



Review Article

JAATYADI GHRITA AND ITS USE IN TREATING VRANA (WOUND)

Kumar Mahesh*

Qtr. No.C-1, C.B.P.A.C.S., Khera Dabar, Najafgarh, New Delhi, India

*Corresponding Author Email: drmguptabhu@gmail.com

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ABSTRACT

Ayurveda is an ancient medical science which deals treatment of various diseases, one of them is vrana (wound) which is more common. The vrana is important topic in academic point of view, patient care and research of newer technique and drugs for easier and effective management. In ancient text, a number of drugs and technique are talk about for shodhan (purification, making free from undesirable healing factors) and then ropan (healing, closure of wound) of vrana, one of them are medicated ghrit preparation, the Jatyadighrita which is well familiar drug, easier preparation, availability and result oriented practiced by clinician. Wound healing is either due to primary or secondary intention, later one take more attention and most of the chronic wounds managed by this. In Ayurveda it is described in maximum ancient and modern text as well as a lot of researches and practical application has been held. How it is effective drugs for wound management, so for a critical re-evaluation and effectiveness of this drugs an attempt is taken to analyse on this topic. The main reference of jatyadighrita is taken from, Jaatyadighritam vranae in Sharangadhara samhita madhyamkhanda 9/58-60.

Keywords: Jatyadighrita, vrana, wound, shodhana, ropana, Sushruta

INTRODUCTION

The Vrana (Wound) “Vrana gaatravichoorne gaatra vivarnyam cha”. i. e. phenomenon of tissue destructions and discolouration of viable tissue due to various etiology¹. The word Dushta Vrana (Non Healing Ulcer) is composed of two words- dushta and vrana. Dushta means durbala (unhealthy) or adharma (degraded), Vrana means-wound. It have features of chronic in nature, foul smell, lost their normal colours, produce excessive discharge of pus and impure blood, excessive pain, elevated from the surface, irregular shape with cavities, everted base and margins of wound (Charak Chikitsa.25/83², Madhav Nidan.42/7³, Vaidyaksabdasindhu⁴). Sushruta mentioned about wound, its extensive classification and realisation of problem of contamination of wound is specific in many aspects. Shodhan (Purification) of wound is “an Ayurvedic process by which necrotic tissue (slough), bad odour, discharges etc. impediments of wounds are removed and thus paving way for uninterrupted healing is known as Vrana Shodhan”. Number of drugs broadly classified into vrana shodhan (purification) and ropana (process which stimulate the healing process) for the management of wounds (Sushruta sutra 36/12-21, 23-30). Process of shodhan and ropana have been therapeutically grouped in different forms as kasaya (decoction), varti (medicated gauze), kalka (paste form), sarpi (medicated ghrita), taila (medicated oil), raskriya (concentrated decoction), avchoorna (dusting of drugs) etc (Sushruta chikitsa 01/08) in Ayurveda which are described by different acharyas. Sushruta⁵ also advocated preventive measures e.g. maintenance of personal hygiene and measures to protect wound from flies and airborne infections by fumigation with certain disinfectants like ghrit, Nimb

(*Azadirachta indica*), Mustard (*Brassica campestris*), Guggulu (*Commiphora mukul*) etc which help in disinfecting the surrounding. In spite of this if wound gets infected use of krimighana drugs are advocated as Nimb, Saptaparna etc. The rationality behind taking Ghrita⁶ as a base is most probably to extract or hold lipid soluble active fractions from the ingredients used. Classically this formulation has mentioned to be having a longer life in comparison to other Ayurvedic herbal medication forms and ghrita enhance the specific qualities of constituent drugs (Sanskaro hi gudantaradhanam, sanskarasya-anuvartanam). The Jatyadi ghrita is common drug and they have nearly similar composition described in different classics like Chakradatta⁷, Yogratanakar⁸, Vaidyamanorma, Bhaisajya Ratnawali, Brihatnighanturatnakar, Rasratnasammucchaya⁹, Sharangdhar samhita¹⁰, Astanga Hridaya¹¹ Yogtaringini, Brihatyogtaringini, Bangsen samhita, Rasratnakar, Brindmadhav etc. The basic property of Jatyadi ghrita is ghrita like odour, greenish colour, external use as per required dose, tikta in taste and useful in all types of wounds¹².

