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9th World Conference on Pharmaceutical Science and Drug Manufacturing

01st - 02nd December 2021 | Dubai

Theme: Technological Innovations in Drug Discovery

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ASSOCIATION OF PHARMACEUTICAL RESEARCH

9th World Conference on

Pharmaceutical Science and Drug Manufacturing

" Technological Innovations in Drug Discovery"

Holiday Inn Bur Dubai

01st&02nd December 2021

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Preface

This book reports the Proceedings of the ***"9th World Conference on Pharmaceutical Science and Drug Manufacturing"*** held *on* ***01st and 02nd December 2021,*** organized by ***Association of Pharmaceutical Research (APR).***

The publishing department has accepted more than 250 abstracts. After an initial review of the submitted abstracts, 157 papers were presented at the conference and were accepted for publication in the Conference Proceedings. The topics that are covered in the conference include Pharmaceutical research and development, Novel drug delivery system, Pharmacokinetics, Pharmacovigilance and clinical trials, Pharmaceutical nanotechnology, Monoclonal antibodies, Biotransformation of drugs, Prodrugs and their application, Bioavailability and Bioequivalence, Controlled release medication, Aspects of Pharmacotherapy, Clinical Pharmacology and Drug Development etc... We would like to thank all the participants for their contributions to the conference and the proceedings.

Reviewing papers of the **9th WCPSDM 2021** was a challenging process that relies on the good will of those people involved in the field. We invited more than 16 researchers from related fields to review papers for the presentation and the publication in the **9th WCPSDM** Proceeding. We would like to thank all the reviewers for their time and effort in reviewing the documents.

Finally, we would like to thank all the proceeding team members who with much dedication have given their constant support and priceless time to bring out the proceedings in a grand and successful manner. I am sure this **9th WCPSDM 2021** will be a credit to a large group of people, and each one of us should be proud of its successful outcome…

9th WCPSDM 2021

From BioLEAGUES Director's Desk…

On behalf of **BioLEAGUES Worldwide**, I am delighted to welcome all the delegates and participants around the globe to the **9th *World Conference on Pharmaceutical Science and Drug Manufacturing"*** which is going to be held on **01st and 02nd December 2021.**

This conference will revolve around the theme ***" Technological Innovations in Drug Discovery".***

It will be a great pleasure to join with Doctorates, Research Scholarsand Academicians all around the globe. You are invited to be stimulated and enriched by the latest innovations in all the aspects of Pharmaceutical Science, while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the Chairperson, Organizing Secretary, Committee Members, coordinator BioLEAGUES and all the people involved for their efforts in organizing the 9th WCPSDM 2021 and successfully conducting the International Conference and wish all the delegates and participants a very pleasant conference

A. Siddth Kr

A. Siddth Kumar Chhajer
Director
BioLEAGUESWorldwide

University of Nizwa
College of Pharmacy & Nursing
School of Pharmacy
Associate Dean

جامعة نزوى
كلية الصيدلة و التمريض
مدرسة الصيدلة
عميد مشارك

Dear Organizers and Participants,

I feel honored to write this welcome note to all the participants of the "9th World Conference on Pharmaceutical Science and Drug Manufacturing". Healthcare is going through one of its biggest shifts and the advent of industrial revolution 4 has only added to it. With modern technologies the healthcare will be better and affordable, however it will require active integration.

A major aim of the conference is to bring together different stakeholders in the pharmaceutical arena and to share new results and innovations in the field. With a varied background of intellectuals attending this conference, I believe a lot of innovative ideas will be shared across. Learning and networking come together in a perfect way at this conference. This year's conference will feature interesting topics from a variety of disciplines, with a focus on "Pharmaceutical Science and Drug Manufacturing". This conference is intended to motivate us to achieve our personal goals, in addition to providing a forum for discussing important issues in the field. Additionally, I hope the participants gain a deeper understanding of cutting-edge research and technologies from leading experts.

I wish the organizers and all the participants a great time!.

Anil Philip, Ph.D.

Initial campus at Birkat Al Mouz, P.O. Box 33, Postal Code 616,
Nizwa, Sultanate of Oman.
Tel. :School of Pharmacy:25446450 / , Fax :25446246, 25446236
School of Nursing:25446416
Website : www.unizwa.edu.om

الحرم المبدئي ص.ب : ٣٣ ، الرمز البريدي : ٦١٦
بركة الموز - نزوى - سلطنة عُمان
هاتف :كلية الصيدلة: ٢٥٤٤٦٤٥٠ / ، فاكس :٢٥٤٤٦٢٤٦، ٢٥٤٤٦٢٣٦
كلية التمريض:٢٥٤٤٦٤١٦

UNIVERSITI MALAYA

اونيۏرسيتي مالايا

Dr. Bontha Venkata Subrahmanya Lokesh
Senior Lecturer, Department of Pharmaceutical Chemistry,
Faculty of Pharmacy, Universiti Malaya, Kuala Lumpur,
Malaysia, POSKOD 50470

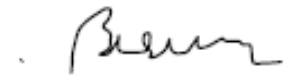
Dear Organizing committee members, Sponsors, Researchers, Academic Profesional, Industrialists and Participants,

It gives me a great pleasure to welcome you all for this global scientific event **"9th World Conference on Pharmaceutical Science and Drug Manufacturing" on 1st & 2nd December 2021, Dubai, U.A.E., organised by Association of Pharmaceutical Research (APR).** This conference is witnessed multidisciplinary scientific sessions with huge participation of pharmacy professionals from academia, research and industry across the globe, especially focused on advancement of pharmaceutical science, pharmaceutical research, formulations, manufacturing, and their perspectives. This big event is conducted by hybrid mode (Both physical presence and virtual) with new norms. Many delegates have registered and attending this conference from all over the world to address various topics related to its theme (technological innovations in drug discovery). It creates a perfect opportunity for global networking, external linkage, and international collaborations by interaction with renowned speakers and pharmaceuticals scientists across all the borders to the most exciting and memorable scientific event filled with informative and interactive sessions, international workshops, world-class international exhibitions, and poster presentations.

