

A COMPREHENSIVE REVIEW OF SAMANGADI TAILA: EXPLORING ITS THERAPEUTIC POTENTIAL IN WOUND HEALING

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ABSTRACT

Today's era is the era of scientific validation. So, it's much more important to prove the things we do theoretically or practically. As we all know *Vrana Chikitsa* is being the matter of concern since time immemorial for all the system of medical science. If we unfold the pages of ancient Ayurvedic literature, we will find several miraculous drugs or combined preparations which have magnificent effect on the treatment of *Vrana*. But the cause behind the back step is the unavailability of such drugs. By combining some of those drugs as per the reference of *Acharya Shusruta*, which are available now, we have taken a *Taila* preparation named as per the first ingredient in it as *Samangadi Taila*. Ingredients, properties, and its effect on the

management of *Vrana* through different mode of actions as per Ayurveda are described here individually and combined as one preparation. In this review we are discuss on individual drug properties concerning of *Vrana Chikitsa*, formulation of drugs as per classical text and explain of probable mode of action of *Samangadi Taila*, in addition to mentioned of source of drugs and analytical study of combined preparation under completion of formulation.

INTRODUCTION

Etymological derivation of the word drug is from the French word- *drogue* (a dry herb) single active chemical entity present in a medicine that is used for diagnosis, preventive and curative of the disease.

The comprehensive knowledge of drug is very important to physician because without the knowledge of drug the patient cannot be treated properly.^[1] Detailed description concerning *Vrana* and *Vrana Chikitsa* is available in various texts of Ayurveda. A significant importance

is given on the fundamentals like *Vrana Shoth/Vidardhi* leading to the development and further complications concerning *Vrana*. *Saptopkrama* and *Shashtiupkaram* are the proven fundamental described in a very scientific manner as per the progress of the pathogenesis and the presenting features of the *Vrana*. A significant importance is given to *Vrana Shodhaniya* and *Vrana Ropniya* drugs under *Vrana Chikitsa*.

Acharya Sushruta in *Sutra Sthana* 36th & 38th described many combinations of drugs (*Gana*) in the chapters named as *Mishrak* & *Dravya Sangrahaya* which are indicated for the management of the conditions of surgical concern. Few among these are:

- *Vrana shodhaniya* - *Aaragvdadi Gana*, *Arkadi Gana*, *Sursadigaaa*, *Lakshadi Gana*^[2], *Patol*, *Trifla* with *Salasardi Gana*.
- *Krimighn*- *Arkadi Gana*, *Lakshadi Gana*.^[3]
- *Sandaniya*- *Priyanvadiambathi Gana*
- *Vranaropan*- *Priyanvadiambathi*, *Gana*^[4], *Samanga*, *Somaras* and *Valka*, *Chandan* with *Kakolyadi Gana*.^[5]
- *Vranadhupan Sarja*, *Devdaru*, *Shivestak* with *Salasaradi Gana*.

Under *Vrana Chikitsa* Acharya Sushruta in concern to *Sadhyovrana* has described *Samangadi Taila* for treatment of *Shudhavrana* (non-infectious wound) owing to its *Vranaropaniya* properties.^[6]

AIM

To discuss, evaluation and elaboration of wound healing properties of *Samangadi Taila*.

MATERIAL AND METHOD

Authentic material was searched from various sources (classical text, article and magazine) related to wound and *Samangadi Taila*. Latest Nighantu and books also preferred for the description of contains of the drug *Samangadi Taila*.

The search approaches were applied to difference offline and online Ayurveda database. Boolean method was following for appropriate and time saving searching of data related to *Samangadi Taila* and wound.

Review of *Samangadi Taila*

Abundant of preparations described in classical texts related to wound but lots of problem

arise during the formation of compound medicine like some drugs are controversial, some not available in market. Limitation of single drug also present because no single drug available on market, which is act on wound through multiple activity of Ayurveda as well as modern parameter e.g. *Vrana Shodhan*, *Ropan*, *Shothghna* so we choose of these drugs because they are resolving all these problem in one formulation.

