

# An Ayurvedic Management of Khalitya: A Single Case Study

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## ABSTRACT:

**Introduction:** Hair is a crucial aspect of human beauty, self-esteem, style, confidence, and well-being. Hair loss, caused by factors like lifestyle changes, hormonal imbalance, poor diet, sleep problems, stress, and genetics, is increasingly common. *Ayurveda* refers to hair loss as *Khalitya*, categorizing it under *Kshudra Roga* or *Shiroroga*.

**Aim:** To study the effect of external use of *Amlaki-Amrasthi lepa*, internal use of *Amalaki-Amrasthi kashay*, and *Avipattikar churna* in the case of *Khalitya*.

**Case Study:** This case study focuses on a 25-year-old woman who visited the OPD at *Agadtanta* of Dr. D. Y. Patil College and Hospital in Pimpri, Pune. She reported experiencing excessive hair loss and occasional scalp itching, along with mild dandruff. She was treated with *Amlaki-Amrasthi lepa* as an external application on scalp region, with internal use of *Amlaki-Amrasthi kashay* and *Avipattikar churna* for 30 days.

**Discussion:** This case study focuses on the management of *Khalitya*. The role of *Amalaki-Amrasthi lepa*, *Amalaki-Amrasthi kashay* and *Avipattikar churna* in the management of *Khalitya* was determined by this case study. The therapeutic approaches markedly reduced the signs and symptoms of *Khalitya*.

**Conclusion:** A comprehensive analysis and discussion of the treatment of *Khalitya* utilizing *Ayurvedic* methodologies is provided in this case study. *Amlaki-amaranthi lepa*, *Amlaki-amrasthi kashay*, and *Avipattikar churna* were found safe and effective in managing hair loss and improving hair health without side effects. Unlike costly modern treatments like hair implants and PUVA, *Ayurvedic* options are affordable and accessible. This case study aims to encourage further research and develop a cost-effective *Ayurvedic* treatment for *Khalitya*.

**Keywords:** Khalitya, Amalaki-Amrasthi, Avipattikar churna, Hairfall

## INTRODUCTION:

Hair is crucial for enhancing beauty, self-esteem, style, and overall well-being in modern times. Alopecia, or hair loss, affects both men and women. Early hair loss is influenced by lifestyle changes, hormonal imbalances, unhealthy eating habits, sleep disturbances, stress, genetic factors, and more. In *Ayurvedic* literature, Alopecia or hair fall can be correlated with *Khalitya*.<sup>[1]</sup> It is categorized under the heading of *kshudrarogas* according to Acharya *Sushruta* and *Shirorogas* as per Acharya *Vagbhatta*. According to *Ayurveda* principles, the presence of ailments and suffering in a living body is attributed to the disharmony

and imbalance of the *Doshas*. *Khalitya* manifests as a condition involving the three *doshas*: *Vata*, *Pitta*, and *Kapha*, alongside the *Rakta dosha*. According to *Acharya Sushruta*, *Pitta*, along with *Vata*, affects the *rom-koopa* (Hair-follicle roots), leading to hair loss. Thereafter, *Shleshma* and *Shonita* together obstruct the channels of the *rom-koopa*, resulting in the cessation of hair regeneration.<sup>[2]</sup> It is chiefly a *pitta*-dominant *tridoshajanya vyadhi*. Corticosteroids, minoxidil, immunotherapy, PUVA (psoralen plus ultraviolet A), and hair implants are frequently utilized by modern medical specialists for managing it.<sup>[3]</sup> These treatments can be costly. These treatments can be expensive. In contrast, *Ayurvedic* treatments offer readily available and cost-effective formulations without adverse effects. A case with typical signs and symptoms of ‘*Khalitya*’, is described in this article. The treatment principle aims to rebalance all disrupted *Doshas* using both internal medication (taken orally) and external application. In addition to particular *pathya* and *apathya* is also useful in treating this condition. In this case study, *Amlaki Amrasthi kashay* and *lepa* from *Vaidya Vallabh* literature - and *Avipattikar churna* from *Bhaishjya ratnavali* literature - was applied for the treatment of *Khalitya*. The management prescribed to the patient included, *Amlaki Amrasthi kashay*, *Amlaki Amrasthi lepa* and *Avipattikar churna* were applied to pacify *Pitta* and *Rakta dosha*. The present case study aims to encourage additional investigation and help in developing an affordable and accessible *ayurvedic* treatment for *Khalitya*.