Experts and scholars from drug manufacturing and pharmaceutical formulations, industrial background can portray their scientific work, research, and emerging technologies on the topics in many related fields such as pharmacology, pharmaceutical biotechnology, pharmacogenomics, drug delivery systems, pharmacovigilance, pharmaceutical analysis, and Quality Assurance, Vaccine Design, pharmaceutical chemistry etc., to open for young researchers to learn and share experience from the experts in the field of pharmaceutical sciences.

I welcome once again all the delegates for spending their valuable time to attend this conference and enlighten us with their presence on the present and future prospectus of the pharmacy profession and its role in post COVID19 pandemic with new norms. I take this opportunity to express deep gratitude to the organising committee for appointing me as **a session chair** for scientific presentations in the specialised area of pharmaceutical chemistry and pharmacotherapeutics.

I wish you all the very best and have a wonderful time in this beautiful venue and city, Dubai, U.A.E.



(Dr. Bontha Venkata Subrahmanya Lokesh)

Ahvaz Jundishapur University of Medical Sciences

Dr Neda Bavarsad

Associate Professor of Pharmaceutics

School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IRAN

I would like to personally welcome you to the **9th World Conference on Pharmaceutical Science and Drug Manufacturing**.

This event is hosted by **Association of Pharmaceutical Research (APR)** and its goal is to share an insight into the recent research in field of **Technological Innovation in Drug Discovery** by gathering a group of scientists and students from all over the world.

I would like to thank each of you for attending either virtually or in person our conference and bringing your expertise to our gathering.

Look forward to an excellent conference with great scientists from different countries and sharing valuable results in drug design which will be held in **Dubai, 1st and 2nd December, 2021.**

Neda Bavarsad

Dear Colleagues and Friends,

On behalf of the organizing committee, I am honored and delighted to welcome you to the 9th World Conference on Pharmaceutical Science &Drug manufacturing. This conference, being held during December 01-02, 2021 in Dubai, is the continuation of a highly successful series of global meetings about pharmaceutical research. Association of Pharmaceutical Research is renowned and specializes in managing pharmaceutical conferences throughout the globe.

9th World Conference on Pharmaceutical Science& Drug manufacturing 2021will be attended by over 100 participants involving academic and industrial scientists, industrial experts. Over 13 Keynote Speakers will introduce and discuss cutting edge developments in a large number of areas among novel drug delivery technology including major challenges. This conference will address the critical issues in the scope of drug targeting, nanopharmaceuticals, molecular modelling in drug designing 3D- printing drugs, drug delivery systems applied to vaccine development, organs on chips, smart delivery systems in pharmaceutical research, biopharmaceutical drug design and development, pharmaceutical chemistry and research advancements. Also, this conference includes more than 10 industrial exhibitors and 2 innovative sessions.

I hope this 2-days scientific discussion and presentations will provide a perfect collaboration for discovering new ideas and new skills. In addition, the outcome of the congress will pave way to new developments for drug therapy and pharmaceutical research.

I extremely hope you all find this conference highly engaging and beneficial for your future venture. Your presence and deliberation will make this congress remarkably successful in all aspects of pharmaceutical research.

Once again, I thank you all very much, and wish you all an enjoyable and successful Congress.

Best Regards,

Assistant. Prof. Dr. Aysu YURDASIPER

Ege University, Faculty of Pharmacy, Dept. of Pharmaceutical Technology,

Publication Chair of the 9th World Conference on Pharmaceutical Science &Drug manufacturing

From BioLEAGUES CEO's Desk…

It is indeed a privilege to acknowledge and thank all the supporters and organizers of the **"9th *World Conference on Pharmaceutical Science and Drug Manufacturing*",** who contributed greatly to organize the conference successfully.

I would like to acknowledge and thank the Chief Guest for his/her valuable contribution in the **9th *World Conference on Pharmaceutical Science and Drug Manufacturing.***

My special thanks to all of our Special Guests who so graciously accepted our invitation to participate in the conference. I also wish to acknowledge and thank the sponsors of the conference whose financial support was extremely grateful.

I would like to specially thank our Advisory Committee Members from various Organization whose continuous support have helped us plan and execute the conference successfully.

I am highly indebted to the contribution given by all the Scientists, Doctorates, Research Scholars, Academiciansand students to the conference.

Mr. R. B Satapathy
CEO
BioLEAGUES Worldwide

Keynote Speakers

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Hypertension: Novel Drug Targets and Potential Utility

Dr Razia Khanam

Professor, Department of Biomedical Sciences, College of Medicine, Gulf Medical University, Ajman, United Arab Emirates.

Abstract

Hypertension, a leading cause of cardiovascular and renal diseases is a major risk factor for disability and premature deaths worldwide. It affects nearly 1 billion adults, accounts for about 9% of global disability - adjusted life years and is associated with more than 9 million deaths annually. Despite the availability of a large number pharmacological classes to manage / treat hypertension, recent epidemiological studies have reported nearly 10% prevalence of resistant hypertension. In addition, few studies have recognized various subgroups of patients with an even higher morbidity and mortality risk, probably requiring a more aggressive medical management.

Hence, new therapeutic targets and treatments are required to be explored to establish a better control over the disease and to reduce its comorbidities like myocardial infarction, stroke and heart failure. In the past, classical targets such as the drugs targeting renin-angiotensin aldosterone system, autonomic nervous system, calcium channels, arterial remodeling etc. have been investigated.

