Review Article

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A CRITICAL REVIEW OF JEEMUTA BHRINGADI TAILA AND ITS IMPACT ON KHALITYA (HAIR LOSS)

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ABSTRACT

Jeemuta Bhringadi Taila is a prominent herbal oil-based formulation that finds its roots in Ayurveda, documented in "Taila Prakaran" of Sahasrayogam. This formulation contains a carefully selected array of ingredients, including Til (sesame oil), Jeemutak, Bhringraj, Karvira, Nisha, Arka, Nili, and Karpas moola. These constituents come together to create a medicinal oil with a variety of potential therapeutic applications. This critical review delves into the individual components of Jeemuta Bhringadi Taila, exploring their respective properties and therapeutic potential, as described in classical Ayurvedic texts. The ingredients work synergistically to offer a wide range of traditional benefits, such as promoting hair health, addressing skin issues, and providing relief from certain ailments. The review will also explore existing scientific studies and research of individual components that support or challenge the claimed benefits of Jeemuta Bhringadi Taila. This will help provide a balanced perspective on the formulation's practicality and relevance in contemporary healthcare. In conclusion, this critical review seeks to shed light on the Ayurvedic formulation of Jeemuta Bhringadi Taila, offering insights into its traditional and potential modern applications, and to provide a well-rounded understanding of its therapeutic value.

Keywords: Jeemuta Bhringadi Taila, Sahasrayogam, Synergistic ingredient interaction, Classical Ayurvedic pharmacology, Formulation practicality

INTRODUCTION

Hair constitutes a multifaceted and pliable attribute of the human form, exerting a profound influence on our aesthetic appeal, self-expression, and sense of identity. It serves the dual purpose of functionality and aesthetics, imparting protection to the scalp, regulating bodily temperature, and facilitating an array of hairstyles that intricately embody cultural and personal inclinations. The challenges of hair thinning, pattern baldness, and excessive hair fall have become increasingly prevalent in today's society, yet remain topics often shrouded in silence. Hair has evolved into a sensitive concern for individuals of all genders. In our fast-paced world, these issues are exacerbated by environmental pollution, poor dietary choices, stressful lifestyles, the relentless march of industrialization and urbanization, as well as a range of intrinsic and genetic factors. The life quality index ratings in individuals dealing with hair loss mirrored those documented in cases of severe psoriasis[1], painting a striking parallel in their impact on overall well-being. So, every person is fervently attuned to their hair aspirations, actively on the quest for a superior solution to enhance hair growth. But modern medicine offers a range of treatment tiers for alopecia, classified as primary, secondary, and tertiary therapies. Primary interventions encompass various options including intralesional corticosteroids, topical corticosteroids, minoxidil, anthralin, topical immunotherapy, prostaglandin analogs, topical retinoids, bexarotene, and capsaicin. Secondary strategies feature sulfasalazine, phototherapy, excimer laser, and fractional photo thermolysis laser. Tertiary treatments extend to systemic solutions such as corticosteroids, methotrexate, cyclosporine, azathioprine, and biologics. However, it's vital to recognize that no current treatments offer a comprehensive cure or preventive measure[2,3]. This underscores the demand for innovative therapies that can actively stimulate hair regrowth. Ayurveda, with its holistic approach to the practice of hair care through the utilization of Ayurvedic oils is deeply rooted in ancient traditions and signifies a natural and time-honored approach to nurturing hair health and aesthetics. Medicated Ayurvedic oils, often referred to as "taila," undergo a meticulous preparation process involving the infusion of various herbs and natural components into a base oil, typically derived from sesame or coconut.

