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Yava Kalka With Ghruta Lepa For Sadyovrana: A Drug Review

¹Dr. Onkar A. Bhandare, ²Dr. Manoj Patil

¹PG Scholar, ²Professor

Dept. of Shalyatantra,

Hon. Shree Annasaheb Dange Ayurveda Medical College, Ashta, Dist. Sangli, Maharashtra, India.

Abstract : Wound is a type of physical trauma whereby the integrity of skin or any living tissue is compromised. It may be produced by physical, thermal, chemical, microbial, or immunological damage to the living tissue⁽¹⁾. Also wound (*Vrana*) is an injury or trauma to the body (i.e. due to violence, accident, or surgery) that typically include abrasion to superficial skin and damage to underlying tissues⁽²⁾. Healing is protective mechanism of our body. Healing of wounds is one of the important areas of surgery explained in many *Ayurvedic* texts and even in modern text books. In *Ayurveda* and in modern science the healing of wound is the central focus of surgery. *Ayurveda* is a science where there are so many formulations available to treat wound without any complication⁽³⁾. The Indian traditional system of medicine, i.e. *Ayurveda* based on empirical knowledge of experiences and observations over millennia. *Acharya Sushruta* has given the first preference to “Wound, i.e. *Vrana* and its management”. *Acharya Sushruta* has given 60 measures for management of *vrana* in *samhita*⁽³⁾. *Kalka* and *ghruta* application is one of them⁽⁴⁾.

On comprehensive review of *Ayurvedic* classics, *Yava kalka* with *Ghruta* was found to be one of the drugs having wound healing properties⁽⁵⁾. Here we can correlate acute wound with *Sadyovrana* And the prevalence rate of *Sadyovrana* (Acute wound) is 10.5 per 1000 population in india⁽⁶⁾.

In this paper the importance, the mode of application and their probable mechanism of *Yava Kalka* with *Ghruta lepa* or application on *Sadyovrana* has been explained.

Keywords: yava kalka, ghruta, sadyovrana, wound healing

I. INTRODUCTION

History of medical science about wound and its management is as old as era of *Ayurveda*. In *Ayurveda* *Acharya Suhruta* gives many measures of wound healing like 60 measure of wound healing⁽³⁾. *Vranaropan* (wound healing) which is an integral part of the tissue healing.

“Healing is not a science but the intuitive art of wooing nature”.

W.H. Auden⁽⁷⁾

Sushruta samhitha has given prime position to *Vrana* and its management. *Suthrasthana* of *Sushruta Samhitha* shows detail description of *Vrana*^(8,9,10) in most of the chapters and *Chikitsa sthana*^(11,12) of *Sushruta samhitha* begins with chapters of *Vrana*. *Sushruta*, the father of surgery, in spite of his excellent surgical skills, has given equal importance to medicinal and Para surgical procedures for various surgical diseases. Since the earliest time, wound healing has been the central problem in surgical practice. Art of surgery actually revolves around the *Vrana* (wound) and its uneventful healing (*Ropana*) process. In this modern era there is remarkable increase in the number of acute as well as chronic injuries due to various causes. Although wound healing is considered to be a natural process, there are many factors that may cause complications and also decreases the healing process⁽¹³⁾, so the wound healing management is one of the critical problems in *Shalyatantra* (surgery). Sometimes the patients with minor and superficial injuries turn into major complications and may cause delayed wound healing⁽¹⁴⁾. The number of patients with wounds either acute or chronic presenting to the emergency department and to the general practitioners is increased as compared to any other health problem. Periodically, the patients with minor and superficial injuries turn into major complications if left untreated⁽¹⁵⁾. The considerable aspects of the management of acute wound is the prevention of the infection and rapid healing, alleviate pain, discoloration and discharge after healing are the other most important factors. Taking appropriate initial care of the acute wound will unquestionably prevent the further infection of wound and promotes healing. Different types of wounds as mentioned in *Ayurveda* may be of internal origin due to a defect in human functional units, such as *Vata*, *Pitta*, and *Kapha*, or external⁽¹⁶⁾ cause i.e. because of trauma, such as *Chinna* (cut wound), *Bhinna* (perforated wound), *Viddha* (punctured wound), *Picchita* (contusion), *Kshata* (lacerated wound), and *Ghrista* (abrasion wound). According to *Acharya Sushruta*, they given 60 therapeutic steps⁽³⁾ to manage different types of wounds, starting with *aalepa* i.e. aseptic dressing of the wound and ending with the *rakshavidhana* (protective measures) for rehabilitation of the normal structure and function of body. These therapeutic measures were focused for not only to accelerate the healing process but also to maintain the quality and integrity of the wound healing. As described in different *Ayurvedic* classics like *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, The drugs are stated to be most effective in various conditions such as *Vrana* (wounds or ulcers), *Nadivrana* (sinuses), *Vranajakrimi* (maggots in wounds), *Vidradhi* (abscess), *dushtavrana* (septic wounds), *Vranashotha*, *Pramehapidaka* (diabetic carbuncle), and *Bhagandara* (fistula-in-ano).

