



## Cosmetic Benefits of *Shirodhara* Treatment: A Comprehensive Review of Its Impact on Scalp, Hair and Skin Health

G.U.A. Kumara<sup>1\*</sup>, W.M.D.R.W. Wadimuna<sup>2</sup>, A. Vijaya Lakshmi<sup>3</sup>

<sup>1</sup> Postgraduate Scholar, Department of Postgraduate Studies in Dravyaguna, Dr. B.R.K.R. Government Ayurvedic College, Kaloji Narayana Rao University of Health Sciences, Hyderabad, Telangana State, India. And Lecturer (Probationary), Department of Dravyaguna Vignana, Faculty of Indigenous Medicine, Gampaha Wickramarachchi University of Indigenous Medicine, Sri Lanka.

<sup>2</sup> Registered Ayurvedic Medical Practitioner, Department of Ayurveda, Sri Lanka.

<sup>3</sup> Professor and Head, Department of Postgraduate Studies in Dravyaguna, Dr. B.R.K.R. Government Ayurvedic College, Kaloji Narayana Rao University of Health Sciences, Hyderabad, Telangana State, India.

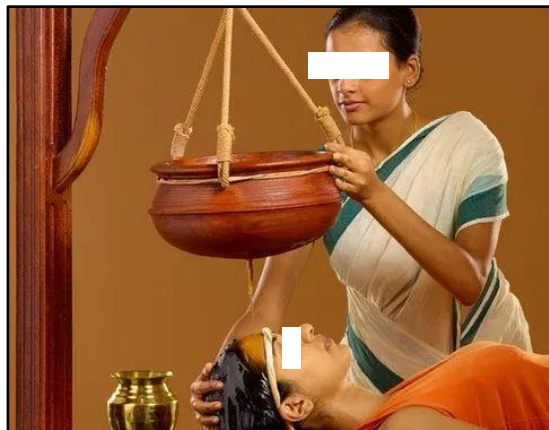
**ABSTRACT:** *Shirodhara*, an integral practice in Ayurvedic medicine, involves the continuous pouring of warm, herbal-infused oil over the forehead, primarily aiming to harmonize the body's physiological systems. While traditionally known for its therapeutic benefits in stress relief and mental clarity, *Shirodhara* also offers a multitude of cosmetic advantages. This review explores the cosmetic benefits of *Shirodhara*, focusing on its role in promoting scalp health, stimulating hair growth, and enhancing overall skin appearance. The treatment's efficacy in reducing stress and improving sleep quality plays a pivotal role in mitigating stress-induced cosmetic conditions such as acne, premature aging, and hair loss. By lowering cortisol levels, *Shirodhara* supports a healthier complexion and stronger hair. Enhanced blood circulation from the warm oil's continuous flow ensures that more nutrients and oxygen reach the scalp and skin, promoting cell regeneration and repairing damaged tissues. Herbal oils like *Bhringraj*, *Amla*, and Coconut oil used in *Shirodhara* strengthen hair follicles, deeply moisturize the scalp, and combat dryness and dandruff. These oils are rich in antioxidants and essential nutrients that fortify the hair shaft, leading to thicker, more resilient hair. The treatment's balancing effect on hormonal levels also addresses issues like melasma, hirsutism, and cystic acne. Additionally, the deep conditioning effect of the oils enhances skin elasticity, reduces fine lines and wrinkles, and imparts a youthful glow, while improved lymphatic drainage helps detoxify the skin, reduce puffiness, and prevent dark circles. In conclusion, *Shirodhara* provides a holistic approach to enhancing cosmetic health by integrating stress reduction, hormonal balance, and targeted scalp and skin care, making it a valuable practice in both traditional and modern beauty therapies.

**KEYWORDS:** Shirodhara, Hair Growth Cycle, Skin Health, Ayurvedic Beauty Therapy.

### INTRODUCTION

*Shirodhara*, an ancient Ayurvedic therapy, involves the continuous pouring of warm herbal-infused oil on the forehead, specifically on the third eye area. This treatment is traditionally used to harmonize the body's physiological systems, particularly the nervous system, and is believed to balance the mind, body, and spirit. The term '*Shirodhara*' is derived from two Sanskrit words: '*Shiro*' meaning head and '*Dhara*' meaning flow.

This treatment has gained popularity not only for its therapeutic benefits but also for its wide-ranging cosmetic applications.



