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Notion of *Kaarya* and *Kaarana* w.s.r. to Hairfall – An Ayurvedic Ideology

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ABSTRACT

The Vedas and other concepts go beyond traditional Indian medicine. Hairfall, also known as *Khaalitya* in *Ayurveda*, is a common ailment that has now become a cosmetic concern. *Ayurvedic* experts acknowledge the importance of hair, as well as its beauty value. According to recent statistics, hairfall is prevalent in India at over 60%, implying that it is already a triggering factor for other diseases. A thorough examination of the available conventional resources can aid in the identification of some of the more minor reasons of hair loss. With the purpose of addressing the reasons highlighted, a literary assessment of all available *Ayurvedic* Classics texts was done. All of the information gathered during the evaluation is examined, with possible categorization of reasons based on food, routine, and a variety of other factors. Excessive use of salt, alkaline substances, stress, excessive wind exposure, and other Indian classical medicine causes have all contributed to the enumeration of the following reasons.

Key Words *Khaalitya, Hairfall, Kaarya, Kaarana, Ayurveda*

INTRODUCTION

There has been an inconsistent variance with regard to diet, regimens, mental characteristics, and miscellaneous reasons in today's globe as a result of greater urbanization and up-gradation of civilization, resulting in numerous ailments. This transformed dietary habits, sleeping patterns, and manner of life had become both an individual and combined causes for a variety of ailments. *Khaalitya*, also known as hairfall, is one of these conditions. It has risen through the ranks of the list in the current environment and has also become a major cosmetic issue. Identifying and preventing the underlying causes of hair loss can help to reduce it to some extent. To determine the involvement of each cause in the manifestation of *Khaalitya*, a retrospective examination of individual cases of *Khaalitya* was performed. Such method of analysis helped significantly in understanding the management and preventing it from deteriorating further. In light of this, the current study was conducted to determine the significance of each reasons of *Khaalitya*.

METHODOLOGY

• Study design - Cross – sectional observational study

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- Sampling method - Convenient sampling
- Sample size – 370
- Case Performa - Case proforma includes the details of demographic data, *vyaadhi vruttanta, vyasanaadi, Ashtasthaana pareeksha,* and *dashavidha pareeksha* of the patient.

Standardized Questionnaire, that had closed end objective questions based on *Khaalitya nidaanaas* (which were compiled from *Ayurvedic* classics) which were answered by the patient. The inclusion and exclusion criteria along with the diagnostic criteria are provided in Table 1.

Table 1 Criteria

Inclusion Criteria	Exclusion Criteria	Diagnostic criteria	
Diagnosed cases of *khaalitya* were selected.	Patients who are not willing for the study were excluded.	**Subjective parameters**	• Hairfall • Breaking of hair • Roughness of hair • Thinning of hair
Samples aged 18-50 years were selected irrespective of gender	Patients who are having a history of *khaalitya* for more than 2 years.	**Objective Parameters**	• Scalp examination • Hair count test • Hair pulling test

REVIEW OF LITERATURE

Kaarana:

- The one that exists before the specific *kaarya* is referred to as *kaarana*[1].

The *kaarana* is the means through which the *kartaa* performs action[2]. Table No: 2 shows the various fulfilling criterias for Kaarana, to be known it as a cause.

Table 2 Criterias for Kaarana

Lakshana of Kaarana[3]	
Poorvavrittitwa(**Antecedence**)	*Kaarana* exists before the *Kaarya*
Niyatatwa(**Invariable**)	Whenever there *Kaarya* exists, *Kaarana* should exist invariably.
Ananyathaasiddhi (**Unconditional**)	The factor which is more essential

Kaarya:

- *Kaarya* is an element that is missing prior to its production[4].

Khaalitya:

- *Khaalitya* is a disorder characterized by the

gradual loss of hair, eventually leading to complete hair loss[5]. Table No: 3 shows the nidaanaas of Khaalitya which were found from Ayurvedic classics.