Scientific researches have also been carried out to find out the wound healing properties of these drugs^(17,18). Many Ayurvedic Plants are more potent wound healers because they promote and enhance the repair mechanisms in the natural way. Ayurvedic medicines in wound management may give the benefits of disinfection, debridement and providing a moist environment to encourage the natural healing processes. Hence for the healing of wound, an attempt is made to review the probable mechanism of Yava Kalka with Ghruta as a local application.

II. AIM : Yava Kalka with Ghruta as a local application is beneficial in Sadyovrana.

Table no. 1: composition of Yava Kalka with Ghruta lepa

Sr. no.	Drug name	Latin name
1	Yava	Hordeum vulgare Linn
2	Goghruta	-----

III. METHOD OF PREPARATION⁽¹⁹⁾:

- 1) As per Sharangdhara Samhita the above mentioned drugs should be clean and dry.
- 2) Then it is added in pulverizer.
- 3) After that this drug is sieved through sieve to obtain a fine powder of this drug.

IV. METHOD OF APPLICATION

- 1) Prepared fine powder is evenly mixed with double quantity of ghruta.
- 2) This paste should be of uniform consistency
- 3) Then, it should be applied externally over the affected part.
- 4) And covered with sterile gauze pieces.
- 5) Dressing is done once in every 3rd day in morning hours.

V. GENERAL RULES OF APPLICATION OF LEPA :

- 1) Apply lepa in Pratiloma direction.
- 2) By applying lepa in Pratiloma direction i.e. against the direction of hair follicles it helps for better absorption of lepa.
- 3) Don't apply lepa at night.
- 4) Don't apply lepa which is dried and old.
- 5) Never apply lepa without removing earlier lepa as it causes rise in temperature, vedana ,daha and ghanatva.
- 6) As applied lepa becomes shushka it should be removed only after making it wet.
- 7) Once removed the lepa apply little amount of oil or a ghrut on vrana and do slight massage as it becomes more beneficial to vrana.
- 8) But here we have to put lepa for 24 hours with not letting lepa dry, so we adding Go-ghruta in this yava kalka so it remains wet and also being more beneficial to wound.

Pharmacodynamics of drug^(20,21,22):

Sr.no.	Drug name	Rasa	Virya	Vipaka	Guna	Doṣaghnata-	Karma
1.	Yava	Madhura, Tikta, Kashaya	Sheeta	Katu	Ruksha, Pichhala, Mṛidu, Anabhiṣyandi, Sara	Kaphapittahara, Vatakara	Lekhana, Medovatahara, Medha vardhaka, Vṛiṣya, Balya, Sthairyakṛa, Varṇya, vranya, Swarya, agnidipana, Kasa- swas- pinasa har, Kañṭha rogahara, Trishnahara, Twaka roga hara, Vraṇepathyam and Urusthambahara
2.	Go ghruta	Madhura	Sheeta	Madhura	Snigdha ,guru	Tridoshghna	Rasayana, bruhana, ropana, varnya

