



PHARMACEUTICO- ANALYTICAL STUDY OF KSHEERAVIDARYADI TAILA PREPARED WITH NARIKELA TAILA AND KARANJA TAILA

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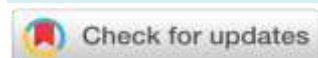
<https://doi.org/10.46607/iamj0912022024>

(Published Online: February 2024)

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Article Received: 13/01/2024 - **Peer Reviewed:** 03/02/2024 - **Accepted for Publication:** 13/02/2024.



ABSTRACT

Sneha Kalpana refers to the pharmaceutical process of preparing oleaginous medicaments from substances like Kalka(paste), Kwatha(decoction), and Drava dravyas(liquids) in specific proportions. This involves subjecting them to a unique heating pattern and duration to meet specific pharmaceutical parameters tailored to therapeutic needs. "Ksheeravidaryadi Taila" is one such preparation mentioned in the "Anagatabhada Pratisheda Adhyaya" from Sushruta Samhita. It treats diseases through daily regimes like Shiro Abhyanga, particularly for addressing head lice infestations. The oil was meticulously prepared using the bases of Narikela Taila (Sample-A) and Karanja Taila (Sample-B). Both samples were then studied analytically. Analytical values for Sample A fell within permissible limits. However, Sample B exhibited elevated acid and peroxide values (38.99) and peroxide values (20.75), surpassing normal limits and indicating potential issues with oxidative deterioration and shelf life. Sample B's saponification value was higher than Sample A's, suggesting a faster absorption rate. The oil ingredients, characterized by Tikta and Katu rasas, Ushna veerya, and anti-parasitic properties, suggest potential effec-

tiveness against head lice. Karanja Taila, with its specific properties like Krimigna, Kandugna, Ushna, and Teekshna, traditionally used in skin disorders, may enhance the oil's efficacy in treating head lice.

Keywords: Head Lice, Narikela Taila, Karanja Taila, Snehakalpana, Shiroabhyanga

INTRODUCTION

Sneha Kalpana may be defined as “A pharmaceutical process to prepare oleaginous medicaments from the substances like Kalka, Kwatha & Drava dravyas in specific proportions by subjecting to a unique heating ‘स्निह् धातु’ & ‘घञ्प्रत्यय’ pattern & duration to fulfil certain pharmaceutical parameters, according to the need of therapeutics¹”. Most of the diseases mentioned in Chikista Adhikara are treated using sneha dravyas, i.e..., Ghrita, Thaila, Vasa, and Majja. Among them, Ghrita sneha kalpana are helpful in Piittaana conditions, Thaila sneha kalpana are helpful in vatakaphaja conditions, and Vasa and Majja sneha kalpana are helpful in kaphavardhaka conditions. Sneha can be administered through Pana, Anuvasana basthi, Masthishka (ShiroVirechana), Shiro basthi, Bhojana, Uttara bhashti, Nasya, Karna poor ana, Gatra Abhyanga.

ETYMOLOGY: the word Sneha Kalpana is composed of two words, ie. Sneha & Kalpana. Sneha - The root of sneha is ' meaning fat or fatty material. Kalpana- root word –“कृप् समर्थ” “कल्पनं योजनमित्यर्थः ॥कल्प्यते विधीयते असौ विधि ॥प्रकल्पनं संस्करणं इति” ॥ Kalpana is a method/process or a kind of modification (Samskara) or a plan of preparation of medicines, using either a single drug or several drugs.

Advantages of Sneha Kalpana

- Extracting lipid soluble active principles.
- To increase the shelf life of the preparation.
- To enhance drug absorption.
- It was used both internally and externally.
- To add up extra properties to oil & ghee.

As discussed, Sneha Kalpana can be used for both internal and external applications, Taila yoga, named “Ksheeravidaryadi taila²”, is mentioned under ‘Anaghatabada Pratisheda Adhyaya’ in Sushruta Samhitha is consisting of drugs like Ksheeravidari,

Madhuka, Laghu panchamula, Sarala and Devadaru. for the treatment of Lice(Jantu), applied externally for scalp region. An attempt is made to prepare this taila by taking Narikela taila and Karanja taila as a base and studied analytically such that they can be accepted for further studies (experimental and clinical)

OBJECTIVES:

1. To prepare Ksheeravidaryadi taila with Narikela taila (sample-A) and Karanja taila (sample-B) as a base.
2. To carry out an analytical study of both prepared samples.

MATERIALS AND METHODS:

MATERIALS: The reference for Ksheeravidaryadi tail was taken from Sushruta Samhitha. The herbal ingredients were purchased from government-approved outlet Amruth Kesari Depot, Bangalore. Narikela taila was procured from Karnataka Co-operative Oil Seeds Growers Federation Limited, Bangalore (Safal). Karanja taila was procured from Ganganandi oil traders, Tumkur. The preparation was conducted Rasashastra and Bhaishajya Kalpana lab, Sri Kalabyraveswaryaswamy Ayurvedic Medical College, Hospital and Research Centre, Vijayanagar, Bangalore. Analysis of Taila was given to Radiant Research Services Pvt, Ltd., Bangalore.