Table 3 Nidaanaas of Khaalitya[5]

Aahaaraja nidaanaas	Vihaaraja nidaanaas	Maanasika nidaanaas
***Amla Aahara* atisevana (excessive intake of sour food)**	*Atapa ati sevana* (exposure to hot weather)	*Chinta*(Over thinking)
***Atisheetambu* sevana (excessive intake of cold food)**	*Ati Bhaashya* (excessive talking)	**Anya kaaranaas**
***Atimadyapana* (excessive intake of alcohol)**	*Atimaithuna* (excessive sexual indulgence)	*Abhyanga dwesha* (Not following oleation therapy)
***Guru ahara* atisevana (Intake of heavy food)**	*Bhaashpa nigraha* (suppression of tears)	-
***Harita shaaka* atisevana (excessive intake of green leafy vegetables)**	*Divaswapna* (day sleep)	-
***Hima aahara* atisevana (intake of cold food)**	*Hima sevana* (exposure to cold weather)	-
***Lavana ati sevana* (Intake of salty foods)**	*Pragvata sevana* (exposure to easternly wind)	-
***Lavanaahaara* with ksheera**	*Ratrijagarana* (night vigil)	-

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| - | *Rajo dhuma sevana* (exposure to dust & fumes / smoke) | - | | |
| - | *Rodhana* (excessively crying) | - | | |

Sampraapti of Khaalitya: *Vrudda Pitta,* together with *Vata,* reaches *Romakoopa* and causes hair loss, whilst *Shleshma,* along with *Shonita,* causes avarodha of the *Romakoopa* channels, preventing hair regeneration, and this condition is known as *Indralupta, Khaalitya,* or Ruhya[5]. The following (Table No:4) are the observations obtained through the present study.

Table 4 Observations

Data	Scale	No. Of Samples	Percentage
Pradhaana Vedana	Khaalitya since1 year	158	42.7%
Vayah	Madhyama	191	51.6%

Aahaara	Vegetarian	265	71.6%
Nidra	Irregular sleep	136	36.7%
Nature of Work	Involving travelling	133	35.9%
Aggravating factor	Travelling	124	33.5%
Prakruti Pareeksha	Vaatapittaja prakruti	267	72.1%
Kesha Varna	Krushna varna	170	45.9%
Nature of Keshabhoomi	Rooksha	300	81.1%
Keshabhoomi kandu	Present	218	58.9%

The results which are obtained through the present study are as follows, represented through Table No: 5.

Table 5 Results

Data	Obtained Value	P Value	Significance	Association
Family History	321	0.060	Insignificant	No association
H/O Dandruff	202	0.04	Significant	Strong
H/O Anemia	12	0.060	Insignificant	No association
Usage of hot water for hair washing	236	0.014	Significant	Weak
Non - Application of oil over the scalp	311	0.372	Insignificant	No association
H/O Stress	246	0.049	Significant	Strong
H/O Previous illness	56	0.034	Significant	Strong
Exposure to sun	192	0.166	Insignificant	No association
Exposure to wind	340	0.032	Significant	Strong
Exposure to dust/ smoke	179	0.158	Insignificant	No association
Exposure to Cold weather	302	0.009	Significant	Strong
Awakening at night	333	0.008	Significant	Weak
H/O Day sleep	329	0.037	Significant	Strong
H/O Excessive talking	45	0.17	Insignificant	No association
H/O Control of tears	42	0.9	Insignificant	No association
H/O Excessive of sexual intercourse	42	0.014	Insignificant	No association
H/O Excessive alcohol intake	60	0.197	Insignificant	No association
H/O Heavy meal intake	143	0.001	Significant	Strong
H/O Excessive of salty food intake	252	0.03	Significant	Strong
H/O Excessive sour food intake	223	0.023	Significant	Weak
H/O Excessive pickle/ vinegar food intake	169	0.006	Significant	Weak
H/O Excessive leafy vegetable intake	95	0.008	Significant	Weak
H/O Excessive refrigerated drinks intake	104	0.040	Significant	Strong
H/O Excessive salty foods with milk intake	170	0.001	Significant	Weak