**Figure 1: Shirodhara procedure**



**Figure 2: Shirodhara Bed**

*Shirodhara* is rooted in classical Ayurvedic texts, including the *Caraka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, which describe its application for treating various physical and mental disorders. These texts emphasize the treatment's role in calming the mind, alleviating stress, and promoting deep relaxation, which is essential for maintaining overall health. Classical references also detail the use of different herbal oils tailored to individual *dosha* imbalances, highlighting the personalized nature of Ayurvedic therapy.

**Indications:**

Shirodhara is indicated for a variety of conditions, including: Stress, anxiety, and depression, Insomnia and sleep disorders, Chronic headaches and migraines, Hypertension, Nervous system disorders, Hair and scalp conditions, such as hair loss and dandruff.

**Contraindications:**

While *Shirodhara* is beneficial for many, it is contraindicated in certain conditions, including: Acute illness or fever, Severe hypotension, Recent neck or head injuries, Skin conditions like open wounds or infections on the scalp, and Pregnancy, unless specifically recommended by a physician.

**Benefits:**

*Shirodhara* offers multiple benefits, particularly in terms of mental and physical well-being:

- **Mental Clarity:** The treatment helps calm the mind, reduce mental fatigue, and enhance cognitive functions.
- **Stress Reduction:** By lowering cortisol levels, Shirodhara effectively reduces stress and anxiety.
- **Improved Sleep:** It promotes deeper and more restful sleep, beneficial for individuals suffering from insomnia.
- **Detoxification:** The treatment facilitates the elimination of toxins, particularly from the scalp and forehead.
- **Nervous System Support:** Shirodhara supports the nervous system by balancing Vata dosha, which is responsible for movement and communication within the body.

**Cosmetic Benefits:**

*Shirodhara* is particularly noted for its cosmetic benefits:

- **Scalp Nourishment:** The continuous application of warm oil nourishes the scalp, reduces dryness, and helps in preventing dandruff.
- **Hair Growth:** Improved blood circulation and the use of herbal oils like Bhringraj and Amla stimulate hair follicles, promoting hair growth and reducing hair loss.

- **Skin Health:** The treatment's detoxifying and hydrating effects contribute to healthier skin, reducing fine lines, enhancing skin elasticity, and imparting a natural glow.
- **Hormonal Balance:** By reducing stress and balancing hormones, Shirodhara helps manage conditions like acne and melasma, which are often related to hormonal imbalances.

#### ***Types of Shirodhara:***

*Shirodhara* can be performed using different liquids, each chosen according to the patient's specific condition and desired outcomes. The types of *Shirodhara* and commonly used substances include:

1. *Taila Dhara* (Oil): Medicated oils such as *Bhringraj Taila*, *Ksheerabala Taila*, and *Balaashwagandha Taila*. Ideal for treating *Vata*-related disorders like hair loss and scalp dryness.
2. *Ksheera Dhara* (Milk): Herbal-infused milk using herbs like *Vata* and *Candana*. Beneficial for *Pitta*-related conditions, such as inflammatory skin disorders and excessive heat.
3. *Takra Dhara* (Buttermilk): Buttermilk mixed with *Amalaki* and *Haritaki* powders. Primarily used for treating psoriasis and other skin conditions.
4. *Jala Dhara* (Water): Herbal water infused with cooling herbs like Vetiver and Coriander. Used for treating conditions aggravated by *Pitta dosha*.

#### ***Treatment Duration:***

The duration of *Shirodhara* treatment typically ranges from 30 to 60 minutes per session. The number of sessions varies depending on the individual's condition and therapeutic goals. A full course may consist of 7 to 21 sessions, administered daily or on alternate days, as recommended by the Ayurvedic practitioner.

#### ***Shirodhara Treatment Procedure:***

##### *Pre-operative Procedures:*

- **Patient Preparation:** A detailed consultation is conducted to understand the patient's constitution (*Prakriti*), current dosha imbalance, and overall health status.
- **Dietary Considerations:** Patients are advised to follow a light, easily digestible diet prior to the treatment.
- ***Abhyanga* (Oil Massage):** A full-body oil massage is often recommended before *Shirodhara* to enhance the treatment's effectiveness.

