

REVIEW OF SAPTA UPKRAMA IN MANAGEMENT OF VRANA (WOUND)

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ABSTRACT

Destruction or damage of the tissue of body part is termed as *Vrana* (wound). *Vrana* has been given major and primary importance in *Shalya tantra*. *Sushruta* explained various measures for management of *vrana* in brief according to types, stages etc. He mentioned Basic line of treatment for *Vranashotha* as *Sapta upkrama* which is also used in *Vrana* as *Shashthi Upkrama* which are detailed variants of *Sapta upkrama*. Wound management still stands basic, complicated, never ending issue in surgical practice. This review emphasises on understanding *Sapta Upkrama* according to *Vrana Avastha* and its correlation to *Shashthi Upkrama*.

KEYWORDS: *Vrana*, wound, *Sapta upkrama*, *Shashthi upkrama*,

Vrana chikitsa.

INTRODUCTION

Wound healing is the major problem in surgical practice even with recent advancements. In *Ayurveda*, various *Acharyas* have stated *vrana* in detail with various management options. *Acharya Sushruta* has given keen importance to *vrana* dedicating large number of *Adhyaya* (topics) in various *Sthana* (sections) of *Sushrut Samhita*. He has explained management according to stages, types, complications. Treatment includes measures to reduce

inflammation, pain, cleaning, healing, aids for complications etc with variety of procedures and drugs. In *Aampakvaishaneeya adhyaya* (Su.Su.17) he stated “*Sapta upkrama*” (7 procedures) for *Vranashotha chikitsa* which should be performed according to stages so as to avoid complicating to next stage. These can be used in *vrana* management too. *Sushruta* stated “*Shashthi Upkrama*” (60 procedures) in *Dvivraniya adhyay* (Su.Chi.1) for treating *vrana* which are expansion of *sapta upkrama*. Hence *Sapta upkrama* remains the basic line of ayurvedic treatment according to *Sushrut Acharya*. Present review is an effort to elaborate these *Sapta Upkrama* according to need of using them in various stages effectively and correlating *Shasthi upkrama* with them.

Management of *Vranashotha/ Vrana*

In *Ayurved*, the treatment of *Vrana* is described in detail according to its types, *Awastha* and *Dosha* of the *Vrana*. *Sushrut* has described it further, by considering very minute aspects of the *Vrana*. He has also mentioned *Pathya–Apathya*, *Vranitagar* and *Vranitopasana*. *Vrana Chikitsa* should be done in *Vranitagara* to prevent the invasion of *Nishacharas* in the *Vranita*. The *Vranita* will not suffer from physical, mental and traumatic disorders by residing in such an *Agara* where *rakshakarma* may be done along with *Dhoopana*.^[1]

Sushrut has described sixty modalities of the treatment of *Vrana*. These sixty originate from "seven *upakrama*" in the treatment of *Vranashotha* as "*Sapta Upakramas*".^[2] They are –

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

Basic concept of *sapta upkrama*

First three *Upakramas* are for *Vranashotha*. Fourth is *Shastrakarma*, while last three are for *Vrana*. These seven are basic line of treatment for *vranashotha* and *vrana*. Initially both has inflammatory phase i.e., *Shotha*; and for *Shamana* of *Shotha* (Anti-inflammatory measures) *Vimlapana* is to be done followed by *Avasechan* (*Parishek / Dosh-nirharan*) proceeded by *Upnah*. If *Shotha* doesn't subside by these three successive measures, it gets putrified (*paak Avastha*). So *pakva shotha* should be drained by surgical incisions creating surgical wound

which should be cleaned (*Shodhana*) further followed by application of healing measures (*Ropana*) resulting in healing of wound. In case of any complications post healing or during healing, *Vaikrutapaham* (Complication treating measures) should be used. Hence these *Sapta Upkrama* offer a very well-planned wound healing regimen from initiation of inflammation up to proper healing of wound including tackling of any complications in between. These *Sapta Upkrama* are done in following way^[3]

1. *Vimlapana*

Measures for *dosh vilayan*.

- a) **Purpose-** *Prakupit dosh vilayan* (loosening/ liquifying impurities so as to drain out them easily, *Shotha shaman* (anti-inflammatory) countering *vaat dosha* – Considering major role of *vaat dosha* in initial stage of *shotha (Aam-avastha)* and being responsible for symptoms as various pains, swelling, hardness etc.
- b) **Procedure-** According to *Sushruta*-In case of *Sthira, Manda Ruja Vranashopha*, after *Snehana* and *Swedana* to the part, *Peedana* should be done with a bamboo tube or palm and sole or thumb. This massage aids softening of swelling.