DISCUSSION

'Vitarka' is one of the six characteristics that a competent scholar must possess, according to *Acharya Charaka.*

Discussion on *Kaarya* and *Kaarana*: Prior to the manifestation of *kaarya,* there must always be a *kaarana* present. In all disorders, all three requirements must be met in order for a *kaarana*

to manifest a *kaarya*. The *Aaptopadesha pramaana* is used to identify the *kaaranas* at first. Then comes kaarya analysis, which includes determining *Khaalitya* using the *pratyaksha pramaana* and identifying the *Kaaranas* using the *anumaana pramaana. Aaptopadesha* and *pratyaksha* are confirmed first in a retrospective study, and then *kaaranaanumaana* is performed as a second phase. We have several *kaaranas* in this study, but there is only one *kaarya*. Individual *nidaanaas* have the ability to manifest *khaalitya* as well. Weakly connected *nidaanaas* were only contributory reasons in the case of numerous *nidaanaas*, whereas powerful causes produced the *vyaadhi*. As a result, we can deduce that a disease's *kaarya* is always one, and that *kaaranas* can be many or single. Only the intensity of the *nidaaanas* that induced khaalitya can be comprehended if all the causes are determined to be equally powerful. In addition, the *vyaapti* of the disease can vary depending on the presence of *keshabhoomi, keshamoola*, and other factors that must be analyzed and verified. In such circumstances, treatment can be tailored based on the participation of *nidaanaas* strength. When only one nidaanaa is involved, treatment becomes easy and may be tailored to the *nidaana*. When many *nidaanas* are involved, the condition becomes more severe, and multi-phased treatment might be used. Different levels and intensities of treatment can be arranged based on this.

Fulfillment of the criteria's of Kaarana with the obtained Nidaanaas of khaalitya:

- ***Poorvavruttitwa*** – Prior to the commencement of *kaarya, kaarana* should exist. At least one of the *nidaanaas* of *Khaalitya* should be present previous to the appearance of *Khaalitya* (which is known through history taking).

- ***Niyatatwa*** – *Kaarana* should always be present whenever a *kaarya* exists. That is, if *khaalitya* manifests, one of the *nidaanaas* described above should invariably be present (as evidenced by the survey) prior to its manifestation.

- ***Ananyatha siddhi*** – Among the *khaalitya nidaanaas*, the presence of tightly connected *nidaanaas* is particularly essential in exhibiting the *vyaadhi*. It could be a single *nidaana* or a collection of *nidaanaas*. When there are multiple *nidaanaas*, it is always vital to have a powerful *nidaana* capable of displaying the ailment. The four causes should generate *Khaalitya* in the case of sets of four *nidaanaas*; otherwise, *Khaalitya* would not have emerged. **Table No 6 shows the Status of Various *Kaarana bheda* in a *Kaarya* Manifestation**