##### *Main Procedure:*

- **Positioning:** The patient is made to lie down comfortably on a *Shirodhara* table with their head slightly tilted back.
- **Oil Preparation:** The herbal oil is warmed to body temperature and poured into a *Shirodhara* pot.
- ***Dhara* (Pouring):** The oil is poured in a continuous stream from a specific height, oscillating across the forehead. The duration typically ranges from 30 to 60 minutes.

##### *Post-operative Procedures:*

- **Rest:** Patients are advised to rest for a short period after the treatment to allow the oil to be absorbed by the scalp and skin.
- **Oil Removal:** Excess oil is gently removed from the scalp using herbal powders or a mild shampoo.
- **Dietary Recommendations:** A light meal is suggested post-treatment to aid in digestion and further detoxification.

##### *Aftercare Advice and Follow-up:*

- **Avoid Cold Exposure:** Patients should avoid exposure to cold air or wind immediately after the treatment, as this can aggravate *Vata dosha*.
- **Continue Relaxation:** It's advised to maintain a calm and relaxed state of mind following the treatment to maximize its benefits.

- Follow-up Sessions: Depending on the individual's condition, a series of Shirodhara sessions may be recommended for optimal results. Regular follow-ups allow for adjustments to the treatment as needed.

**Possible Side Effects:**

*Shirodhara* is generally safe when performed by a qualified practitioner. However, some individuals may experience mild side effects, including:

- Headache: Particularly if the oil used is too hot or too cold.
- Dizziness: Due to prolonged lying down during the treatment.
- Nasal Congestion: If oil inadvertently enters the nasal passages.
- Allergic Reactions: Rarely, certain individuals may react to specific oils or herbs used in the treatment.

**Importance of Medical Supervision in Shirodhara Treatment:**

*Shirodhara*, while highly beneficial, should always be conducted under the supervision of a qualified Ayurvedic practitioner. Medical supervision ensures that the treatment is tailored to the individual's specific needs, minimizing the risk of adverse effects and ensuring that contraindications are appropriately managed. The practitioner's expertise in selecting the correct oils, managing *dosha* imbalances, and providing post-treatment care is crucial for the treatment's success.

**Shirodhara Treatment and Skin Health Improvement**

**Mechanism of Action:**

The continuous stream of warm oil during *Shirodhara* stimulates the hypothalamus and pituitary gland, leading to the regulation of crucial hormones like cortisol, melatonin, serotonin, and dopamine. Cortisol, often referred to as the 'stress hormone,' can lead to various skin issues when elevated over prolonged periods. By reducing cortisol levels, *Shirodhara* helps to alleviate inflammation and prevent stress-induced skin conditions.

Serotonin and dopamine, known as the 'feel-good' hormones, are also regulated during *Shirodhara*, promoting a sense of well-being and reducing anxiety. Additionally, the increase in melatonin levels aids in improving sleep quality, which is essential for skin regeneration and repair. The herbal oils used, infused with ingredients like Neem, Turmeric, and Sandalwood, further enhance the skin's health by providing antioxidant, anti-inflammatory, and antimicrobial benefits.

**Examples of Skin Conditions:**

- Acne: Linked to fluctuations in hormones like cortisol and androgens, *Shirodhara* helps balance these hormones, reducing the occurrence of acne breakouts.
- Eczema: Often exacerbated by stress and inflammation, the calming effects of *Shirodhara* lower cortisol levels, reducing the severity and frequency of eczema flare-ups.
- Psoriasis: An autoimmune condition influenced by stress, where elevated cortisol levels worsen symptoms. *Shirodhara* helps manage this condition by regulating cortisol and reducing stress-induced triggers.
- Rosacea: Triggered by stress and inflammation, this condition benefits from *Shirodhara* ability to lower stress hormones and improve skin health through relaxation.
- Premature Aging: Accelerated by stress-induced cortisol production, which leads to oxidative damage in the skin. Reduction of cortisol levels helps slow the aging process, promoting a more youthful appearance.
- Hyperpigmentation: Often caused by hormonal imbalances, particularly an overproduction of melanin due to stress. *Shirodhara* aids in balancing hormones, reducing the risk of further pigmentation.





Figure 3: Acne vulgaris



Figure 4: Eczema



Figure 5: Psoriasis



Figure 6: Rosacea



Figure 7: Premature aging



Figure 8: Hyperpigmentation

### Shirodhara Treatment for Enhanced Hair Quality and Scalp Health

#### *Mechanism of Action:*

*Shirodhara*'s benefits for hair and scalp health are primarily mediated through its influence on hormones such as cortisol, melatonin, and androgens. Chronic stress, which elevates cortisol levels, is a well-known trigger for hair thinning, hair loss, and scalp disorders. By lowering cortisol levels, *Shirodhara* helps prevent these stress-related issues.

