opening of an ulcer due to Vata dosha. This feature is an inspector finding in the clinical examination. The wound with minute openings such as sinus or fistulous tracks are best suited examples for Ati Samvruta. (Fig. 3)



**Fig. 3:** Ati Samvruta Vrana.

#### ***Ati Vivruta:***

Vivruta refers to wide open or gaping; the wide mouthed wound is also one of characteristic feature of Dushta Vrana. This feature is by pitta and rakta dosha dominance. Non healing bed sore or pressure ulcers, venous ulcers are few examples for this feature. (Fig. 4)





Fig. 4: Ati Vivruta Vrana.

#### Ati Kathina:

Kathina means hard or solid or indurated due to Vata dosha and appreciable on palpation, there are certain wounds which are very hard to touch as in cases of Actinomycosis or in chronic non healing venous ulcers or ulcer in the Elephantiasis. (Fig. 5)



Fig. 5: Ati Kathina Vrana.

#### Ati mridu:

Mridu means soft due to Kapha, pitta and rakta dosha, there are various ulcers which are very soft on palpation. The best suited examples are ulcers of genitalia – fournier's gangrene, soft chancre and ulcers of the mouth etc. (Fig. 6)



Fig. 6: Ati Mridu Vrana.

#### Ati Sheeta:

Ulcers which are cold on touch are usually seen in arterial or ischemic ulcers, and in gangrene due to the involvement of Vata and Kapha. It is indicative of mild to severe vascular insufficiency.

#### Ati Ushna:

The local rise of temperature over the ulcer and its peri area is quite often seen infective, inflammatory ulcer, or pitta pradhana vrana .

#### Krishna varna:

Ulcer with blackish discoloration is an inspection finding. Numerous examples are present for ulcer with blackish discoloration denoting necrosed, unhealthy tissue in the wound bed. Examples include Necrotizing fasciitis, fournier's gangrene, in all types of gangrene, Arterial ulcers, Vincent ulcer, Pressure ulcer etc. (Fig. 7).





Fig. 7: Krishna varna Vrana.



Fig. 8: Rakta varna Vrana.



### *Rakta varna*

Ulcer with red hue can be appreciated in burn wounds, Inflammatory ulcers, Martorel ulcer etc. (Fig. 8)

### *Peeta varna*

The ulcer with yellowish discoloration are very often seen in purulent ulcers or numerous ulcers with increased microbial loads. (Fig. 9)





Fig. 9: Peeta varna Vrana.

### *Shukla varna*

Ulcers with whitish discoloration are found in Candida associated gastric ulcer, peptic ulcer, tubercular ulcer. (Fig. 10)



Fig. 10: Shukla varna Vrana.

### *Anyatamo varna*

“Anyatamo” refers to undistinguishable colour or mixture of various colours and the designation of one specific colour are difficult. An ulcer exhibiting multiple colors is indicating the involvement of more than one dosha or bodily humours and its chronicity. Contents of wound bed, slough, unhealthy or healthy granulation tissue, discharge, ulcer on which it rests like fascia, muscle are responsible for the colour other than usual colour. (Fig. 11)



Fig. 11: Vrana with indistinguishable colour.

### *Utsanna Vartma*

The word “vartma” denotes edge of the ulcer and ‘utsanna’ means elevated by the influence of Vata pitta dosha. An elevated edge of an ulcer is one of the characteristic features in Dushta vrana. Elevated edge of ulcers are commonly found in chronic non healing ulcer, malignant ulcer etc. (Fig. 12)



Fig. 12: Utsanna Vartma.

### *Avasanna vartma*

It is contrary to Utsanna vartma, in this type of ulcers, the ulcer edge will be inverted or undermined as quite often seen in tubercular ulcer, chronic bed sores or trophic ulcers, Pyoderma gangrenosum, Buruli ulcer, Mooren ulcer. (Fig. 13). Pitta and rakta dosha is responsible for this type of edge.



Fig. 13: Avasanna vartma.

### *Krimi*

Invasion of micro or macro organisms into the wound is observed in Dushtavrana by which the local doshic imbalance aggravates resulting in extensive tissue damage and also initiation of systemic complications. (Fig. 14)



Fig. 14: Vrana afflicted with Krimi (Maggots).

### *Dushta shonitha sravi*

Bloody discharge is a customary feature observed in the ulcer necessitating the quick therapeutic measures to check the same. (Fig. 15)



Fig. 15: Vrana with bloody discharge.

### *Pooyasravi*

Pooya or wound discharge is one of the vital feature which assists clinician both in diagnosis, prognosis and planning therapeutical measures. (Fig. 16)

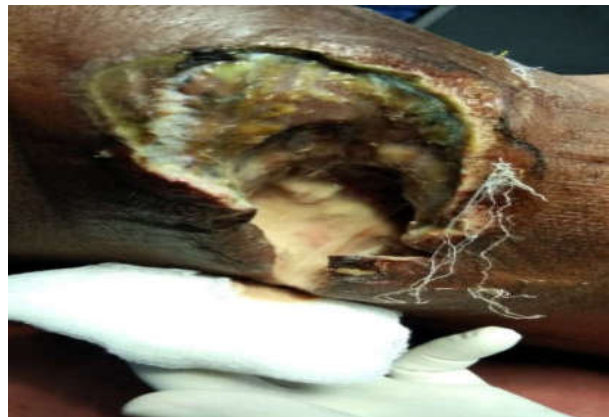


Fig. 16: Vrana with pooyasrava.

