

# Comparative Analgesic Effect of Traditional Formulation *Shuntyadi Yoga Lepa* and Its Neo Formulation as Balm on *Shirashula*

## Research Article

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### Abstract

**Background:** *Chikista* is mainly of two types i.e., *antaraparmarjana* and *bahiramarimrjana*. For relief of *sthanika lakshana*, immediate *sthanika chikista* is required. *Lepa kalpana* is one type of *barimarimarjana chikista*. *Lepa* pacifies the provoked local *dosha* by *prahladana*, *shodhana*, *sopha harana*. *Shirah* is the “*uttamanga*” of all the *anga* of the *sharira* and it is the abode (*ashraya*) of the *prana* and *indriya*. *Charaka* has described five types of *shiroroga*, whereas *Sushruta*, *Bhavamishra* and *Yogaratanakara* have classified eleven types of *shiroroga*. *Shirashoola* is also mentioned as synonym of *shiroroga*. **Methods:** *Shuntyadi yoga* is traditionally practised medicine which was used for treatment of *shirashula*. With the intention of forwarding the traditional knowledge and patient compliance the *shuntyadi yoga* was modified into balm form. The ingredients of *shuntyadi yoga* are *shunti*, *haridra*, *maricha*, *lashuna* and for the balm form additional ingredients like menthol, methyl salicylate, camphor was added. *Ghanasara* of drugs was prepared and used for preparation of *vati* and balm. **Results:** All the ingredients of formulation have reference of *shulahara* property so when they are formulated together because of synergetic effect their efficacy will be potentiated. Both formulations were administered for 15 patients each and the result was analysed. **Conclusion:** The results shown that both forms were effective in *shoolahara* property. Comparing the patient's feedback, it can be concluded that balm formulation was beneficial considering organoleptic characters and patient compliance. So, *shuntyadi yoga* can be prepared in balm form which will continue the usage of traditional practice.

**Key Words:** *Shuntyadi yoga*, *Lepa*, *Balm*, *Shirashula*, *Shulahara*, *Bahyaparimarjana chikista*.

### Introduction

*Chikista* is mainly of two types i.e., *antaraparmarjana* and *bahiramarimrjana*. For relief of *sthanika lakshana*, immediate *sthanika chikista* is required. *Lepa kalpana* is one type of *barimarimarjana chikista*. Description of *lepa kalpana* is scattered in the classical books. Advantages of topical applications are direct application at the site of action, easy removal if any aggravation exists and easy manner of application. Synonyms of *lepa* are *lipta*, *lepa*, *lepana* and *alepa*. *Lepa kalpana* can be prepared by pounding wet drugs or adding water to the dry drug in the form of paste which will be used for external application. From pharmaceutical point of view, *lepa kalpana* is a form of *kalka kalpana*(1).

The purpose for which it is used decides its nomenclature. Acharya while explaining the efficiency of *lepa*, has cited the version like “As the fire gets extinguished immediately with the action of water; in

similar manner, *lepa* pacifies the provoked local *dosha* by *prahladana*, *shodhana*, *sopaharana*”.

The Indian mythology emphasizes the prime place of *shirah* in the body as said by Lord Krishna himself the base of the man is head while whole body is just like its branch.

Acharya has divided body anatomically into six parts viz. *shirah*, *antaradhi*, two *bahu* and two *sakthi* placing the “*shirah*” at the first place. Thus, ayurvedic seers unanimously place “*shirah*” at first place among all the body parts. While defining *shirah*, it was explained that *shirah* is the “*uttamanga*” of all the *anga* of the *sharira* and it is the abode (*ashraya*) of the *prana* and *indriya*.

