



## THE ROLE OF AYURVEDA IN KHALITYA- A REVIEW

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Received 18<sup>th</sup> March 2024; Accepted 27<sup>th</sup> April 2024; Published online 30<sup>th</sup> May 2024

### Abstract

Today's world is full of glamour and fame. People of this era are now more conscious of their appearance in which hair plays an important role. Hair loss is the most frequent ailment among humans. This is because of different dietary habits and changed lifestyles. In Ayurveda, Khalitya signifies hair fall, which is closely related to Baldness or Alopecia in modern science. Khalitya is a disorder characterized by Tridoshjanya Vyadhi, which includes Vata, Pitta, Kapha, with Rakta dosh. Increased Pitta dosh combined with Vata dosh at the root of hair follicles promotes hair loss and Kapha along with Rakta dosh blocks the root of hair follicles which ultimately stops regeneration of hairs. When Vata predominates, it causes burning on the scalp; when Pitta predominates, sweating occurs; and when Kapha predominates, the skin thickens. Khalityaroga is mentioned in Ayurveda as *Kshudraroga* (minor disease) or *Shiroroga* (head and scalp ailment). As Khalitya is a sign of pre-mature ageing hence Rasayana therapy is used which decreases and reverts the process of ageing. The purpose of this article is to elaborate and investigate the aetiology, associated concepts, and management of khalitya. Different herbs like Bhringraj, Brihati, Gunja, etc. and different Ayurvedic formulations like Bhringrajvati, Triphala churna, Panchatikta Ghrita, etc. are used in the management of Khalitya.

**Keywords:** Khalitya, Hairfall, Baldness, Alopecia, Bhringraj, Triphala churna, Indralupta.

### INTRODUCTION

Ayurveda is an ancient science of life that aims to preserve and promote health, as well as to alleviate disease. In the purest sense, it is an immortal science. World Health Organisation (WHO) estimates that 80% of the population in underdeveloped nations rely on traditional medicines; primarily plant pharmaceuticals, for their basic health care requirements. In Ayurveda, preventive health practices and disease cures are based on an individual's constitution. The body constitution or which is called as "*Deha Prakruti*" of a person is of great importance both during health and disease.<sup>[1]</sup> Khalitya (hair fall) which is more susceptible to an individual of Pittaja Prakruti. The ailment is classified as Pitta dominating *Tridoshjanya Vyadhi* i.e., which includes Vata, Pitta and Kapha along with Rakta dosha. Acharya Sushruta has described the pathogenesis of Khalitya as Vata along with Virrudh Pitta reaches Rom Koopa which causes hairfall and Kapha along with Rakta hinders the Rom Koopa which ultimately stops regeneration of hairs.<sup>[2]</sup> When Vata predominates, it causes burning on the scalp; when Pitta predominates, sweating occurs; and when Kapha predominates, skin thickens.<sup>[3]</sup> Hairfall is one of the symptoms of pre-mature ageing. Improper diet and polluted environment nearby along with not following the principles of *Dinacharya* and *Ritucharya* fasten the process of ageing. This process of ageing is decreased and reverted by the use of Rasayan Dravyas or their formulations.<sup>[4]</sup>

On the basis of rogasthana and etiopathogenesis of disease, Acharya Charak<sup>[5]</sup> and Acharya Vagbhatta<sup>[3]</sup> have included khalitya in *Shiroroga* and on the basis of less severity and mildness of disease, Acharya Sushruta<sup>[6]</sup>, Acharya Vagbhatta<sup>[7]</sup> have included khalitya under *Kshudraroga*.

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### Aims and Objectives

1. To explore khalitya as mentioned in Ayurvedic and modern literatures.
2. To investigate various diseases and treatments for hair loss.
3. To study the Ayurvedic as well as Modern concept related to hairfall.

### Prevalence

- Spain (44.50%), Italy (44.37%), and France (44.25%) are the top three nations with the highest rate of male pattern hair loss.<sup>[8]</sup>
- In India, over 40% of males and 25% of women suffer from hair loss.<sup>[9]</sup>
- The Prevalence of hair loss was 60.3%, the prevalence of dandruff was 17.1% and baldness was 50.4% among both genders.<sup>[10]</sup>

### MATERIALS AND METHODS

The study is based on many Ayurvedic texts (primarily Brihatrayi, Laghutrayi, and other Ayurvedic literature), Journals, Research papers, Articles & Ayurvedic Pharmacopoeia of India. Modern texts and various websites were also referred to collect the information related to hairfall.

