

**SARJIKAKSHARA TAILA-A KARNAPOORANA DRAVYA IN BADHIRYA****Ramya¹, S. M. Pasha²**

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Article Received: 10/09/2020 - **Peer Reviewed:** 27/09/2020 - **Accepted for Publication:** 03/10/2020**ABSTRACT**

Badhirya or hearing loss is the disease condition where in there is partial or total inability to hear. There are many formulations mentioned in Ayurvedic classics. One among them is *Sarjikakshara taila* indicated for treatment of *Badirya* in the form of *Karnapoorana*. **Objective:** To Prepare *Sarjikakshara Taila* according to the classical procedure and to conduct its physicochemical analysis. **Method:** In the present study, the *Taila* was prepared according to the method given in Sharangdhara Samhitha. The physicochemical properties were checked after completion of *Taila*. **Result:** The physico-chemical analysis showed that saponification value, acid value, iodine value etc were within normal limits. **Conclusion:** The *Taila* was analysed to establish the parameter for its identification and purity. Its effectiveness in treating the disease *Badhirya*. Further Pharmaceutical analysis, clinical and experimental studies has to be conducted to prove the effect of this formulation in management of *Badhirya*.

Keywords: *Sarjikakshara taila*, *Badhirya*, *Karnaporana*, Physico-chemical analysis.**INTRODUCTION**

Hearing loss is partial or total inability to hear. It is considered as the fourth leading cause of hearing loss

globally¹. Due to this, the patient starts distancing himself from his surroundings leading to social isola-

tion. The medical management is not so effective in this condition, only surgical management and use hearing aids are helpful. But both these treatment modalities are not cost effective. Wearing hearing aids and getting adjusted to the social environment is still a strange notion to the patients. Hence there is need for medical treatment which is more lucrative and commendable than the present modalities of treating hearing loss. *Badhira* is the terminology mentioned in Ayurveda for this condition. Many scattered references are found in compendium about this disease Acharya Sushruta and Vagbhata have mentioned this disease among the 28 *Karnarogas*. This disease is caused due to *Vata* and *Kapha dosha*². Resulting in improper perception of sound. So, the treatment selected should be aimed at mitigating the same. Hence *Sarjikakshara taila* mentioned in *Karnarogadhikara* of Chakradatta was selected. It is indicated in *Karnanada*, *Karnashoola*, *Badhira* and *Karnasrava*. It contains following ingredients-*Sarjikakshara*, *Shushka Moolaka*, *Hingu*, *Pippali*, *Maricha*, *Shunti*, *Shatapushpa*, *Shukta* and *Tila Taila*³. Hence it has both *Vata* and *Kaphahara* in property. It was prepared according to the *Sneha paka vidhi* mentioned in the *Sharagdhara Samhitha* and was analysed using different analytical tools.

Aim & Objectives:

- 1 To Prepare *Sarjikakshara taila* according to the classical procedure.
- 2 To conduct physicochemical analysis of *Sarjikakshara Taila*.

Materials and Methods:

The *Sarjikakshara taila* has *Shushka Moolaka*, *Shatapushpa*, *Hingu*, *Pippali*, *Shunti* and *Sarjikakshara* as *Kalka dravyas*, *Shukta* as the *Drava dravya* and *Tila taila* as the *Sneha dravya*. The raw drugs were purchased from market and were authenticated. *Shukta* was prepared priorly⁴. Here *Moorchita tila taila* is taken for the preparation⁵. The *Kalka dravyas* were finely powdered and made into paste by mixing it with water.

Method of Preparation: A wide mouthed iron vessel was taken. All the ingredients were weighed, taken in desired quantity and kept ready as shown in table no

1. The *Moorchita Tila Taila* was poured into the vessel and subjected to *Mandagni* and when the froth subsided (*Nishphenatva*), it was taken from the heat and after the temperature was reduced slightly, it was again heated on mild flame and the *Drava dravya* was added to it followed by addition of *Kalka dravyas*. Each day for 3 hrs the *Taila* was heated in *Mandagni* and kept overnight and again reheating was continued the next day, the procedure was continued for 5 days⁶. On fifth day the *Taila* was checked for *Sneha Siddi Lakshana*. The *Kalka* was taken in between fingers and checked for formation of *Varti* (wick). It is removed from heat once the *Sneha Siddi Lakshanas* were obtained and filtered immediately using muslin cloth and after cooling it is stored in non-reactive airtight container.

Observation & Result: The *Sarjikakshara taila* was then subjected to various analytical tests and the observation and results are given as follows.

❖ **Organoleptic Characters:** the prepared oil is checked for *Sparsha*, *Roopa*, *Rasa* and *Gandha pareeksha*. But *Rasa pareeksha* is not done since it is not used internally.

Color:- Brownish Yellow, Odour- Strong, Foetid. Appearance: Clear, viscous.

❖ **Physico-chemical analysis of *Sarjikakshara taila*:** The *Taila* was tested for saponification value, acid value, Refractive index, specific gravity, iodine value and loss on drying. The results are shown in table no 2.

