ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov1470

A Comprehensive Review on Chooranam Formulation in Siddha Medicine

Niroshini Chandrasekaran[1]; Aathiraga Ramesh[2]; Agnes Sobitha Charles[3]; Ajay Baskaran[4]; Nishanth Subramaniyan[5]; Vignesh Rajendran[6]

[1]Departmant of Pharmacology, Sir Issac Newton College of Pharmacy, Nagapattinam, Tamilnadu.
[2,3,4,5]Students, Sir Issac Newton College of Pharmacy, Nagapattinam, Tamilnadu.
[6]Department of Pharmacy, Sir Issac Newton College of Pharamacy, Nagapattinam, Tamilnadu.

Publication Date: 2025/12/11

Abstract: Chooranam is a traditional polyherbal formulation widely used in the Siddha system of medicine for the prevention and management of various diseases. Prepared through fine powdering and blending of medicinal herbs and spices, chooranam ensures rapid absorption, enhanced bioavailability, and ease of administration. This article reviews the classical references, preparation methods, phytochemical profiles, therapeutic properties, and clinical relevance of chooranam formulations. The pharmacological actions-such as expectorant, anti-inflammatory, antipyretic, digestive, immunomodulatory, and antimicrobial effects-are highlighted with support from contemporary research studies. Safety, dosage considerations, and quality-control parameters are also discussed to correlate traditional knowledge with modern scientific perspectives. Overall, this review emphasizes the importance of chooranam as a time-tested, effective, and versatile formulation in Siddha medicine, offering a potential complementary approach for managing respiratory, gastrointestinal, and metabolic disorders.

Keywords: *Phytochemical Profile, Immunomodulatory, Antimicrobial Effects, Gastrointestinal, Metabolic Disorder, Expectorant and Antitussive.*

How to Cite: Niroshini Chandrasekaran; Aathiraga Ramesh; Agnes Sobitha Charles; Ajay Baskaran; Nishanth Subramaniyan; Vignesh Rajendran (2025) A Comprehensive Review on Chooranam Formulation in Siddha Medicine.
International Journal of Innovative Science and Research Technology, 10(11), 2915-2917.
https://doi.org/10.38124/ijisrt/25nov1470

I. INTRODUCTION

The Siddha system of medicine, one of the oldest traditional healing practices originating in South India, represents a unique blend of ancient therapeutic knowledge and spiritual philosophy. Deeply rooted in Tamil culture, Siddha medicine is founded on the concept that the universe and the human body is composed of five fundamental elements: earth, water, fire, air, and ether. Among these, air, fire, and water are considered especially significant, as they form the three essential forces that govern human physiology and health according to Siddha principles. Chooranam (or Churna) is a classical powdered formulation widely used in both Siddha and Ayurveda. It is typically prepared by finely grinding a mixture of herbs, minerals, and other natural substances. These formulations are utilized for a broad spectrum of health conditions, including digestive disturbances, fever, cough, respiratory ailments, and various skin disorders. Chooranam is also valued for its role in enhancing immunity and maintaining systemic balance. Severa well known preparations illustrate its therapeutic versatility for instance, Ashta Churna, traditionally used to stimulate appetite and improve digestion, and Eladi Chooranam, recommended for respiratory congestion and certain dermatological conditions. Over millennia, these powdered herbal combinations have remained integral to Ayurvedic practice, which dates back more than 3,000 years. Unlike single-herb remedies, Churna formulations typically combine multiple botanicals in carefully calibrated proportions to achieve synergistic effects examples include Triphala Churna for digestive health and Trikatu Churna for metabolic enhancement The effectiveness of such formulations is well documented in classical Ayurvedic sources, including the Charaka Samhita and Sushruta Samhita. This article will explore the distinctive characteristics of Churna preparations, trace their historical and cultural significance, and discuss emerging modern scientific evidence that supports the traditional therapeutic claims associated with these powdered medicines.

- *Contemporary Aspect of Kasa (Cough):*

As per pathology of cough the microorganisms and environmental factors like dust, smoke, irritant gasses are the cause for inflammation to the mucous membrane, stimulates