Acharya Sushrut has indicated *Samangadi Taila* in *Chikisasthan* under the *Sadhovrana Chikitsa*.^[7] This drug has not mentioned under the name of *Samangadi taila* but we named it as *Samangadi Taila* according to the first contains of this formulation.

Total 21 contains present in this formulation including *Tila Taila*. Maximum drugs available in market but some are present in special region e.g., - *Priyangu* available on Kota places forest. Description about all contains of this drug is available in the table given below.

Reference Concerning *Samangadi Taila*^[8]

समङ्ग रजन । पद्म पथ्ग तुत्थ सुवर्लगम् । पद्मकरोधमधुकवडङ्गवन हरेणुकगम् ॥८२॥

तगल शपत्र नलद नर्दन पद्मके शरम् । मवण्ठोश रलगक्षश्च क्षरणग रगवप पल्लवगन् ॥८३॥

विण्णिलब ज वतन्दुक्यस्तरुणगवन फलगवन र् । यथगलगभ समग्रहत्य तैलमेवभवपग्येत् ॥८४॥

सद्योव्रणगनग सवेषगमदुष्यगनग तु रोपणम् । ८५॥ (सुवर्..२/८२-८५).^[9]

Numerous references are there concerning the wound healing properties of various ingredients of *Samangadi Taila* in various treatises like *Bhavprakash* and *Rajnighantu*.

Table 1: List of Plants, Botanical Name and Useful Parts Quantity of Each Medicine.

S.No.	Plant Name	Botanical Name	Family	Useful Part	Quantity
1.	<i>Samanga (Manjistha Dal.)</i>	<i>Rubia cordifolia</i>	Rubiaceae	Root	63 gm
2.	<i>Rajni (Haldi)</i>	<i>Curcuma longa</i>	Zingiberaceae	Rhizome	63 gm
3.	<i>Padhma (Bharangi Dal.)</i>	<i>Clerodendrum serratum</i>	Verbenaceae	Root	63 gm
4.	<i>Pathya (Haritaki)</i>	<i>Terminalia chebula</i>	Combretaceae	Fruit	63 gm
5.	<i>Tuttha (Coper Sulphate)</i>	$\text{CuSO}_4.5\text{H}_2\text{O}$		Ash	63 gm
6.	<i>Suvarchala (Suryabhakta Dal.)</i>	<i>Gynandropsis pentaphylla</i>	Capparidaceae	Whole plant	63 gm
7.	<i>Padhmak</i>	<i>Prunus cerasoides</i>	Rosaceae	Xylem	63 gm
8.	<i>Rodhra (Lodhra)</i>	<i>Symplocos racemosa</i>	Symplocaceae	Bark	63 gm
9.	<i>Madhuk (Yashtimadhu)</i>	<i>Glycyrrhiza glabra</i>	Umbelliferae	Root	63 gm
10.	<i>Vidanga</i>	<i>Embelia ribes</i>	Myrsinaceae	Fruit	63 gm
11.	<i>Harenuka (Nirgundi)</i>	<i>Vitex negundo</i>	Verbenaceae	Seed	63 gm
12.	<i>Talishpatra</i>	<i>Abies webbiana</i>	Pinaceae	Leaf	63 gm

13.	Nalad (Ushir)	Vetiveria zizanioides	Gmineae	Root	63 gm
14.	Padhmakesar	Prunus cerasoides	Rosaceae	Stamen	63 gm
15.	Manjistha	Rubia cordifolia	Rubiaceae	Root	63 gm
16.	Ushir	Vetiveria zizanioides	Gmineae	Root	63 gm
17.	Laksha			Secretion	63 gm
18.	Panchaksheri Vriksha Patra				
	Aswath	Ficus religiosa	Moraceae	Leaves	13 gm
	Udumbar	Ficus glomerata	Moraceae	Leaves	13 gm
	Vat	Ficus bengalensis	Moraceae	Leaves	13 gm
	Plaksha	Ficus lacor	Moraceae	Leaves	13 gm
	Parisha	Thespesia populnea	Malvaceae	Leaves	13 gm
19.	Priyalbeeja	Buchanania lanzan	Anacardiaceae	Seed	63 gm
20.	Tinduk (Taruni – Dal.)	Diospyros peregrina	Ebenaceae	Ripe fruit	63 gm
21.	Tila Taila	Sesamum indium	Pedaliaceae	Oil	1000 ml

Table 2: List of Guna, Rasa, Virya, Vipak, Doshaghnata and Karma.

