



## A COMPARATIVE CLINICAL STUDY ON AKṢATVĀGADĪ TAILA SHIROABHYANGA AND MADHUYAṢṬHĪ CHURNA IN THE MANAGEMENT OF ADOLESCENT BOYS SCALP HAIRFALL (KHĀLITYA)- AN OPEN LABEL RANDOMIZED TRIAL

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<p><b>Article Info</b></p> <p><b>Article Received:</b> 21 December 2025, <b>Article Revised:</b> 11 January 2026, <b>Article Accepted:</b> 01 February 2026.</p> <p><b>DOI:</b> <a href="https://doi.org/10.5281/zenodo.18823183">https://doi.org/10.5281/zenodo.18823183</a></p>	<p><b>ABSTRACT</b></p> <p><b>Aim</b> – The aim of the present study is to compare the Effect of <i>Akṣatvāgadī Taila Shiroabhyanga</i> and <i>Madhuyaṣṭhī Churna</i> in the management of Adolescent Boys Scalp Hairfall (<i>Khālitya</i>). <b>Methods</b> – The 100 patients of diagnosed scalp hair loss with or without associate conditions (i.e., itching, dandruff, decreasing hairline, any patch and dryness) will be enrolled and divided in two group (Group A and B: 50 participates in each group) from direct visiting to institutions OPD of <i>Kaumarbhritya</i> or from camps and school awareness programs. <b>Result</b> – The result will be based on observation and analysed data. <b>Conclusion</b> – If it is found significant that <i>Akṣatvāgadī Taila Shiroabhyanga</i> and <i>Madhuyaṣṭhī churna</i> address the Adolescent Boys Scalp Hairfall (<i>Khālitya</i>) then proper guidelines will be provided to the children and their parents.</p> <p><b>KEYWORDS:</b> <i>Akṣatvāgadī Taila</i>, <i>Shiroabhyanga</i>, <i>Madhuyaṣṭhī Churna</i>, Adolescent, <i>Khālitya</i>, Hairfall.</p>
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### INTRODUCTION

Hair holds a profound significance in human life that extends far beyond its practical function of protecting the scalp and regulating temperature. It is a powerful medium of self-expression, cultural identity, and personal confidence. From the ancient traditions where hairstyles symbolized status and heritage to the modern era where hair trends reflect individuality and creativity, hair plays a crucial role in shaping how we perceive ourselves and others.

Trichology is a discipline of science concerned with the human hair and scalp. Diseases such as dermatitis (atopic, contact, and seborrheic), acne vulgaris, urticaria, psoriasis, viral and fungal skin diseases, scabies, melanoma, pyoderma, cellulitis, keratinocyte carcinoma,

decubitus ulcer, and alopecia areata accounted for 1.79% of the total contribution worldwide. All of these conditions are classified as disability-adjusted life years (DALYs).<sup>[1]</sup> In this today's era, there is a race for modern lifestyle, various cosmetics or more important is adaptation of western culture, unhealthy dietary habits are contributing to Hairfall, loss of the hair and greying at prematurity.<sup>[2]</sup>

Ayurveda being a time tested and time trusted system of medicine has narrated more details about hair and scalp and possible diseases and their prevention and managements. Hair has more antiquity for cosmetic, aesthetic, and medical reasons. In Ayurveda the gradual falling of hair is termed as *Khālitya*. It comes under the heading of *Kshudra roga* (minor disease) or *Shiroroga*

(diseases of head & scalp). Modern medicine associates *Khālitya* (Hairfall) with Alopecia, a condition characterized by partial or complete hair loss on the scalp. There is increase in incidence of *Khālitya* day by day.

The World Health Organization (WHO) refers to the 10-19 age group as the adolescent period. This period varies from person to person; it is difficult to confine the adolescent period to a specific age group due to the sociocultural and socioeconomic characteristics of societies, geographic and seasonal features of the living environment, and dietary habits of communities. The adolescent (adolescence) period is characterized by rapid physical, biochemical, psychological, and emotional changes that occur throughout the transition from childhood to maturity.<sup>[3-6]</sup> While hormonal changes during adolescence produce physical growth and pubertal changes, they also result in major mental changes. This transformation, which occurs in the second decade of life, varies by gender, individual, and society.<sup>[6]</sup>

Hair problems cause depression and anxiety in adolescents and young adults, which can have a negative impact on their health-related quality of life (HRQOL).<sup>[3,6,7]</sup> Early-onset androgenetic alopecia is the most prevalent cause of teenage hair loss, followed by alopecia areata and telogen effluvium.<sup>[6]</sup> However, a range of additional causes, including typical scalp disorders, systemic illness, and lifestyle decisions, can cause hair loss during adolescence.<sup>[8,9]</sup>

A male pattern baldness study found that 16% of men aged 18-29 had noticeable hair loss.<sup>[10]</sup> Sometimes, it starts in late teens or early twenties.<sup>[11]</sup> Adolescent period is a special period where both hair problems and other dermatological disorders are seen frequently because of the hormonal changes in human life. Hair difficulties include changes in the look and quality of hair such as wearing, splitting, thinning, or vice versa, and hypertrichosis (excessive hair growth). Hair problems cause depression and anxiety in adolescents and young adults, which can have a negative impact on their health-related quality of life (HRQOL). In dermatology, topical minoxidil (TMX) has been used to treat a variety of alopecia. TMX is not FDA authorized for use in children under the age of 18, and no guidelines exist for its pediatric use.<sup>[12,13]</sup> Low-dose oral minoxidil (OMX) has been used off-label for the treatment of hair loss in adults, with the goal of improving therapeutic compliance and clinical effectiveness.