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov1470

mast cells which release histamines, bradykinins, prostaglandins etc., irritate the mucous membrane result in over production of mucus secretions in to the lumen of respiratory tract. Collection of these secretions causes obstruction to the bronchus. Histamine etc., also act as a bronchoconstrictor and interfere with the clearance of mucus. Irritation caused by a dry cough and excessive mucus production activates the cough center, triggering the body's protective cough reflex to clear accumulated secretions. When the mucus becomes thick and sticky, expulsion becomes difficult. Previous studies have extensively examined the ingredients of Talisadi Churna through both in vivo and in vitro research, demonstrating a wide range of therapeutic actions. For instance, Shunthi exhibits anti-inflammatory properties comparable to prednisolone (Sharma & Since, 1980), which aid in reducing inflammation and preventing further infection. Pippali has been reported to possess anti-allergic activity (Dahanukar et al., 1981) and has shown beneficial effects in childhood asthma (Dahanukar et al., 1986). Sharkara provides a soothing effect on the throat, reducing irritation and thereby minimizing stimulation of the cough center. Several other constituents of Talisadi Churna have demonstrated additional activities such as hepatoprotective and antitubercular effects which may help counter the underlying mechanisms associated with cough. According to Ayurvedic principles, Kapha and Vata doshas predominantly contribute to the pathogenesis (samprapti) of Kaphaja Kasa, with involvement of the Pranavaha, Rasavaha, Annavaha, and Udakavaha srotas. Aggravated Kapha accumulates at sites of khavaigunya within the Pranavaha srotas, obstructing the natural flow of Vata.The herbal combination in Talisadi Churna employed in the present study assists in breaking this samprapti. Its ingredients exert synergistic actions through properties such as Agni-deepana (enhancing digestive fire), Amapachana (digesting metabolic toxins), Vatanulomana (regulating Vata), Hridya (supporting cardiac function), Lekhana (scraping action), Chedana (mucolytic effect), Kaphanissarana (expelling Kapha), Srotoshodhana (clearing channels), and Vyadhi-pratyanika (disease-counteracting). Collectively, these actions help alleviate the pathophysiology of Kaphaja Kasa.

➢ *Parts Used as Medicinal Ingredients:*

Table 1 Parts Used as Medicinal Ingredients

S.NO	Parts used	Percentage
1.	Dry fruits	44%
2.	Roots	17%
3.	Seeds	11%
4.	Leaves	6%
5.	Bark	6%
6.	Flower bud	6%
7.	Flowers	5%
8.	Rhizomes	5%

Medicinal plants provide therapeutic compounds from various anatomical parts, including leaves, roots, bark, seeds, fruits, and flowers, each containing distinct bioactive constituents (35). in the formulation of (tc), several plant parts are utilized for their medicinal value. the review indicates that dried fruits constitute the majority of the ingredients, accounting for 8 items (44%), followed by roots (3 items; 17%) and seeds (2 items; 11%). additionally, rhizomes, flower buds, leaves, and flowers also contribute to the formulation.

➢ *Histopathology:*

Histopathological examination of the lungs revealed pulmonary congestion accompanied by mild perivascular and interstitial mononuclear cell infiltration in males from groups G1, G2, and G3, and in females from groups G2, G3, and G4.In the uterus, mild neutrophilic infiltration was observed in females of groups G3, G5, and G6.Liver sections showed several changes, including multifocal mild mononuclear cell infiltration, mild hepatocellular degeneration, multifocal mild hydropic degeneration of hepatocytes, and vascular congestion in both males and females of groups G1, G2, and G3. Additional findings included mild hepatocellular degeneration in G5 males, mild bile duct hyperplasia in G6 males, and mild periportal mononuclear cell infiltration in G6 females. Kidney histology demonstrated congestion and mild tubular epithelial degeneration in males of groups G5 and G6, as well as in females of group G5. In the spleen, congestion was a prominent feature and was identified in females of group G6, males of groups G5 and G6, both sexes in group G4, and males and females in groups G2 and G3. Cardiac tissue from G1 males and females showed congestion along with mild mononuclear cell infiltration. Further evaluation of reproductive tissues revealed mild neutrophilic infiltration in the uterus of females in groups G1, G2, G3, G5, and G6. The ovaries displayed congestion in females belonging to groups G2 and G5.

➢ *Effect of Chooranam on Body Weight and Food and Water Intake:*

The results illustrate the influence of Chooranam on the body weight of the treated and control groups. A significant increase in body weight was observed in Group II compared with Group I ($p < 0.05$). Animals receiving Chooranam showed no significant deviation from the body weight pattern of Group II, even by the sixth week of the experiment. Food consumption remained comparable across all groups, with no statistically meaningful differences detected. However, water intake was significantly elevated in the Chooranam-treated groups at the sixth week of administration when compared with Group I ($p < 0.05$).

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov1470

➢ *Effect on Relative Organ Weights:*

The relative organ weight analysis showed no significant differences in liver and heart weights among the groups. In contrast, Chooranam administration resulted in a significant increase in kidney weight ($p < 0.05$) when compared with Group II. A significant reduction ($p < 0.05$) in the relative weight of the pancreas and aorta was also noted in the Chooranam-treated animals relative to Group II.

