

INTEGRATED RESEARCH DIVISION



- ✓ **24 Extra-Mural Research (EMR)**
- ✓ **28 Intra Mural Research (IMR),**
- ✓ **PG thesis**
- ✓ **PhD thesis**

Major areas of Research:

- Malnutrition,
- Respiratory Diseases,
- Neuro Psychiatry,
- Eye & ENT,
- Ano Rectal,
- Gynecological,
- Musculo Skeletal,
- Metabolic Syndrome etc.



RESEARCH PROJECTS

IIT-Delhi – 07

AIIMS – 03

IGIB -02

CSIR – 01

ILBS - 02

INTERNATIONAL PROJECTS:

UK, Germany, Brazil, S Africa, USA



Comparative Analytical Profile of *Benincasa hispida* Thumb. and *Cucurbita maxima* Duchesne

ABSTRACT

Background: Cucurbitaceae is a family of health-promoting plants due to their compounds with beneficial effects. This is a family of about 130 genera and about 800 species. Seeds or fruit parts of some cucurbits are reported to possess many therapeutic activities. *Benincasa hispida* Thumb. family known as *Kashipala* are two varieties of Cucurbitaceae family. Thus, comparative analytical profile.

Aim: To evaluate the analytical profile of *B. hispida* and *C. maxima*.

Materials and Methods: Fresh juice, semi-solid, dried powder of both comparative analytical profiles were developed by following standard g

Results and Conclusion: The organoleptic parameters include cha physico-chemical parameters, slight changes in loss on drying, Ph, and extractive values have found within the limit as mentioned in AF alkaloids, carbohydrates, reducing sugars, flavonoids, and steroids in showed parenchymatous cells, xylem fibers, xylem tracheid's, epiderm in *B. hispida* and dense in *C. maxima*. High-performance thin-layer of 254 nm and 4,3,4 bands at 366 nm ultraviolet detection in methanolic ex and fourier-transform infrared spectroscopy study of *B. hispida* and *C.* group and alcohols, phenols, and methylene group, respectively.

Key words: *Benincasa hispida*, *Cucurbita maxima*, fourier-transform chromatography, phytochemical screening

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Original Article

Shelf-life evaluation of *Kasisadya Ghritam* prepared by two different methods: A preliminary evaluation

Pramod R. Yadav, Galib R., Pradeep Kumar Prajapati

Access this article online

Quick Response Code:



Website:

<https://www.jdrascrras.com/>

DOI:

10.4103/jdras.jdras_2_21

Abstract

BACKGROUND: *Kasisadya ghritam* (KG) is a herbomin ingredients mentioned in *Sharangadhara samhita*. Differ mentioned regarding the same especially in respect to the *Suryatapi*. As this medicine has shown promising results use of this medicine has become very prevalent in recent commercialization of Ayurveda sought for the stability of this to date. Therefore, a plan had been made to evaluate the parameters prevalent in the respective scenario. The aim of both the samples of *Kasisadya ghritam Suryatapi* (KGS) through basic analytical parameters and chromatographic.

MATERIALS AND METHODS: Stability period of both accelerated stability study as per International Council Q1A (R2). The test drugs were stored at 40°C ± 2°C temp and withdrawn at the intervals of 0, 1st, 3rd, and 6th parameters of KGS and KGA were analyzed at the inter chromatographic fingerprinting was done initially and at the observations, intercept, slope, 10% degradation of the samples were calculated.

RESULTS: Basic analytical parameters showed both the samples analytical data, 10% degradation of KGS was found in acid value (6.58), peroxide value (1.97), and total fatty matter degradation in parameters, that is, specific gravity (0.829), peroxide value (1.341), and total fatty matter (82.81). Rf thin-layer chromatography (HPTLC) of both samples initial deterioration of the product. Microbial count and heavy metals both the samples. Accelerated stability study reveals the shelf life of KGA as 4.4 years.

CONCLUSION: Rule 161 B of Drugs and Cosmetics Rule, 1930 *Ghrita* as 2 years. This time period is general, and different lives based upon several factors. The samples tested in the found to have a shelf life of 3.8 and 4.4 years, respectively, the guidelines. The findings suggest that the sample prepared life than the sample prepared by subjecting to sunlight.

Keywords:

Accelerated stability study, Agnipaki, *Kasisadya ghrita*, shelf

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Research Article

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QUALITY ASSESSMENT OF LAKSHADI GUGGULU VATI: A POLYHERBAL FORMULATION

Anjali Upadhyay^{1*}, Rohit Singh², Robin Bada³, Pramod Yadav⁴ and P. K. Prajapati⁵

¹Pharmacy Manager, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda,

Gautampuri, Sarita Vihar, Mathura Road, New Delhi- 110076.

