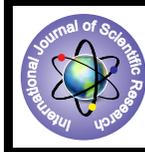# Study of Efficacy of Indravaruni(Citrullus Colocynthis Schrad.) Beej Taila Shiroabhyanga in The Management of Palitya (Premature Graying of Hair)

Medical Science

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ABSTRACT

Background: In present days hair problems are the commonest among life style disorders sp. premature graying of hair. Acharya Sharangadhara recommends use of Indravaruni seed oil for the management of Palitya. Aim: To study the efficacy of Indravaruni beej taila shiroabhyanga in the management of palitya. Material & methods: Standardization of Indravaruni was done, an open labeled clinical trial was undertaken with sample size 40, place - Tarachand hospital, Pune. A specialized hair count test was used for counting no. of grey hair. Observations & results: Clinical trial showed reduction in no. of grey hairs in 53% of patients. Efficacy of Indravaruni beej siddha tail shiroabhyanga in treating Palitya is statistically significant as p<0.0001. Conclusion: Indravaruni beej tail shiroabhyanga is effective in treating Palitya.

Introduction

In the present century population explosion, increasing social & economic imbalance, sedentary lifestyle trending towards luxurious lifestyle, mental stress are the important causes of number of psychosomatic disorders. Hair problems are the commonest among them and mainly younger generation facing these problems.

Graying of hair is an age related process, as age increases graying occurs naturally. Premature graying of hair occurs before the age of 20 yrs in Caucasians, 30 yrs in Africans & Asians or alternatively when 50% or more of scalp hairs turn grey before the age of 50.[1]

Premature graying of hair is considered as a social stigma. Hair disorders like premature graying of hair, hair fall (baldness) gives rise to many psychological problems. This enforces younger generation for repeated visits to clinics. Modern aspects of treatment for many hair problems are lotions, gels, dyes, creams etc, but these don't give significant results, rather chemical composition of dyes, lotions causes local reactions and harms scalp and eyes. Other treatment includes hair transplant, hair weaving but these are very costly. So, common people can't afford this type of treatment. Because of these reasons Ayurveda becomes an important faculty of health sciences. According to Ayurvedic texts/ Nighantus many herbs have wide range of medicinal applications but some of these applications are yet to be scientifically proven. Use of Indravaruni beej (seed) tail for the management of palitya (premature graying of hair) is one of these applications. This is the reason why this topic was selected for the present study. Also we can found classical recommendation of Indravaruni seed oil for management of palitya[2].

Material & methods

collection and authentification of indravaruni phal (fruit)

500 gm of dried Indravaruni fruits were collected from an authenticated retailer in a plastic bag. Those fruits collected were scientifically authenticated at research centre of T.A.M.V., PUNE 11 as Indravaruni i.e. Citrullus colocynthis.

Standardization of raw material & prepared oil

The standardization of Indravaruni & Til taila was done according to guidelines explained in Charak vimansthan 8/87 & according to API guidelines was done.

SOP for preparation of Indravaruni beej siddha oil

Preparation of Indravaruni beej siddha tail was done according to guidelines given in Sharangdhar samhita[2].

Informed Written Consent

Informed written consent was obtained from each & every patient included in the study.

Table no.1: Standardization of Indravaruni beej siddha tail –

Sr.no.	Test	Result
1	Colour	Dark Yellow
2	Odour	Characteristic
3	Taste	Bitter
4	R.I.	1.309
5	Solubility	Insoluble in Water, Soluble in Organic Solvent
6	Acid Value	1.4
7	Specific Gravity	0.98
8	Weight Per Ml At 25^0 C	0.927

CLINICAL STUDY –

An open labeled clinical trial was designed to study the efficacy of Indravaruni beej taila in Palitya (premature graying of hair).

Ethical clearance - Prior to starting the study permission from Institutional Ethical Committee was obtained.

Criteria for selection of patient

Total 40 patients of OPD at Tarachand hospital, Pune who fulfilled inclusion criteria with complete follow ups were selected irrespective of sex, religion.
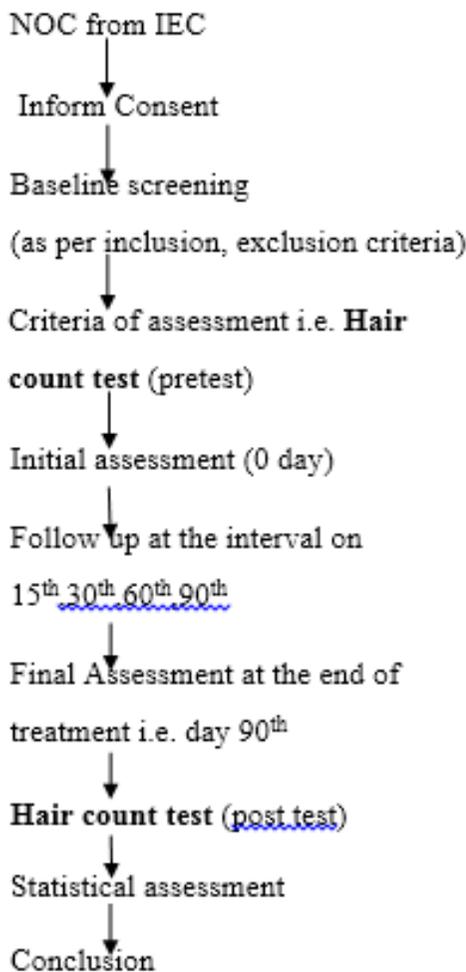
Inclusion criteria
- Age group between 15-34 yrs with palitya.
- Persons fit for shiroabhyang.