Ingredients of Jatyadighrita with Detail Description- (Sharangadhar Samhita Madhykhand 9/58-60)

The glycyrrhetic acid, ursolic acid, karanjin, curcumine, berberine and kutkin which are major constituent of jatyadi ghrita by using modern methods of analysis. Stability study of formulation shows the ability of formulation to remain with its physical, chemical, pharmacological, microbiological, therapeutic and toxicological property.¹³

Table 1: Ingredients of Jatyadighrita with detail description

S. N.	Ingredient ¹⁴⁻¹⁶	Botanical/chemical name	Raspanchak {Guna (G), Rasa (R), Vipaka (Vi), Veerya (V)}	Part used	Main action	Main active component/Action
i.	Jaati (spanish, common jasmine)	<i>Jasminum officinale</i> Linn.	G-laghu-snidgha-mridu R-Tikta-kashya, V-usna, Vi- katu	Patra	Kusthaghna, vranashodhan, vranaropana	anti septic/anti inflammatory agent Salicylic acid, jasmimine
ii.	Neem (Margosa tree)	<i>Azadirachta indica</i> (A. Juss)	G- laghu, R-Tikta kashya, V- seeta, Vi- katu	Patra	kandughna	Azadirachtin, nimbin, margoshin
iii.	Patol (pointed gourd)	<i>Trichosanthes dioica</i> . Roxb.	G-laghu-ruksha R-Tikta, V-usna , Vi- katu	Patra	Jwarghna, Raktashodhak, shothahar	Cucurbita-5, Nicotinic acid, tetracyclic terpenes, 3-trichosanthin, saponin, vit.C
iv.	Nisha (Haridra)	<i>Curcuma longa</i> Linn.	G- Ruksha,laghu, R- tikta katu V-ushna, Vi- katu	Kanda	Kushthaghna	Curcumin, Vit.A
v.	Daarvi (Daruharidra- Indian Barberry)	<i>Berberis aristata</i> DC	G- laghu-ruksha, R- Tikta-kashya V-usna, Vi-katu	moola	Shothahar, vedanasthapana, vranashodhan, vranaropana, yakrituttejaka	berberine, quaternary ammonium salt of isoquinoline alkaloid
vi.	Katuka	<i>Picrorhiza kurroa</i> , Royle ex Berth	G-Ruksha-laghu, R-tikta , V- sheeta, Vi- katu	mula	Raktashodhaka, shothahar a, krimghana, kusthaghana, yakrituttejaka	Picrorhizin, kutkin etc.
vii.	Saariva	<i>Hemidesmus indicus</i> , R.Br.	G-Guru-snidgha, R-Madhur-tikta, V-sheeta, Vi-Madhur ,	mula	Raktashodhaka and shothahara	P-Methoxy salicylic aldehyde etc.
viii.	Manjistha	<i>Rubia cordifolia</i> , Linn.	G- guru-ruksha, R-tikta-kashay-madhur V- ushana, Vi-katu ,	mula	Raktashodhaka, kaphagna, shothahar, vranaropana	Purpurin, manjistin
ix.	Madhuka (Yastimadhu)	<i>Glycyrrhiza glabra</i> Linn.	G- guru-snidgha R- Madhur-, V- sheeta, Vi- Madhur,	mula	vranaropaka, shastranipatjanya vedana shamak with ghrita (Subside post surgery pain- Sushruta)	Glycyrrhizin, isoliquiritin, liquiritin, asparagine
x.	Karanja	<i>Pongamia pinnata</i> , Pierre.	G-laghu-teekshana R- Tikta-katu-kashya V-ushna, Vi- katu	Beeja	Jantughana, kandughna, vranaropana, vedanasthapana	Pongamia oil, Karanjin, pongamol
xi.	Usheera (Kaskhas grass)	<i>Vetiveria zizanioides</i> , Linn.	G-Ruksha-laghu R- tikta-madhur V-sheeta, Vi- katu	moola	Pittashamak, raktasthambhak, swedadur gandahar	Vetebine, Benjoic acid
xii.	Siktha (wax) ¹⁷	Products obtained from Bee - take in equal amount like above other dravya. It is soft, jantughna, vranaropana property etc.				
xiii.	Tuttha ¹⁸ (copper sulphate)	Purified blue vitriol (CuSO ₄) induces vascular endothelial growth factor (VEGF) expression in the wound. Take in equal amount like above other dravya, (having tikta-kasaya-katu-madhur rasa, madhur vipak, ushna veerya, Lekhan and ropan property – (Ayurveda prakash chapter 3/145, Rasendra churnamani chapter 14/69)				
xiv.	Ghrita (cow ghrita)	Four time more than the kalka dravya quantity.				
xv.	Jala (water)	Four time more than the ghrita quantity.				