²Assistant Professor, Department of Rasa Shastra & Bhaishajya Kalpana, Shri Dhanwantri P.G. Ayurvedic Medical College & Research Centre, Semri, Mathura, Uttar Pradesh -281401.

³P.G. Scholar, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi- 110076.

⁴Assistant Professor, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi- 110076.

⁵Professor & HOD, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi- 110076.

*Corresponding Author: Anjali Upadhyay

Pharmacy Manager, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi- 110076.

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Article Revised on 31/08/2021

Article Accepted on 21/09/2021

ABSTRACT

Lakshadi Guggulu Vati (LGV) is one of the widely used poly herbal formulations in Ayurvedic clinical practice since decades for the treatment of various conditions like fractures (*Kanda Bhagna*), pain (*Rajaji*), dislocation of joints (*Sandhi Bhagna*) etc. However, comparative analysis of different marketed samples of LGV needs to be carried out to ensure uniformity in the quality of raw drugs and pharmaceutical process. In this germane, present study has been carried out with an objective to generate and compare the analytical profile of different marketed samples of LGV and validate its quality standards as per official publications. Various marketed samples of LGV have been procured and comparative evaluation for their quality control parameters along with HPTLC fingerprinting as per guidelines of Ayurvedic Pharmacopoeia of India (API) have been carried out. The study revealed significant variation in values of quality control parameters of all four marketed samples of LGV. It can be inferred from the study that dissimilarity in quality control parameters of all marketed sample is evident. Therefore, analytical evaluation and standardization of raw drugs of all patent as well as classical formulations should be performed to optimize the final product quality according to the standards, which would otherwise affect the therapeutic activity of the finished products.

KEYWORDS: HPTLC, *Lakshadi Guggulu Vati*, Phytochemical screening, Quality control.

INTRODUCTION

Medicinal herbs and human beings have distinctive connection since ancient time. Man's profound appeal in plants, chiefly as a source of nutrition, dates back to the very origin of human civilization. Herbs are

experience, provision of product information to consumer and product promotion.^[2] The quality evaluation of Ayurvedic formulations is crucial in order to validate their effectiveness in recent culture of medicine but only few studies^[3,4] pertaining to

Publications on quality aspects

Original Research

Preliminary Quality Control Parameters of *Maha Sudarshana Ghana Vati*- A Pilot Study

Niladri Bhattacharjya, Pramod R Yadav, Pradeep K Prajapati

Department of Rasashastra and Bhaishajya Kalpana

All India Institute of Ayurveda, New Delhi-110076.

Corresponding Author's Email: drniladri.007@gmail.com

Date of Submission: 22.5.2018; Date of Acceptance: 25.2.2019

Abstract

Introduction: Acceptance of Traditional medicines is growing in public domain and as well as scientific community day by day for its natural and relatively safe attributes. Growing popularity and commercialization of traditional medicine demands quality products because, only the standard quality products can give desired effects. *Maha Sudarshan Churna*, most preferable poly herbal formulation is being prescribed for various types of *Jwara*. In order to overcome the drawbacks of *Churna Kalpana*, Ayurvedic Pharmacies convert *Maha Sudarshan Churna* into *Maha Sudarshan Ghana Vati* (MSGV). Quality control parameters of *Maha Sudarshan Churna* are available in various scientific published literature however, quality control parameters of *Maha Sudarshan Ghana Vati* could not be traced.

Objective: To set a preliminary quality control parameters this may be helpful to the scientific community as well as manufacturing industries.

Material and Methods: Three different sealed packs of *Maha Sudarshana Ghana Vati* was procured from the Pharmacy of All India Institute of Ayurveda, New Delhi, which were evaluated on Organoleptic tests, Physico-chemical parameters such as pH, water soluble extractive, Alcoholic soluble extractive, Loss on drying, Ash value, Acid insoluble ash, Water soluble ash, and Specific tests for tablets such as weight variation test, friability, disintegration times per standard guidelines were carried out. Chromatographic profile was developed and tests for presence of Heavy metals and pesticide residues were also carried out.

