

A Clinical Study of the Effectiveness of Selu Taila (Cordia dichotoma Forst. f) Pratimarsha Nasya in Palita (Akala)

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Abstract—Palita (Akala), makes young people look older, causing distress and social embarrassment. It is considered as Kapala roga under Urdvajathrugada Vyadhi. Ashtanga Hridaya 4 states that excess body heat can rise to head, vitiates the Vatadi dosha, thus influencing the romakooapas, leading to pachana of hair. This process causes premature greying. Therefore, maintaining balance of dosha is essential for preserving hair colour and preventing Palita. In Chakradatta⁵, Selu Taila (Cordia dichotoma Forst.f) is indicated for Palita and is used as Nasya as a remedy to such disturbing disease. Selu taila was collected and was given as Pratimarsa Nasya with a dose of 2 Bindu in the evening to 30 patients.

Keywords— Cordia dichotoma; Selu taila; Pratimarsa; Palita (Akala).

I. INTRODUCTION

Selu, (Cordia dichotoma Forst.f) is a species of Boraginaceae Family⁸. It is known as Selu or Shleshmataka^{3,4} in Sanskrit. It is mentioned in Vedas, Puranas and Ithihasa., Samhitas^{5,6,7} and Nighantus. It is a medium sized tree found throughout warmer regions of India. In the Ayurvedic Pharmacopoeia of India⁷ a detailed study of Shleshmataka stem bark and fruit are described. Shleshmataka is included in Amradi varga, Sakavarga, Phalavarga, Shleshmakadi varga, Hareetakyadi varga in Nighantus^{3,4} and Samhitas

Rasapanchaka of Shleshmataka^{3,4,5,8}

Rasa	Madhura Kashaya Tikta according to Bhavaprakasha
Guna	Snigdha, Guru according to Bhavaprakasha
Veerya	Sheeta
Vipaka	Madhura katu

Parts used are Bark, Fruits, Seed oil, Leaves Root, Fruit pulp

Palita means keshashuklatwa i.e. silvering or greying of hair. The word Palitya has been derived from the root “Pali” with prefix “kta” meaning whitening of hair with ageing. Premature greying of hair refers to the greying of hair in young age or before the age of 35 years.

Formation hair and its colour: Hair is situated in the first layer Avabhasini. When majja dhatu emerges from prasada bhaga and at the same time hair of scalp and body emerges as mala from kitta bhaga of Asthidhatu during parinama. Keshha varna also depends on Pitta dosha (Bhrajaka Pitta).

Nidana of Palita¹¹ (Akala): All the nidanas classified under four broad categories: Aharaja, Viharaja, Manasika and Anya hetuja. Excess intake of lavana rasa and pitta prakopaja ahara, junk foods, spicy food, excess consumption of cold water and alcohol excess exposure to sunlight, cold weather and excess work grief, fatigue, and anger are the causes of Palita (akala). Use of hair cosmetics, genetic factors, hormonal imbalances, obesity, and malnutrition can lead to Palita.

Samprapti¹¹: Nidanas cause Prakopa of Vata and Pitta-- Increased Pittoshma--Vata carries increased Pittoshma to Shirah pradasha--Sthanika tridosha dusthi--Sthanamsamshraya in keshha bhumi/ Romakupa, --Sthanika Bhrajaka Pitta dusthi--Keshamala dusthi/Romakupa dusthi--Vikruti in Keshvarna utpatti-- Akala Palita

Selu taila²: Only Chakradatta has mentioned the preparation of Selu taila from its seed kernel. According to Chakradatta it is Aditya Paka taila. Selu phala majja is mixed with Kanchikam, pounded into Kalka and is kept in iron vessel made up of numerous holes under sunlight. Then the oil exuding out of the iron vessel is collected.

Pratimarsha Nasya: Nose is the gate way of the head. “Nasa hi shiraso dwaram”. So, Nasya is administered through nostrils with a dose of 2 Bindu of Selu taila.

