



TYPES OF VRANAS AND CONCEPT OF WOUND HEALING IN AYURVEDIC POINT OF VIEW

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ABSTRACT

Vranas are a frequently encountered problem in the present era produced mainly due to trauma or pathologic insult and may cause longterm agony the patients. wound healing is a complex phenomenon. Irrespective of the type of wound and tissue extent, the healing of every wound is a continuous process. In ayurvedic literature particularly in Sushruta Samhita a vast description of etiology, pathogenesis, classification and treatment of wounds is available. Even in today's sophisticated era when we have a vast knowledge of the mechanism of healing at cellular level the clinical presentation as described in Ayurvedic literature is of immense value. In this review article, we tried to described different types of vranas, their lakshanas, effort to elaborate and interpret clinical features of wound healing according to present day understanding.

KEYWORDS: Vranas, Wound, Wound healing.

INTRODUCTION

Ayurveda is the ocean of knowledge. Ever since the life originated, human being has been susceptible to injury, which made him to think about healing from very early stage of development. Sushruta the pioneer of Indian surgery has vividly described the various types^[1] of vranas and their management accordingly, which is of prime importance in any surgical practice. In recent past, brilliant progress of surgery in various fields has immensely reduced the incidence of wound infection by decreasing the impediments associated with wound healing to certain limits. Still wound management continues to be a matter of speculation. Ancient pathway of wound healing and healing methods are being revisited and explored by clinicians. Hence it is very essential to the healing of wound in a proper manner. Mechanism and phases of wound healing in Ayurveda has been described in its own way.

Definition of Vranas

Vrana Gatra Vichurnen;

Vranayati iti Vrana:

Su.chi 1/6

“*Gatra*” means tissue or part of body

“*Vichurnen*” means destruction, break, rupture, discontinuity

“The destruction / discontinuity of body tissue / part of body is called Vrana”

Types of Vranas

I. Vranas are broadly classified into two according to their origin and etiology².

- a. Nijavrana
- b. Agantujvrana

Nijavranas are formed by vitiated doshas while agantuja vranas are caused by external factors such as incision, punctures, laceration, poisoned cuts, bites etc.

II. Vranas are again classified into two on the basis of Dosha dushti

- a. Dushta vrana
- b. Shuddha vrana

III. Another type of vrana is the Sadyovrana caused by external factors. They include traumatic or surgical wounds. Hence these sadyovranas can also be called as Shuddhavranas or Agantujavranas. The inflammatory and suppurative processes are absent here so they can't called be as an Ulcer.

Classification of Nijavranas

There are 15 types of Nijavranas according to Acharya Sushruta and Vagbhata.^[3]

1. Vataja Vranas

It has a brown colour and it exudes a thin slimy cold secretion. Various type of pain like throbbing, pricking, piercing etc.

2. Pittaja Vranas

Rapid growth is the specificity of pittaja vrana. It is of yellowish colour, exudes a hot secretion resembling kimshuka flower and with burning sensation.

3. Kaphaja vrana

It is a thick and compact covered with large number of vessels and membranous tissues, grey in colour slightly painful, hard and feeling heaviness. It exudes a thick cold, white secretion. This type of vrana is noticed with severe itching.

4. Shonitaja vrana

This type of vrana looks like lump of red coral. It is painful and produces a sensation of fumes escaping out. Bleeding is a notable character of this vrana. Symptoms which are seen in pittaja vrana supervene in this vrana.

5. Vatapittaja vrana

It is manifested due to vata and pitta. It is characterized by its pricking and burning pain. The colour of its secretion is same as seen in vataja and pittaja types.

6. Vatakaphaja vrana

It is characterized by severe itching, pricking pain, induration, constant discharge of cold slimy secretion.

7. Kaphapittaja

It is guru, ushna and yellow in colour. It is marked by burning sensation and it exudes a pale yellow coloured secretion.

8. Vata Shonitaja vrana

It is dry, thin, associated with piercing pain and loss of sensation. It exudes blood by the combined Doshas respectively.

9. Pitta Shonitaja vrana

It is manifested by the combination of pitta and rakta. It has got the smell of fish washed water. It is soft spreading and secretes a hot blackish liquid.