Results and Conclusion: Average values for 3 different packs of MSGV showed pH value (5.5), ash value (12.67%), variation of weight (±9.02%), hardness (1.57 kg/cm²), tablet disintegration time (25±2 min) and friability (0.83%). Total 6 peaks were observed in HPLC chromatogram. *Maha Sudarshana Ghana vati* was found free from heavy metals viz. Hg, Pb, As, Cd contamination and pesticide residues. Quality control parameters are the fundamental factors for evaluating the purity, standards and effectiveness of any formulation. Therefore, the findings of the present study may be considered as first step towards generating scientific evidence of quality assurance for marketed formulations.

Key words: *Maha Sudarshana Ghana Vati*; Quality control; HPLC.

Annals Ayurvedic Med. 2019, 8 (1-2) 17-31

Introduction

Eco friendly and bio-friendly medicinal herbs are the backbone of Ayurvedic repertoire that have been curing and preventing the diseases of ailing mankind since ancient

synthetics that are regarded as unsafe to human and environment¹. World Health Organization (WHO) also encourages, recommends and promotes traditional medicines in national health programme because such drugs are easily available, comparatively safe, people have faith in such remedies, and their industrial production is

Introduction

Cucurbitaceae have largely worldwide distributions but occur mostly in the tropical regions. *Benincasa hispida* Thumb. and *Cucurbita maxima* D. are the two varieties of *Cucurbitaceae* family

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SHEETAL SHARMA, ANJALI UPADHYAY, PRAMOD R YADAV, R. GALIB R.

Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi - 110 076, India.

Address for correspondence: Dr. Sheetal Sharma, Department of Rasa Shastra and Bhaishajya Kalpana, All India Institute of Ayurveda, Gautampuri, Sarita Vihar, Mathura Road, New Delhi - 110 076, India. E-mail: ssheetal904@gmail.com

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Department of
Rasashastra and
Bhaishajya Kalpana, All
India Institute of Ayurveda
(AIIA), New Delhi, India

Address for correspondence:

Dr. Preeti Singh,

Department of

Rasashastra and

Bhaishajya Kalpana,

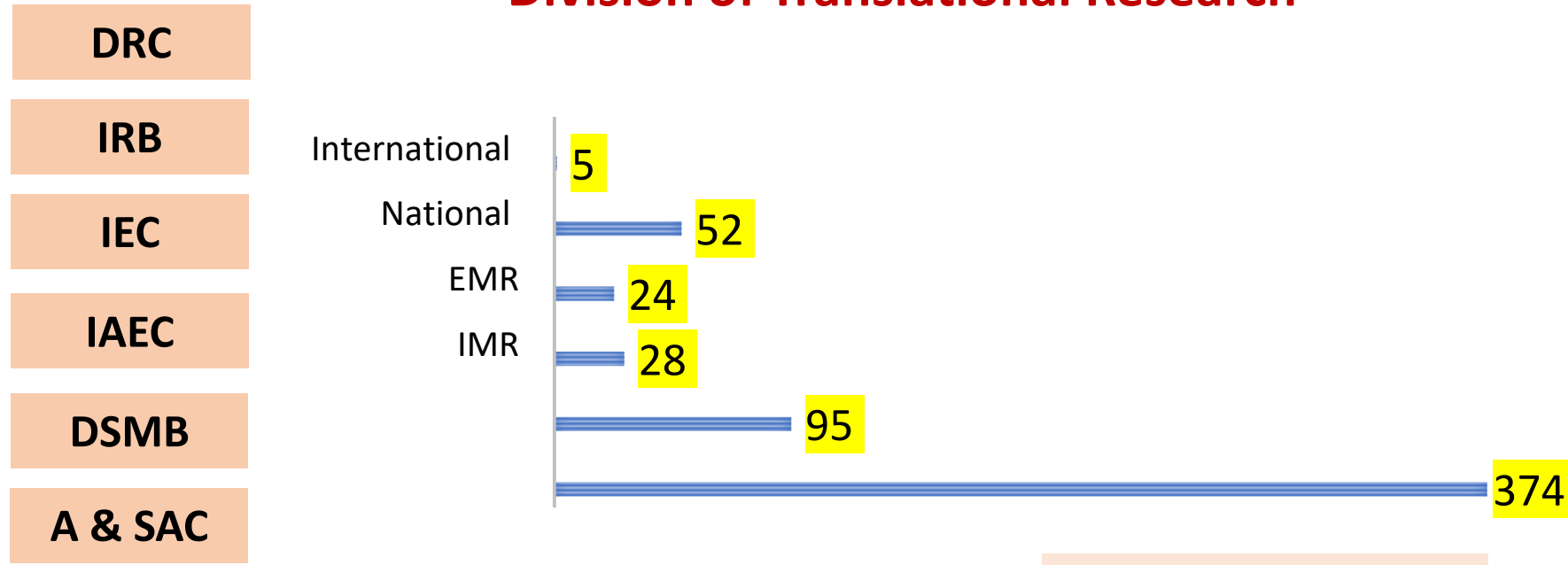
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INTEGRATED RESEARCH = Total Projects 400