Another concept of *vimlapana* by various *Acharya* opinion includes *dosha vilayan* by using procedures as- *Lepa, Abhyanga, sweda, Bahya parimarjan, Tarpan, Parisheka* etc. Aim of *vimlapana* procedure is to counteract *vaat dosha* hence all these measures should be warm and drugs with *ushna veerya* (Hot property) should be incorporated for these.

2. *Avasechan*

Measures for *Dosha shaman/Nirharan*.

- a) **Purpose-** *Prakupita Dosha shaman* (Alleviating dosha)
Dosha Nirharan (Removing impurities)
Vedana shaman (Pain relief)
Shotha shaman (Anti-inflammatory)
- b) **Procedure-** *Avasechana* may be considered in different ways as *Parisheka/ Sinchana, Raktavistravana* and *sharira dosha nirharan*.
 1. **Parisheka/Sinchana-** Poring medicated liquids/ decoctions over affected area. *Parisheka* aids *doshagni* (Metabolism of *dosha*) *shanti* (Reduction). Drugs can be chosen according to *dosha* for *parisheka* as follows^[4] -
 - a) **Vaat-** *Vataghna Ushna Kashaya* (decoction) of- *Bhadradarvaadi, Vidarigandhadi, Dashmuladi, Ghruta, taila, Dhanyamla, Mamsa Rasa* etc.

- b) **Pittaghna-Raktaghna**- *Sharkarodaka, Ikshurasa, Ksheera, Ghruta, madhu, Chandanadi, Kakolyadi, Nyagrodhadi, Trunapanchmool, Sheeta Kashaya* of these.
- c) **Kaphaghna**- *Tail, mutra, ksharodaka, sura, Pippalyadi, Surasadi, Aaragwadhadi ushna Kashaya*.
2. **Raktavasechan/Raktamokshan (Bloodletting)**- In case of *Shopha* of recent on set, *Raktamokshana* should be resorted to in order to mitigate the *Vedana* and *Paka*. Even in *Vrana* associated with *shopha*, which are *Kathina*, containing *Rakta*, *Vedanayukta* or deep seated, *Rakta Avasechana* should be done. In case of *Shopha* associated with *Visha*, *Rakta Visravana* should be done by using leech or by *Shastra*.
3. **Doshavasechan/ Doshanirharan (Removing dosha)**- Removing overall bodily *doshas* helps in ultimately downsizing impurity load at wound and improves the prognosis. Even in general *Sushruta* has explained importance of *sharir shodhana* for *vranita*(Wound patient). For this purpose, it can be carried out by *vamana, virechana, Basti, Uttarbasti, Nasya, shirovirechana, dhoom, kawal* etc.

3. Upanaha (Fomentation/ Poultice)

Measures for *shotha shaman/ Pachan*.

- a) **Purpose**- *Shotha shaman* in *aam avastha*
Pachana in *Pakva avastha*.

Using *Upanaha* in *Aam avashtha*(Inflammatory phase) reduces *shotha* and in *pachyamaan avastha* it accelerates to *paakabhimukhta* (Progression to suppuration/Liquification).^[5] *Pachyamaan avashtha* is sometimes considered to have two stages as *purvardh* and *Uttarardha*. Using *upnaha* in *purvardha* causes *shaman* of *vrana shotha* and in *uttarardha* it helps rapid pus formation later to fast progression of inflammatory phase.

b) Procedure

Drugs- *Vekhanda, Kinva, Badishepa, Devdaar, Til, Atasi, mash, Kushtha, agaru, Tagar, Tulas, Rasna, Erand, Jatamansi, Mamsa* Mix these with *Taila/Ghruta*, Salt, Buttermilk, Milk, *Chuka* and heat them together. Form warm *Utkarika* (cake) of this combination and place over swelling followed by bandaging. For *kapha* dominace use *Surasadi gana dravyas* and for *pitta* use *padmakadi/ Salvanadi gana dravyas*.^[6]

Charaka suggested *Saktu pinda upnaha* with above drugs^[7] and *Ashtang Sangraha* mentioned *Shigru, Chitrak, Nishpava, Mohari, Badar, Gruhadhuma* for *upnaha*.^[8] Overall *Ushna* and *snigdha dravyas* are to be incorporated for making *upanaha*.

