

PHARMACEUTICO-ANALYTICAL STUDY OF PRASARINI TAILA

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ABSTRACT

Analytical study of Ayurvedic preparations is the need of the present scientific era. Though the Ayurvedic drugs are time tested and have been used successfully in the management of various ailments it is now necessary to prove their quality, efficacy and safety to the scientific world through various modern analytical parameters. Taila kalpanas (medicated oils) are the integral part of Ayurvedic treatment. Tailas are used in treatment of diseases explained in Astangas of Ayurveda for both bahya and abhyantara chikitsa (internal and external therapies). According to the condition of the disease, the processing of taila with the specific ingredients is the need in clinical practice. One such commonly used taila is Prasarini taila. **Materials and Method:** Raw drugs of Prasarini Taila as per reference of Bhavprakash were obtained from Pharmacy of ITRA, and local market of Jamnagar, Gujarat. The freshly prepared final product was then subjected to pharmacognostical

and physicochemical analysis. **Result:** In the present study to prepare Prasarini Taila and standardise it through analytical parameters like organoleptic properties, refractive index, acid value, saponification value, iodine value, loss on drying for developing standards. All the parameters were found to be good and within the standards. **Conclusion:** The Pharmacognostical and physicochemical analysis of Prasarini Taila confirmed the purity and genuineness of formulation.

KEYWORD: Prasarini Taila; Analytical study.

INTRODUCTION

Among the different kalpanas (Formulations) used in the treatment, taila kalpana is the most popular and effective one. Reference in different samhitas and its efficacy in the treatment of

different conditions are the reason for its clinical popularity. The main aim of taila kalpana is to potentiate plain taila, and to convert taila to treat different Doshas pacifying or vitiating different condition in different patients. These formulations are central to Panchakarma therapies and are used for both external application and internal consumption, particularly in treating Vataja Rogas (neurological disorders). Among these, Prasarini Taila is recognized for its efficacy in treating conditions like facial paralysis, sciatica, and hemiplegia. Prasarini taila is mentioned to be Vatakaphahara in Bhavprakash. In the present study taila was prepared and subjected for analytical studies and the results of different parameters are discussed in the article.

MATERIALS AND METHODS

Collection, Identification and Authentication of raw drugs

The raw drugs like Prasarini panchang, bala, erand etc. for the preparation of Prasarini taila was collected from local markate and pharmacy. The Tila taila and Mastu, kanji, Go dugdha is purchase from local markate of Jamnagar. All the raw drugs were identified and authenticated in the pharmacognocny lab of ITRA, Jamnagar. The ingredients, quantity and parts used in the preparation of the final products are mentiond in Table no.^[1]

Preparation of Prasarini taila

Prasarini taila was prepared in the pharmacy of ITRA jamnagar.

The plant *Prasarani* is taken afresh, along with roots, leaves and branches in a quantity of 100 pala (4 kg.). It is well grinded and made into decoction by using one *droṇa* (12 litre) of water and reducing it to 1/4 th. Then this decoction is mixed with 100 *pala* (4 litres) of oil and slowly boiled on fire. Similar quantities of *Mastu* and *Kāñjika* are added along with 400 *pala* (16 litres) of cow's milk. Then, a grinded paste of into to 40 *Tula* (550 g.) of *Citraka*, *Pippalīmūla*, *Yasṭi*, *Saindhavalavana*, *Vacā*, *Śatapuspā*, *Devadāru*, *Rāsnā*, *Gajapippalī*, roots of *Prasarani*, *Jaṭāmāmsī*, *Raktacandana*, roots of *Eranda* and *Balā* and *Sunthī* is added to the boiling mixture and heated till the moisture is completely removed. This preparation is called *Prasāranī Taila*.^[1]

Pharmacognostical study

The pharmacognostical study comprises of organoleptic study and microscopic study of finished product scientifically studied at pharmacognocny lab, ITRA, Jamnagar, Gujarat.

Organoleptic study

The Organoleptic characters of Ayurvedic formulations are very important and give the general idea regarding the genuinity of the sample. Organoleptic parameters like Taste, Colour, Odour and Touch were scientifically studied.

Physico chemical analysis

Prasarini Taila was analyzed using various standard physicochemical parameters such as loss on drying, water-soluble extract, alcohol extract etc.

RESULTS

Organoleptic characters of Prasarini Taila

Organoleptic characters contents of Prasarini Taila like Taste, Colour, Odour and Touch were recorded and shown in Table no.^[2]

Physico chemical analysis of Prasarini Taila

Physico chemical parameters of Prasarini Taila are shown in Table no.^[3]

Microscopic characters of Prasarini Taila

Diagnostic characters of Prasarini Taila under the microscope showed showed in Table no.^[4]

Table 1: Ingredients and proportions of Prasaini Taila.^[2]