International, Extra-Mural, Intra-Mural, PHI, Departmental (PG & PhD)

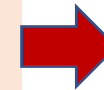


Division of Translational Research



- ☐ Departmental Research Committee (DRC)
- ☐ Institutional Review Board (IRB)
- ☐ Institutional Ethics Committee (IEC)
- ☐ Academic & Scientific Advisory Committee (A&SAC)

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AIIA - LSHTM, London UK Collaboration on long COVID

- ❖ Clinical Trial of Ashwagandha for promoting recovery from long COVID-19 in the UK (April trial)
- ❖ A randomized double blind placebo controlled trial on 2000 subjects

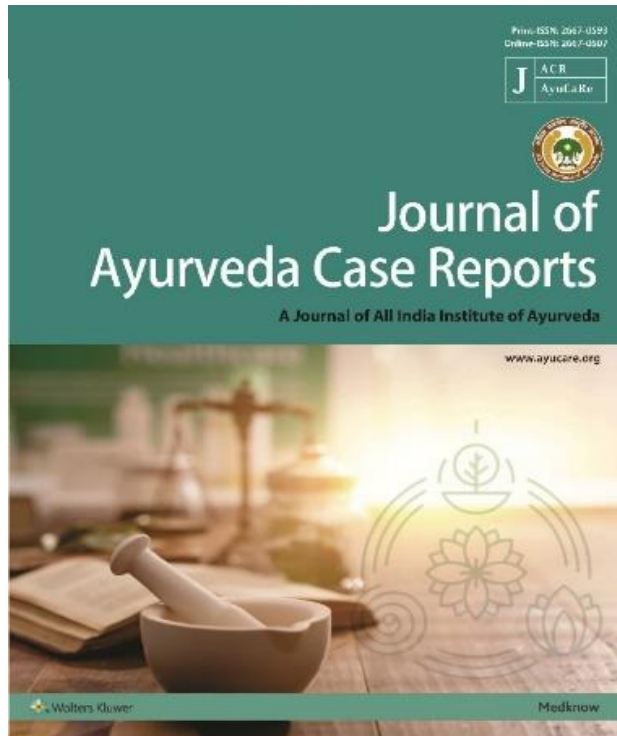
AIIA – FIZ – Innoplexus, Germany on Covid 19

- ❖ Understanding the molecular mechanism of Guduchyadi tablet in combating Covid 19 infection – invitro, invivo study
- ❖ Molecular docking, genome analysis and cheminformatics of Guduchyadi tablet

AIIA INITIATIVES FOR INTEGRATED RESEARCH - JOURNAL PUBLICATIONS



Journal of Ayurveda Case Reports (J AyuCaRe)



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CITATIONS have been initiated
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- AyuCaRe, a quarterly **Journal of Ayurveda Case Reports (J AyuCaRe)**
- Vol 5 Issue IV (November 2022-February 2023)

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International Journal of Ayurveda Research (IJAR)



Online Management System:
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- AIIA has revived the **International Journal of Ayurveda Research (IJAR)**, an earlier publication of the Ministry of Ayush.
- Vol 3 Issue II (December 2022)

- Third journal viz. **A-JIO (Ayush Journal of Integrative Oncology)** has also been initiated by the institute,
- MoU with MedKnow executed to start publication.

PUBLICATIONS

► J Ayurveda Integr Med. Jan-Mar 2022;13(1):100425. doi: 10.1016/j.jaim.2021.03.007.
Epub 2021 May 24.