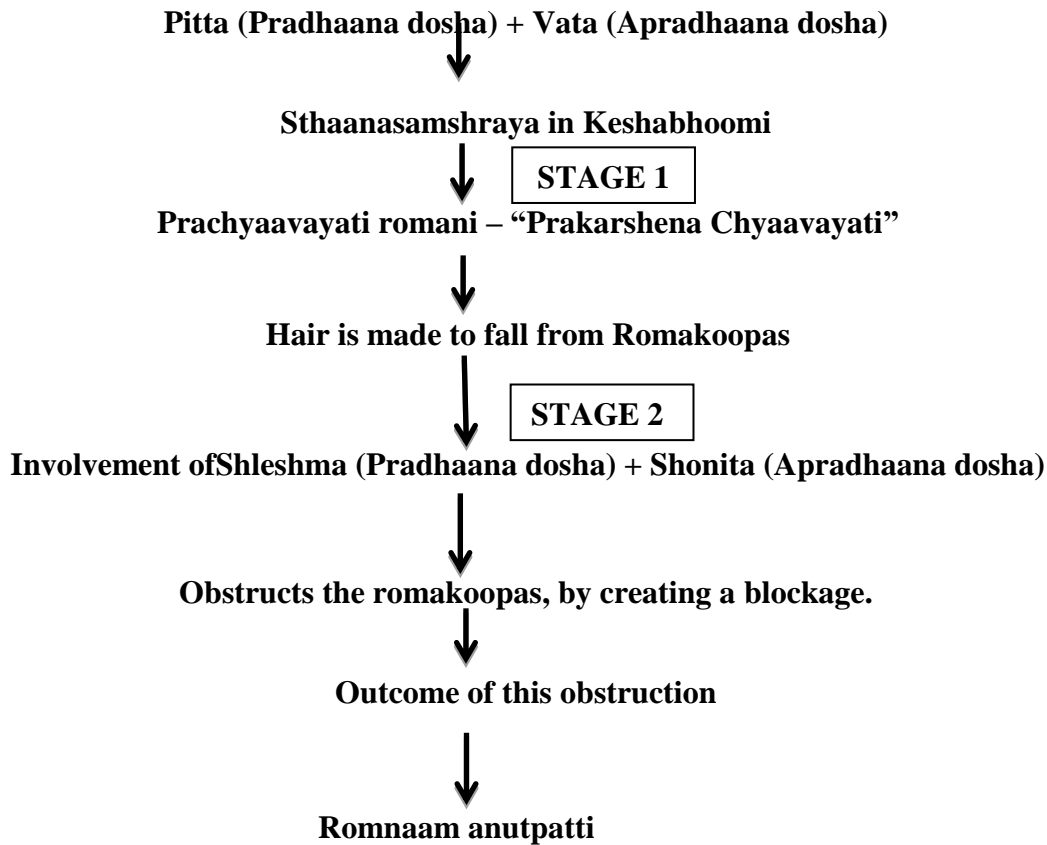The status of various types of causes and its role in manifesting a disease is interpreted through

Table 6 Status of Various Kaarana Bheda

Status of Various Kaarana Bheda in a Process Manifestation				
Sl. No	*Kaarana*	**Before**	**During**	**After**
1.	*Samavaayi Kaarana*	Present	Present	Present
2.	*Asamavaayi kaarana*	Absent	Present	Absent

3.	*Nimitta Kaarana*	Present	Present/ Absent	Present/ Absent

samskruta vyakarana, could reveal that sthe vyaadhi happens as follows, interpreted through Figure No:1.

The understanding of Khaalitya sampraapti with the influence of

Pitta (Pradhaana dosha) + Vata (Apradhaana dosha)

↓

Sthaanasamshraya in Keshabhoomi

↓ STAGE 1

Prachyaavayati romani – "Prakarshena Chyaavayati"

↓

Hair is made to fall from Romakoopas

↓ STAGE 2

Involvement ofShleshma (Pradhaana dosha) + Shonita (Apradhaana dosha)

↓

Obstructs the romakoopas, by creating a blockage.

↓

Outcome of this obstruction

↓

Romnaam anutpatti

Kaarana, the causes are classified into three, and its identification in the current study are as shown in table no: 7.

Table 7 Categorization of various types of Kaarana in Khaalitya

Type of *Kaarana*	In *Khaalitya*
Samavaayi Kaarana	*Vata, Pitta, Kapha*
Asamavaayi Kaarana	*Dosha – Dooshya Samoorchana* Association of *Vata* and *pitta* with *rasa dhaatu* – 1st stage Association of *Kapha* and *Rakta* – 2nd stage
Nimitta kaarana	All the associated *nidaanaas* of *Khaalitya*

Table 8 Discussion on Observations and Results (Significant Data)

Components of Data	Conceptual Interpretation			Statistical Interpretation
	Dravya	**Guna**	**Karma**	
H/O Dandruff	Vata, Pitta	Rooksha Laghu	Rookshana	Hairfall is one among the symptom of Daarunaka.
Usage of hot water for hair washing	Pitta	Ushna Drava	Swedana	Irregularity in the practice of head bath, Misconcerns about the effects of hot water