Among the array of traditional oils, Jeemuta Bhringadi Taila is renowned for its broad-spectrum benefits in hair care. This oil is recognized for its ability to nourish the scalp, fortify hair roots, stimulate hair growth, and enhance overall hair texture. The efficacy of Jeemuta Bhringadi Taila is primarily attributed to its key ingredients, including jeemutak, bhringraj, and other bioactive herbs with well-documented therapeutic properties. The widespread use of this Ayurvedic taila in southern India underscores its proven efficacy and the deep-rooted trust of the local population, reflecting its crucial role in maintaining holistic hair care traditions and perpetuating timeless Ayurvedic practices. Despite its extensive use in southern India, information about this taila is still limited on public platforms. Therefore, this article aims to propose a probable mode of action of Jeemuta Bhringadi Taila by analyzing available data on its ingredients. To thoroughly review its application and benefits, data were gathered from venerable texts such as the Samhitas and Nighantu, as well as from contemporary sources, including modern textbooks and

peer-reviewed scholarly journals. Each ingredient was meticulously examined to elucidate its Ayurvedic attributes and assess its potential mechanism of action concerning hair loss. This comprehensive approach affirms the taila's relevance and effectiveness in both traditional and modern contexts.

Table 1: Composition of Jeemuta Bhringadi Taila

Sr.no.	Name of herbal constituents	Botanical name	Beneficial component	Quantity
Kalka dravya				
1.	**Karpas**	*Gossypium herbaceum* Linn.	Root	50 g
Drava dravya				
2.	Jeemutak	*Luffa echi*nata Roxb.	Fruit	200 ml
3.	Bhringraj	*Eclipta alba* Hassk.	Whole plant	200 ml
4.	Karvir	*Nerium indicum* Mill.	Root	200 ml
5.	Haridra	*Curcuma longa* Linn.	Rhizome	200 ml
6.	Ark	*Calotropis gingantea* (L.) Dryand	Root	200 ml
7.	Neeli	*Indigofera tinctoria* Linn.	Whole plant	200 ml
Sneha dravya				
8.	Tila Taila	*Sesamum indicum* Linn.	Seed	200 ml

Table 2: Drug action Characteristics of Jeemuta Bhringadi Taila

SN	Dravya (plant)	Rasa (taste)	Guna (attribute)	Virya (potency)	Vipaka (biotransformation)	Karma (action)
1.	Karpas Moola [5]	Madhura (sweet)	Laghu (lightness)	Kincit Ushna (hotness)	Madhura (sweet)	Vatahara
2.	Jeemutak [6]	Katu (Pungent), Tikta (bitter)	Laghu (lightness), Ruksha (dryness)	Ushna (hotness)	Katu (pungent)	Tridoshahara, Vamaka
3.	Bhringraj [7]	Katu (Pungent), Tikta (bitter)	Laghu (lightness), Ruksa (dryness)	Ushna (hotness)	Katu (pungent)	Pitta-Vata shamaka
4.	Karvir [8]	Katu (Pungent), Tikta (bitter), Kashya (Astringent)	Laghu (lightness), Ruksha (dryness), Tikshna (sharpness)	Ushna (hotness)	Katu (pungent)	Kapha - Pittashmak
5.	Haridra [9]	Katu (Pungent), Tikta (bitter)	Ruksha (dryness), Laghu (lightness)	Ushna (hotness)	Katu (pungent)	Kapha-Pittahara
6.	Ark [10]	Katu (Pungent), Tikta (bitter)	Laghu (lightness), Ruksha (dryness), Tikshna (sharpness)	Ushna (hotness)	Katu (pungent)	Vatahara
7.	Neeli [11]	Tikta (bitter)	Laghu (lightness), Ruksha(dryness)	Ushna (hotness)	Katu (pungent)	Kapha Vatahara
8.	Tila Taila [12]	Madhura(sweet)	Guru (heaviness), Snigdha (unctuousness), Suksma	Ushna (hotness)	Madhura (sweet)	Vata shamaka, Kapha-Pittashara