Dravya	Guna	Rasa	Virya	Vipak	Doshaghnata	Karma
Samanga (Manjistha Dal.)	Guru, Ruksha	Madhur Tikta Kashaya	Ushna	Katu	Kapha Pitta Shamaka	Vrana Nashak ^[10] Shothhar ^[12] Krimighna
Rajni (Haldi)	Ruksha, Laghu	Katu Tikta	Sheeta	Ushna	Kapha Pitta Shamaka	Shothhar Vrananashak ^[12] Shodhniya, Krimihar
Padhma (Bharangi Dal.)	Ruksha, Laghu	Katu Tikta	Ushna	Katu	Vata Kapha Shamaka	Shothhar ^[13] Vrana Nashak, Krimighna ^[14] Krimihar
Pathya (Haritaki)	Ruksha, Laghu	Pancharasa Kshaya (Lavan absent)	Ushna	Madhur	Tridoshar (specially Vatanasak)	Vranrohan, Shothhar, Krimighna ^[15] Vranahar
Tuttha (Coper Sulphate)	Laghu	Madhur Kashaya	Sheeta	-	-	Lekhan and Krimihar ^[16]
Suvarchala (Suryabhakta Dal.)	Ruksha	Katu	Sheeta	Madhur	Vata Kapha Shamaka	Kriminashak ^[17] Kandunashak, Vrananashak ^[18]
Padhmak	Laghu	Tikta Kashaya	Sheeta	Katu	Kapha Pitta Shamaka	Vrannashak ^[19]
Rodhra (Lodhra)	Laghu	Kashaya	Sheeta		Kapha Pitta Nashak	Sothhar ^[20]
Madhuk (Yashtimadhu)	Guru	Madhur	Sheeta	Madhur	Vata Pitta Shamak	Vrananashak, Sothnashak ^[21] Vranaropan Vednahar
Vidanga	Ruksha	Katu Kashaya	Ushna	Katu	Vata Nashak	Kriminashak ^[23] Shoolghana
Harenuka (Nirgundi)	Ruksha, Laghu	Katu Tikta Kashaya	Ushna	Katu	Vata Kapha Shamaka	Sothnashak, Kriminashak ^[24] Kandunashak ^[25] Vrananasak
Talishpatra	Laghu, Teekshna	Tikta Madhur	Ushna	Katu	Vata Kapha Shamaka	Kshayanasha ^[26] Dathuposhak
Nalad (Ushir)	Laghu	Tikta Madhur	Sheeta	Katu	Kapha Pitta Shamaka	Vrananashak ^[27]
Padhmakesar	Ruksha	Madhur Katu ^[28]	Sheeta	Madhur	Pitta Nasak	Vrananashak, VranaShadhan ^[29]
Manjistha	Guru	Madhur Tikta Kashaya	Ushna	Katu	Kapha Pitta Shamaka	Shothvranhar