(*The content from (i) to (xiii) are taken in equal amount)

Table 2: Description of jatyadi ghrita in Various Ayurvedic texts

S. No.	Ayurvedic Texts	Description present/absent	Rogadhikara	Reference	Contents as mention above
1.	Astanga Hridaya	Present	Vranapratisheha	Astanga Hridaya Uttar.25/67	same
2.	Sharangdhara samhita	Present	Vrana	Sharangdhara samhita madhya khand 09/58-60	Same
3.	Chakradatta	Present	Vranashothadhikara	Chakradatta chapter 43/73(Padarthvodhini commentry as Jatikaddya ghrita)	Same and added Netrabala also
4.	Yogratnakar	Present	Vrana-shodhana-ropana	Yogaratnakar uttarardha vranashodhan ropana vidhi vishaya Jatyadighrita-01	Same + Haritaki
5.	Bhaisajya Ratnawali	Present	Vranashothadhikara	Bhaisajyaratnawali chapter 47/51	Same + Haritaki
6.	Brindamadhava or Siddhayoga	Present	Agantuvranadhikara	Brindamadhava Chapter 45/18	same
7.	Ras Ratna sammuchhaya	Present	vrana	Ras-ratna-sammuchhaya chapter 24/93-95	Same
8.	Bhavprakash	Present	Vranashothadhikara	Bhavprakash IInd part madhyakhande, Chikitsaparakaranam 08 chapter 47/88-89	Same
9.	Gadnigraha	Present	Ghritadhikara for Vrana	Gadnigraha pryogakhandbhag, Chapter-1st Ghritadhikara/418	Same + Haritaki
10.		<ul style="list-style-type: none"> Charak, sushruta not described it by same name and same constituent Brihatnighantu ratnakar, Vaidya manorama, yogtrangini, Brihatyogtrangini, Bangsen, Ras ratnakar also described JATYADI GHRITA which are used in treatment of vrana (wounds). 			

Method of Preparation

In Sharangadhar samhita no separate detail method of its preparation are described, so it is prepared considering general ghratapaka preparation mention in Ayurvedic bhaisajyakalpana texts¹⁹.

Indication

The use of Jatyadi ghrita are commonly as follows

- Marmashrita vrana – wound present over vital points.
- Sukshma nadivrana- ulcer with a narrow sinus.
- Kledivrana – wound with excessive secretion.
- Gambhiravrana – deep seated wound.
- Saruja vrana means painful wound.
- Practically it also used in nonhealing, bled wound, wounds caused by heat or fire(burns), boils, insect bites wound, post grafting failure wound etc.

Method of Application

As it is a ghrita base preparation so used locally on wound site after cleaning the wound. It come in direct contact to wound plane and applied thin layer on wound, covered by sterile gauze piece, put a cotton pad with suitable bandage. Put it for 12-24 hour depending on causative factor, season and condition of wound (Sushruta sutrasthana 18/ 27- vranalepanbandhavidhiadhayaya). If there is much slough tissue then it needed previous debridement.

Probable Mechanism of Action and its Practical Use

The shodhan and ropana contents in Jatyadi ghrita drugs founds very efficacious as described in ancient classics. The action of tikta rasa is raktaprasadak (blood purifier), ushna veerya are shothahar, usna and teeshna are krimighna in nature, action on tridoshas as calms the Pitta. Shodhan drugs on topical application reduce pain, discharge and oedema of the surrounding tissue. Initially drugs acts as a debriding agent removing slough and necrotic material from wound and subsequently promotes smooth and uncomplicated healing. They reduce wound infection due to their bactericidal action of drug. The dressing soaked with shodhan drugs provides moist environment which enhances epithelisation, prevent scales formation, beneficial in infected wounds with drug resistant bacteria. The content Katuka (*Picrorrhiza kurroa*) improves re-epithelialisation, neovascularisation and migration of endothelial cells, dermal myofibroblasts and fibroblasts into the wound bed²⁰. The Jati, Patola and Sikta have vranaropana (Wound healing) action²¹.

CONCLUSION

It is a polyhedral Ayurvedic ghrut preparation which applied externally to treat varieties of wounds and burns. The grading of shuddha wound (clean wound, Sushruta chikitsa 01/07, Sushruta sutra 23/18, Charak chikitsa 25/86) depends on the amount of dushti (unhealthiest) present in local dhatu, i.e., twaka and mamsa with rakta dhatu. The content of jatyadi ghrita has shodhan, ropan, raktashodhak, krimighna, kandughna, shothhar property which are necessary for healing of wound. It contents also have antiseptic, antimicrobial and antibacterial action. For this property it widely used in clinical practice and have no side effect. It is

easy to use and available in all over India, so can be prescribed as a local healing agent for common wound.

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