4. *Patan kriya* (Surgical Incision and Drainage)

If inflammation and swelling doesn't reduce even after use of above three procedures and when it gets suppurated /Liquified, then *Patan kriya* i.e., incision and drainage should be performed. If it is done in *Aam avastha* by mistake then it may cause injury to *mamsa*, *sira-snayyu*, *asthi-sandhi* i.e., injuries to different body tissues with various complications as blood loss, severe pain etc. Ignoring or missing the suppuration stage and not performing incision and drainage on time causes spread of pus to surrounding normal tissue and may result in formation of *Naadi Vrana* (sinuses). Hence it is important to recognise the stage first and then treat accordingly.^[9]

a) **Purpose-** Draining *doshas*

Avoiding sinus formation/ further progression to gangrene by timely removal of pus and debris.

b) **Procedure-** It has to be done in *pakva avastha* i.e., when there is suppuration. Different kinds of *shastrakarma* as *Cchedan*, *Bhedan* can be used to open the cavity and suppurative contents inside are drained out well by *Peedan* and cavity is cleaned with *kashaya*. This has to be performed with proper *purva* and *paschat karma*. *Daran*, *vedhana*, *Eshana*, *Aaharan* etc mentioned in shasthi upkrama can be included under *patan karma* due to functional similarity.

Daran kriya-Inducing spontaneous bursting by local applications of medications as *Chirbilvadi gana*, *kshar* etc. It is advised in case of weak patients or inability to perform surgery.^[10]

Henceforth after *patan kriya shotha* gets converted in to *vrana* and then it is treated with next karma by *shodhan*, *ropan* and *vaikrutapaham*.

5. *Shodhana* (Cleaning)

Cleaning wound post incision with different medications so as to remove pus, debris and promote favourable environment for healing.

a) **Purpose-** Cleaning of wound

Reducing local *dosha-dhatu dushti* (Reducing toxins and microbial load, discharge, debris in wound). Promotes healing.

b) **Procedure-** *Shodhana* is done by using *Kashaya* (decoctions- Can be *Kashaya*, *Hima*, *fanta*) of *shodhan dravya* as well as using them in other forms such as *kalka*, *swaras*,

churna, varti, ghrut, tail, raskriya etc. These are used locally by pouring liquids or applying pastes/ other forms over wound.

Drugs- *Shankhini, Ankoth, Jaati, Karveer, Suryavarta, Triphala, Khair, Daruharidra, Nimbapatra, Bala, Darbha, Aragwadhadi Gana, Nyagrodhadi Gana, Sursadi Gana* etc.^[11,12]

Mostly *dravyas* with properties as *Kashaya, katu, amla, lavan ras, tikshna, Ushna, Ruksha* are used. Other *dravyas* as *trikatu, karanja, majishtha, trivrutta, chitraka, Danti, Panchalavana, Manahsheel, hartal, Hirakas, kshara* etc are used to make *shodhan* formulations.

6. Ropana (Healing measures)

Measures for healing of wound by promoting healthy granulation.

a) **Purpose-** Healing of wound by promoting granulation.

b) **Procedure-Ropana** is done when wound gets into *shuddha avastha* i.e., after achieving a clean wound. It is done by use of application with 7 *Ropan Kalpana* (forms of medicines) as *Kashaya, Varti, kalka, ghruta, taila, Raskriya, Churna* etc. For this drug with excellent healing properties are used to make these *Kalpana* and they are used according to condition of *vrana* i.e., *dosha avastha*, features etc.

Drugs- Medicines with properties such as *Madhur, Kashaya ras, snigdha, sheeta, balya, jeevaniya* are used. *Nyagrodha, Udumbar, kadamba, Plaksha, Vetas, karveer, kutaja, ashwagandha, lodhra, Guduchi, katfal, yashtimadhu, Lajjalu, Dhatakipushpa, soma, kakolyadi Gana, Ksheeri vruksha praroha, Madhu, Chandana, Bala, Durva, patola, kamal, Manjishtha, Laksha, haridra, daruharidra, haritaki* etc.

7. Vaikrutapaham

Even after complete healing of *Vrana* restoration of normal colour, Shapes are essential. sometimes there is abnormal pigmentation, depression/ elevation, hair loss etc. So *Vaikrutapaham* is a measure which helps in restoration. For this *Krishna Karma, Pandu Karma, Romasanjanana, Lomapaharana* etc. are mentioned.

1. **Krishnakarma:** The blackening of white cicatrix by using medicinal drugs such as *Bhallatak Taila*
2. **Pandukarma:** Natural and healthy colour of surrounding skin is imparted to black cicatrix by applying medicinal drugs.

3. **Pratisarana:** It is adopted to impart natural skin colour to a discoloured scar by applying medicinal *Churna*.
4. **Romasanjanana:** A measure to produce hair on a scar which is lacking hair.
5. **Romashatana:** This *Upakrama* is used to remove *Roma* from *Romavyapta* and nonhealing *Vrana*. It is done by using *Yantra* as well as by applying medicinal *Dravyas*.