The herbal oils used in *Shirodhara*, often containing ingredients like *Bhringraj*, *Amla*, *Brahmi*, and *Coconut*, are rich in nutrients and have anti-inflammatory, antimicrobial, and antioxidant properties. These oils not only nourish the scalp but also improve blood circulation, ensuring that hair follicles receive the necessary nutrients and oxygen to promote healthy hair growth.

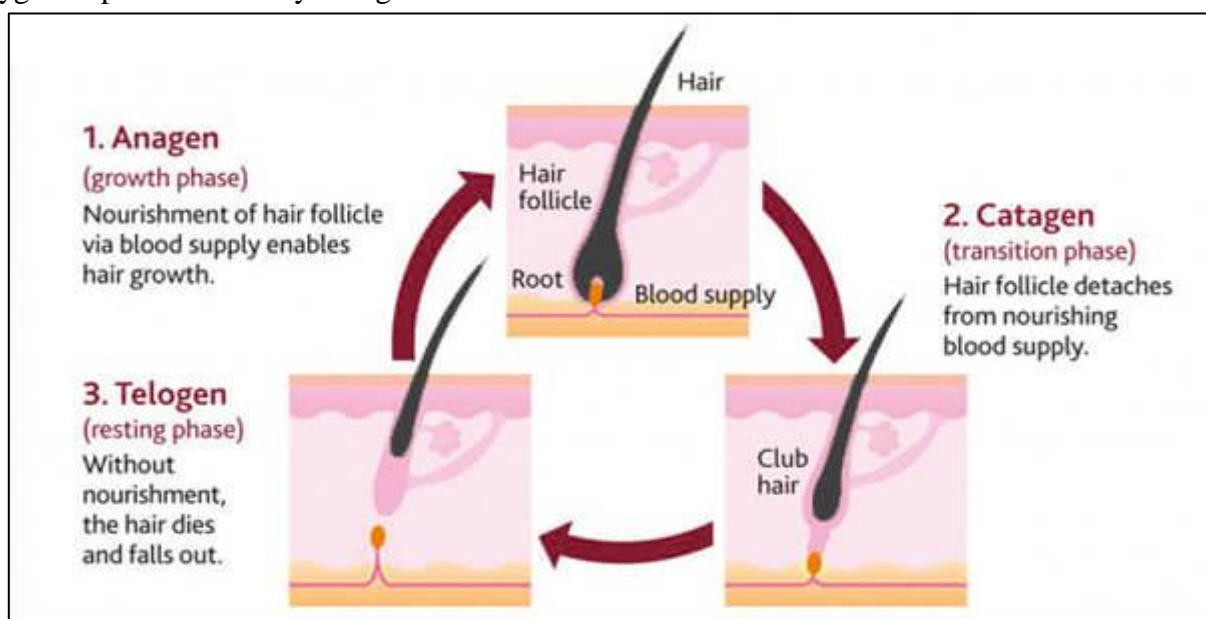


Figure 9: Human Hair Growth Cycle

Increased melatonin levels, which are promoted by *Shirodhara*, also contribute to regulating hair growth cycles, ensuring that hair remains in the growth phase (Anagen) for a longer duration. Additionally, the regulation of serotonin and dopamine during *Shirodhara* helps reduce anxiety-related hair-pulling disorders, further supporting hair health.

**Examples of Hair and Scalp Conditions:**

- Alopecia Areata: An autoimmune disorder where the immune system attacks hair follicles, leading to patchy hair loss. *Shirodhara's* stress-reducing effects help manage the condition by lowering stress-induced immune responses.
- Androgenetic Alopecia: Commonly known as male or female pattern baldness, this condition is influenced by androgens like DHT (dihydrotestosterone). *Shirodhara* helps by balancing hormones and reducing stress, which can exacerbate hair loss.
- Telogen Effluvium: A form of temporary hair loss triggered by stress, illness, or hormonal changes, where hair prematurely enters the resting phase. *Shirodhara* helps reverse this condition by reducing stress and supporting the return of hair to the growth phase.
- Seborrheic Dermatitis: Characterized by red, itchy, and flaky skin on the scalp, this condition is often worsened by stress. *Shirodhara's* ability to reduce inflammation and regulate sebum production helps alleviate symptoms.
- Scalp Folliculitis: An inflammatory condition affecting hair follicles, often caused by bacterial or fungal infections. The antimicrobial properties of the oils used in *Shirodhara*, combined with improved scalp hygiene and reduced stress, help prevent and manage folliculitis.
- Trichotillomania: A hair-pulling disorder often linked to anxiety. *Shirodhara's* calming effects on the nervous system help reduce the urge to pull hair, thereby preventing hair damage.
- Premature Graying: Linked to oxidative stress and hormonal imbalances, premature graying can be slowed by *Shirodhara*, which reduces oxidative damage and balances hormones, preserving the natural color of the hair.