### DISEASE REVIEW

#### Ayurvedic Perspective

**Keshotpatti**-According to Ayurveda, the human body is made up by seven Dhatus: *Rasa, Rakta, Mamsa, Meda, Asthi, Majja*, and *Shukra*. These dhatus are primarily responsible for Dharan and Poshan. Despite some disagreements, the majority of them believe that the production of the latter Dhatus is produced

from the former by the activity of their respective Dhatwagni, which leads to the formation of their Updhatu and Mala. During the dhatu nirmanprocess, when paka of asthi dhatu occurs due to its own agni, Majja dhatu emerges, and Kesha, or hair on the scalp, appears as Mala. [11,12] According to the Acharya Sarangdhar, Kesha is Updhatu of Majja dhatu as it does Dharan and not Poshan. [13] Pitraja Bhava is the name of the kesha according to ancient classics. Themorphology and amount of hair in child are determined by its paternal side. [14,15] Acharya Charaka has mentioned it as a Parthiva Dravya because the properties like rough, steady and heavy are similar to that of Prithvi. [16]

**Keshotpatti in Grabhaavastha-** Acharya Vagbhatta stated that the Keshotpatti Kala in embryo is at six months. Acharya Harita remarked that Roma utpattioccurs in the fourth month. [17] According to the Samhita kala, Kesha appears in the seventh month. [18]

**Keshsankhya-** The number of Keshya according to several texts-

- According to Acharya Charaka, the total number of human hairs is 29956. He also asserted that the number of Kesha and Shmashru are equal. [19]
- According to Acharya Sushruta, there are infinite number of hairs, similar to Dhamanis. [20]
- Acharya Vagbhatta in Ashtanga Samgrahashares Charaka perspective. [21]
- According to Vidyotini Teeka of Charaka Samhita the number of keshastated by Aptopadeshais 72 crores (Cha.Sa.7/14). [22]

### Hair related disease in Ayurvedic classics

➤ **Khalitya-** Khalita is defined as gradual hair loss that occurs throughout the scalp. It happens when Pitta combines with Vata or Kapha dosh, destroying the hair. In this disease, Scalp appears red which indicates involvement of Pitta dosh. Generally, Virechana Karma has proved beneficial for the management of khalitya. [23]

➤ **Indralupta-** also termed as 'Alopecia areata'. In this disorder, hairs fall out unexpectedly and in patches. It occurs when the kapha dosh unites with Rakta dhatu, causing full degeneration of hair follicles and baldness. It requires topical or injected corticosteroids to treat this condition. According to Acharya Kartika, the fall of hair from all over the body is termed Ruhya. [23]

➤ **Palitya-** In this condition, hair turns grey in the premature stage due to overwork and fatigueness. According to WHO, this incidence is high in India of age group 20-30 years. Palitya has been explained by Sushruta in *Kshudra Rogaadhikara* [24], Vagbhatta under *Shiro Kapalagata Roga* [25] and Charaka under *Urdhwajatrugata Roga* [26]. *Nasya* therapy has proved to be very beneficial in this condition.

➤ **Darunaka (Dandruff)-** The scalp becomes stiff, irritable, rough, and scaly due to kapha pitta prakopa ultimately leading to hairfall. Symptoms like kandu, Kesha rookshata occurs due to vitiation of vata and kapha dosh. Dandruff severity get worsen during winter season. [27] In a study, Siro-abhyanga procedure with Gunjataila and with

Nimbatwak churna proved beneficial for the treatment of Darunaka. [28]

### Modern Perspective

Hair is characterised by modern science as a change of the epithelial structure caused by a keratinized germinating cell. Anatomy of hair has a Shaft (superficial portion) and Root (portion penetrating into dermis). On transverse cutting, it shows three concentric layers of cells namely Medulla, Cortex and Cuticle. [29]

Hair grows in three different repetitive cycles.

- Anagen (growing stage)
- Catagen (transition stage)
- Telogen (dormant stage)

Approximately 90% of the hair of the head is in the anagen phase, which typically lasts between 2 to 8 years. The catagen phase lasts about for 2 to 3 weeks during which time the follicles decrease. The telogen phase is the resting phase that lasts approximately 2 to 4 months. When this stage is finished, the hair falls off. The hair follicles then resume their growing phase and the cycle repeats.