VI. PROBABLE MECHANISM OF YAVA KALKA GHRUT APPLICATION :

- 1) *Acharya Sushruta* has explained *Dhamani* (Artery) in *Dhamanivyakaranadhyaya* in *Sushruta Samhita*. In which they are classified in three types *urdhvagata*, *adhogata*, and *tiryakagata*. Out of these *dhamanis*, *tiryakagata dhamani* again divided in four types. These four *Dhamanis* further divided individually hundred and thousand times thus become innumerable by these the body is covered like network, which opens into hair follicles which carry sweat and replenish *rasa* inside and outside through them only the *veerya* of drugs used for *Abhyanga*, *Snana* and *Lepa* enter the body after being applied on skin the same also carry the sensation of touch.
- 2) The *lepa* applied against the direction of hair follicles, so the absorption of applied *lepa* is more efficient through hair follicles near wound, Also the absorption of drug is more efficient there.
- 3) That's how the action of drug i.e. healing mechanism of drug is seen.
- 4) Due to pharmacodynamics of drug stated above, Being *Sheeta virya Ghruta* does *Pittashmana*. *Ghruta* counters the *Ushma* caused by *Pitta* i.e. local heat of the wound. Also local *Vata* gets aggravated due to loss of *dhatu* (*Dhatukshaya*). It results in pain. *Ghruta* being of *snigdha* property acts as *Vatashamaka*. Thus, *Ghruta* being *Pitta-Anilham* alleviates both *Vata* and *Pitta*. Because of this counter actions pain as well as *shopha* immediately subsides.
- 5) Also *Ghruta* by its *Agnideepaka* property (the property of improving metabolism) causes improvement in local *dhatvagni*. This increases rapid replacement of lost *dhatu*, which in turn results in rapid healing. The process of killing those *Rakshas* (infection causing microbes) was coined as *Rakshoghna* (anti-microbial action). The *Rakshoghna* property of *Ghruta* thus can be correlated to the anti microbial activity of *Ghruta*.
- 6) *Yava* is *Madhur* and *Kashaya* in *rasa*. The *vipaka* of the drug is *Katu*. The *kashaya rasa* and *katu vipaka* help in *Shodhana* (debriding) of the wound. Here in case of wounds with recent trauma *shodhana* is necessary to remove any contamination and to prevent any possible infection. In addition, *shodhana* refers to removal of devitalized tissue.
- 7) *Yava* has the properties like *madhura rasa* and *sheeta veerya*, By virtue of these properties it alleviates the *ushma* caused by *pitta*, as does the *Ghruta*. The *Lekhana* property of *Yava* is nothing but the separation of dead tissue from the surrounding healthy tissue. There are various discharges from the wound as per the humours involved and whether the wound is traumatic or atraumatic. These discharges delay healing. It is necessary to get rid of discharge. *Yava* 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. *Yava* also possesses the property of *Agnideepana*, which works in the same way as that of *Ghruta* i.e. acts on local *Dhatvagni*. The *Varnya* property contributes in healing by preserving the natural skin color i.e. *Savarnikaranam*.
- 8) So when we introduce the both drugs together they causes *Shodhana* as well as *Ropana* of *Vrana* (wound) rapidly. The physico-chemical properties of a drug in a topical dosage form affect that drug's trans-dermal delivery and topical bioavailability. The molecules of the formulation after penetrating through the stratum corneum and into viable epidermis and dermis produces its characteristic pharma-cological response through receptors even before the blood and lymph circulations remove it, in this case it may set in a cascade of systemic effects. Though the horny layer is very impermeable to most chemicals, contributing the rate limiting step in trans-dermal absorption because of its high diffusion resistance, providing a small fractional area of 0.1 % only as permeable appendage shunt route. Besides this route the drug molecules may penetrate through the hair follicles and sebaceous glands or through sweat ducts also and thus helps to remove or neutralize the toxins in initial stage only.