- **Exclusion criteria**
- Hereditary diseases like Albinism.
- Hormonal disorders
- Nutritional deficiency
- Patients on chemotherapy.

STUDY FLOW CHART

NOC from IEC

↓

Inform Consent

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Baseline screening

(as per inclusion, exclusion criteria)

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Criteria of assessment i.e. **Hair count test** (pretest)

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Initial assessment (0 day)

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Follow up at the interval on 15th 30th 60th 90th

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Final Assessment at the end of treatment i.e. day 90th

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Hair count test (post test)

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Statistical assessment

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Conclusion

Route & Duration of administration of medicated oil
SOP for drug administration

Indravaruni beej oil Shiroabhyang (gentle massaging of medicated oil to scalp) for 3 months twice a day (morning & evening). Subjects were instructed for massaging of scalp with Indravaruni oil as per requirement (approximately 5-10 ml) for 10 min. then remain it for half an hour, after that wash it with warm water.

Effect of Indravaruni beej oil was assessed on following criteria

Objective criteria
For the assessment of effect on graying of hair a special hair count test was applied.

Hair count test
Before treatment, after treatment and at each follow up total no. of Black & Grey hair was counted above Rt. Or Lt. Ear in 1cm2 area.

OBSERVATIONS
1. Age:

Considering the age factor, highest number of patients i.e. 22 (55%) were in the age 25-29 years, followed by 13 (32.5) in the age group of 30-34 years. Maximum patients were from 25-34 years age group. This is the age of young working persons, so there are more chances of multiple changes in diet, sleep, working place etc causing premature graying of hair.

2. Sex:
Patients approached for this were selected irrespective of sex. But, no. of male & female patients were equal i.e. 20-20. This shows that there is equal prevalence of palitya in both the genders.

3. Prakruti:
Maximum number of patients i.e. 10 (25%) were having Vata-Pittaja prakruti, 8 (20%) patients were having Pitta pradhan Vataja prakruti. So, it can be said that persons having tendency towards pitta dosha shows more incidence of palitya.

4. Occupation:
Maximum number of patients were student i.e. 15 (37.5%), followed by in service 11(27%) then housewife 10 (25%). All these patients were having sedentary life style with irregular food habits, leading to srotodushti.

5. Diet:
It is found that the patients who were consuming excessive Amla, Lavana & Katu rasa in their diet manifested with palitya in earlier age. Near 19 (47%) patients consumed Amla rasatmaka diet routinely, then 13 (32%) patients used excess salty food daily.

6. Psychological factors:
In the present study considering psychological factors (manas hetu) excessive anger, mental stress & anxiety are found as predominant etiological factors. Patients with premature graying of hair also showed signs of excessive mental stress i.e. 18 (45%) were maximum, then 13 (32%) were with anger like symptoms. This causes pitta dosha vitiation leading to palitya It is found in no. of patients that dietary & mental factors were leading towards Rasavaha srotodushti lakshana also.

Table no.2: Assessment of relief in no. of grey hairs

Difference in no. of grey hairs (BT-AT)	No. of patients	%
0 (no difference)	19	47.5
1	12	30
2	4	10
3	3	7.5
4	2	5

Statistical Analysis
The data was further analyzed to know statistical significance –

As no. of grey hairs is the **quantitative, paired & parametric data**, so test used is Paired 't' test -

Table no. 3: Statistical analysis of relief in no. of grey hairs

No. of Grey hair	Mean	S.D.	t. value	p- value (p<0.05)	Whether Significant
Before (0 day) – After (90 days)	0.925	1.163	5.0229	<0.0001	S

CONCLUSION
From the present study, it can be concluded that -
Indravaruni beej siddha tail shiroabhyanga is effective in treating Palitya (premature graying of hair).

Limitations –
The present study trial was taken on limited no. of patients and in a particular period of time

Although Indravaruni beej siddha tail showed statistically significant results on premature graying of hair, but this is more preventive than curative action. This might be due to shorter duration of administration of the drug.

The effect of Indravaruni below 14 years and above 34 years remains unknown.

Scope for further study –

Indravaruni beej siddha tail is an accepted form for local application in all age groups.

Further studies with different oil as base can be undertaken to check its palitanashana property.

To get more definite results trial should be taken on a larger population for longer duration of time.

References

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2. Parashuram Shastri (2006 - 1st edition), Sharangadhara Samhita – Bhishag-varadhamallavirachit Dipeeka-Panditkashiramvaidyavirachit Goodhaarthad-iepeekaya cha Samvalita, Varanasi, Choukhamba Surbharati Prakashan,

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