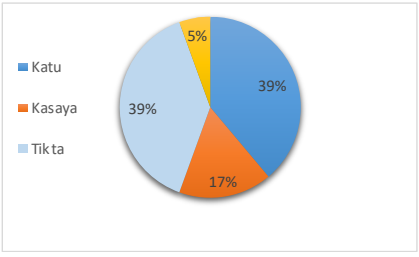

Figure 1: Predominance of Rasa in Botanical Components ingredients of JB

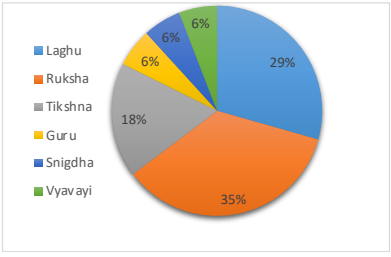

Figure 2: Predominance of Guna in Botanical Components ingredients of JB

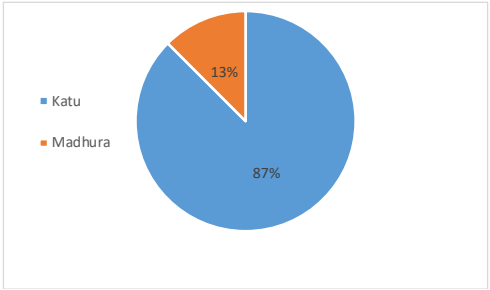

Figure 3: Predominance of Vipaka in Botanical Components ingredients of JB

Table 3: Botanical Chemical Structure and Biological Response of Ingredients

SN	Ingredients	Botanical Chemical Structure	Biological Response
1	Karpas Moola	Hemigossypol, Quercimetitrin, starch, carbohydrates and secondary metabolites	Anti-Inflammatory, Analgesic, Antifungal, Antioxidant
2	Jeemutak	Chrysoeriol and its glycosides as principal flavonoids.	Antimicrobial, Anti-Inflammatory, Antioxidant, Hair conditioning, Hair tonic
3	Bhringraj	a. **Leaves-** Alkaloids, including wedelolactone and ecliptine Flavonoids, such as apigenin and luteolin, Coumestans, Polypeptide, Fatty acids, Sterols b. **Roots-** Alkaloids, including wedelolactone and ecliptine, Coumestans, Polypeptide, Eclalbasaponins, Fatty acids, Sterols **c. Flowers-** Flavonoids, such as apigenin and luteolin, Polyphenols, Essential oils, Phytochemicals with potential antioxidant properties, Other secondary metabolites specific to the plant **d. Stem -** Cellulose and lignin (structural components), Phytochemicals found in plant tissues, including small amounts of alkaloids and tannins	Hair Growth stimulant, Reduces Hair Fall, Prevents Premature Graying, Antimicrobial, Anti-Inflammatory, Hair Conditioning
4	Karvir	Cardiac glycosides, Tannins, Resins	Wound Healing, Antimicrobial, Anti-Inflammatory
5	Haridra	Curcuminoids: The primary active compounds, including curcumin, demethoxycurcumin, and bisdemethoxycurcumin, Essential oils: Comprising various terpenes, such as ar-turmerone, α-phellandrene, and zingiberene. - Carbohydrates - Proteins - Resins	Improves blood circulation, Reduces dandruff, Strengthens hair, Antimicrobial, Anti-Inflammatory, Antioxidant
6	Ark	β-amyrin, Giganteol, Iso Giganteol	Anti-inflammatory
7	Neeli	**a. Leaves and Stems-** Indigotin: The primary dye component responsible for the blue color., Indirubin: A red pigment produced from indoxyl, which can also contribute to color variations., Indican: A glycoside that hydrolyzes into indoxyl, a precursor to indigotin., Flavonoids, Alkaloids, Tannins, Saponins **b. Root-** Indigotin, Indirubin, Indican, Flavonoids, Alkaloids	Natural Dye, Fixative for Henna, Anti-inflammatory
8	Tila Taila	a. Fatty Acids: Oleic acid (monounsaturated) - Linoleic acid (polyunsaturated) - Palmitic acid (saturated) - Stearic acid (saturated) **b. Phytosterols:** - β-sitosterol - Campesterol - Stigmasterol **c. Tocopherols (Vitamin E):** - Alpha-tocopherol **d. Antioxidants:** - Sesamin - Sesamol **e. Lignans:** - Sesaminol - Sesamolin	Moisturizing and Conditioning, Strengthening, Anti-inflammatory, Antioxidant, Natural Sunscreen, Hair Growth, Preventing Split Ends

DISCUSSION

Jeemuta Bhringadi Taila is an Ayurvedic formulation composed of seven herbal ingredients combined with sesame oil (til taila), prepared according to the principles of sneha kalpana. The detailed process of its preparation is thoroughly described in the Sahasrayogam.