VII. CONCLUSION:

Yava kalka ghruta contains only two drugs both are of *sheeta veerya* and *madhura rasa* as well as of *Ropana* (healing) property. As they are mentioned in *Chakradatta* for *Ropana* of *Vrana* (healing of wound) in *lepa* form. Which is one of formulation indicated in *Vrana Ropana* (healing of wound). It can be used in day today practice as well as the both drugs are easily available. This *lepa* is easy to prepare and dispense due to its availability in simple form and it is very easy to apply over wound without irritation to skin.

VIII. REFERENCES:

1. Sriram Bhat M. SRB'S Manual of Surgery. 6th edition. New Delhi: Jaypee Brothers Medical Publishers; Reprint 2021; 1A-1.
2. Sriram Bhat M. SRB'S Manual of Surgery. 6th edition. New Delhi: Jaypee Brothers Medical Publishers; Reprint 2021; 1A-4
3. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-1, verse no. 8, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 5.
4. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-1, verse no. 55, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 10.
5. Dr. Tripathi I.(editor). Chakradatta, Shotha Chikitsa, verse no. 44, edition reprint, Varanasi; Chaukhamba Sanskrit Bhavan publication, 2016: 256.
6. <https://pubmed.ncbi.nlm.nih.gov/15860447/>
7. <https://www.googleads.com/quotes/258093-healing-is-not-a-science-but-the-intuitive-art-of>
8. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Sutrasthan, Chapter-21, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 112.
9. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Sutrasthan, Chapter-22, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 123.
10. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Sutrasthan, Chapter-23, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 126.
11. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-1, edition reprint, Varanasi; Ayurved Tatwa Sandipika, Chaukhamba Prakashan, 2022: 4.

12. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-2, edition reprint, Varanasi; Ayurved Tatwa Sandipika , Chaukhamba Prakashan, 2022:18.
13. Sriram Bhat M. SRB'S Manual of Surgery. 6th edition. New Delhi: Jaypee Brothers Medical Publishers; Reprint 2021; 1A-7, 8.
14. Professor Sir Norman Williams, Editor. Bailey's and Love's Short Practice of Surgery 27th ed, London: CRC Press Taylor & Francis Group; 2021; 72-1329.
15. Shenoy K.R., Manipal Manual of Surgery, 4th edition, New Delhi: CBS Publishers and Distributors; Reprint 2018; 1-3.
16. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipikaon Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-1, verse no. 3, edition reprint, Varanasi; Ayurved Tatwa Sandipika , Chaukhamba Prakashan, 2022:1.
17. <https://www.1mg.com/ayurveda/barley-242>
18. The properties and effect of Yava [Barley]-A literary Review Article Khiradkar Sushma R., Patil Yashwant R., Wankhede Arun U. Ayurline : International Journal of Research In Indian Medicine 2019; 3(1) :1-4
19. Tripathi B., Sharangdhar Samhita, Dipika Hindi commentary, Chaukhamba Surbharti Prakashan, Varanasi, Reprint 2007, Madhyam Khanda, Chapter 5, verse 1,2, page no.167
20. Dr. Chuneekar K.C., Dr. Pandey G.S., Bhavprakash Nighantu, Chaukhamba Bharti Academy, Varanasi, reprint 2004, page no.640
21. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipika on Sushruta Samhita of Sushruta, Chikitsasthan, Chapter-1, verse no. 69-70, edition reprint, Varanasi; Ayurved Tatwa Sandipika , Chaukhamba Prakashan, 2022: 11.
22. Kaviraj Ambika Datta Shastri (editor). Commentary: Ayurved Tatwa Sandipika on Sushruta Samhita of Sushruta, Sutrasthan, Chapter-45, verse no. 96-97, edition reprint, Varanasi; Ayurved Tatwa Sandipika , Chaukhamba Prakashan, 2022: 228.