DISCUSSION

The reference of *Sarjikakshara taila* is available in Chakradatta under the *Karnaroga chikitsadyaya*. Since there is no mentioning of the way the *taila* has to be administered in the text it can be concluded that it is for external use specifically for *Karnapoorana*. *Sneha kalpanas* are unique preparations wherein many drugs are combined and processed with *Sneha* resulting in the formulation which is potent and contains the active principles of many drugs in bio-absorbable form. The preparation has been explained very systematically by Acharya Sharangdhara. Different methods of *Paka* or heating process has been ex-

plained like *Mridu*, *Madhyama* and *Khara paka* based on the amount of moisture content in the *Sneha* prepared. In the present study *Madhyama paka* was carried out for the *Taila* as it is used for the purpose of *Karnapoorana*⁷. Since one of the ingredients is *Shukta* which is an *Amla dravya* according to the classical text the *Paka* has to be carried out for 5 days. The pharmacological analysis showed that the prepared *Taila* has higher saponification value which signifies that *Taila* has low molecular weight fatty acids. Acid value is low which signifies the refinement of oil and increased shelf life. The specific gravity and refractive index are constants and indicates the purity of oil. It has high iodine value hence it is unsaturated. The drug can be selected for *Karnapoorana* in the case of *Badhira* because when we review the ingredients of this *Taila*, many of the ingredients are *Vata Kapha hara* in nature as shown in table no 3. Which is exactly the pathology occurring in *Badhira* where in the *Kapha* along with *Vata* gets vitiated resulting in the loss of hearing. *Karnapoorana* is the procedure where the medicated *Sneha*, *Swarasa* etc drugs are retained in the *Karna* for a stipulated period of time⁸. The procedure of *Karnapoorana* is preceded by *Karna Abhyanga* followed by *Swedana* these procedures cause the absorption of drug. During *Abhyanga* there will be formation of piezo electricity which increases the conduction of the nerves. The *Swedana* will cause hyperthermia locally and resulting in vasodilatation of the blood vessels. The increased circulation of blood to the area will remove any metabolic wastes in that region. The warmed *Taila* when poured into the ear canal will cause the absorption of *Taila* into the middle ear as the tympanic membrane is lined by skin and it is lipophilic in nature. The *Taila* when absorbed into the middle ear cavity will result in pseudo inflammatory environment in the cavity which will help absorb the drug into the inner ear also. So, it can be hypothe-

sized that this *Taila* is effective in management of *Badhira*.

CONCLUSION

The phytochemical analysis of the *Sarjikakshara taila* was done and the groundwork was laid for the standardisation of this drug. This *Taila* is not available in the market. Hence a further detailed study of its pharmacognostic and pharmaceutical properties is needed. Based on the review of the drugs present in the formulation, it can be inferred that the *Sarjikakshara taila* can be used in treating *Badhira*. But clinical & experimental studies have to be conducted to prove the efficacy of this drug in management of *Badhira*.

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Table 1:

Si. No.	Ingredients	Quantity
1.	<i>Kalka Dravyas- (Sarjikakshara, Shushka moolaka, Shatapushpa, Hingu, Pippali, Shunti)</i>	1 part (Total 500gms)
2.	<i>Drava Dravya</i>	16 Parts (8 litres)
3.	<i>Moorchita tila taila</i>	4 parts (2 litres)

Table 2:

SI No	Parameters	<i>Sarjikakshara Taila</i>
01.	Saponification value	193.3
02.	Iodine value	98.561
03.	Acid value	0.9
04.	Refractive Index	1.4655
05.	Specific gravity	0.917
06.	Loss on drying	0.2964

Table 3:

Si No.	Ingredients	Latin Name/Chemical Name	Properties
01.	<i>Sarjikakshara</i>	<i>Sodium Bicarbonate</i>	<i>Rasa: Katu, Guna: Ruksha, Teekshna, Karma: Vatahara</i>
02.	<i>Shushka Moolaka</i>	<i>Raphanous sativus Linn</i>	<i>Rasa: Katu, Guna: Laghu, Teekshna, Veerya: Ushna, Vipaka: Katu, Karma: Tridoshagna</i>
03.	<i>Shatapushpa</i>	<i>Anaethum graveolens</i>	<i>Rasa: Madhura, Tikta, Kashaya, Guna: Laghu, Teekshna, Veerya: Anushna, Vipaka: Madhura, Karma: Vatakaphashamaka</i>
04.	<i>Hingu</i>	<i>Ferula foetida</i>	<i>Rasa: Katu, Guna: Teekshna, Veerya: Ushna Vipaka: Katu, Karma: Kaphavatashamaka</i>
05.	<i>Pippali</i>	<i>Piper longum</i>	<i>Rasa: Katu, Guna: Laghu, Snigdha, Veerya: Anushna, Vipaka: Madhura, Karma: Kaphavatashamaka</i>
06.	<i>Shunti</i>	<i>Zingiber officinale</i>	<i>Rasa: Katu, Guna: Ruksha, Teekshna, Guru Veerya: Ushna, Vipaka: Madhura, Karma: Kaphashamaka</i>
07.	<i>Shukta</i>	<i>Acidic fermented liquid</i>	<i>Guna: Teekshna, Ushna, Laghu, Ruksha, Veerya: Ushna, Karma: Kaphagna</i>
08.	<i>Tila Taila</i>	<i>Oil of Sesamum indicum</i>	<i>Rasa: Madhura, Guna: Teekshna, sukshma, Vishada, guru, sara, Veerya: Ushna, Vipaka: Madhura Karma: Vatakaphahara</i>

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