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Review Article

CONCEPT OF TAILA KALPANA IN AYURVEDIC PHARMACEUTICS – “A CRITICAL REVIEW”

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ABSTRACT

Ayurvedic medicines are rich in having wide range of dosage. This makes Ayurveda more effective and popular. Medicated Taila in ayurvedic pharmaceuticals is described in detail under Sneha Kalpana section along with preparation of medicated Ghrita Sneha kalpana is an unique contribution of Ayurvedic science. In this article an attempt has been made to review regarding properties of taila, process of method of preparations of drugs, stages of paka (preparation) and its various therapeutic indications.

Keywords: Medicated, Taila, Ghrita, Sneha, Kalpana, Murchana

INTRODUCTION

Acharya Charaka had described first time primary dosages forms i.e. Swarasa (juice), kalka (paste), kwatha (decoction), hima (cold infusion) & phanta (hot infusion) and mentioned them as Panchvidhakasaya kalpana first time¹. Acharya Charaka was of the opinion that the drug having quality to produce arogya² is the best drug. Keeping this view in the mind a number of secondary preparations have been derived from these five basic preparations eg. Asavarishta (fermentation), lepa (paste), churna (powder), sneha kalpana (fatty preparation), vati (pills) etc. Sneha Kalpana is well known among them. Sneha Kalpana may be defined as - ‘A pharmaceutical process to prepare oleaginous medicaments from the substances like Kalka, Kwatha and Drava dravyas, in specific proportions by subjecting to a unique heating pattern and duration to fulfill certain pharmaceutical parameters, according to the need of therapeutics’³. This process ensures transformation of the active therapeutic properties of the ingredients to the solvents and hence to get fat soluble, water soluble or even the chemical constituents which are soluble in media like Kanji, Butter milk etc. It is again of two types like Ghrita and Taila Kalpana. Taila Kalpana takes a Lion-share among sneha formulations.

Types of Sneha⁴: Four types of snehas are described in ayurvedic literature. These are ghrita, taila, vasa & majja. Among the four sneha ghrita is regarded as best one.

Taila⁵:

Taila alleviates vata and does not aggravate kapha. It promotes body strength. It is beneficial for the skin. It is ushna, provides firmness and cleans female genital passage. Taila means oily portion extracted from the drugs. Acharya Charak mentioned that Tila taila is best one for strength and unctious and considered best for pacification of Vata. Taila assimilates the properties of other drugs added to it during the paka of Sneha without losing its own properties. This radical transformation of property is not possible in ghee (Harita).

Method of Preparation of Taila formulations: Murchana^{6,7}

It is a process adopted for enhancing the potency of ghee or oil and to remove the bad odour and amadosa. Because of murchana sneha will get such a capability to receive more active principles while the veerya of sneha is enhanced. Bhaishajyaya Ratnavali has mentioned about murchana first time. Researches show that murchana decreases the acid value and increases saponification value. Reduced acid value indicates less percentage of free fatty acids and increased saponification value indicates higher content of low molecular weight fatty acids. Medicated ghee/ oil preparations containing low molecular fatty acids are absorbed fast.

Process of Taila Moorchna⁸

Ingredients:

Triphala, Musta, Rajani, Hriversa, Lodra, Suchipuspa (Ketaki), Vatankura and Nalika All the above drugs should be in equal

quantity and powdered. Its total quantity must be 1/4th to that of Tila Taila.

Tila Taila (sesame Oil)	→	1 Part
Jalam	→	4 Part

Procedure

- ▶ Heat the plain Tila taila till it become free from froth. Add 4 part of water alongwith powder of 1-8 drugs. Boil it on moderate heat till the Taila became free from water. Filter it and use for the preparation of other medicated oils.
- ▶ By this process unpleasant odour of the oil is removed. It obtains good colour and fragrance.

General Method of Preparation of Taila Kalpana⁹

1 part of kalka dravya (paste of herbs), 4 parts of oil and 16 parts of drava (liquid) are to be mixed together & heat on mandagani to prepare any medicated Taila. Then it is filtered and stored. When there is no specification of liquid then water is advised in the same way, if there is no specifications of Kalka(Paste) and Kwatha (decoction) then Kalka & Kwatha can be prepared by mentioned dravya varga (drugs).

Duration of Taila Klapana¹⁰:

The preparation of medicated taila should should take more than one day in order to increase the absorption of fat soluble constituents of the drugs and to increase potency of the sneha.. According to Acharya Harita taila paka should be completed in 15 days.

Vaidyaka Paribhasa Pradip a well known text of Ayurvedic Pharmaceutics further stated that duration also depends on the nature of the liquid substances added to fatty matter.

Precautions:

During the preparation of Taila kalpana following precautions should be taken according to different stage of preparation.

