


Research Article
PHARMACETICO ANALYTICAL STUDY OF SHUNTHYADI TAILA AN AYURVEDIC FORMULATION
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ABSTRACT

Ayurved is treasure of medicine for various diseases & disorders. Exploring this treasure to the world in scientific manner is times need. *Shunthyadi Taila* in the form of *Nasya* has been highlighted as drug of choice for the management of *Kshavathu* (Sneezing). As *Kshavathu* is the *Pradhana Lakshana* of *Vataja Pratishyaya*. *Shunthyadi Taila* contains *Shunthi* (*Zingiber officinale* Rosc) Rhizome, *Kushta* (*Saussurea lapa* C.B. Clarke) Root, *Pippali* (*Piper longum* Linn) Fruit, *Bilva* (*Aegle marmelos* (Linn.) Correa ex Roxb) Root, *Draksha* (*Vitis vinifera* Linn.) Fruit and *Tila* (*Sesamum orientale* Linn) Seed oil. *Shunthyadi Taila* was prepared as per Standard operative procedures of Ayurvedic Pharmacopoeia of India for oil preparation. As there is no analytical standards available for *Shunthyadi Taila* in Ayurvedic pharmacopoeia of India to check its quality. In this study, effort has been made to see results of qualitative & quantitative physico-chemical parameters (organoleptic characters, acid value, saponification value, Iodine value, loss on drying, specific gravity and refractive index) generally applied for oil preparation as per Ayurvedic Pharmacopoeia of India. The results obtained will be the reference standards and can also be used for future studies on *Shunthyadi Taila* standardization.

KEYWORDS: *Vataja Pratishyaya*, Allergic Rhinitis, *Shunthyadi Taila*, Physico-Chemical Parameters.

INTRODUCTION

Shunthyadi Taila is explained *Bhavaprakash Nighantu* in the form of oil through *Nasal* route of administration for the management of *Kshavathu*¹ (Sneezing). As *Kshavathu* is the *Pradhana Lakshana* of *Vataja Pratishyaya*², *Shunthyadi Taila Nasya* has shown the encouraging results in treating the of *Vataja Pratishyaya* (Allergic rhinitis) in the previous research work³ hence in present study it has been selected. *Shunthyadi Taila* contains *Shunthi* (*Zingiber officinale* Rosc), *Kushta* (*Saussurea lapa* C.B. Clarke), *Pippali* (*Piper longum* Linn), *Bilva* (*Aegle marmelos* (Linn.) Correa ex Roxb), *Draksha* (*Vitis vinifera* Linn.) and *Tila* (*Sesamum orientale* Linn) which are *Ushna*, *Snigdha*, *Katu Rasa*, *Sroto-shodhaka*, *Abhishyandahara* (decongestant), *Shothahara* (Anti-inflammatory)⁴, Immuno-stimulator⁵, Antioxidant⁶, *Kledahara*, *Kaphashodhaka* and *Vatakaphaghna*. Physico-chemical parameters are the basic criteria for to evaluate

a) Pharmaceutical study of *Shunthyadi Taila*

the quality of medicines. The present study was planned to see the *Shunthyadi Taila* physico-chemical parameters results after preparation by standard operative procedure as per Ayurvedic pharmacopoeia of India.

Aims & Objective

- Pharmaceutical study of *Shunthyadi Taila*
- Analytical study of *Shunthyadi Taila*