Most people's hair grows approximately 6 inches every year. In a normal individual, hair falling of 100 to 250 hairs per day is typical, but more than 150 hairfall per day can be associated with a diseased state. This condition is called Alopecia which refers to the loss of hair from the head and body. It could be an either overall hair loss or male pattern baldness. Mainly there are two types of alopecia. [30]

- 1) Scarring Alopecia: It is a kind of baldness where hairs fall along with the hair follicles. This alopecia is irreversible since hairs do not regrow after falling.
- 2) Non scarring Alopecia: This type of baldness affects only the hairfalls and not the hair follicle. This type of alopecia is reversible since the hair follicles are retained.

### Ayurvedic Management of Khalitya

#### Ancient Treatment

**Nidanparivarjan:** Acharya Sushruta states that Nidanparivarjana should be the principle of the treatment. [31] It simply means removal or eradication of disease causative factors by examining carefully. Nidanparivarjana in Khalitya comprises the avoidance of all factors indicated under Nidans, particularly Shiro-roga. [32]

**Ushnishka:** Means covering of head with cloth. According to Acharya Charaka, it is said to be pavithra and suitable for hair. It protects hair from UV rays, dirt, wind etc which may alter the natural colour and texture of hair and hinders the growth of hair. [33]

**Nasya:** It is referred to as 'The Gateway of *Mashtiska*'. The drug administered through the nose spreads throughout the head and alleviates the headache. Nasya offers *Snehana*, which nourishes the hair roots and so prevents Khalitya. A nasal drop of "*Anu tai*" can be used for Pratimarsa Nasya every year during the rainy, autumn and spring seasons when the sky is clear clouds.

Herbs used in Khalitya as per Ayurvedic Pharmacopoeia of India (API)<sup>[51]</sup>

S. No.	Name	Botanical Name	Part Used	Chemical constituents	Karma
1.	Bibhitaki	<i>Terminalia bellerica</i>	Dried fruit	Glycosides, Gallic acid, Tannic acid	Keshya
2.	Gambhari	<i>Gmelina arborea</i>	Dried fruit	Alkaloids, Tartaric acid, Butyric acid	Keshya
3.	Nirgundi	<i>Vitex negundo</i>	Dried leaf	Alkaloids & Essential oil	Keshya
4.	Gunja	<i>Abrus precatorius</i>	Seed	Abrin & Abralin	Keshya
5.	Nili	<i>Indigofera tinctoria</i>	Whole plant	Glycoside (Indican)	Keshya
6.	Bhringraj	<i>Eclipta alba</i>	Whole plant	Alkaloids, Ecliptine & Nicotine	Keshya
7.	Saireyaka (Sahachara)	<i>Berleriaprionitis</i>	Whole plant	Alkaloids, $\beta$ -sitosterol	Keshya
8.	Bijaka (Asana)	<i>Pterocarpus marsupium</i>	Heartwood	Alkaloids & Resin	Keshya
9.	Tila	<i>Sesamum indicum</i>	Seed	Fixed oil	Keshya
10.	Ketaki	<i>Pandanus tectorius</i>	Underground root	Essential oil	Keshya
11.	Utpala	<i>Nymphaea stellata</i>	Dried flower	Tannin	Keshya
12.	Kadali	<i>Musa paradisiaca</i>	Fresh Rhizome	Fixed Oil and 4 $\alpha$ -Methyl Sterol Ketone	Keshya
13.	Karnasphota	<i>Cardiospermum halicacabum</i>	Root	NA	Keshya
14.	Bhutkeshi	<i>Selinumvaginatum</i>	Dried fruits & Rhizome	Essential oil & Coumarins	Keshya
15.	Brihati	<i>Solanum indicum</i>	Whole plant	Steroidal saponins: Indioside A, B, C, D & E	Keshya
16.	Gokshura	<i>Tribulus terrestris</i>	Whole plant	Alkaloids, Glycosides, Flavenoids,	Keshya
17.	Sleshmataka	<i>Cordia Dichotoma</i>	Dried Stem Bark	$\beta$ -sitosterol & Gallic acid	Keshya
18.	Gandhasipha	<i>Pavonia odorata</i>	Whole plant	$\beta$ -sitosterol, Pavonene, Pavonenol	Keshya