10. Kaphashonitaja vrana

It is red in colour, thick, glossy and indurate. Itching and yellow colored secretion is the noticeable character of this type of vrana.

11. Vatapitta kaphaja vrana

It produces pain as if cut with a sword. Its secretion is according to each of doshas predominant.

12. Vatapitta shonitaja vrana

In this throbbing, pricking and burning pain is there. It discharges a thin yellowish fluid and produces sensation as if fumes are escaping.

13. Pitta kapha shonitaja vrana

It is of red colour. Itching, suppuration and burning sensation are found. It exudes a thick grayish blood stained secretion.

14. Vatakapha shonitaja vrana

It is marked by itching, throbbing, tingling sensation and thick grey blood stained discharge.

15. Vatapitta kapha shonitaja vrana

It is characterized by a sensation as it is burnt lacerated. It is largely sensitized by throbbing, itching, pricking and burning pain with complete loss of sensation in the affected part. Redness, suppuration, various kinds of colour, pain and secretion are its other features.

Acharaya Sushrita consider 16 types of nijavranas by adding shuddha vrana to it.

Description of Aagantuj Vranas^[5]**1) Chhinna Vrana**

A traumatic ulcer, which is oblique or straight & elongated, is called a china Vrana, while a complete severance of a part or organ of the body is also designated by that name.

2) Bhinna Vrana

A perforation of any of the cavities or receptacles of the body by the tip of a kunta. Spear, rishti, or a sword or by a horn, attended with a little discharge, constitutes what is called Bhinna - Vrana.

A perforation of the Ashayas caused it to become filled with blood which is discharged through the urethra, the mouth or the nostrils & is attended with fever thirst, fainting fits, dyspnoea, burning sensation tympanitis, suppression of stool, urine & flatus (Vata) with an aversion for food, perspiration, redness of eyes, a bloody smell in the mouth & fetid one in the body & aching pain in the heart & in the sides.

3) Viddha Vrana

Vrana caused by any sharp pointed shalya (shaft) in any part of body other than Ashayas with or without that shalya being extricated is called a viddha.

4) Kshata Vrana

An ulcer, which is neither a cut nor a perforation or puncture but partakes of the nature of both. And is uneven is called a kshata Vrana.

Simply the deep wound in the place of Ashaya but not hurted to Ashaya which is uneven is called kshata Vrana.

5) Pichchita Vrana

A part of the body with the local bone crushed by a blow/pressure becomes extended & covered with blood & bone marrow is called Pichchita Vrana.

6) Ghrishta Vrana

The skin of any part of the body suffering abrasion through friction or from any other such like causes & attended with heat & a secretion is called Ghrishta wound.

Agantuj Vrana said by other Acharyas in their Samhita**Ashtanghridyā: (Acharya Vagbhata)**

- 1) Ghrushta
- 2) Avakrut
- 3) Vichachinca
- 4) Pravilambita
- 5) Patita
- 6) Bhinna
- 7) Vidallita

Ashtangsangrha: (Vagbhata)^[4]**1) Chinna Vrana**

Again divided in 5 Subtypes

- 1) Ghrushta
- 2) Vichchina
- 3) Patita
- 4) Avakruta
- 5) Vilambita

2) Viddha

It again divided in 8 Subtypes

- 1) Annuviddha
- 2) Utunndita
- 3) Atividdha
- 4) Nirviddha
- 5) Anubhinna
- 6) Bhinnotundita
- 7) Atibhinna
- 8) Nirbhinna

3) Pichchita

It again divided in subtypes.

- 1) Savrana
- 2) Avrana

In short discription of subtypes of Vranas

- **Ghrushta:** It is a superficial Abrasion included only skin.
- **Avakruta:** Abrasion of skin sight deepness
- **Vichchina:** Deeper than Avakrut in which skin & Muscular structure also distort.
- **Vilambita:** The wound disturbed skin muscle & tendons also due to rupture of muscles & tendon the concern organ is remains in hanging position.
- **Patita:** Wound which causes excision of affected part of the body.
- **Anubiddha:** A traumatic wound caused by pointed upon disturbance of muscular part only.
- **Uttundita:** In this type due to viddha shalya the opposite side of wound is slightly raised.
- **Atividdha:** Severe wound than uttundita in which viddha shalyas point is seen slightly in opposite side of wound.
- **Nirviddha:** The traumatic viddha wound in which embedded shalya is completely comes from another site of wound.