Serial no	Drug	Latin name/ English name	Parts used	Ratio
1	<i>Prasarini (panchanga)</i>	<i>Paederia foetida</i> (L.)	Whole plant	1 part
2	Tila Taila	<i>Sesamum indicum</i> (L.)/Agmark or Fssai	Oil	1 part
3	<i>Mastu</i>	-	-	1 part
4	<i>Kanji</i>	-	-	1 part
5	<i>Go Dugdha</i>	Cow Milk	-	4 parts
6	<i>Sunthi</i>	<i>Zinziber officinale</i> (L.)	Rhizome	1/8 part
7	<i>Yasti Madhu</i>	<i>Glycyrrhiza glabra</i> (L.)	Root	1/8 part
8	Prasarini (moola)	<i>Paederia foetida</i> (L.)	Root	1/8 part
9	<i>Chitraka moola</i>	<i>Plumbago zeylanica</i> (L.)	Root	1/8 part
10	<i>Pippali moola</i>	<i>Piper longum</i> (L.)	Root	1/8 part
11	<i>Saindhava</i>	Rock salt	-	1/8 part
12	<i>Vacha</i>	<i>Acorus calamus</i> (L.)	Root	1/8 part
13	<i>Sata Puspa</i>	<i>Foeniculum vulgare</i> (L.)	Fruit	1/8 part
14	<i>Dev Daru</i>	<i>Cedrus deodara</i> (L.)	Heart wood	1/8 part
15	<i>Gaja Pippali</i>	<i>Scindapus officinalis</i> (L.)	Fruit	1/8 part
16	<i>Jata mansi</i>	<i>Nardostachys Jatamansi</i> (L.)	Rhizome	1/8 part
17	<i>Rakta Chandana</i>	<i>Pterocarpus santalinus</i> (L.)	Heart wood	1/8 part

18	<i>Eranda moola</i>	<i>Ricinus communis</i> (L.)	Root	1/8 part
19	<i>Bala moola</i>	<i>Sida cardifolia</i> (L.)	Root	1/8 part

Table no. 2: Organoleptic characters of prepared *Prasarini Taila*.

Sr. No.	Name	Observation
1.	Colour	Brownish
2.	Odour	Oily
3.	Taste	Bitter
4.	Touch	Soft and sticky

Table no. 3: Physicochemical assay of *Prasarini Taila*.

Sr. No.	Physiochemical parameter	Observations
1	Loss on drying (W/W)	0.628% w/w
2	Specific gravity	0.957 g
3	Acid value	2.867
4	Saponification value	162.67
5	Iodine value	88.2
6	Refractive Index	1.781

Table no. 4: Microscopic characters of *Prasarini Taila* identified.

Acicular crystal of <i>Gajapippali</i>	Group of Fibre of <i>Shunthi</i>	Pitted vessels of <i>Prasarini</i>
Annular vessels of <i>Bala</i>	Lignified fibre of <i>Devdaru</i>	Prismatic crystal of <i>Jatamansi</i>
Annular vessels of <i>Pippali mool</i>	Lignified fibre of <i>Erandmool</i>	Rhomboidal crystal of <i>Prasarini</i>
Brown content of <i>Jatamansi</i>	Lignified fibre of <i>Musta</i>	Rosette crystal of <i>Erandmool</i>
Cork cells of starch grains of	Oil globules of <i>Tila</i>	Scleriform vessels of <i>Vacha</i>
Cork cell of <i>Prasarini</i>	Oiliness of <i>Shunthi</i>	Scleriform vessels and compound starch grains of <i>Pippali</i>
Cork in surface view in <i>Shunthi</i>	Oiliness content of <i>Vacha</i>	starch grains of <i>Bala</i>
Crystal fibre of <i>Yesti</i>	Parenchyma cells with oil globules of <i>Shatapushpa</i>	starch grains of <i>Musta</i>
Epcarp cells of <i>Shatapushpa</i>	Pitted vessels of <i>Yesti</i>	starch grains of <i>Prasarini</i>
Fibre of <i>Gajapippali</i>	Pitted vessels of <i>Erandmool</i>	Stone cells of <i>Chitrak</i>
Fibre passing through medullary in <i>Devdaru</i>	Tannin content of <i>Chitrak</i>	

DISCUSSION

Prasarini Taila is Vatakaphashamaka and Tridoshashamaka. Organoleptic property of *Prasarini Taila* is displayed in table-4 showing *Prasarini Taila* has brownish in colour. Organoleptic tests of a substance are done with the help of sense organs. It plays a major role when the medicine is ingested orally. The greenish colour of the final product is due to the boiling of

ingredients in Taila. Unctuous touch of the formulation indicates the proper preparation of Taila.

Physiological analysis of Prasarini Taila is displayed in table-3. Investigating Physico-Chemical systems makes it possible to determine the nature of interactions between the components of the sample through a study of the relationship between sample physical properties and composition. All the analysed pharmaceutical parameters are permissible for Prasarini Taila in the form of Taila. Prasarini Taila formulation explained in Bhavprakash Vatavyadi. So, Prasarini Taila is taken here to manage Vatavyadhi. This oil is indicated in lock jaw, rigid tongue, facial paralysis, slurred speech, brachial neuralgia, rigid neck, shoulder pain, sacral pain, paraplegia, monoplegia, muscular rigidity, muscular contraction, spasmodic convulsions. As it can relax the contracted musculature; it is called prasarini taila.^[3]

CONCLUSION

The contents of Prasarini Taila are safe, reliable and effective in Vata vyadhi. Results of preliminary organoleptic properties were cross verified with raw drug of Prasarini Taila with the parameters mentioned in Ayurvedic pharmacopeia of India and all ingredients were proved to be authentic. The result of present study will also serve as reference standards in the preparation of drug formulation and also help in further clinical researches.

ACKNOWLEDGEMENT

All the raw drugs and finished product were identified and authenticated in the Pharmacognosy Laboratory of ITRA, Jamnagar.

Physiochemical analysis of drugs of Prasarini Taila was carried out at the Pharmaceutical laboratory of ITRA, Jamnagar.

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