**AIM AND OBJECTIVE:**

To study the effect of *Amalaki-Amrasthi lepa* for external application, *Amalaki-amrasthi kashay* and *Avipattikar churna* for internal administration in case of *Khalitya*.

**CASE STUDY**

**Patient information**

• **Chief complaints**

A single case study included a 25-year-old female patient who had been experiencing severe hairfall, an itching sensation on the scalp, and mild dandruff for the previous six months. She came to the *Agadtantra* OPD (registration number: 273769) at Dr. D. Y. Patil College and Hospital, Pimpri, Pune, for treatment.

• **History of Present illness**

A 25 year old female patient experiencing excessive hairfall. Gradually she also experienced visible scalp on account of excessive thinning. The loss of hair is more noticeable during the process of combing and after washing the hair. She also experienced itching sensation on scalp region with mild dandruff since last 6 months. She was stressed due to excessive hairfall at this young age.

- **Past History:** No any specific past history related illness.
- **Family History:** No any specific family history related illness.
- **Personal history:** [Table no.1]

Diet	Vegetarian, <i>Viruddha aahar sevan</i> -Banana with milk, Salted <i>chapati</i> with milk, <i>Atilavansevan</i> (Chips etc), <i>Atiksharsevan</i> , <i>Atiamlarassevan</i> (pickle etc)
Appetite	good
Bowel habit	Irregular, constipated
Micturition	5-6 times/day and 0-1 time/night

Sleep	Disturbed sleep
Addiction	Tea

**Clinical findings**

**Systemic Examination[Table no.2]**

Pulse	84/min
Respiratory rate	20/min
BP	128/78
Temperature	Afebrile
Height	158 cm
Weight	49 kg

**Ashtavidha Pariksha[Table no.3]**

<i>Nadi</i> (Pulse)	84/min
<i>Shabda</i> (Speech)	<i>Spashta</i>
<i>Sparsh</i> (Touch)	<i>Samshitoshna</i>
<i>Mutra</i> (Urine)	<i>Samyak</i>
<i>Mala</i> (Stool)	<i>Samyak</i>
<i>Drik</i> (Vision)	<i>Spashta</i>
<i>Jivha</i> (Tongue)	<i>AlpaSama</i>
<i>Akruti</i> (Built)	<i>Madhyam</i>

**Pathophysiology**

*Nidan- sevan* [*Atilavansevan,Atiksharsevan,virudha-aahar,Atiamlarassevan*]



*Vata prakopa, Pitta prakopa, Kapha prakopa* along with *Rakta dushti*



*Siramukha avarodha*



*keshapatana*



*Khalitya*

**Diagnostic Assessment:** The case was diagnosed with *Khalitya*(Hairfall) based on the history, signs, and symptoms of the patient and the grading scale mentioned in Table 9.

**Keshapata (Hairfall) [Table no: 4]**

Sr.No.	<i>Keshpatan</i> (Hairfall)	Grading
1)	<i>Keshpatan</i> Absent(There is no hairfall)	0

2)	Mild <i>Keshpatan</i> (Hair falling when washing)	1
3)	Moderate <i>Keshpatan</i> (Hair falling when combing)	2
4)	Severe <i>Keshpatan</i> (Hairfall that doesn't require any effort)	3

**Kesharukshatsa (Dry Hair) [Table no: 5]**

Sr.No.	<i>Kesharukshata</i> (Hairfall)	Grading
1.	<i>Kesharukshata</i> Absent(Smooth hair)	0
2.	<i>Hina Kesharukshata</i> (Mild dry hair)	1
3.	<i>Madhyama Kesharukshata</i> (Moderate dry hair)	2
4.	<i>Pravar Keshrukshata</i> (Severe dry hair)	3

**Darunak (Dandruff) [Table no: 6]**

Sr.No.	<i>Darunak</i> (Dandruff)	Grading
1.	<i>Darunak</i> Absent(There is no any dandruff)	0
2.	<i>Hina Darunak</i> (Mild dandruff)	1
3.	<i>Madhyam Darunak</i> (Moderate dandruff)	2
4.	<i>Pravar Darunak</i> (Severe dandruff)	3