Types of Agantuj vrana according to different acharyas

Sr. No.	Sushruta	Vagbhata	Sharangdhara	Ashtangsangr-aha
1	Chinna	Vicchinnā	Chinna	Chinna (5) types
2	Bhinna	Bhinna	Bhinna	Pichhita
3	Viddha	Viddha	Viddha	Viddha (9) types
4	Kshataja	Awkrut	Vilambit	Avikrut
5	Pichhita	Vidalit	Ghrushtha	----
6	Ghrushtha	Ghrushtha	Prachalit	----
7	----	Pravilambit	Nipatit	----
8	----	Patita	----	----

Lakshana of Agantujvrana

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

Concept of wound healing phases in Ayurveda and its correlation with Modern science**1. Dushtavrana^[6,7]**

Dirghakalanubandhi, Atisamvrita or Ativivrita, Utsanna or Avsanna, Atisheeta or Atiushna, Utsanna or avsanna, Krishna, Rakta, Peeta, Shukla varna, Shavathu, Atiruk,

Daah, Kandu, Paka, pidika, updruta, putipuya, dushtashonitstravi, updrava; these are the features of dushtavrana. Dalhna commenting on this clarified the involvement of each dosha according to the clinical features. Shuddha vrana after 7 days of occurrence these

wounds may become Dushta vrana due to the involvement of Doshas and will have features of Dushtavrana.

Dushtavrana can be compared with the following as- contaminated, dirty, infected, untidy, unhealthy, delayed or non-healing wound. Various specific ulcers like tuberculous, malignant, diabetic, venous, decubitus, tropical ulcers also fall under the category of Dushtavrana. Dushta vrana phase can be correlated with inflammatory phase.

2. Shuddha vrana^[8,9,10,11]

Avedano, Nirastravo, natirakta, natipandu, naatishavo, nachutsanno, nachutsangi, shyavoshtha, kinchidunnatmadhyo, jivhatalabho, mridu, snigdha, slkshna, suvyavsthita, Anupdrava.

Lack of discharge and pain as there is no infection look resembles tongue and has small evenly distributed eruption which are red in colour. This can be considered as the stage of wound healing where granulation is taking place.

Granulation tissue formation- It is profuse fibrous connective tissue which replaces the clot in the process of wound healing. It gives bumpy or granular appearance light red or pink in colour having new capillary buds within it and is soft to touch.^[12]

3. Ruhyamana vrana^[13,14] / Healing wound / collagen deposition

Kledavarjita (No discharge), kapoyvarnapratima, sthirachapitikavanto.

Healing wound- Collagen deposition is very important in wound healing as it gives strength to the wound. Granulation tissue is populated mainly by collagen.^[15]

Ruhyamana vrana is the one where the wound is healing and has firmly adhered skin which shows that it is a stage where collagen deposition is taking place providing strength to the wound and epithelialisation is also occurring.

4. Samyagrudha vrana^[16] / Healed wound

Agranthim, Arujam, Ashunam, samatalam and twaka savarnam.

Maturation and remodeling- Soft friable collagen fibrils get converted into insoluble elastic fibers, embryonic active fibroblasts matured into adult resting fibrocytes and devascularisation. Because of this the wound edges get firmly attached and the colour of wound changes from pink to normal of the skin.

5. Vrana vastu/ Scar formation

Acharya Sushruta has mentioned about vrana vastu which persists lifelong even after completion of the wound healing; by this it can be considered as an

indication of stage of scar formation during wound healing.

By understanding these features a clinician can have an accurate idea about the stages of vrana and can plan the treatment accordingly. Modern science however has attained success in getting the knowledge in wound healing up to the cellular and molecular level yet many things are still not clear.

CONCLUSION

From the above review we observed that vranas and their types described by different Acharayas in Ayurveda. Clinician should have the ability to recognize the phase of healing of wound so that he can plan the best treatment for the wound. If a wound is properly assessed and addressed on the basis of principles laid down in Ayurveda much suffering and crippling can be prevented successfully.

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