Novel targets include Vasoactive Intestinal Peptide (VIP) receptor, intestinal NHE3, Endothelin Receptor (ETR), Aminopeptidase of the brain renin-Ang system, NO pathway, gastrointestinal microbiota, Sodium-glucose Cotransporter 2 (SGLT2), leptin, vaccines etc. In this review, current knowledge on classical and new drug targets and the potential utility of new drugs in the treatment of hypertension will be summarized. Based on the clinical and experimental information available till now, it is anticipated that the next generation of compounds will further improve current standard of care and progress clinical outcomes and quality of life of patients afflicted with hypertension.

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The Use of Nanoparticles in Drug Targeting for Glioblastoma Cell Treatment

Sorayya Ghasemi
Shahrekord University of Medical Sciences, Shahrekord, Iran

Abstract

Glioblastoma Multiforme (GBM) is the deadliest type of glioma. The leading cause of GBM mortality is resistance to current therapies. The high resistance of GBM cells and the brain barriers involved in chemotherapy are the obstacles making GBM treatment more difficult. Some nanoparticles have properties that grant them greater ability to access GBM to remove barriers to drug delivery to cells. For example, some research shows that the modification of solid lipid nanoparticles and nanostructured lipid carriers increases brain barrier permeability and may help overcoming GBM cell resistance. In our study, the Se@TMZ/Eud-Cs formulation showed suitable properties enabling it to increase cellular uptake for drug delivery. This formulation for Temozolomide (TMZ), the most common drug used for GBM treatment, can reduce the expression of TMZ resistance-related genes, including MGMT, RELA, and E2F6. Moreover, gene therapy, as a complementary therapy, significantly increased the destruction of GBM cells. According to our systematic review, due to PAMAM special properties, it is the most widely used nanostructure in the treatment of brain diseases. PAMAM has been shown to have acceptable effects in both in vivo and in vitro studies. In conclusion, targeted delivery by nanocarriers can be one way to overcome the barriers to GBM treatment response.

Biography

I am a Ph.D. graduate in the field of Medical Genetics. As an assistant Professor and Director of Genetics Department at Shahrekord University of Medical Sciences, I do research in the GBM field and medical genetics. My research is focused on finding new genes effective and offering new treatment strategies.

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Recent Development on Chemical Validation Method for Drug Analysis

Gunawan Indrayanto
Faculty of Pharmacy, University of Surabaya, Surabaya, Indonesia

Abstract

For having reliable results of any chemical analysis at R&D- and QC-laboratory of a Pharmaceutical Industry, all the used methods should be first validated according to the official newest guidance's. This presentation will describe and discuss the recent developments on the chemical validation methods, which have been described by the general chapters of current USP 44-NF 39 (2021) <1225>, <1010>, <1210>, <1224>, <1226>, Eurachem Guide (2014-2019), AOAC (2019) and other related recent publications.

Newest accuracy-, precision-, LOD-method of determination and transfer of methods will be discussed in detail. All used "validated methods", that have been applied at R&D/QC laboratory, need to be proved its validity during routine applications using QC samples.

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Precision Medicine: The pharma's New Role in Healthcare

Ignacio Quiles Lara
Board of Directors – WBY Ventures, USA

Abstract

Launching new pharmaceutical products in today's market can be challenging. In this demanding environment, yesterday's product launch strategies can no longer be relied upon to yield the expected patient, digital, or business outcomes. To address this, the future generation of go-to-launch leaders will need to be business growth strategists, multi-channel experts, and not simply execution tacticians. We are on a journey of a thousand miles. Let's start taking some steps towards During this session we will review among other things, lead with evidence-based solutions, precision medicine, digital transformation, winning with data, unique pain-points, stand with multichannel, working to bridge gaps, empower patients, providers, and payers, harness the power of the agile way of working, and unlock new levels of value to get a winning launch-readiness strategy.

Biography

Ignacio Quiles MSc, MBA, Ph.D., has 19+ years of managerial biopharmaceutical experience, including 6+ years at the biomedicine research level. My international experience covers the whole value chain from early discovery strategies through clinical development, go-to-market to commercialization, and reimbursement for cancer solutions. I had proudly led strategic businesses in Europe, North America, Canada, Japan, and Latin America. It seriously scaled my apprenticeship from talented and diverse people. These multicultural shocks and the executive trainings were capital in defining my learning agility and strategic thinking. Thanks to all of them, I can drive a better understanding of complex ecosystems, adequate outcome approaches and pursue innovative next-level collaborative solutions aim to serve patients in urgent needs.

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Open Innovation in Life Sciences: from Theory to Industrial Implementation

Dr. Mohamed Haitham Ayad
R&D Manager and Fellow, Dubai, UAE

Abstract
The dramatic reduction of pharmaceutical R&D efficiency over time resulted in only 16% of drug candidates entering clinical testing make it to regulatory approval, at an overall cost estimated approximately at $2.6 Billion. The traditional "All in house" business model is no more the dominant way for discovering new innovative products as 70% of the pharmaceutical industry's new sales today come from drugs originated from the Open Innovation model.

Naturally, this multipart innovation model created new complexity and challenges that need to be addressed for efficient collaboration. This Paper explains the Open Innovation model, the benefits for both Industry and Academia and explains the steps and criteria of establishing a successful collaboration.

It is becoming universally acceptable that working in Open Innovation collaborative model is a key success factor to meet the global health challenges as no single organization, private or public, will be able to face them alone.