MATERIALS AND METHOD

The study involved the following operating procedures

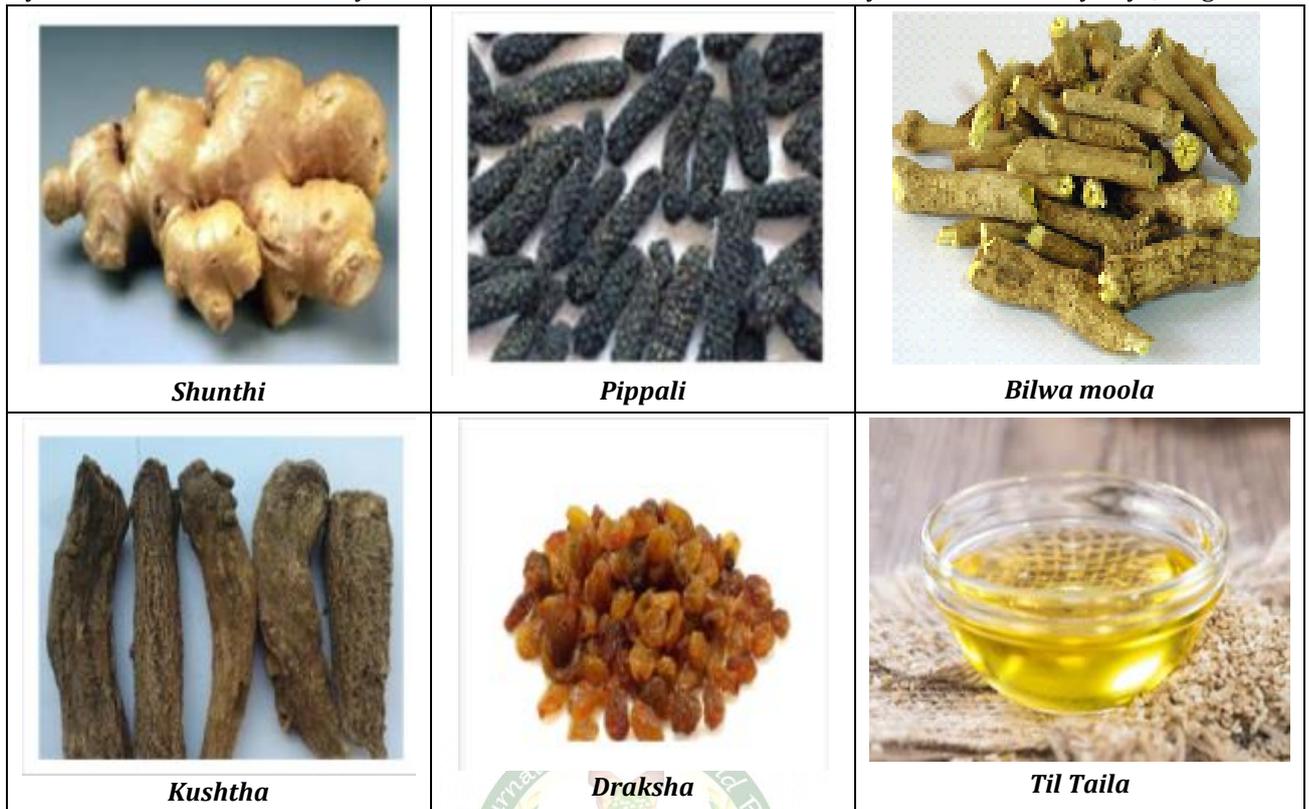
- Collection, identification and authentication of raw drugs.
- Preparation of the drug *Shunthyadi Taila*
- Analytical study of the *Shunthyadi Taila*

Table 1: Composition of *Shunthyadi Taila* used parts

Sl No	Drug	Latin Name	Part	Qty
01	<i>Shunthi</i>	<i>Zingiber officinale</i> Rosc.	Rhizomes	1 part
02	<i>Kushta</i>	<i>Saussurea costu</i> (Falc.) Lipsch.	Root	1 part
03	<i>Pippali</i>	<i>Piper longum</i> Linn	Fruit	1 part
04	<i>Bilva</i>	<i>Aegle marmelos</i> (Linn.) Correa ex Roxb	Root	1 part
05	<i>Draksha</i>	<i>Vitis vinifera</i> Linn.	Dried fruit	1 part
06	<i>Tila</i>	<i>Sesamum orientale</i> Linn	Seed oil	4 parts

Required raw drugs except *Bilva* for the study were procured from the KLE Ayurveda Pharmacy Belagavi Pharmacy. *Bilvamula* was collected by the scholar himself

from natural habitat. The raw drugs Identification and Authentication were done at Central Research Facility, KLEU shri B.M.K. Ayurveda Mahavidhyalaya, Belgavi



b) Standard operative procedure of manufacturing of Shunthyadi Taila

Shunthyadi Taila was prepared at GMP certified KLE Ayurveda Pharmacy, Belagavi. As per Standard operative procedures of Ayurvedic Pharmacopoeia of India for oil preparation.

Preparation of Shunthyadi Taila

1. Equal parts of *Shunthi*, *Kushtha*, *Pippali*, *Bilwa*, and *Draksha* were taken and made into coarse powder separately. The ingredients were mixed methodically to make a homogeneous mixture and used to prepare *Kalka* and *Kwatha*.
2. *Kwatha* was prepared. 1 part of coarse powder was added with 4 parts of potable water and subjected to heat on medium temperature, until the volume was reduced to 1/4th of its initial quantity. The contents

were filtered and the filtrate was used as liquid media in the preparation of *Shunthyadi Taila*.