**Keshabhunikandu (Itching on scalp) [Table no: 7]**

Sr.No.	<i>Keshabhunikandu</i> (Itching on scalp)	Grading
1.	<i>Kandu</i> Absent(There is no any itching on scalp)	0
2.	<i>Hina Kandu</i> (Mild scalp itching)	1
3.	<i>Madhyam Kandu</i> (Moderate scalp itching)	2
4.	<i>Tikshana Kandu</i> (Severe on scalp itching)	3

**Simple pull test [Table no: 8]**

Sr. no.	Simple pull test	Grading
1.	<2 hair	0
2.	2-4 hair	1
3.	4-6 hair	2
4.	6-8 hair	3

**Grading scale assessment based on signs and symptoms before treatment [Table no.9]**

Sr no.	Signs and Symptoms	1 <sup>st</sup> day (before treatment)
1.	<i>Keshapatan</i> (Hair fall)	3
2.	<i>Shirakandu</i> (Itching on scalp)	2
3.	<i>Kesha Rukshatva</i> (Dryness of hair)	3

4.	<i>Darunaka</i> (Dandruff)	2
5.	Simple pull test	3

### Therapeutic intervention with Timeline

A treatment approach was adopted, considering the *vata, pitta, kapha prakopa* along with *Rakta Dhatu dushti* Patient was treated at OPD level at Dr.D.Y. Patil College of Ayurved and Research, Pimpri, Pune-411018. A comprehensive treatment protocol involves the administration of *Amalaki-Amrasthi yog*[*Amalaki*(*Emblica officinalis*),*Amrasthi*(Seed of *Mangifera indica*)] mentioned in *Vaidya vallabh* literature <sup>[4]</sup> and *Avipattikar churna*[*Sunthi*(*Zingiber officinate Roxb*),*Marich*(*Piper nigrum*),*Pippali* (*Piper longum*),*Amalaki*(*Emblica officinalis*),*Haritaki*(*Terminalia chebula*),*Bibhitaki*(*Terminalia bellirica*),*Mustak* (*Cyprus rotundus*), *Vidang*(*Embelical ribes*),*Ela*(*Elettaria cardamom*),*Tejpatra*(*Cinnamomum tamala*),*Nishotha* (*Operculna trpethum*),*Lavang*(*Syzygium aromaticum*),*Sarkara*(Sugar),*Vid lavan*(salt)] mentioned in *Bhaishajya ratnavali* literature <sup>[5]</sup> along with specific *Pathya-Apathya* to be followed for 1 month.

Ayurveda plan of treatment along with timeline [Table no. 10]

Date	Treatment	<i>Aushadha sevan kala</i> (Time for taking medicine) and dosage
Day 1 20-01-2024	Internal medications: 1) <i>Amalaki-Amrasthi Kashay</i>	40 ml OD <i>Abhakta kal</i> (empty stomach early in the morning)
	2) <i>Avipattikar churna</i>	3 gm HS <i>Nishi kal</i>
	External local Application: 1) <i>Amalaki-Amrasthi Lepa</i>	Twice a week
Day 7 27-01-2024	Same as previous medications	Same previous dosage and <i>Aushadhsevan kala</i>
Day 14 3-02-2024	Internal medications: 1) <i>Amalaki-Amrasthi Kashay</i>	40 ml OD <i>Abhakta kal</i> (empty stomach early in the morning)
	External local Application: 1) <i>Amalaki-Amrasthi Lepa</i>	Twice a week
Day 21 10-02-2024	Same as previous medications	Same as previous dosage and <i>Aushadha sevan kala</i>
Day 27 17-02-2024	Same as previous medications	Same as previous dosage and <i>Aushadha sevan kala</i>

### *Pathya-Apathya*

*Pathya* contributes to the prevention of *srotodushiti* (channel diseases) and maintains the effective functioning of the channels in the body. It describes explanations using *aahara* (diet), *vihara* (lifestyle),

and *aushadhi* (medications). The patient attempted treatment for *khalitya* using both *apathya* (harmful) and *pathya* (beneficial) methods; they are described in Table 11.