METHODS: A pharmaceutical study of Ksheeravidaryadi taila includes-

1. **Kashaya preparation:** The drugs were made into coarse powder, measured and added to 12L of boiling water under mandagni. It was boiled till the 1/4th quantity ie 3L of kashaya was remaining.
2. **Kalka preparation:** The coarse powder drugs of measured quantity were soaked in water and kalka was prepared.

3. Taila preparation: Taila was added to a large vessel and mildly heated. After the taila was warm, 3L kashaya was added. Once it started boiling, kalka was added. This mixture was heated in mandagni till the sneha(taila) siddhi lakshana was seen. As per sneha kalpana vidhi the taila was prepared in 2 days.

As per sneha kalpana vidhi the taila was prepared in 2 days. Finally, the taila was filtered with clean cloth and kept in airtight container and the samples were sent for analysis.

Precautions: The vessel must be clean and of adequate size, having a wide mouth. Continuous stirring

should be done, to avoid charring the vessel. Stages of Sneha paka should be observed very carefully. Filtration should be done, soon after the Sneha paka to avoid loss of Taila.

Observations: On heating Sample A showed pleasant smell of Narikela taila whereas Sample B showed a characteristic odour of Karanja taila. Initially stirring was less frequently done, later it was continuous. On continuous heating, there was reduction of Kashaya dravya. Slight consistency was also becoming thicker. Sneha paka Lakshanas like Phenodgama, Shabda hino agni nikshipta, vartivat sneha kalka, etc was observed.

Table -1 Showing Ingredients and proportions of Ksheeravidaryadi taila.

Sl no	Sample –A (Narikela taila as a base) Ingredients for Kalka and Kashaya	Sample –B (Karanja taila as a base) Ingredients for Kalka and Kashaya
1	Ksheeri vidari	Ksheeri vidari
2	Madhuka	Madhuka
3	Shaliparni	Shaliparni
4	Prishnaparni	Prishnaparni
5	Kantakari	Kantakari
5	Brihati	Brihati
6	Gokshura	Gokshura
7	Devadaru	Devadaru
8	Sarala	Sarala
	For kashaya preparation Drugs - total 1.8kg(each 225gm) Water-12.2ltrs For kalka – total 192 gms(each 22gm)	For kashaya preparation Drugs - total 1.8kg(each 225gm) Water-12.2ltrs for kalka – total 192 gms (each 22gm)
9	Narikela taila- 750ml	Karanja taila- 750ml

Table -2 Showing ingredients and properties of herbal drugs in Ksheeravidaryadi taila.

Sl no	Name	Rasa	Guna	Virya	Vipaka	Karma
1	Ksheerividari ³ <i>Pueraria tuberosa</i>	Madhura, Kashaya, Tikta	Snigdha, Guru	Sheeta	Madhura	Vatahara, Varnya, Brhmana, Balya, Svarya, Varnya, Stanyajanana, Rasayana, Jeevaniya
2	Madhuka ⁴ <i>Glyzrhiza glabra</i>	Madhura	Guru, Snigdha	Sheeta	Madhura	Vatapittajit, Keshya, Raktaprasadana, Balya, Varnya, Cakshusya
3	Shaliparni ⁵ <i>Desmodium gangeticum</i>	Tikta, Madhura	Guru	Usna	Madhura	Tridosahara, Balya, Angamardaprasamana, Varnya, Sukhaprasavakara,

						Sarvadosahara, Vatajit, Rasayana, Bhramahara krimihara
4	Prishnaparni ⁶ <i>Uraria picta</i>	Tikta, Madhura	Guru	Usna	Madhura	Tridosahara, Balya, Angamardaprasamana, Varya, Sukhprasavakara, Sarvadosahara, Vatajit, Rasayana, Bhramahara
5	Kantakari ⁷ <i>Solanum virginianum</i>	Katu, Tikta	Laghu, Ruksha	Ushna	Katu	Kaphanila Hara, Pacana, Amashodaka, Kantya, Sothahara, Kandu Hara, Krimihara
6	Brihati ⁸ <i>Solanum indicum</i>	Katu, Tikta	Laghu, Ruksha	Ushna	Katu	Krimihara, Kandu, Shoolahara
7	Gokshura ⁹ <i>Tribulus Terrestris</i>	Madhura	Guru, Snigdha	Sheeta	Madhura	Vatanut, Varnya, Bruhmana, Ashmarihara, Vastishodhana
8	Devadaru ¹⁰ <i>Cedrus deodara</i>	Tikta	Laghu, Snigdha	Ushna	Katu	Kandugna, Vatahara, Kaphahara, Dushtavrana Shodhaka
9	Sarala ¹¹ <i>Cedrus deodara</i>	Tikta	Laghu, Snigdha	Ushna	Katu	Vatahara, Kaphahara, Dushtavrana Shodhaka
10	Narikela taila ¹²	Madhura	Guru, Snigdha	Sheeta	Madhura	Balya, Hradya, Vrsya, Vatahara Pittahara, Kaphakara, Brmhana, Basti Sodhaka, Vistambhi
11	Karanja taila ¹³	Katu	Laghu, Teekshna	Ushna	Katu	Kaphavathara, Shothahara, Bhedana, Krimigna, Kandugna, Kustahara,