Analysis of sapta upakrama

<i>Upakrama</i>	Utility	<i>Avastha</i> indicated in	Performed as
<i>Vimplapana</i>	<i>Dosh-vilayan</i> (Softening), <i>Shotha-har</i> (Anti-inflammatory)	<i>Aam avastha</i>	<i>Purva karma</i>
<i>Avasechan</i>	<i>Dosha-Nirharan</i> , <i>Vedana shaman</i>	<i>Aam avastha</i>	<i>Purva karma</i>
<i>Upanah</i>	<i>Shotha shaman</i> , <i>Pachan</i>	<i>Aam avastha / Pachyaman Avastha</i>	<i>Purva karma</i>
<i>Patan kriya</i>	Incision & Drainage	<i>Pakva Avastha</i>	<i>Pradhan karma</i>
<i>Shodhan</i>	Cleaning of wound	<i>Vrana</i> , <i>Dushta vrana</i>	<i>Pashchat karma</i>
<i>Ropan</i>	Healing	<i>Shuddha vrana</i>	<i>Pashchat Karma</i>
<i>Vaikrutapaham</i>	Coping complications	<i>Rudha vrana</i> with complications	<i>Pashchat Karma</i>

Co-relation of sapta upakrama with shashthi upakrama

Although *sapta upakrama* are advised for *vrnashotha* and *shashthi* for *vrana*, *Shashthi upakrama* are nothing but detailed expansion of *sapta upkrama*. Both of them are indicated in *shotha/ aam avastha*, *pakva avastha* and *vrana avastha*. When *pakva shotha* is incised by *Patan kriya/ Shastrakarma*, or ruptures spontaneously, it achieves state of *vrana* which is further treated with *shodhan*, *ropana*, *vaikrutapaham* measures. When *vrana* is in its initial stage it has *shotha, daah, raag, tivra ruja* symptoms which are similar to *aam avastha* of *vrnashotha*. Hence *Aam/ Shotha avastha* (Inflammatory phase) is present in both initially which progress to suppurative stage i.e., *Pachyaman/ Pakva avastha*. Later both includes presence of wound for which *upakrama* are same. Hence it can be said that *Sapta upkrama* are principal line of treatment which is explained in detail as *shashthi upakrama*. The *shashthi upkrama* can be included under *sapta upakrama* as follows-

<i>Sapta upakrama</i>	<i>Shashthi upakrama</i> included
<i>Vimplapana</i>	<i>Apatarpana</i> , <i>Aalepa</i> , <i>Parisheka</i> , <i>Abhyanga</i> , <i>Swedana</i> , <i>Vimplapana</i> .
<i>Avasechan</i>	<i>Visravana</i> , <i>Sneha</i> , <i>Vamana</i> , <i>Virechana</i> , <i>Basti</i> , <i>Uttarbasti</i> , <i>Shirovirechan</i> , <i>Nasya</i> , <i>Kawal</i> , <i>Dhoom</i>
<i>Upanaha</i>	<i>Upanaha</i> , <i>pachan</i> , <i>Utkarika</i>
<i>Patan</i>	<i>Chedana</i> , <i>Bhedana</i> , <i>Dharana</i> , <i>Lekhana</i> , <i>Eshana</i> , <i>Aharana</i> , <i>Vyadhana</i> , <i>Visravana</i> , <i>Seevana</i> , <i>Sandhan</i> , <i>Yantra</i> .

Shodhana	Peedan, Shonitasthapana, Nirvapana, Shodhan Kashaya, varti, Kalka, Sarpi Taila, Raskriya, Avachurnan, Vranadhoopan, Avasadan, Mrudukarma, kshar karma, Agnikarma, Krumighna, Vishaghna.
Ropana	Ropan Kashay, varti, kalka, sarpi, taila, Raskriya, Avachurnan, Utsadana, Darunakrma, Bandha, Patradaan, Bruhana, Madhu-sarpi, Aahar, Rakshavidhan.
Vaikrutapaham	Krushnakarma, Pandukarma, Pratisaran, Romsanjanan, Romapaharan.

DISCUSSION

This review study suggests that *Ayurveda* do have extensive knowledge about *vrnashotha* and *vrana* with their different stages. *Acharyas* have keenly described treatment necessary according to *doshas*, stages of *shotha*, *vrana*. For easy and practical understanding of treatment options Sushruta has simplified them into *Sapta upkrama*. These can be opted extensively from *shashthi upakrama* as they originate from *sapta*. Incorporating theses treatment options in treatment of wound would definitely offer cost effective ways of wound treatment which is still sometimes complicated issue in surgical practice.

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