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"Tocosomal Drug Delivery Systems: Safe and Efficient Tocopherol-Based Carrier Technology"

M. R. Mozafari
President and Founder; Australasian Nanoscience and Nanotechnology Initiative (ANNI), Australia.
and Supreme NanoBiotics Co. Ltd. and Supreme Pharmatech Co. Ltd., 399/90-95 Moo 13 Kingkaew Rd. Soi 25/1, T. Rachateva, A. Bangplee, Samutprakan 10540, Thailand

Abstract

Controlled release of therapeutic agents is an important aspect of pharmaceutical nanotechnology, which is based on drug encapsulation. Similar to other encapsulation systems, such as liposomes and nanoliposomes, tocosomes can accommodate sterols, proteins and polymers in their structure. Tocosomes can be manufactured in the micron size as well as in the nanometric size range. The main ingredients of tocosomes, i.e., phosphorylated form of alpha-tocopherol, known as alpha-tocopherol phosphate (TP), is naturally present in human and some animal tissues as well as in certain food material. It has been reported that the TP molecule is present in certain fruits, green vegetables, cereals, dairy products, as well as in different nuts and seeds. TP is composed of a phosphate group attached to one hydrophobic chain (phytyl tail) made of three isoprene units. Di-alpha-tocopherol phosphate (T_2P), that is a closely related molecule to TP, is composed of two phytyl chains. We have manufactured and developed tocosomes using ingredients such as TP, T_2P and some helper lipids using our own scalable and green-technology known as "Mozafari method". The formulations were reproducible, robust, stable and effective for the encapsulation and delivery of certain anticancer compounds and nutraceuticals as will be explained in this lecture.

Biography

Expert in Pharmaceutical Nano-biotechnology, Encapsulation and Targeting of Bioactive agents with substantial number of publications, 12 Patents, 5 Books & several Book-chapters. Author of the first book on Nanoliposomes (Oxford, UK); completed many industrial research projects, developed green-technology methods (e.g., "Heating Method" and “Mozafari Method”) for large-scale manufacture of

controlled-release systems without employing toxic agents or harsh procedures. Recently introduced a novel system for the encapsulation and site-specific delivery of bioactive material called "Tocosome".

Research Interests:
Pharmaceutical Nanotechnology, Biotechnology, Nanotechnology, Theranostic Nanotherapy, Drug Delivery, Virology, Cancer Research

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A New Nano Natural Fast Breakthrough Cure for All Types of Covid-19 Corona Virus

Prof.Dr.Awad Mansour
Professor of Chemical & Pharmaceutical Engineering, Pharma Tech International, Chicago, USA

Abstract

The present invention relates to a nano botanical nutraceutical composition and an ozonated oil mix for treatment of corona virus COVID-19. The composition was tried on multi-national COVID-19 volunteers from US, Moldova, Russia, Turkey, UAE, Jordan, Kuwait, Iraq and Palestine for 48-72 hours with 100% success rate for mild cases. The UIC severe conditions cases took 7-10 days. Other volunteers took IMUTECH.NET capsules for one to two weeks only and their immunity increased by 200%.Results showed that our protocol provides a strong rope of hope for humanity to rid of COVID-19 pandemic on curative and preventive bases.

Biography

Dr.Awad Mansour is a professor of chemical and pharmaceutical engineering. He graduated from Baghdad and Tulsa Universities and spent 3 decades in teaching and research at Yarmouk, JUST and Akron Universities.He published more than 100 papers,100 books and arrived at 91 inventions in oil industry, nano technology, energy and phytochemical formulations.

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ABSTRACTS

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A Validated, Green and Rapid ATR-FTIR Spectroscopic Method for Evaluation of Gliclazide in Gastroretentive Mucoadhesive Microspheres and its Marketed Formulations

Annapoorani Arjunan
Vinayaka Mission's College of Pharmacy,Vinayaka Mission's Research Foundation (Deemed to be University), India

M V Kumudhavalli
Vinayaka Mission's College of Pharmacy,Vinayaka Mission's Research Foundation (Deemed to be University), India

Kumar Mohan
Vinayaka Mission's College of Pharmacy,Vinayaka Mission's Research Foundation (Deemed to be University), India

Abstract

A green, precise, easy-to-use, and rapid infrared spectroscopic method was developed and validated for the qualitatative and quantitative determination of gliclazide in okra gum based mucoadhesive microspheres dosage forms. In this work, an Attenuated Total Reflectance (ATR) probe was used in FTIR spectroscopy. Gliclazide loaded mucoadhesive microspheres were prepared by incorporating Okra gum using ionotropic gelation method. Infrared spectra of standard mixtures, measured in attenuated total reflectance mode, in the wavenumber zone from 1500 cm^{-1} to 1000 cm^{-1} were selected and processed by partial least square regression to form the calibration model for quantification of gliclazide in microsphere formulations. An uncommon peak in the fingerprint region was selected to identify a linear wavenumber to derive beer's law range. Spectral responses of test mixtures and the calibration model were used to determine the concentration content of gliclzide in the bulk, formulations and microspheres. The method was completely validated in terms of linearity, precision, and accuracy according to the requirements of ICH guidelines and was proved as reliable and suitable for the intended application. The proposed method is eco-friendly, rapid and green technique, which can be utilized for the routine qualitative and quantitative analysis of gliclazide in polymer, based novel drug delivery system.

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Keywords
Attenuated Total Reflectance; FTIR. Gliclazide; Microspheres; Wavenumber

Biography
I am Annapoorani Arjunan currently working as an Assistant Professor in the Department of Pharmaceutical Chemistry at Vinayaka Mission's College of Pharmacy, VMRF-DU, Salem, Tamilnadu, India. Previously I worked as a lecturer in Padmavathi College of Pharmacy, Dharmapuri, Tamilnadu, India. I received my undergraduate degrees B. Pharm from Tamilnadu Dr. MGR Medical University and Postgraduate degree M. Pharm from Vinayaka Mission's Research foundation (DU). My current research is on SEED money research grants received from VMRF-DU on developing novel gastroprotective formulations using natural polymers loaded with synthetic antidiabetic drugs and its analytical evaluation using FTIR spectroscopic technique. I've published my research work in indexed journals and a patent was filed on the FTIR quantitation technique.