<i>Ushir</i>	<i>Laghu</i>	<i>Tikta Madhur</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Vrananashak</i>
<i>Laksha</i>	-	-	-	<i>Katu</i>	-	-
<i>Panchaksheri Vriksha Patra</i>						
<i>Aswath</i>	<i>Guru, Ruksha</i>	<i>Madhur Kashaya</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Vrananashak, Vranashodha</i> ^[30]
<i>Udumbar</i>	<i>Guru, Ruksha</i>	<i>Madhur</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Vrana Shodhan Shodhanropan</i> ^[31]
<i>Vat</i>	<i>Guru, Ruksha</i>	<i>Kashaya</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Vrananashak</i> ^[32]
<i>Plaksha</i>	<i>Guru, Ruksha</i>	<i>Kashaya</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Vranaropak, Shothhar</i> ^[33-34]
<i>Parisha</i>	<i>Ruksha, Laghu</i>	<i>Kashaya</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>Krimihar</i>
<i>Priyalbeeja</i>	<i>Guru, Snigdha</i>	<i>Madhur</i>	<i>Sheeta</i>	<i>Madhur</i>	<i>Vata Pitta Nasak</i>	<i>Vranaropan</i> ^[35]
<i>Tinduk (Taruni – Dal.)</i>	<i>Laghu, Guru</i>	<i>Madhur</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphanashak</i>	<i>Vranaropan</i> ^[36]
<i>Tila Taila</i>	<i>Guru</i>	<i>Katu</i>	<i>Ushna</i>		<i>Vata Kaphanashak</i>	

Collection of Plant Ingredients

Uncontaminated parts of different ingredients were collected by the pharmacy of National Institute of Ayurveda from local market and different places of Rajasthan (Bharatpur, Kota, NIA campus).

Identification and Authentication of Ingredients

Identification of plants species were done with the help of referring standard literature and P.G. Department of Dravya Guna, NIA, Jaipur. Authentications of raw drugs were done by N.I.A. Pharmacy.

Formulation of Samangadi Taila

The drug was formulated as per the standard method mentioned in regard to formulations under *Sneha Kalpna* underneath *Taila Murchana Kalpna*. Due to no description of the quantity of *Kalka* and *Sneha* concerning *Samangadi taila*, ingredients were taken in the ratio given as per API Ref. (*Kalka: Sneha; Drava* - 1:4:16)

Analytical study^[37]**Table 4: Organoleptic Study.**

S.No	Organoleptic study	<i>Samangadi Taila</i>
1	Colour	Orange brown
2	Odour	Odourless
3	Texture	Oily

Table 5: Physico-Chemical Parameters.

S.No	Tests	Value
1.	Density (gm/ml)	0.925
2.	Sp. Gravity	0.919
3.	Refractive index	1.465
4.	Viscosity Cp	12.535
5.	Rancidity	Absent
6.	Saponification value (mg of KOH)	119
7.	Acid value (%)	4.56
8.	Total fat content (%)	89.68
9.	Un-saponification matter (%)	55.65

DISCUSSION

In Ayurveda, the probable mode of drug action can be explained on the basis of so many theories viz. *Rasa-Panchaka* theory, *Pancha-Bhautik* theory, *Doshik* theory and *Dhatu Nirman* theory. These are explained as per the pharmaco-therapeutic property based upon *Rasa*, *Guna*, *Veerya*, *Vipaka* and *Prabhava* of individual ingredient.

In *Samangadi taila* the majority of ingredients pose *Madura*, *Katu*, *Tikta* and *Kshaya rasa*, *Sheet veerya* having mainly *Kaph pitt shamak* properties. The role of these fundamentals concerning wound healing become evident owing to the below mentioned properties:

Madhur Rasa –Dhatu Vardhan & Sandhan^[38] Tikta Rasa–Shodhan, Kledpuyashoshan, Lekhan, Krimighn, tvakmanssthrikiran.^[39]

Kshaya Rasa– Ropan, Stambhan, Shodhan, Lekhan, Shoshan.^[40]

Owing to the *Sheet Veerya* and *Kaphpittshamak* properties this also pacifies the aggravated *Dosha* and act as an effective *Shothghana*, *Kledahara*, *Vednashamak*, *Krimighana* promoting the *Vrana Rohana*.

CONCLUSION

Ample of formulations and therapy are available in classable text for management of *Vrana Chikitsa* but many more limitations for every formulation and therapy. Oil preparation is one among them, which is easy to store and easy to apply. *Samangadi Taila* is very effective

formulation for *Sadhyovrana* as local application because lots of properties showing in this single drug.

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