II. AIMS AND OBJECTIVES

To Study Pharmacological and Phytochemical Evaluation of Shleshmataka (Cordia dichotoma Forst.f) and its oil and to assess the effect of Selu taila (Cordia dichotoma Forst.f) Pratimarsha Nasya in Palita (akala)

III. METHODOLOGY AND RESULTS

Sources of data

- Literary source Literature books of Ayurveda, The Samhitas, Nighantus, Pharmacology, API, Indian Materia Medica, Indian Medicinal Plants, Compendium of Medicinal Plants.
- Pharmaceutical Source The fruit of *Shleshmataka (Cordia dichotoma Forst.f)* required for the study was collected, from Mangaluru district in Karnataka and from Vorkady village in Kasaragod district of Kerala state
- Analytical source the samples of *Cordia dichotoma Forst.f* were used for Pharmacognostic study, Physico-chemical analysis and Phytochemical study GC-MS at CARE Keralam Confederation of Ayurvedic Renaissance Keralam Ltd, Koratty, Kerala

Clinical study: Interventional Non-Randomized clinical study in 30 Patients (20-40 yrs.) fulfilling the inclusion criteria were selected from OPD of Karnataka Ayurveda Medical College and Hospital, Mangaluru and given 2 *Bindu* of *Selu taila* for 3 months. **Assessment criteria:** Assessment done based on subjective and objective parameters by assessing through the scoring pattern on 0th day, 15th day, 28th day, 56th day, 86th day and follow up after 6 months (180th day). Subjective Parameter: Greying of hair (premature). Objective Parameter: Random hair count, Olsen/Canfield visual aid. Statistical analysis: Normality of the data was assessed using Shapiro Wilk test and Kolmogorov-Smirnov test.

Pharmacognostic study: Organoleptic study; Fruit is black in colour with taste – indistinct, Odour – specific and on touch - surface shrunk, hard to break. Macroscopy showed dried fruits are black in colour and surface shrunken, conical with acute apex, up to 1.5 cm in length and 1 cm in diameter, hard to break. Microscopy were also done which showed fruit contains epicarp, mesocarp, stone cell, starch grains, parenchyma cells, fiber, endocarp and endosperm cells.

Physico-chemical study: Moisture 1.81 % mass, foreign matter BDL, total ash 1.31 % mass of the seed results of oil shows that refractive index is 1.4660, which shows oil is denser, acid value of oil 6.67 which shows it can be used for *Nasya* and free fatty acids 3.35% which shows that oil helps with hair growth and can reduce the hair loss.

Preliminary phytochemical analysis: Result shows that *Cordia dichotoma Forst.f* seed has Carbohydrate, Flavonoids, Glycosides, Phenol, Alkaloids. and *Cordia dichotoma Forst.f* oil has Carbohydrate Flavonoids, Glycosides, Phenol, Terpenoids, Alkaloids

Results of GC- MS showing results of peak of different constituents

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	13.196	1186	1190	1197	rM	28508176	56555490	40.81%	15.101%
2	14.284	1315	1318	1320	rM	14876660	26749838	19.30%	7.143%
3	14.318	1320	1322	1330	rM	28595605	49362380	35.62%	13.181%
4	17.920	1735	1746	1764	rM 3	14572228	83105547	59.96%	22.191%
5	20.213	2009	2016	2034	rM 2	3565353	20138868	14.53%	5.377%
6	24.113	2456	2475	2497	rM 2	12156603	138592092	100.00%	37.007%

The GCMS studied in *Selu taila* showed 6 compounds 1. Palmitic acid 2. Linoleic acid 3. Oleic acid 4. Erucylamide 5. γ - Tocopherol 6. Stigmasterol at six peak levels

Clinical study Overall result show that use of *Selu taila* as *Pratimarsha Nasya* is significant in hair density and loss of grey hair and not much significant in turning grey hair black

IV. DISCUSSION

Glycoside, Terpenoids Alkaloids present in *Selu taila* is effective in the growth of hair. Flavonoids in *Selu taila* is effective in hair growth and greying of hair since it is an anti-oxidant. Phenol present in *Selu taila* can remove weak hairs (may be grey hairs) and dead cells making a way for the growth of new black hair. The overall results of GCMS show that Linoleic acid, Oleic acid and Erucylamide have effect on growth of new black hair. Erucylamide, γ - tocopherol or Vit E and stigmasterol has some effect in the reversing of colour of grey hair. Palmitic acid may have some effect in losing of grey hair

V. CONCLUSION

Hair density increased due to growth of black hair, grey hair loss was seen nearly to 25 % and colour of the grey hair changed during treatment. *Pratimarsha Nasya* with *Selu taila* is found to be safe and effective in the management of *Palita (Akala)*.

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