Plastic eating Bacteria – Solve Problem of Medical Plastic Waste

Ketakee Prakash Gosavi
Pharm D (Doctor of Pharmacy) sudent, Dattakala College of Pharmacy, India
VishalBharat Babar
Principal, faculty, Dattakala College of Pharmacy, India
Simanchal Panda
Faculty, Dattakala College of Pharmacy, India

Abstract
As we continue battle against Covid-19, increasing plastic waste has become a huge problem. There is tremendous use of plastic in medical field. As per data, Indian medical plastics industries may grow approx. USD 932 million by 2025. Applications like PPE kits, goggles, face shields, N95 masks, Syringes, IV bottles, blood/plasma bags and ventilators, which need versatile plastics. It is difficult to destroy this plastic. As we know, Plastic is very dangerous for human health, the micro-particles entering human body through inhalation or ingestion may cause inflammation, genotoxicity, oxidative stress, apoptosis and necrosis. To get relieve of this life threating problem, plastic eating bacteria are the best. According to data, Scientists from Japan found a bacteria i.e **Ideonella sakaiensis**, which can digest plastic. Plastics are complex polymer of long chain molecules, which are insoluble in water. This bacteria digest Polyethylene Terephthalate (PET), by secreting an enzyme known as PTEase. In this process certain chemical bonds (esters) splits of plastic. This bacteria uses carbon from plastic as a food source and absorb it. If such bacteria are grown commercially, then ever increasing medical plastic waste can be solved.

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Biography

Ketakee Prakash Gosavi*

Are students of Pharm D (Doctor of Pharmacy), Dattakala College of Pharmacy,affiliated to Savitribai Phule Pune University and having many achievements and publication of scientific literatures.

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Polyvinylalcohol Films and Hydrogels for the Pharmaceutical Industry

Soussi Nassima
Laboratoire de Chimie-Physique Moléculaire et Macromoléculaire, Département Chimie, Faculté des sciences, Université Saâd Dahlab de Blida 1, B. P. 270, Route de Soumâa, Blida, Algeria and Universite Benyoucef Benkhada, Alger 1, 02 rue Didouche Mourad, Alger

Saâd Moulay
Laboratoire de Chimie-Physique Moléculaire et Macromoléculaire, Département Chimie, Faculté des sciences, Université Saâd Dahlab de Blida 1, B. P. 270, Route de Soumâa, Blida, Algeria

Nafaa Chafi
Laboratoire de Chimie Organique et Macromoléculaire, Faculté des Sciences, Université Djilali Liabès, Sidi Bel Abbès, Algeria

Abstract
Polyvinyl alcohol hydrogels are generally used in the pharmaceutical industry and biomedical engineering. The elaboration of these hydrogels has been carried out by two different methods; the freeze/thaw method proposed by peppas and the preparation of these hydrogels at room temperature. These hydrogels and the corresponding films were prepared with different proportions of polyvinyl alcohol, glycine max proteins and sodium bicarbonates. These preparations were characterized by ATR-FTIR, DRX, and SEM followed by an analysis for the determination of mechanical properties. The optical, mechanical and rheological properties of these samples demonstrate promising results for the pharmaceutical industry in the preparation of dispersible tablets, injections and ophthalmic eye drops.

Biography
SOUSSI First name: NASSIMA from Department of Chemistry - Faculty of Sciences, University of Algiers 1, Algiers having the research and teaching activities in the field of Kinetic thermodynamics L2 Filière chimie analytique 2017/2018 (TD+TP), Electrochemistry TD L3 2018/2019 semester 1, Chemistry 1 L1 TP 2018/2019 semester 1, Kinetic thermodynamics TD L2 semester 2 2018/2019,

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Chemistry 2 L1 TP semester 2 2018/2019, Surface chemistry coordinating teacher TP L3 CA 2019/2020 S1, Polymers applied to drugs lecturer 2018/2019 S1, Kinetic thermodynamics TD L2 S2 2019/2020, Analytical chemistry TD L3S2 2019/2020, Surface chemistry Teacher coordinator TP L3 2020/2021, Effluent analysis Coordinating teacher TP M2 CA 2020/2021, Polymers applied to drugs Lecturer S1 2020/2021, Effluent analysis course S1 2020/2021, Teacher coordinator TP Chemistry2 S2 2020/2021

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Invitro Antiglycation Activity of Isorhamnetin on Bovine Serum Albumin with different sugars using Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis

Sindhuja A
Department of Pharmacology, Mother Theresa Post Graduate and Research Institute of Health Sciences, India

Vimalavathini R
Department of Pharmacology, Mother Theresa Post Graduate and Research Institute of Health Sciences, India

Kuzhandai Velu V
Department of Pharmacology, Mother Theresa Post Graduate and Research Institute of Health Sciences, India

Vickneshwaran V
Department of Pharmacology, Mother Theresa Post Graduate and Research Institute of Health Sciences, India

Abstract

Advanced Glycation End Products (AGEs) resulting from glycation of proteins, lipids and nucleic acids has several pathophysiological manifestations by altering the structure and functions of molecular proteins. Isorhamnetin is a flavonoid with anti-inflammatory, anti-oxidant, anti-obesity, anticancer, antidiabetic and anti-atherosclerosis activity. Based on the structure activity relationship and our insilico antiglycation study of isorhamnetin, we hypothised that isorhamnetin may have antiglycation activity by inhibiting protein glycation on sugar molecules due to its antioxidant and free radical scavenging activity. Hence our aim of the study was to determine the glycation level of Bovine Serum Albumin (BSA) with varying sugar concentration of glucose, fructose and ribose on 14th and 21st day of incubation. Our second objective of the study was to determine the antiglycation activity of

isorhamnetin on BSA using all the sugars at 14th and 21st day of incubation using SDS - PAGE. Our study showed that increase in concentration of glucose, fructose and ribose (0 – 50 mM) showed a dose dependent decrease in migration of protein implying increased glycation of BSA. Isorhamnetin (100 µM) exhibited antiglycation activity for fructose (30 mM) at 14th day onwards and for glucose (30 mM) was at 21st day onwards. But isorhamnetin did not exert antiglycation activity for ribose (30 mM) on both 14th and 21st day of incubation. Our study establishes the antiglycation activity of isorhamnetin however further In-vivo studies are necessary to warrant this activity.