Table 2 outlines the key aspects of Jeemuta Bhringadi Taila, including its rasa (taste), guna (attributes), veerya (potency), vipaka (metabolic transformation), and doshaghnata (impact on doshas). The formulation predominantly features katu (pungent) and tikta (bitter) tastes, with minimal presence of madhura (sweet) and kasaya (astringent) tastes. Notably, amla (sour) and lavana (salty) tastes are absent from the formulation [Figure 1]. In terms of attributes, the herbs in Jeemuta Bhringadi Taila are primarily ruksha (dry), laghu (light), and ushna (hot) [Figure 2]. Most of these herbs exhibit ushna veerya (hot potency), while the overall vipaka mainly aligns with katu (pungent) vipaka, with only one herb showing the rare madhura (sweet) vipaka [Figure 3].

Probable Mode of Action of Jeemuta Bhringadi Taila in Khalitya

Hair loss, referred to as Khalitya in Ayurvedic terms, is considered a kshudra rog, or minor ailment, in classical texts [13,14]. The condition is attributed to an imbalance in the Pitta dosha within the hair follicle (romakoopa), often caused by various factors. This imbalance, along with Vata dosha, contributes to hair loss. The accumulation of Kapha and Rakta in the hair follicle further obstructs hair growth, preventing rejuvenation.

In Ayurveda, the effectiveness of a therapeutic agent is determined by its rasa, guna, veerya, vipaka, and prabhava. For

topical applications like Jeemuta Bhringadi Taila, veerya and guna are particularly important. The doshaghna properties of the ingredients in Jeemuta Bhringadi Taila are known to balance the pitta-vata doshas and promote hair regrowth. The formulation's attributes, including laghu (light), ruksha (dry), and ushna (hot) veerya, make it suitable for srotosodhana (cleansing of the channels), helping in the removal of obstructions and improving hair health.

Notably, Bhringraj and Neeli are highlighted for their exceptional benefits for hair. Bhringraj is renowned for enhancing hair shine and vitality, while Neeli supports dense and robust hair growth. Sesame oil, as the base, effectively pacifies vata and pitta doshas and is valued for its hair-enhancing properties. The combination of these attributes in Jeemuta Bhringadi Taila positions it as a powerful remedy for Khalitya, effectively addressing the challenge of hair loss. Moreover, the herbs used in this formulation are known for their anti-inflammatory, antimicrobial, and antioxidant properties, and are also recognized for their role in stimulating hair growth (Table 3). These herbs are frequently cited in Ayurvedic texts for their efficacy in promoting hair health and have been incorporated into various formulations as essential components.

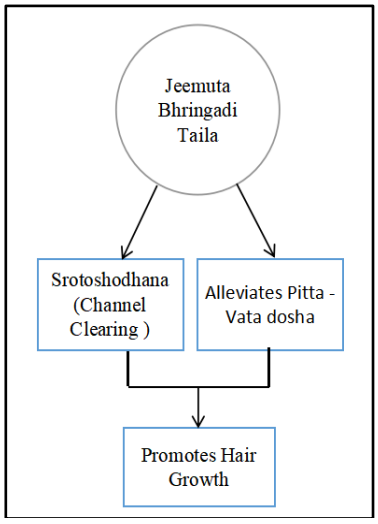

Figure 4: Summary of action of Jeemuta Bhringadi Taila

CONCLUSION

Jeemubhringadi Taila, an Ayurvedic medicated oil, shows significant promise in the management of Khalitya, or hair loss. Its formulation, which combines a range of potent herbs, supports the strengthening and revitalization of hair follicles. Traditional usage indicates that this taila can effectively reduce hair loss and promote hair regrowth. The therapeutic effects are primarily due to the synergistic action of its ingredients, which help restore the balance of doshas and enhance scalp health. Continued research and clinical evaluations could further substantiate its efficacy and refine its application for optimal results.

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