### *Bhairava - Amanojna Darshana: Horrifying or Unpleasant or Disagreeable look;*

This term is specifically mentioned in the details of the dushta vrana to denote the horrifying appearance or look of ulcer due to various causes. There are numerous benign and malignant ulcers which are unpleasant to look and also their exterior

is sickening like in basal cell carcinoma, Marjolin ulcer, basal cell epithelioma. (Fig. 17)



Fig. 17: Horrifying look of certain Vrana.

### ***Utsangi - Unmargi:***

Dalhana commenting on this delineate the word Unmargi as Tiryak gati which means, an ulcer with penetrating or invasive nature. Invasive spread of the ulcer destroying the healthy tissues is appreciable in Tubercular, malignant ulcers and sinuous tracts. The other examples are Shambookavarta bhagandara, ushtragriva bhagandara. (Fig. 18).



Fig. 18: Utsangi - Unmargi vrana

### ***Atyartha Vedan***

High scores of pain is experienced by the patient with infective, neurological and inflammatory conditions, the nature of wound pain varies based on the doshic composition in the pathology. Deranged Vata and rakta or raktavrita vata is responsible for the severe pain.

### ***Daha - Burning sensation***

The vitiated pitta dosha is pivotal for the precipitation of burning sensation in a wound.



### *Paka*

The term 'Paka' refers to the event of suppuration, wherein abnormal bodily humors especially Pitta along with the rakta dosha accelerate tissue destruction by virtue of Suppurative process. (Fig. 19)



**Fig. 19:** Vrana associated with Paka

### *Raga*

Redness or Erythema is one of the salient feature of the dushta vrana, here the erythema is not just confined to wound itself event the peri wound area is also presents with redness denoting the ongoing process inflammation or Paka mainly due to the involvement of rakta dosha.

### *Kandu*

Kandu or Itching sensation is resultant to the vitiation of Kapha dosha and increased dryness of Vata dosha.

### *Shopha*

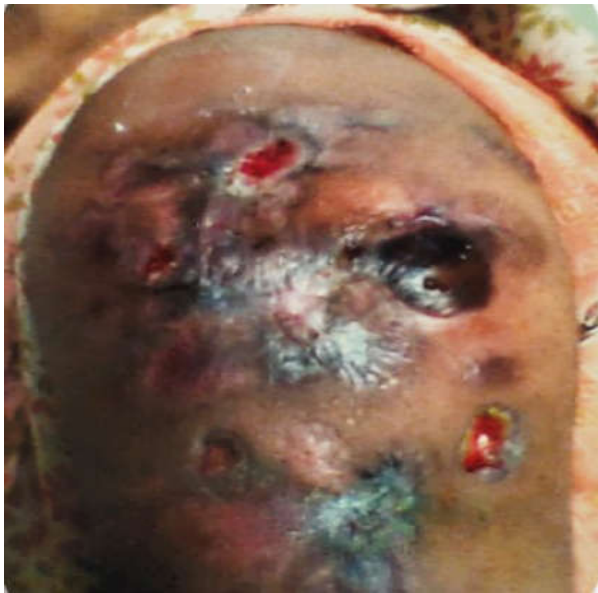
Edema of the surrounding skin is usual feature in Dushta vrana denoting the local aggravation of dosha by virtue of inflammatory response or injury response or deranged extracellular and intracellular fluid volumes. (Fig. 20)



**Fig. 20:** Vrana associated with shotha.

### *Pidakopadruta*

The term pidaka is used to denote ulcers associated with pustules, blebs or boils, and such pidaka denotes the involvement of Kapha and pitta dosha predominance. (Fig. 21)



**Fig. 21:** Pidakayukta vrana.

### *Deergha kala anubandhi*

Chronic ulcers are considered as Dushta vrana, Dalhana while commenting on Sushruta's verse states, the fresh wound which fails to heal within seven days must be considered and treated as Dushta vrana, this denotes the minimum time frame for any wound to be considered as Dushta vrana is seven days.

Systemic symptoms of Fever, nausea, thirst etc must be assessed while diagnosing a case of Dushta vrana.

Checklist of factors essential to get designated as Dushta vrana:

- Any extent of the tissue loss either minimal like in sinus or huge as in case of Chronic non healing venous, trophic ulcers.
- Tissue consistency - Either too hard or solid, rough or soft consistency.
- Wound edge - Everted or undermined or inverted edge.
- Wound appearance - Gross tissue loss with horrifying or unpleasant look.
- Wound color - Wound exhibiting different color either yellow, white, black, green or mixed colors.
- Chronicity - More than 7 days.
- Systemic features - Fever, nausea, thirst etc.

### **Conclusion**

Dushta vrana is a chronic ulcer either sinus or wide mouthed, with oedematous, everted or undermined edge with high microbial load (Bahu doshata), with inflammation, varying degrees of pain, chronicity of more than 7 days, with highly stinky discharge and associated with systemic complaints of fever, thirst etc. A proper history of the case with methodical clinical examination is pivotal in arriving at the diagnosis.

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