Biography

Working as Assistant Professor in Department of Pharmacology, College of Pharmacy, MTPG&RIHS, Puducherry, India. Research areas of interest are Drug interaction and Pharmacokinetic studies.

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Formulation of Polymeric Film Solution Spray and Its Evaluation for Antifungal Studies

Abhishek Kumar
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.
Vishal Rawal
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.
Dr. Amit B. Patil
Associate Professor, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher, Education and Research, India.

Abstract

The high incidence of fungal infections has become a major health issue across the globe. Despite different dosage form available to treat fungal infection, their efficiency is questionable, and patient's acceptability cannot be neglected. Topical treatment of such infections has found to be useful due to direct application at target site with improved patient compliance. So, the aim of this study is to develop technology based antifungal polymeric solution for spray and its *in-vitro* and *in-vivo* characterization. Clotrimazole was used as an anti-fungal agent and was formulated as spray formulation for topical application using Eudragit RS-100, PEG-400 and ethanol. The prepared film forming polymeric spray was evaluated for pH, viscosity, drying time after spray and *in-vitro* parameters like drug diffusion studies and anti-fungal studies. To assess the patient acceptability, the formulated polymeric spray solution was evaluated for skin irritation studies, acute & repeated-dose dermal toxicity studies and *in-vivo* anti-fungal studies in male albino wistar rats. From all the prepared formulation, F1 formulation was optimized using design of experiment software V-12. The drying time, viscosity, pH, volume of solution upon spraying and spray angle were 53 sec, 14.99 cp, 7.02 pH, 0.25 ml, and 80.90° respectively. The *in-vitro* drug diffusion studies using cellophane membrane and anti-fungal studies against *Candida albicans* showed 98.03% drug diffusion and 10 mm of zone of inhibition respectively. Skin irritation studies confirmed the compatibility of spray formulation on rat's skin. Histopathology results revealed the safe and effective delivery of drug in spray formulation. Stability studies indicated that formulation was stable after 28 days when stored at normal room

temperature. As conclusion, the use of Clotrimazole incorporated in polymeric spray solution could be a potential alternative for the treatment of various topical fungal infection.

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Formulation and Evaluation of Polyherbal Protectant Cream

Abhishek. S
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Hari Krishna R Kurup
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Kevin Joseph Mathew
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Sathish Kumar
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Senthuja. M
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

S. Priya Dharshini
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract
Background: Human skin is considered as the first line of defence and barrier against the majority of infections caused through the skin that are affecting human populations. The emergence of natural herbal remedy for managing skin disorders become a pivotal and essential contributor for treating skin infections due to increased demand of herbals and their lower price and continued

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adverse effect of modern medicines. Thus, the goal of present work is to formulate protectant creams obtained from *Tagetes* species *and Chrysanthemum* species.

Methodology: The powdered material was subjected to extraction by kinetic triple maceration. The extract obtained was analysed for its physical characters and spreadability. The extract blend was made in the ratio 30:10 of *Tagetes erecta* and *Chrysanthemum indicum*. The extract blend obtained from *Tagetes erecta* and *Chrysanthemum indicum* was subjected for both antibacterial and antifungal studies by well diffusion method. Formulation was made using slab method, and evaluations of physical parameters and spreadability was carried out.

Results: The in-vitro study performed revealed, the extract blend obtained from *Tagetes erecta* and *Chrysanthemum indicum* have anti-fungal activity against various species of *Candida*, *Trichophyton* and anti-bacterial activity against *Staphylococcus species.* The zone of inhibition values ranged from 1.7 to 2.4cm.

Conclusion: Out of all species studied, formulation showed relatively high action against *Candidaalbican*, *Trycophyton rubrum*. Evaluation tests were performed to check and report the quality of prepared cream.

Biography

Abhishek S is currently pursuing his Master's Degree (M Pharm) in Pharmaceutical Biotechnology at Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He had completed his Bachelor's Degree (B. Pharmacy) from JSS College of Pharmacy, Ooty, The Nilgris.

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Permeation Enhancement of Alprenolol across Skin by Ethosomal Carriers

Adil Ahmed MD
Research Scholar, Himalayan University, India.
N Siva Subramanian
Research Guide, Himalayan University, India.

Abstract

Alprenolol is a non-selective beta blocker as well as a 5-HT1A and 5-HT1B receptor antagonist used in the treatment of angina pectoris. It has elimination half-life of 2-3 hour. Due to its extensive hepatic metabolism, an alternative delivery system has been designed in the form of Ethosomes. The present study describes the preparation, optimization, characterization, and ex-vivo study of Alprenolol loaded ethosomal transdermal patches using the central composite design. On the basis of the pre-screening study, the concentration of lipids and ethanol was kept in the range of 2–4% w/v and 0–40% v/v, respectively. Formulation was optimized by measuring drug retention in the skin, drug permeation, entrapment efficiency, and vesicle size. Optimized formulation was incorporated in vesicular formulations of patches and compared with other analogous vesicular formulations of patches for the aforementioned responses. Among the various lipids used, soya phosphatidylcholine (SPL 70) and ethanol in various percentages were found to affect drug retention in the skin, drug permeation, vesicle size, and entrapment efficiency. The optimized batch of ethosomes has shown 390.60 μgcm^{-2} drug retention in the skin, 45.62 $\mu gcm^{-2}\ h^{-1}$ drug permeation, 69.23% entrapment efficiency, and 666.45 nm vesicle size, respectively. It was observed that the developed ethosomes were found superior in all the responses as compared to other vesicular formulations with improved stability and highest elasticity.

Biography

Elastic Vesicles, Transdermal Patches, Entrapment Efficiency, Ethosomes.

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Formulation and Evaluation of PAMAM Dendrimer based Topical Nanogel of Nimesulide.