3. *Kalka*: The coarse powder was taken and mixed with sufficient quantity of water to prepare the *Kalka*.
4. *Taila Paka*: For *Taila Paka*, 1 part *Kalka* (Paste) 4 parts *Sneha* (*Til Taila* - Sesame oil): 16 parts *Kwatha* (Decoction) were taken in proportion of 1:6:24 respectively. *Til Taila* was made warm in vessel and then vessel was taken out from flame and increments of *Kalka* was added to *Til Taila* and heated for some time. *Kwatha* was added to these contents and heating was continued on medium flame till the *Samyak Snehapaka Siddhilakshanas* of *Mridupaka*⁸ were obtained. The oil was filtered while hot and preserved in airtight container.



Fig 1: adding raw drugs of Shunthyadi taila



Fig 2: Mandagni



Fig 3: Measurement of Shunthyadi taila

c) Analytical study of the Raw Drugs & *Shunthyadi Taila*Table 2: Organoleptic characters of raw drugs of *Shunthyadi Taila*

S.No	Name of Drug	Part	Colour	Odour	Taste
01	<i>Shunthi</i>	Rhizomes	Buffy to yellowish	Agreeable and Aromatic	Agreeable and Pungent
02	<i>Kushtha</i>	Root	Greenish to dull brown	Aromatic	Slightly bitter
03	<i>Pippali</i>	Fruit	Greenish Black to Black	Aromatic	Pungent
04	<i>Bilva</i>	Root	Cream Yellow	Odourless	Sweet
05	<i>Draksha</i>	Dried fruit	Dark brown to black	Sweetish pleasant	Sweet

Table 3: Physico-Chemical Parameters of raw drugs of *Shunthyadi Taila*

S. No	Name of Drug	Foreign Matter	Ash Value	Acid insoluble ash	Water soluble extractive	Alcohol soluble extractive
01	<i>Shunthi</i>	Nil	4.141%	0.863%	12.307%	5.730%
02	<i>Kushtha</i>	Nil	2.091%	0.514%	29.719%	15.796%
03	<i>Pippali</i>	Nil	3.819%	0.302%	9.911%	8.007%
04	<i>Bilva</i>	Nil	4.711%	0.672%	8.967%	9.027%
05	<i>Draksha</i>	Nil	1.1571%	0.164%	74.341%	27.194%

Table 4: Organoleptic Characters and Physico-Chemical Parameters of *Tila Tila*

Organoleptic Characters		
Test	Limits	Results
Part	Oil	Oil
Colour	Golden Yellow	Golden Yellow
Odour	Pleasant	pleasant
Physico-Chemical Parameters		
Specific gravity	0.9160 to 0.9190	0.9174
Refractive index at 40°C	1.4650 to 1.4665	1.4659
Acid Value	NMT 2	1.417
Iodine Value	103 to 116	105
Saponification Value	188 to 195	191

Physical-chemical analysis of *Shunthyadi Taila*

Table 5: Organoleptic character

Sl.No	Physical Properties	<i>Shunthyadi Taila</i>
1	Odor	Irritant
2	Taste	Not tasted
3	Color	Brownish
4	Touch	Smooth

Table 6: Physico-Chemical Analysis of *Shunthyadi Taila*

S.No.	Parameter	Result
1.	Loss on Drying	0.59 w/w%
2.	Acid Value	5.56
3.	Saponification Value	183.9
4.	Iodine Value	76.5
5.	Specific Gravity	1.08
6.	Refractive Index at 40°C	1.472

DISCUSSION

Raw materials procured from authentic source that give optimum result as it reflect in physic-chemical analytical studies of raw materials. All raw materials pass the *Ayurvedic* pharmacopeia standards. Physico-chemical parameters are selected as these are the minimum parameters required to evaluate the quality of *Taila* preparations. An Oranganoleptic study shows that appearance, odour & touch is acceptable to go for further analysis and clinical use. Physico-chemical analysis results shows that prepared oil was physical & chemical stable and help to maintain the consistency of *Mrudupak* as it required for *Nasya* oil preparation.

CONCLUSION

Shunthyadi Taila is one of the most important medicine for the management of *Kshavathu* (Sneezing). Standard operative procedure as per *Ayurvedic* Pharmacopeia of India is very important during manufacturing any medicines to get optimum therapeutic efficacy. Phyco-chemical analytical results are reference standards for evaluation of quality *Shunthyadi Taila* prepared by same reference.

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