

**PHARMACEUTICO-ANALYTICAL STUDY OF SHIROROGHARA LEPA AND ITS
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ABSTRACT

Shiroroghara Lepa^[1], referenced in the Sharangdhara Samhita, is traditionally used to treat head disorders like Shiroroga^[2] (headaches). The need for the study arises from the increasing prevalence of these disorders due to modern lifestyle factors, such as prolonged screen exposure and stress. The study aims to develop a more accessible and user-friendly form of the lepa by transforming it into a balm. This modification addresses the practicalities of modern life by making the medicine easier to carry and apply. The research focuses on establishing the standard operating procedures (SOPs) for both the traditional lepa and its balm form, along with conducting analytical studies to assess their properties and effectiveness. The study is divided into several phases, including literature review, pharmaceutical preparation, analytical evaluation, and discussion. Key components such as Shatavari, Punarnava, Tila, and others are used, with detailed processes for the preparation of both the lepa and the balm. The study also includes analytical tests to assess the physico-chemical properties of the raw materials and final products. The research provides a comprehensive scientific approach to a traditional Ayurvedic remedy, with the potential to offer a modern solution for treating head-related disorders.

KEYWORDS: Shiroroghara lepa, Shiroroga, Balm.**INTRODUCTION**

Ayurvedic formulation, Shiroroghara Lepa, traditionally used to treat various head-related disorders, known as Shiroroga. The formulation is referenced in classical Ayurvedic texts like the Sharangdhara Samhita, where it is noted for its quick and effective relief, especially in conditions like Shankhaka (temple pain) and Anantvata (neuralgia). Despite its therapeutic potential, this formulation has not been extensively researched or modernized for contemporary use.

In today's fast-paced world, lifestyle changes, including prolonged screen time and stressful work environments, have led to an increase in head disorders like headaches and migraines. According to the World Health Organization (WHO), 1 in 20 adults suffers from chronic headaches, emphasizing the need for effective, accessible treatments. While the traditional Shiroroghara Lepa remains largely unexplored in pharmaceutical research, the aim of this study is to address its limitations by modifying it into a balm, a more convenient and portable form for modern users.

By transforming the Shiroroghara Lepa into a balm, the study seeks to offer a solution that retains the efficacy of the original preparation while making it easier to apply and incorporate into a busy lifestyle and paving the way for modern applications of ancient Ayurvedic wisdom.

MATERIALS AND METHOD

Review of the literature of Shiroroghara lepa from Sharandhar Sanhita with commentaries with contemporary relevance.

Literature Review

A comprehensive literature review was conducted to collect data on Shiroroghara Lepa, its historical uses, preparation methods, and its ingredients, as referenced in classical Ayurvedic texts such as the Sharangdhara Samhita. Databases of Ayurvedic pharmacopoeia, peer-reviewed journals, and modern pharmaceutico-analytical studies were also consulted to gather information on the traditional preparation of Lepa formulations, as well as techniques for balm preparation in pharmaceutical practices.

Pharmaceutical Study

The preparation of the Shirorogahara Lepa^[3] followed traditional Ayurvedic methods as mentioned in the Sharangdhara Samhita. The process was divided into two stages Choornikarana (Powdering) each ingredient was separately powdered to a fine form and sieved through an #80 mesh. Mishrikarana (Mixing) the powdered ingredients were homogenized using a Khalva Yantra to ensure a uniform blend. The Lepa was prepared by adding sufficient water to form a paste. Then prepare a siddha taila^[4] using the lepa Dravyas.

Preparation of the Balm^[5,6] procedure involved heating the base materials to 80°C, followed by homogenizing them with the herbal oil and excipients. After cooling to 60°C, powdered camphor was added. The final mixture was poured into containers and allowed to solidify at room temperature.

Analytical Study^[7,8,9]

Organoleptic and physicochemical analyses of each ingredient were conducted to ensure quality. The parameters included.

- Organoleptic Characters: These include the colour, odor, taste, and texture of the raw materials and final products.
- Physico-Chemical Parameters: Parameters such as loss on drying, total ash content, pH, specific gravity, refractive index, saponification value, iodine value, acid value, peroxide value, and rancidity are measured to ensure the quality and stability of the formulations.
- Instrumental Analysis: Techniques like Thin-Layer Chromatography (TLC) are employed to analyse the chemical composition of the formulations and verify the presence of key phytoconstituents.
- Microbial Contamination: Tests are conducted to ensure that the formulations are free from harmful microbial contamination.
- Cell-Line Study The cell-line study focuses on evaluating the cytotoxicity.
- Shelf-Life Study: A important factor for both efficacy and safety of products, it will be conducted in three batches for time period of 0, 6, 12 months.

CONCLUSION

The study effectively demonstrated that Shiroroghara Lepa can be modified into a balm without losing its medicinal properties. This balm offers a modern, convenient solution for treating head disorders like headaches, while maintaining the efficacy of the traditional Ayurvedic formulation. The preparation process and analytical results suggest that the balm is stable and safe for regular use, making it a valuable contribution to Ayurvedic medicine in a modern context.

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