Alka Srivastava
Maharishi University of Information Technology, India

Abstract

The Present study is aimed to Formulate and Evaluate the PAMAM Dendrimer based Topical nanogel of Nimesulide. Nimesulide is a potent Nonsteroidal Anti-Inflammatory (NSAID) drug that is often used for the treatment of acute and chronic arthritic conditions, Nimesulide is reported as poorly soluble drug and less bioavailability. In addition to absorption difficulties, oral formulations of Nimesulide can cause gastric mucosal damage, which may result in ulceration and bleeding. Therefore, there is a need to develop topical dosage forms of Nimesulide to minimize the gastrointestinal side-effects of oral Nimesulide, and to provide relatively consistent drug levels at the application site for prolonged periods. The Preformulation study of drug was performed, chemical test were found to be positive.

The melting point of the drug was 143-145°C. It was practically insoluble in water, soluble in methanol and other organic solvents. The UV spectra of the drug was taken and compared with the standard and analytical method was performed.

The formulation was developed by Drug-Dendrimer Interaction and further evaluated by instrumental techniques such as UV spectroscopy.. The result shown that formulation is having better stability, good solubility and high bioavailability , better compatibility than earlier formulation. These results indicated that decided aim of work to improving Pharmacokinetic profile of drug has been improved by the formulation of nanogel.

Biography

Alka Srivastava is an Assistant Professor of Pharmaceutics Branch at the Maharishi University of Information Technology MUIT Lucknow. She received her Master's (M.Pharm) in Pharmaceutics and Bachelors (B.Pharm) in Pharmaceutical Sciences from Dr.APJ Abdul Kalam Technical University AKTU Lucknow. Her research interests include the Nanotechnology, Anticancer, Anti-allergic, Nanogel, Nano-emulsion and she is currently Competeting with PhD Entrance & various Research Fellowship Program.

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Formulation and Evaluation of Mucoadhesive Oral Patch Containing Metronidazole and Benzocaine for the Treatment of Mouth Ulcer

Alvin Johnson
M. Pharm, Pharmaceutics, College of Pharmaceutical Sciences, Government Medical College, Kerala University of Health Sciences, India
Roma Mathew
Assistant Professor of Pharmaceutics, College of Pharmaceutical Sciences, Government Medical College, Kerala University of Health Sciences, India

Abstract
Mouth ulcers are very commonly occurring condition due to various reasons. It can often cause pain and discomfort and sometimes it can lead to secondary non-specific bacterial infections which can delay the healing process. Mucoadhesive oral patches are having various advantages over gel formulations which are commonly used today for the treatment of mouth ulcers. A mucoadhesive oral patch containing a local anesthetic and an antibiotic can be used to relieve pain and to treat infection. Benzocaine dispersed in the polymer matrix can provide immediate local anesthetic action and conventional liposomes loaded with Metronidazole can penetrate into the stratum corneum layer and can remain there for longer period of time providing sustained antibacterial action. Providing a hydrophobic backing layer can avoid unnecessary swallowing of drug contents.

Biography:
1.Currently doing M. Pharm in Pharmaceutics at College of Pharmaceutical Sciences, Government Medical College, Thiruvananthapuram, Kerala, India
2.Completed B. Pharm from Department of Pharmaceutical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India

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Formulation of Novel Wound Healing Polymeric Film Spray of Eupatorium Glandulosum Michx extract and its Characterization

Dr. Amit B. Patil
Associate Professor, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher, Education and Research, India
G. Lakshmi Gayathri
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.

Abstract

The wound healing is a complex and fragile process as it is susceptible to interruption or failure leading to the formation of nonhealing chronic wounds. The present research work aims to formulate and evaluate *Eupatorium glandulosum Michx* based topical polymeric film spray for wound healing activity. The formulation is designed to form a transparent thin and water insoluble film on drying that can treat wounds of any shape and size and avoid any other form of wound dressing. The wound healing polymeric film spray was formulated using the methanolic extract of the *Eupatorium glandulosum Michx* and various polymers. The formulation was prepared by using the design of experiment by BoxBehnken method, formulation was then optimized. There are three phases by which formulation is prepared phase1, phase2, phase3. Phase 1 Extraction: The extraction process is carried out by using the Soxhlet extraction apparatus. Characterized for their physicochemical constants. The methanolic extract was prepared by maceration method and the extract was formulated into topical polymeric solution for spray. The results of preliminary phytochemical investigation showed the presence of carbohydrates, cardiac glycosides, phenols and flavonoids. Quantitative analysis of polyphenolic compounds showed high content of flavonoids. Phase 2: Formulation by DOE: The formulation is optimized by using the DOE by BoxBehnken method. There by extract is mixed according to optimized concentrations obtained, there by the characterization is carried out for the formulation. Phase 3: Characterization: Parameters such as Drying time(2.50min), pH(6.8), Viscosity(16.5), Thickness(0.20) were found to be satisfactory. The antimicrobial activity of optimized formulation was found to be effective in both gram positive and gram-negative organisms. *Invitro* and *Ex-vivo* studies are done, where the optimized formulation promotes better wound healing with

comparison to that of the marketed product. From the present research study, it was concluded that the prepared herbal polymeric solution for spray showed significant antimicrobial potential and found to possess better wound healing activity.

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Formulation and Evaluation of Tablets Containing Metaxalone Solid Dispersion

Anjali Patwal
Department of Pharmaceutics, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India.
Dr. C. Nithya Shanthi
Department of Pharmaceutics, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India.
Swati Penuli
Department of Pharmaceutics, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India.
Arun Kumar Mahato
Department of Pharmaceutics, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India.