- (i) **Before processing:** Taila should be new, pure, clear and without slurryand .
- (ii) **During the process:** Maintain the intensity of fire throughout the process of preparation in order to get desirable grade of temperature. Gentle boiling of Taila is to be maintained continuously. The mixture is stirred constantly and carefully to ensure that the kalka (Paste) does not stick to the bottom of the vessel. Proper care should be taken to determine the proper stages of Tailapaka.
- (iii) **After Sneha Paka Process:** To obtain optimum quantity of taila, the kalka should be squeezed at hot state. Preserving Container should be free from moisture and perfuming drugs should be added gently with stirring when the taila is luke warm.

Shelf Life Period of Taila: According to Gov. of India notification life period of Taila is 3 year.

Types of Taila Paka (Stages)¹¹⁻¹³

In Ayurvedic literature mainly 5 types of Taila paka are mentioned.

These are stages of ama, mridu , madhyama, khara and dagdha Paka.

Among them mridu, madhyama and khara paka are therapeutically important.

Medicines of Ama (due to less heating at low intensity temperature) and dagdha paka (due to excessive heating at high temperature) are therapeutically unused.

Sign of Completion of Taila Preparation^{14,15}

1. **Features seen in the kalka (Paste)**
Mridu: kalka with some liquid part
Madhya: kalka without liquid but Soft
Khara: hard kalka
2. **Features seen in the taila (Oil)**
3. Appearance of Foam,
4. Taila should emerge colour, smell, taste of the drug.
5. Taila should be free from water. Prepared taila should not produce any crackling sound on fire.

Current Researches:

Dr. K. Shankar etall. B.H.U, 1991, standardizes Ksheerabala taila and observed the degree of heat effect. It was observed that the degree of heat effects the physical and chemical constants such as refractive index, specific gravity, acid value, etc. as shown in table 1. Thin Layer Chromatographic (TLC) study did not give any difference. The visible and ultra violet spectral studies reveal that there is no any particular finding found in different stage of paka.

Dr. Anil Nagle etall. B.H.U.,2000, prepared Bhringraj taila according to both traditional (Ayurvedic) and modern (Extraction) method and show comparative analytical differences as tabulated in table 2. TLC study inferred that active constituent, if any transferred to the medicated oil is present only in traces and not detectable by TLC analysis. U.V. Spectrum study shows that Bhringraj taila prepared according to modern method was more impure than that from traditional one due to the fact that extraction method would yield more extract of Bhringraj than traditional method.

DISCUSSION

Taila kalpana may be defined as a process, where ingredients like-Taila, Kalka, Kwatha Ksheera and Gandha dravyas are used for the preparation of medicaments.. Fat / water soluble active principles of drugs are extracted into Taila in this method. During the preparation extra benefits of Taila are added in formulations as their qualities are also mixed in drugs. Cooking should be done on medium temperature. Special emphasis should be given on Stage detection during preparation as therapeutic indications changes with the stages. Medicated Tailas are having more extra power and shelf life than unmedicated one.

CONCLUSION

1. Formulations prepared from the Taila enhance life, complexion, strength and anabolism of body.
2. The water soluble as well as fat soluble active principles can be transformed into Taila media and this addition of properties of material made the formulation more potent and effective.
3. Shelf life period of Taila kalpana is three years.
4. Formulations should be analyzed with all the parameters laid down in ancient and modern texts to standardize them.

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Table 1: Showing the observation of degree of heat effects on the physical and chemical constants

Sr. No.	Parameter	Tila taila	Ama paka	Mridu paka	Madha paka	Khara paka	Dagdha paka
1	Sp.Gravity	0.83	0.95	0.84	0.83	0.83	0.83
2	Refractive index	1.4719	1.4695	1.4700	1.725	1.4710	1.4705
3	Acid value mg/gm	4.85	17.17	8.69	9.36	9.62	9.08
4	Sap. Value mg/gm	168.56	108.01	171.44	174.48	187.34	194.06
5	Ester value mg/gm	163.71	90.87	162.75	165.14	177.74	184.99
6	Iodine value	76.70	25.98	79.65	75.61	73.44	73.60
7	Unsap. Matter % w/w	1.44	1.69	1.49	1.51	1.59	1.45

Table 2: Showing Analytical study of Bhringraj taila prepared according to both traditional (Ayurvedic) sample A and modern (Extraction) Sample B method.

Sr. No	Parameter	Tila taila	Sample A	Sample B
1	Sp.Gravity	0.9192	0.9196	0.9198
2	Refractive index	1.4652	1.4648	1.4650
3	Acid value mg/gm	2.0	2.8	2.3
4	Sap. Value mg/gm	191	191	189
5	Ester value mg/gm	189	188.2	186.7
6	Iodine value	112	107	105

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