Immune status determined as per guidelines of Ayurveda found associated with clinical outcomes of COVID-19 disease – Results of a cross-sectional pilot study

Meenakshi Sharma¹, Charu Sharma², Sisir Kumar Mandal¹, Tanuja Manoj Nesari³, Anil Kumar³

Affiliations + expand

PMID: 34054247 PMCID: PMC8141726 DOI: 10.1016/j.jaim.2021.03.007

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Abstract

Background: A key public health priority during the emergence of a novel pathogen is probing the factors contributing in clinical severity of the disease COVID-19. Moreover, analysis of the determined clinical outcomes is required and thus, modifiable predictor values need to be identified. In Ayurveda, outcome of a disease is a multivariate function and this exploratory work is an attempt to identify one

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Complementary Therapies in Clinical Practice

Volume 48, August 2022, 101601



Efficacy of add-on Ayurveda and Yoga intervention in health care workers of tertiary care hospital during COVID-19: Randomized controlled trial

Vandna Sharma^a, Bharat Krushna Khuntia^a, Manish Soneja^b, Vitthal G. Huddar^c, S. Ramakrishnan^d, Payal Sharma^a, Shubhangi Rathore^a, Varun Valliappan^a, Mohit Wadhawan^a, Varun Chhabra^a, Aman Agarwal^a, Mansingh Jat^a, Arvind Kumar^b, Tanuja Manoj Nesari^e, Gautam Sharma^a

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Editorial

Promoting Ayurveda for care and cure in COVID-19 pandemic period

The current surge in infections follows severe disruption in health sector, economy, and livelihoods. Scientists and global health professionals together are accelerating research and development process, new norms and standards to contain the spread of the corona virus pandemic to help and care for those affected. The dramatic change in situation begun since the day the WHO has declared COVID-19 as “Public Health Emergency of International Concern.”^[1] Every country implemented custom-built management strategies to combat pandemic crisis. Even though the circumstances are unprecedented, global response draws on the lessons learned from other disease outbreaks over the past several decades, one among them being Spanish flu of 1918.

R&D Blueprint was activated by the WHO to accelerate diagnostics, vaccines, and therapeutics for this novel coronavirus. The Blueprint aims to improve coordination between scientists and global health professionals, accelerate the research and development process, and develop new norms and standards to learn from and improve upon the global response. As per the latest declaration, Russian

prophylactic interventions and simple remedies based symptoms. The AYUSH ap broadly comprises:

- Preventive and prophyl
- Treatment of COVID-
- Add-on interventions t with post-infection res

Faculty of All India Institute Delhi contributed during infection by devising the Ay for COVID-19 management Ministry of AYUSH. The “AYURAKSHA” was carried personnel under the direction Delhi Police, being the first are being given AYURAI immunity and increasing qu Corona Se Jung Delhi Police Ke has been carried out in the

Case Report

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Website:

www.ayucare.org

DOI:

10.4103/jacr.jacr_57_20

Three case reports of moderate COVID-19 infection managed through Ayurvedic approach

P. S. Arshath Jyothi, Aparna Dileep¹, Deenadayal Devarajan², Anshu Sharma³, Sonam Kumari¹, Sweta Rathuri¹, Shalini Rai³, Prasanth Dharmarajan⁵, Tanuja Manoj Nesari⁴

Abstract:

Coronavirus disease 2019 (COVID-19), a global pandemic, is resulting in significant morbidity and mortality worldwide. The overburden of the disease is due to the vicious circulating virus characteristics, lack of potent vaccine, complications and limitations of the existing medicine and aggravation of disease along with comorbid conditions in elderly people, etc. In the present scenario, effective traditional treatment modalities should be scientifically applied to reduce the impact of massive disaster. Here is the necessity to develop an appropriate treatment protocol from the field of Ayurveda. This is a documentation of three confirmed COVID-19 cases managed with Ayurvedic medication with minimum number of hospital stay compared with the national average. Ayurvedic management has a significant positive impact on the mental and physical quality of life in COVID-19 patients. Both the physical and mental scores got improved of more than 50% percentage in each case after treatment. Ayurvedic science has a unique approach to COVID -19 and can be adopted wisely to overcome the current crisis. Marked radiological changes were observed in three cases. Ayurvedic interventions can be used to counteract the pathogenesis of SARS-CoV-2.

KEYWORDS: Acute respiratory distress syndrome, COVID-19, SARS-CoV-2

PMID33891569

Apr 24, 2021

Neem (Azadirachta Indica A. Juss) Capsules for Prophylaxis of COVID-19 Infection: A Pilot, Double-Blind, Randomized Controlled Trial.

Nesari, Tanuja Manoj; Bhardwaj, Anju; ShriKrishna, Rajagopala; Ruknuddin, Galib; Ghildiyal, Shivani; Das, Asim; Pandey, Anil Kumar; Chaudhary, Nidhi; Soman, Girish; Barde, Mohini

Altern Ther Health Med

TREATMENT

CONTEXT: SARS-CoV-2 is a global public-health concern. Interventions to prevent infection are urgently needed. The anti-inflammatory and antiviral