RESULTS:

Table 3- Showing organoleptic characters of Ksheeravidaryadi taila.

	Colour	Odour	Consistency	Touch
Sample-A	Greenish yellow	Pleasant	Liquid	Smooth
Sample-B	Dark brown	Characteristic odour	Liquid	Smooth

Table 3- Showing Analytical Parameters of Ksheeravidaryadi taila.

Particulars	Sample-A	Sample-B
Refractive index @40 degree	1.457	1.462
Weight/ml (g/ml)	0.931	0.926
Acid value(w/v)	2.86	38.99
Saponification value (w/v)	187.17	189.82
Iodine value (w/v)	87.88	82.19
Specific gravity (w/v)	0.922	0.929
Peroxide value (w/v)	1.84	20.75

DISCUSSION & CONCLUSION

The "Anagatabheda Pratisheda Adhyaya" of Sushruta Samhita addresses the treatment of diseases through daily regimes (Swasthavritta) such as Danta Davana, Jihwanirlekhana, Muka Prakshalana, Abhyanga etc. Ksheeravidaryadi Taila is mentioned in this chapter for Shiro Abhyanga. Performing Shiro Abhyanga with this oil aids in the removal of 'jantu murdni' (Keshha Kita/Swedaja Krimi/Yooka - head lice) and promotes hair growth. Since Chakra Taila (yantra peedita taila) is referenced, a study was conducted to prepare and compare it pharmaceutically and analytically with two bases (Narikela Taila and Karanja Taila). Narikela Taila was chosen due to its common usage in regular Shiro Abhyanga, while Karanja Taila, known for its Krimigna, Kandugna, Ushna, and Teekshna properties, is exclusively used in skin disorders, potentially enhancing the oil's efficacy in treating head lice. Analytically, the values of Sample A were within permissible limits. However, Sample B exhibited a high acid value (38.99) and peroxide value (20.75), exceeding normal limits. Elevated values indicate increased oxidative deterioration, affecting product quality and shelf life. Longer-chain fatty acids have a low saponification value, while shorter-chain fatty acids have a high saponification value, suggesting faster absorption. Sample B's saponification value was comparatively higher than Sample A, possibly resulting in a quicker absorption rate.

The ingredients in the oil predominantly consist of Tikta rasa, katu rasa, and Ushna veerya and possess Krimihara and Kanduhara properties, potentially aiding in the treatment of head lice infestations. Shiroabhyangartha taila, specifically Ksheeravidaryadi Taila with Karanja Taila as a base, may be beneficial when used for head lice. However, experimental and clinical trials are required to validate these findings.

ACKNOWLEDGEMENT: We thank Rajiv Gandhi University of Health Sciences for the financial support and encouragement. We want to thank the management of Sri Kalabhyraveshwaraswamy Ayurvedic Medical College, Hospital and Research Centre, Vijayanagar, Bangalore, for all their support.

REFERENCES

1. Shastry Parushuram, Sharangadhara samhita of Sharangadhara. Varanasi: Chaukambha Surabharathi Prakashana; 2013. Pg 233
2. Dalhanacharya. Sushruta samhita of Sushruta Varanasi: Chaukambha Surabharathi Prakashana; 2013. Pg 488
3. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S. Pandey , Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.374
4. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S. Pandey , Published by Chaukhambha Bharati Academy, Varanasi-2015,
5. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S. Pandey , Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.187
6. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.187
7. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.273
8. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.274
9. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.275
10. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.276
11. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.280
12. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.547
13. Bhavamishra. Bhavaprakasha Nighantu with commentary by Padmashri Professor K.C.Chunekar and edited

by Late Dr. G.S.Pandey, Published by Chaukhambha Bharati Academy, Varanasi-2015, Pg.335

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Ananya L et al: Pharmaceutico-analytical study of ksheeravidaryadi taila prepared with narikela taila and karanja taila. International Ayurvedic Medical Journal {online} 2024 {cited February 2024} Available from: http://www.iamj.in/posts/images/upload/367_373.pdf

Images



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SAMPLE-A
SNEHAPAKA



SAMPLE-B
SNEHAPAKA

FILTRATION



SAMPLE-A



SAMPLE-B