By keeping the above points in mind and to highlight available Ayurveda formulations for hair loss can focus on various aspects such as efficacy, safety, and the underlying mechanisms, study has been chosen.

#### Primary objective

- To compare the effectiveness of *Akṣatvāgādī Taila Shiroabhyanga* and *Madhuyasṭhī churna* in reducing scalp Hairfall.
- To assess the improvement in hair density and scalp health in adolescent boys.
- To evaluate the safety and tolerability of both treatments.

#### MATERIAL AND METHODS

The 100 patients of diagnosed scalp hair loss with or without associate conditions (i.e., itching, dandruff, decreasing hairline, any patch and dryness) will be enrolled and divided in two group (Group A and B: 50 participates in each group) from the OPD of *Kaumarbharitya*. Clinical trial will be completed in 90 days. Assent of the enrolled children will be taken after giving them detailed information of the project. The pre requestees regime of the study will be discussed and assessed based on pre-designed clinical case record that include personal, daily routine and hair care history.

**Eligibility Criteria:** Boy between the 10 to 18 years of age. Presenting with scalp hair loss and or sparse hair growth (with or without any of associate complains i.e., itching, dandruff, decreasing hairline, having any patch and dryness).

**Exclusive Criteria:** A history or presence of compromising dermatosis elsewhere on the skin in patients with actinically damaged skin. Patients with clinically significant systemic and skin conditions that could interfere with the diagnosis or assessment (e.g. Immunological deficiencies, malignancies, Atopic dermatitis, Acne and Psoriasis etc.)

#### METHODS

Study design: Open label comparative clinical study

Sampling design: Probability sampling

Sampling methods: Simple random sampling (Source-<https://randomizer.org/>)

Duration - 90 days	Day 0 to Day 15 <sup>th</sup>	Pretrial phase	Washout period, Inclusion/exclusion, followed by History taking
	Day 16 <sup>th</sup> to 75 <sup>th</sup> day	Trial phase	Group A- <i>Akṣatvāgādī Taila (Shiroabhyanga)</i> Group B- <i>Madhuyaṣṭhī Churna</i> (Oral intake)
	Day 76 <sup>th</sup> to 90 <sup>th</sup>	Post trial phase	Follow up & Result analysis
<b>Taila</b> - 10 ml per day for 2 months (postbath/once a day) <b>Churna</b> - 6 gram/day in three divided doses with Honey (Ref- <i>Susruth samhita</i> ) (For children <i>Acharya Sushrut</i> gave following measures- <i>Annad -Kola praman</i> ) <sup>[14]</sup>			

**Statistical Analysis** – The statistical analysis will be done by using SSPS statistics.

**Ethical Consideration** – The clinical trial has been registered with CTRI (CTRI/2025/04/084913).

## DISCUSSION

In today's world, there is a race for a modern lifestyle, numerous cosmetics, or, more importantly, adaptation to faulty lifestyle and harmful eating habits and that cause their hair to fall out or gray at a young age. Various chemical goods, including as hair oils, shampoos, conditioners, soaps, gels, and other beauty items, were produced under the name '*Saundaryaprasadhana*' as pharmaceutical propaganda to encourage hair growth, exacerbating the problem. Hair loss affects millions of people throughout the world. Hair loss is a physiological phenomenon that often occurs after the mid-forties; nevertheless, it is considered a disease if it occurs before this time. Hair loss is a cosmetic concern that has a psychological impact on the patient.<sup>[15-16]</sup> The condition was addressed by *Acharya Vagbhata* under *Shiroroga* (diseases of the head and scalp), but *Acharya Sushruta* regarded it a minor disease or *Kshudraroga*.<sup>[17]</sup> *Khālitya* is primarily a *Tridoshjanya vyadhi* with *Pitta* dominance, while *Raktadosha* combines *Vata*, *Pitta*, and *Kaphadoshas*. *Khālitya's* pathophysiology involves *Rasa*, *Rakta*, *Mamsa*, and *Asthivaha srota*. Ayurvedic classics list a variety of medications for treating hair loss. *Khālitya* research studies mostly focuses on *Nasya*, *Raktamokshan*, and *Basti*. *Rasayan* medications are administered locally and orally. *Nasyakarma* is especially important in *Uradhava-Jatrugata Vyadhi*.<sup>[18]</sup> *Taila's Sukshma guna* aids in the removal of *Srota* blockages that prevent new hair production and provides nourishment to the hair roots. *Rasayana* nourishes the *asthidhatu*, hence promoting hair growth. Combining Ayurvedic principles with medicines has been successful in treating *Khālitya*.

## CONCLUSION

Ayurvedic medications and therapies have *Keshya*, *Balya*, and anti-aging characteristics, they will have a positive impact on *Khālitya* (Hairfall). The ayurvedic treatment of *Khālitya* can break down the disease's pathophysiology and create a ray of light in the darkness.

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