**Pathya-apathya that followed by patient [Table no 11]**

Pathya	Apathya
<p><b>-Ahara:</b> <i>Yava, Shali Chaval, Jivanti, Patol,</i> Tomato, Cabbage, <i>Carrots, Cucumber,</i> Cauliflower, <i>Amalaki, Dadima, Matulanga,</i> <i>Narikel, Draksha</i> etc. Milk, Honey, etc.</p> <p><b>-Vihar:</b> Regular <i>yog</i> and <i>pranayama,</i> <i>Shiroabhyanga</i></p>	<p><b>-Ahara:</b> <i>Viruddha aahara</i>(Milk with fruit,Milk with salted <i>chapati</i>),<i>Atilavansevan</i>(chips etc), <i>Atiamlarasasevana</i>(pickle etc), <i>Atiksharsevana</i> Bakery items,Tea etc,</p> <p><b>-Vihar:</b><i>Vegavarodh, Atapa sevana, Divaswapna, Krodha, Bhaya, Ratrijagrana,</i> Excessive use of shampoo, hair cream, hair lotion and other cosmetic items.</p>

**FOLLOW-UP AND OUTCOMES**

The patient underwent regular monitoring with weekly follow-ups for one month following the initiation of treatment. The progress and response to intervention were assessed based on changes in signs and symptoms of hair fall, itching, *keshrukshata* (dryness of hairs) and *darunak*(Dandruff) along with simple pull test. The grading scale assessment (Table no. 12) was employed to evaluate the severity of signs and symptoms. After two weeks of treatment, the patient reported a significant improvement, with a fifty percent reduction in signs and symptoms of *Khalitya*. There was notable relief from itching and *Keshrukshata*. Subsequent follow-ups revealed continued improvement, with hair fall and dandruff showing a steady reduction. By the fourth follow-up, the patient reported complete elimination of itching, indicating a favorable response to treatment.

**Grading scale assessment based on signs and symptoms after treatment [Table no: 12]**

Sr no.	Sign and Symptoms	1 <sup>st</sup> day Before treatment	7 <sup>th</sup> day After treatment	14 <sup>th</sup> day After treatment	21 <sup>th</sup> day After treatment	27 <sup>th</sup> day After treatment
1.	<i>Keshapatan</i> (Hair fall)	3	2	2	1	1
2.	<i>Shirakandu</i> ( Scalp Itching )	2	2	1	0	0
3.	<i>Kesha Rukshatva</i> (dryness of hair)	3	2	1	0	0
4.	<i>Darunaka</i> (Dandruff)	2	2	1	1	1
5.	Simple pull test	3	2	2	1	1





**Before treatment (Figure1)**



**After treatment (Figure 2)**

## DISCUSSION

In this case study, the patient had a habit of consuming food such as chips, bakery items etc. very regularly. These foods are typically high in salt, spice and fats content and may be harmful if consumed excessively. Consuming *Ushna* and *Teekshna Vidahi Ahara*, can result in *Pitta Dushti*. *AtiAmla rasa sevan* causes vitiation of *rakta dhatu*. *Lavan* is characterized by its hot and sharp properties, excessive use of it can lead to an increase in *Rakta* (blood) and *Vata dushti*, causing *Khalitya*. The patient had a history of consuming salted *chapati* with milk and fruit with milk which may have acted as *Viruddha Ahara* (improper food combination-*Samyog viruddha*). Regular consumption of these foods can lead to *Agnimandhya* (low digestive capacity). The recommended treatment plan involved administering *Amalaki-Amrasthi yog* to the patient, with instructions for both local and oral usage as indicated by *Acharya Hastiruchi* in his treatise *Vaidyavallabh*. According to *Ayurveda*, *Khalitya* is considered a sign of the aging process, and *Rasayana* therapy is suggested as a significant anti-aging approach. *Amalaki* is considered one of the most potent *Rasayana* in *Ayurveda*. *Amalaki* is known for its *tridosahar* properties, effectively balancing all three *doshas* and promoting longevity. Because of its *Amla rasa* it alleviates *Vata*, Because of its *Madhur Vipaka* it alleviates *Pitta*. Because of its *Kashaya Rasa* and *Ruksha Guna* it alleviates *Kapha*. As being *Keshya*, it aids in retaining and maintaining the health of hair.