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				usage for hair washing.
H/O Stress	Vata	Chala	Chintyam	Workload and pressure, Fast paced life, and tremendous increase in daily working hours
H/O Previous illness	TridoshaRakta	Rooksha Laghu Chala Sheeta	Rookshana	Samples taken up for the study were not having any previous illnesses.
Exposure to wind	Vata Pitta	Rooksha Teekshna Ushna Drava	Swedana Langhana	Travelling in two wheelers, Hair and scalp which are usually not covered by everyone
Awakening at night	Vata	Rooksha	Rookshana Langhana	Stressful work in this competitive world Compromising sleep for job and education
H/O Day sleep	Kapha, pitta	Snigdha Guru Sneha	Snehana Brumhana	Reversing of the biological clock due to night shifts
H/O Heavy meal intake	Kapha	Guru Snigdha Manda	Stambhana	Samples were from urban areas were the young generation were found to be consuming more of fast foods which is very heavy to digest
H/O Excessive of salty food intake	Pitta Kapha	Sneha Ushna Guru	Stambhana Snehana Swedana	Majority of the samples were students and those working in IT field, which had a habit of intake of salted fried items
H/O Excessive sour food intake	Kapha Pitta Rakta	Snigdha Ushna Laghu	Snigdhata Shithilatha	Diet conscious, Lemon juice intake in order to feel fresh in between travel and work.
H/O Excessive pickle/ vinegar food intake	Vata Pitta	Rooksha Sookshma Sara Drava	Rookshana Langhana	Practice of intake of packed food items
H/O Excessive leafy vegetable intake	Vata	Rooksha Laghu Sheeta	Rookshana Langhana	College going students preferred packed foods, and fast foods which hardly contained leafy vegetables.
H/O Excessive refrigerated drinks intake	Vata	Sheeta Rooksha Laghu	Stambhana Rookshana	Make them feel fresh, and to reduce the heat produced in the body
H/O Excessive salty foods with milk intake	Tridosha Rakta	Sheeta Ushna Snigdha Teekshna Guru Drava Manda	Stambhana Dhaatukshaya	Consuming chips along with tea, mixture and milk etc. in between their work schedule in order to refresh themselves.

Table No:8 satisfies the conceptual interpretation and statistical interpretation about the results obtained in the study.

CONCLUSION

Poorvavyaadhi vruttanta, notably the history of *Daarunaka*, plays an inextricable role in the development of *Khaalitya,* as analogous *dosha* vitiation has previously occurred. Other factors, such as *abhyanga dwesha*, which causes an excess of *rookshata* in the *keshabhoomi*, are stronger in causing *Khaalitya* to develop. As *ati-chintana* leads directly to *dhaatu kshaya, maanasika vikaara*, like *chinta*, is essential for the manifestation of *Khaalitya. Rookshata, laghutwa*, and *chalatwa* are caused by *praagvata's ati sevana*, whereas *ati hima sevana* creates *sheetata*, vitiating *vata dosha* and resulting in *Khaalitya. Diwaswapna* has been shown to be a stronger cause of *Khaalitya*

manifestation than the *kapha prakopa*. Due to the vitiation of the *kapha, pitta*, and *vata doshas, guru aahaara, lavana aahara*, and *sheeta jala aahaara sevana* can also lead to *Khaalitya*. In this investigation, the *vihaaraas* discovered that ushna jala snaana and raatri *jaagarana* are causes of *Khaalitya. Atiyoga* of *amla aahaara, kshaara atisevana, harita shaaka atisevana*, and *lavana sevana*, as well as *ksheera*, are other *aahaaraja nidaanaas* revealed as causative variables in *Khaalitya. Kula vruttanta*, or paternal side hairfall, plays a role in the appearance of *Khaalitya*, despite the fact that the result was statistically insignificant. The involvement of ati *bhaashya, ati maithuna, baashpa nigraha, madya atisevana*, and *Paandu's* current history in manifesting *Khaalitya* can be elicited through larger sample sizes in future studies, because the current study's results were clinically and statistically insignificant.

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