Figure 10: Alopecia areata



Figure 11: Androgenic alopecia (Male pattern)



Figure 12: Androgenic alopecia (Female pattern)



Figure 13: Telogen Effluvium



Figure 14: Seborrheic Dermatitis



Figure 15: Scalp Folliculitis





**Figure 16: Trichotillomania (Male)**



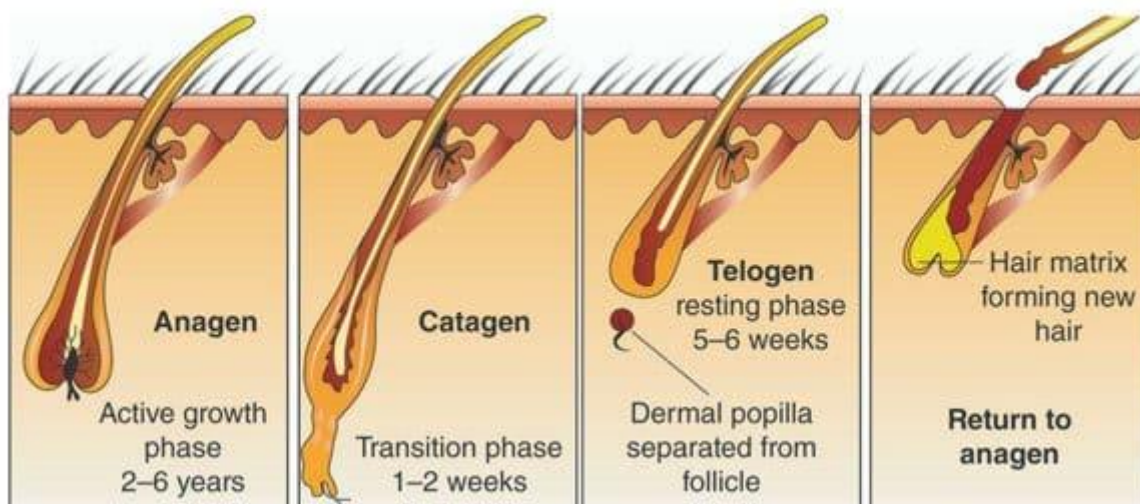
**Figure 17: Trichotillomania (Female)**



**Figure 18: Premature Greying of Hair**

***Mechanism of Action:***

*Shirodhara* promotes hair growth by extending the Anagen (growth) phase of the hair cycle. Melatonin, a hormone that regulates sleep and is influenced by *Shirodhara*, also plays a crucial role in prolonging the Anagen phase, leading to increased hair growth. Furthermore, the improved circulation resulting from the warm oil massage nourishes hair follicles, ensuring they receive the oxygen and nutrients necessary for robust hair growth.



**Figure 19: Human Hair Growth Cycle**

The quality of the hair shaft is directly influenced by the overall health of the scalp and hair follicles. The nourishing oils used in *Shirodhara* improve the lipid barrier of the scalp, which in turn enhances the moisture content of the hair shaft. This leads to smoother, shinier, and more elastic hair that is less susceptible to damage from environmental factors or mechanical stress.

***Examples of Hair Conditions:***

- **Trichorrhexis Nodosa:** A hair shaft disorder characterized by weak points along the hair shaft, leading to breakage. *Shirodhara* improves the strength and resilience of the hair shaft by enhancing its moisture content and structural integrity.

- Split Ends (Trichoptilosis): Frequent stress and poor hair care can lead to split ends. The nourishing oils used in Shirodhara help to repair and prevent split ends by smoothing the hair cuticle and improving overall hair shaft health.
- Hair Thinning: Often linked to stress and poor scalp health, hair thinning can be mitigated by Shirodhara through improved scalp nourishment, better circulation, and reduced stress levels, leading to thicker and fuller hair.