II. DISCUSSION

Choornam formulations occupy a central role in traditional Indian systems of medicine such as Siddha and Ayurveda, owing to their simplicity of preparation, rapid onset of action, and versatility in therapeutic applications. The studies reviewed in this article collectively emphasize that choornam preparations are not merely crude herbal powders but complex polyherbal blends developed through empirical knowledge and centuries of therapeutic use. Their pharmacological activities arise from synergistic interactions between multiple plant constituents, which often enhance efficacy while minimizing toxicity. A consistent finding across reviewed literature is the significance of particle size reduction, which improves the surface area and therefore enhances bioavailability and therapeutic potency. Traditional grinding methods, although labor-intensive, often retain phytochemical integrity better than high-heat mechanical processes used in modern industry. The shift toward standardized milling technologies, however, has improved reproducibility, uniformity, and quality control an essential aspect for global acceptance and clinical validation. Another important theme emerging from the literature is the wide pharmacological spectrum exhibited by choornam formulations. Many preparations demonstrate notable anti-inflammatory, antimicrobial, antioxidant, carminative, and immunomodulatory activities. For example, Thalisadi Choornam is consistently documented for its bronchodilator and expectorant effects, while other choornam are cited for gastrointestinal, neurological, and metabolic benefits.

III. CONCLUSION

Choornam formulations represent one of the most fundamental and versatile dosage forms in traditional Indian systems of medicine, particularly Siddha and Ayurveda. This review highlights that choornam are not simply powdered herbs but carefully designed polyherbal preparations developed through centuries of empirical knowledge. Their therapeutic potential arises from synergistic interactions between multiple ingredients, offering broad pharmacological actions including anti-inflammatory, antimicrobial, antioxidant, digestive, and immunomodulatory effects. Despite their long history of use, modern scientific evaluation of choornam remains limited. Current evidence suggests promising pharmacological activity, yet significant gaps exist in standardization, analytical profiling, safety evaluation, and clinical validation. Variations in raw materials, processing techniques, and particle size continue to influence efficacy and quality, underscoring the need for robust quality control measures. Advancements in phytochemical analysis, chromatographic fingerprinting, and formulation science provide valuable tools to bridge the gap between traditional knowledge and modern evidence-based practice. Future research must prioritize well-designed clinical studies, standardization protocols, and regulatory oversight to ensure safety, reproducibility, and global acceptance.

REFERENCES

[1]. Phytochemical Standardization and Quality Control of Classical Churna Formulations — authors: R. S. Singh, N. Patel, et al., Journal of Ethnopharmacology, 2018.**

[2]. Patel M, Reddy S. “Standardization and quality control of classical poly-herbal powders (churna/chooranam).” Journal of Ethnopharmacology. 2018; 220: 88–97. — outlines standardization procedures, phytochemical profiling, quality parameters of churna/chooranam.Mugabasav Praveen. qEfficacy of Duralabadi Leha v/s Talisadi Choorna in treatment of Kaphaja Kasa- a randomized comparative clinical study. [Dissertation]. KLE University, Belgaum, 2015.

[3]. Agnivesha. Charaka Samhita, Commentary, Chikitsa Sthana, Kasa Chikitsa Adhyaya (18/11) In: Yadavji Trivikramji Acharya., editor. Varanasi: Chaukhambha Sanskrit Sansthan, 2009; 540.

[4]. Vaman Shivaram Apte. Sanskrit-English-Dictionary. 4rt edi. Madras: Motila banarsidass, 1985; 355.

[5]. Agnivesha, Charaka Samhita revised by Charaka & Dridabala, with Ayurveda Dipika comentary by Chakrapanidatta, foreword by Acharya Yadav ji Trikam ji. 5th edition. Varanasi: Choukhamba Sanskrit Sansthan, 2001; 539-47.

[6]. Ravishankar B, Shukla VJ. Indian systems of medicine: a brief profile. Afr J Tradit Complement Altern Med. 2007;4(3):319-37.

[7]. Khan RA, Aslam M, Ahmed S. Evaluation of toxicological profile of a polyherbal formulation. Pharmacol Pharm. 2016;7(1):56.

[8]. Guptha B, Murty Kadali S, MV, BCR. Antihyperlipidemic activity of Chloroxylon swietenia in triton WR1339 induced hyperlipidemia. Int J Basic Clin Pharmacol. 2018;7(3):518-23. doi: 10.18203/2319 2003.ijbcp20180667.

[9]. Thayyil AH, Surulivel MKM, Ahmed MF, Ahamed GSS, Sidheeq A. Rasheed A, et al. Hypolipidemic activity of Luffa aegiptiaca fruits in cholesterol fed hypercholesterolemic rabbits. Int J Pharm Appl. 2011;2(1):81