## Formulations used in the Management of Khalitya-

S.No.	Formulation	Dosage with Anupana	No. of Days	References
1.	Trichup Capsules	1 capsules TDS	45 Days	[52]
2.	Brihatmanjishthadikwath	15ml TDS with 15 ml water	15 Days	[52]
3.	Kaishore Guggulu	2 Tab TDS	15 Days	[52]
4.	Sarivadyasava	15 ml TDS	15 Days	[52]
5.	Triphala churna	5gm HS (bed time)	15 Days	[52]
6.	Saptamrita Lauha	500mg TDS	30 Days	[52]
7.	Narsinha Rasayana	1 table spoon full TDS	30 Days	[52]
8.	Bhringraj Asava	20 ml BD with 20ml of water	60 Days	[53]
9.	Shuddha Gandhak + Amalaki Churna	250mg + 3gm BD with 5ml of Honey	60 Days	[54,55]
10.	Aragvadhaphala majja	10gm HS (bed time)	60 Days	[56]
11.	Panchatikta Ghrita	10ml BD	60 Days	[57]
12.	DhurdhurPatradi Taila	For Local Application	60 Days	[58]
13.	Madhukadi Taila	For Local Application	60 Days	[59]
14.	Kesharaja Taila	For Local Application	28 Days	[60]
15.	Malatyaditaila	For Local Application	45 Days	[61]
16.	Bhringraj Vati	2gm OD with Lukewarm water	90 Days	[62]
17.	Coconut Oil	For Local Application	90 Days	[62]

Along with many other benefits, it reduces hair loss and also speed up hair growth.<sup>[34]</sup> Yastimadhutaila<sup>[35]</sup>, Chandanadhyataila<sup>[36]</sup>, Vidarigandhaditaila<sup>[37]</sup>, Jambuadhyataila<sup>[38]</sup> etc. are used for Nasya in clinical practice.

**Abhyanga-** It means oil applications on the body. As skin is Vata Sthana, oiling of skin mitigates Vata Dosha. In the context of Dinacharya, Abhyanga should be specially practised over Shira, Sravana and Pada.<sup>[39]</sup> Oils like Bhringraj oil<sup>[40]</sup>, Karanjadi oil<sup>[41]</sup>, Malatyadi oil<sup>[42]</sup>, Bhallatakadi oil<sup>[43]</sup>, Jatyadi oil<sup>[44]</sup> etc. are widely used for hair nourishment.

**Lepan -** Lepan or Shirolepan means application of paste of medicine over the scalp. It is effective in case of Darunaka (Dandruff), Kesha brimhana, Kesha ranjana. Acharya Vagbhata explained Shirolepana with Tila, Amalaki, Padmakinjalka, Madhuka and Madhu for Kesha Brimhana and Ranjana.<sup>[45]</sup>

**Dhoompana -** It is a therapeutic procedure for inhaling medicated fumes. Dhoompana cures the problem of hairfall by elevating dos has like Vata & Kapha from the head region. It cures disorders of head and sense organs.<sup>[46]</sup>

**Virechan karma:** As khalitya is pitta predominant disease along with Vata and Kapha, Virechan karma is mostly indicated in this. Virechan karma by *Abhyadimodaka* proved beneficial for Khalitya & Palitya.<sup>[47]</sup>

**Rasayana Prayoga:** In Khalitya Chikitsa, Acharya Sushruta instructs Rasayana.<sup>[48]</sup> Premature hair fall is an indication of early ageing, and Rasayana is ideal for reversing the ageing, hence it is utilised efficiently in case of hair related disorder. Antioxidant activity of the Rasayana Yogas also helps the hair to grow thick and healthy. Amalaki Rasayana<sup>[49]</sup> and Shwadanshtradi Rasayana<sup>[50]</sup> are given in case of Khalitya. Other formulations like Brahma Rasayana, Narasimha Rasayana, Saptamritlauha etc. are also used for the management of Khalitya.

## Conclusion

Ayurveda advocates the fact that medicines i.e., Chikitsa and Nidanparivarjana are the two important aspects for the management of any type of disease. Pittaja Prakruti makes the person more prone to khalitya. The effect of khalitya can be prevented by life style modification and following proper diet regime. The Ayurvedic treatment of Khalitya has demonstrated a high capacity to break down the disease pathophysiology. For proper hair care, nourishment of head and body along with proper Sodhan procedure is necessary. By practicing proper Dinacharya and Ritucharya along with ancient treatments like Abhyang, Nasya etc., one can achieve strong and beautiful hairs. Hence, it can be concluded that using ancient therapy along with Ayurvedic herbs and formulations have been shown to be effective in reducing hair fall and improving overall hair condition.

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