*Amrasthi* possess *Kashay rasa* predominately. [6] Which helps in disrupting the cycle of pathogenesis through metabolic correction by pacifying *pitta dosha*. Due to *malagraha* property of *kashay rasa* it helps in retaining the *mala* of *Asthidhatu* that is *Kesh* which is seen as a reduction in hairfall after the use. *Amrasthi* contain high quality of fat and protein as well as high levels of natural antioxidants [7]. Thus oral use of *Amalaki-Amrasthi kashay* reduces signs and symptoms of *Khalitya*. *Amalaki-Amrasthi lepa* is advised for local application. The *lepa* helps in *keshyriddhikara*. The *sukshma* quality of the *lepa* aids in clearing obstructions in the *srotas*, promoting the growth of hairs. *Amalaki* possesses 5  $\alpha$ -reductase inhibitory activity which eventually promotes hair growth [8]. It also act as an efficient conditioner and

prevent graying hair. The topical use of *amalaki* is very well justified as it possesses hair strengthening and nourishing activity. Vitamin c-rich fruit helps in reducing dandruff by removing the flakiness and greasiness of the scalp.<sup>[9]</sup> Topical application of *amrasthi* helps to make lustrous and strengthening and also control early greying and dandruff as it is rich in essential fatty acids and vitamins. In this case study, *Avipattikar Churna* is prescribed. The ingredients of *Avipattikara Churna* include *shunthi*, *maricha*, *pippali*, *haritaki*, *bibhitaki*, *amalaki*, *musta*, *vida lavana*, *vidanga*, *tamala patra*, *ela*, *lavanga*, *trivrut*, and *khandasharkara*. It is indicated in *agnimandya* (digestive impairment), *vibandha* (constipation), *amlapitta* (hyperacidity), *arsha* (piles), *mutraghata* (retention of urine), and *prameha* (diabetes mellitus).<sup>[10]</sup> By increasing stomach secretion and motility, *avipattikara churna* improves better digestion. The qualities of *Khandsharkara*—*madhura rasa*, *snigdha guna*, *sheeta virya*, and *madhura vipaka*—pacifies *Vata-Pitta Dosha*. *Trivrut* possesses purgative properties, thus promoting the elimination of excess *pitta*. *Lavang* has *deepana*, *amapachana*, *vatanulomana*, activity which helps to improve *agnimandya*<sup>[11]</sup>. *Triphala* is beneficial in *Agnimandya* (weak digestive fire) due to its *Deepan* (appetizer), *Pachan* (digestion) and *Rechana* (laxative) properties. *Trikatu* reduces *Kapha* and *vata dosha* by its *Katu rasa* and *Ushna virya*. It also acts on Liver and Spleen. Both have origin from *Rakta* dhatu, thus it also improves *Rakta dushti*. As spices and aromatic plants, *Ela* and *Tamala Patra* possess essential oils and have a carminative action. *Vida Lavana* contains a small amount of trace elements such as iron and magnesium. It is carminative and tonic to the digestive system.<sup>[12]</sup> *Vidang* and *musta* possess *Katu, Tikta* rasa as well as *Laghu, Ruksha guna*. It reduces the aggravated *Kapha* because of its *Laghu, Ruksha Guna, Katu*, and *Tikta rasa* (dominant with *Agni, Vayu*, and *Akasha Mahabhuta*). The synergic action of all medication helps in pacifying the *doshas* mainly *pitta*, thus reducing *Ushnata* and *tikshnata* in body, and thereby promoting rejuvenation.

### Informed consent

The consent procedure was fully explained to the patient and they were given informed consent in a structured manner. They were also informed about the advantages and disadvantages of participating in the trial. Following this explanation, the patient willingly signed the consent form, granting permission for the publication of this article.

### Conclusion

Based on a single case study it can be concluded that *Amalaki-Amrasthi lepa* as an external application on scalp region and *Amlaki-Amrasthi kashay* and *Avipattikar churna* as internal administration and specified *pathya-apathya* are effective in the management of *Khalitya* (hair fall) and determined to be safe and efficacious in managing hair loss and enhancing the overall health of hair with no any side effect. More research work needs to be done on easily accessible and cost-effective *Ayurvedic* treatments for *Khalitya*.

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