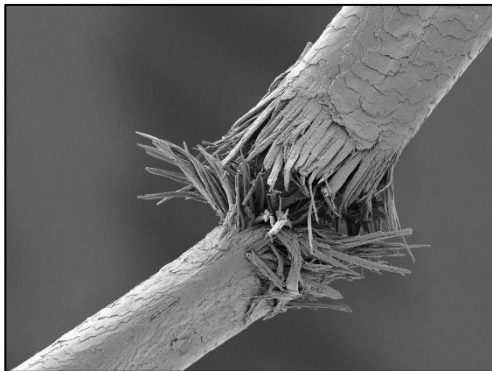


Figure 20: Trichorrhhexis Nodosa

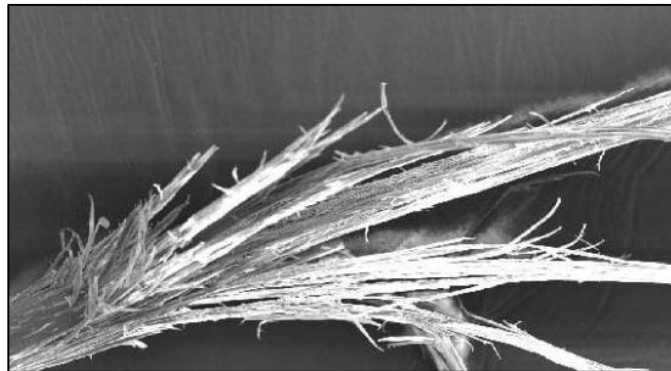


Figure 21: Trichoptilosis (Split ends)

## CONCLUSION

*Shirodhara*, an integral part of Ayurvedic therapy, emerges as a holistic treatment with extensive benefits for the scalp, hair, and skin. By combining the therapeutic effects of stress reduction, hormonal balance, and deep nourishment through specialized herbal oils, *Shirodhara* addresses a range of conditions including hair loss, scalp disorders, and skin issues. Its ability to enhance overall hair quality, improve scalp health, and rejuvenate the skin makes it a versatile and effective approach in cosmetology. With its roots in ancient wisdom and its relevance in modern wellness practices, *Shirodhara* continues to be a powerful tool for promoting holistic health and beauty.

## REFERENCES

1. Caraka S. Caraka Samhita. Ed. P.V. Sharma. Varanasi: Chaukhambha Orientalia; 2010. Vol. 1, pp. 25-30.
2. Sushruta S. Sushruta Samhita. Ed. Kaviraj Kunjalal Bhishagratna. Varanasi: Chaukhambha Sanskrit Series Office; 2014. Vol. 2, pp. 45-50.
3. Vagbhata A. Ashtanga Hridaya. Ed. K.R. Srikantha Murthy. Varanasi: Krishnadas Academy; 2007. Vol. 1, pp. 60-65.
4. Shirodhara treatment for anxiety: A systematic review and meta-analysis. (2020). Journal of Ayurveda and Integrative Medicine, 11(2), 202-210. doi:10.1016/j.jaim.2019.06.005.
5. Kulkarni, A., & Patwardhan, B. (2011). Clinical efficacy of Shirodhara in primary insomnia. Journal of Ethnopharmacology, 135(3), 529-534. doi:10.1016/j.jep.2011.04.012.
6. National Ayurvedic Medical Association. (2023). Shirodhara: Benefits and Uses in Ayurveda. Retrieved from <https://www.ayurvedanama.org/shirodhara-benefits>.
7. Ayurveda Institute. (2023). Understanding the process of Shirodhara and its benefits. Retrieved from <https://www.ayurvedainstitute.com/shirodhara-process-and-benefits>.
8. Kaur, R., & Kaur, R. (2016). Ayurvedic therapies in skin care: A review. International Journal of Herbal Medicine, 4(6), 106-110.



9. Sharma, S. (2018). The role of Ayurveda in managing hair loss: A review. *Journal of Ayurveda and Integrative Medicine*, 9(2), 144-150. doi:10.1016/j.jaim.2017.05.001.
10. Baswan, S.M., & Katta, R. (2017). Stress and hair loss: A review of the evidence. *Journal of Drugs in Dermatology*, 16(7), 718-724.