In classical books we find five and eleven types of *shiroroga* and mentioned *shiroruk* as separate disease among eighty types of *vata vyadhi*. In the classical texts, the word *shiroroga* has been used to denote painful condition of head, that's why other diseases of head such as *khalitya*, *arunshika*, etc. are not included in *shiroroga*. In classics, general line of treatment for *shirashula* has been described as *swedana*, *nasya*, *dhumapana*, *virechana*, *lepa*, *vamana*, *langhana*, *shirobasti*, *raktamokshana*, *agnikarma*, *upanaha*, *purana ghrita* and *shashtikashali* (2,3,4).

*Shuntyadi yoga* is a folklore formulation in practise being used by generations for treatment of *shirashula*. The ingredients of the formulation are easily available in kitchen and can be prepared easily. An attempt was made to bring the knowledge of our

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ancestors in to easily acceptable form and so that it will be carried to next generation. But the formulation practiced was in crude form i.e., pellet which should be warmed before application and was not patient compliance. Here an effort was made to modify it into neo formulation so that the essence of the traditional medicine will also be preserved.

**Materials and Methods**

*Shuntyadi yoga* was prepared in two different formulations i.e., pellets and balm in department of *Rasashastra* and *Bhaishajya Kalpana*, SDM College of Ayurveda and Hospital, Hassan.

**Drug collection and authentication**

Drugs required were collected from local vendor. The herbal drugs were authenticated from the experts of *Dravya Guna*. Table 1 gives the list of ingredients and quantity taken. Ingredients were pounded separately and fine powder of these drugs except *lashuna* was collected by filtering through the clean cloth. Fine powder of all the drugs and paste of *lashuna* were triturated with addition of water till *subhavita lakshana* were obtained. Fine paste of mixture was converted into pellets of weighing 3g each and total 63 pellets were obtained which were stored in airtight bottles.

**Table 1: Showing the ingredients of *Shuntyadi yoga* with proportion**

Sl no	Name of the drug	Latin/English name	Part used	Quantity
1	<i>Shunti</i>	<i>Zingiber officinale.L</i>	Rhizome	25g
2	<i>Haridra</i>	<i>Curcuma longa.L</i>	Rhizome	25g
3	<i>Maricha</i>	<i>Piper nigrum.L</i>	Fruit	25g
4	<i>Lashuna</i>	<i>Allium sativum.L</i>	Bulb	25g
5	<i>Jala</i>	Water	-	100ml

**Method of preparation of *Shuntyadi balm***

All the ingredients were taken 200g each and converted into coarse powder except *lashuna* which was added in the form of *kalka*. *Kwatha* was prepared by adding 12 litre of water (16 times) and reduced to 400 ml (1/4<sup>th</sup>). *Kwatha* was filtered through clean cloth and re boiled till it attains semisolid consistency i.e., *ghanasara*. The obtained *ghanasara* was dried under sunlight and powdered. To this powder of *ghanasara*, menthol, methyl salicylate and camphor were added as excipients. *Sikta taila* was prepared using *madhuchista* and *tila taila* in ratio of 1:6. *Sikta taila* was added to the mixture of *ghanasara*, menthol, methyl salicylate and camphor. 3 trails of balm were prepared by varying the percentage of additives. Among these three trails, the 3<sup>rd</sup> trial was feasible considering the consistency. Total end product obtained was 480g and was packed into 40 bottles each of 12g. A total of 15 patients were

administered with *shuntyadi* balm for application who have *shirashula*.

**Table 2: Showing the ingredients with proportion 3<sup>rd</sup> trial**

Sl.no	Ingredient	Quantity
1	Extract of drug	90g
2	Menthol	9g (10%)
3	Methyl salicylate	9ml (10%)
4	Camphor	9g (10%)
5	Bee wax	14g
6	<i>Siktha taila</i>	50ml

**Selection of patients**

The study was conducted in 34 clinically diagnosed patients of *shirashula* out of which 4 patients discontinued the treatment and the rest 30 patients completed the treatment. The patients were selected from the OPD & IPD of SDM College of Ayurveda and Hospital, Hassan as per the selection criteria. All the patients were randomly divided into two groups.

**Selection criteria**

Individuals of either sex within the age group of 20 - 50 years having the history of *shirashula* were selected randomly.

**Exclusion criteria**

- Individuals below 20 years and above 50 years of age.
- Patients associated with other major systemic or psychiatric diseases.
- Headache due to other major causes like Migraine, Trigeminal neuralgia, Intracranial space occupying lesions and other systemic diseases such as Hypertension, Refractive errors etc.
- Patients having increased Intracranial Tension due to any reason.

Symptom Rating Scale for *shirashula* (headache) developed by Prof. A.K. Sharma et.al.

Sl.	Symptoms	Grades	No.	%
1	Absent	-	0	0
2	Mild	+	1	25%
3	Moderate	++	2	50%
4	Severe	+++	3	75%
5	Agonizing	++++	4	100%

**Observations and Results**

To check the efficacy of both the dosage forms i.e., *lepa* and balm in *shirashula*, preliminary clinical study was conducted with permission of institutional ethical committee (SDM/IEC/73/2019). Prepared *shuntyadi yoga* in the form of pellets and balm administered to 15 patients having *shirashool*a in each group for external application on forehead.

**Result of *shirashulahara* effect of *vati* form**

Out of 15 patients 14 had got relief from *shirashula* after its application. Among 14, 10 got complete relief and 4 got moderate relief. 1 among 15

did not get relief (h/o sinusitis). 2 among 15 complained of slight burning sensation.

### Result of *shirashulaha* effect of balm form

Out of 15 patients 14 had got relief from head ache after its application. All 14 got complete relief. 1 among 15 did not get relief (h/o sinusitis). No complaint of burning sensation.

### Discussion

*Shirashula* is one of the common symptoms in many diseases and *shirolepa* is one of the *sthanika chikitsa*. *Lepa* pacifies the provoked local *dosha* by *prahladana*, *shodhana*, *sopha harana*. *Shuntyadi yoga* is one of the traditionally practiced formulation for treatment of *shirashula*. To make the formulation more patient compliance and to carry forward the traditional formulation it was modified into neo formulation.

All the drugs used in the preparation were proved for their analgesic activity by recent studies (5,6,7,8,9,10,11,12). *Maricha* and *shunti* are proved for their bioavailability enhancing property (13). *Shunti* is proved for its dermal absorption enhancing property (14).

### Conclusion

*Lepa* and balm were administered for 15 patients each and both the formulations have shown promising result in *shirashula*. In *shuntyadi vati* group, 93% patients got relief among which 71.43% patients got complete relief and 28.57% patients got moderate relief. In *shuntyadi* balm group, 93% patients got complete relief. In *shuntyadi vati* group, 13.33% patients complain of burning sensation which was absent in *shuntyadi* balm group. So, considering result and the patient compliance, balm said to be more beneficial to the patient.

### Source of support & Acknowledgement

Rajiv Gandhi University of Health Sciences, Bengaluru, Karnataka. Short term research grant for undergraduate students with Project Name-Comparative Analgesic Effect Of Traditional Formulation *Shuntyadi Yoga Lepa* And Its Neo Formulation as Balm on *Shirashula* & Project code-UGAYU045.

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**Photos of Shuntyadi vati preparation**



Photo 1. Powdering of raw drugs



Photo 2. Bhavana with jala



Photo 3. *Subhavitha mishrana* was made in to vati form.



Photo 4. *Shuntyadi yoga* in vati form after drying it completely.



Photo 5. Drying under sunlight



Photo 6. Application of lepa

**Preparation of Shuntyadi balm**



Photo 1. Powdering of raw drugs in to coarse powder



Photo 2. Powdering of haridra



Photo 3. Kwatha Preparation



Photo 4. Ghanasara Obtained



Photo 5. Ghanasara added with sikta and taila



Photo 6. Menthol, methyl salicylate and camphor was added



Photo 7. Ingredients of shuntyadi balm



Photo 8. Shuntyadi yoga in balm form

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