Abstract

The object of the present work was to explore the potential of solid dispersion to improve the solubility of Metaxalone. Melting method was employed to make solid dispersion by using Polyvinyl Pyrrolidone K-30 and Polyethylene Glycol-6000 as a polymer in a ratio of (200:50), (200:100), (200:150), (200:200), (200:400). The ratio of PVPK-30 (200:150) and PEG-6000 (200:100) showed significant solubility thus it was selected to develop solid dispersion. The selected ratio of polymer was considered further for the preparation of a tablet by Direct compression method. Physical assessment of Compressed solid dispersion tablets of metaxalone by performing various method. The comparison between marketed formulation and developed formulation of metaxalone was done. Tablet contain solid dispersion exhibited appreciable drug release in the F3 PVPK-30 (200:150) formulation. Which showed a solubility enhancement ratio of 38:18. *In-vitro* drug release studies showed initial rapid release of about 73.140±2.394% within 60 min.

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Keywords
Dissolution, Polymer, Solid dispersion, Solubility

Biography
Anjali Patwal is presently pursuing M.Pharm pharmaceutics final year at Department of pharmaceutics, School of Pharmaceutical Science and Technology, SBS university, Dehradun, Uttarakhand, India. She did her Bachelor of Pharmacy from HNBGU, Srinagar Garhwal, Uttarakhand, India.

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Development and Evaluation of Microsponges-loaded Topical Gel as a Potential Platform for Effective Management of Arthritis

Anjali Sharma
Guru Gobind Singh College of Pharmacy, India and AVIPS, Shobhit University, India
Devkant Sharma
CH. Devi Lal College of Pharmacy, India
Kumar Guarve
Guru Gobind Singh College of Pharmacy, India
Ranjit Singh
AVIPS, Shobhit University,India

Abstract

The aim of the present investigation was to prepare and optimize Aceclofenac-loaded microsponges using Box-Behnken Design (BBD) and desirability function. Aceclofenac, a non-steroidal anti- inflammatory drug used for the management of Rheumatoid Arthritis, Osteo Arthritis and ankylosing spondylitis. Aceclofenac-loaded microsponges were developed using ethyl cellulose, ethanol and Polyvinyl Alcohol (PVA). Initially, a trial batch was developed using quasi-emulsion solvent diffusion method, and by optimizing the drug-polymer ratio. A 3-level, 3-factor BBD was used to investigate the effect of PVA, ethanol and stirring speed on particle size, Entrapment Efficiency (EE) and Drug Content (DC). The models used for the optimization were analyzed through ANOVA and diagnostic plots. Finally, the desirability function was used for the selection of optimized formulation composition. The optimized formulation was dispersed into Carbopol Gel. Further the optimized formulation was evaluated for pH, Viscosity and spreadability, drug content and kinetic drug release profile. **A d**rug-polymer ratio of 1.5:1 was taken as optimized ratio for all the formulations. The developed microsponges were of the spherical shape having size, %EE, % DC in the range of 22.54±2.85 µm to 49.08±5.01 µm ,70.57±4.19% to 86.43±2.58 %, and 47.31± 2.51 to 69.55± 3.42 respectively. The amounts of PVA, ethanol and stirring speed were noted to have a significant impact on particle size, %EE and % drug content. Finally, an optimized formulation (size-22.69, %EE-86.42 and % drug

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content 69.55%) was developed with a desirability value of 0.9967. The optimized microsponges loaded topical gel showed R^2 value of 0.9930 which was nearest to one which revealed that formulation obeyed Higuchi Kinetic model and n value was found to be 0.48 which depicts Fickian transport of drug diffusion.

The prepared optimized formulation showed no signs of irritation when applied on hairless skin of rats along with inhibitory effect on inflammation was observed in In-vivo studies in animals and hence, concluded that BBD is a valuable tool for the development of optimized formulation with desired properties.

Keywords

Microsponges, Box-Behnken design, Quality by Design, Aceclofenac, Optimization.

Biography

Dr. Anjali Sharma is presently working as Assistant Professor at Guru Gobind Singh College of Pharmacy. Her field of specialization is Pharmaceutics. She did her Ph. D from Shobhit University, Gangoh under the supervision of Dr. Ranjit Singh. She had completed her M. Pharmacy from Roorkee College of Pharmacy. She is Alumni of Guru Gobind Singh College of Pharmacy at graduate level. Her Research areas of Novel Drug Delivery includes Micro sponges, Gastroretentive Drug Delivery system and Transdermal Drug Delivery System. She has 7 plus years of teaching experience. She is Life member of APTI and Executive committee member of APR. She is reviewer of AJFAR journal and 3-Biotech a journal of springer. She has been awarded Young Scientist Award in the year 2021 by VDGOOD professional association. She has one design patent to her credit. She has 10 research/review publications in different Journals of repute and 8 poster presentation to her credit. She has attended more than 15 PCI and AICTE sponsored FDP and QIP. She has participated in more than 30 National/ International seminars/ conferences/ workshops as a delegate and also actively participated as LOC member in National seminars and symposiums.

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Formulation, Optimization and Evaluation of Antifungal Nanosponge Loaded Hydrogel for Topical Delivery

Anju N.K
College of Pharmaceutical Sciences, Government Medical College, India
Roma Mathew
College of Pharmaceutical Sciences, Government Medical College, India

Abstract

Topical preparations are used for the localized effects at the site of their application by virtue of drug penetration into the underlying layers of skin or mucous membranes. The main advantage of the topical delivery system is to bypass first pass metabolism, Avoidance of the risks and inconveniences of intravenous therapy and the varied conditions of absorption, like pH changes, the presence of enzymes, gastric emptying time are another advantage of topical preparations. Nanosponges are a tiny mesh-like nanoporous particular structure in which a large variety of substances can be capsulated or suspended, and then be incorporated into a dosage form. Nanosponges are more like a three- dimensional network or scaffold. The predictable release is one of the major advantages of this system compared to other nanoparticle delivery systems under development. Oxiconazole is a topical, azole group of synthetic fungistatic agents with a broad spectrum of activity based on the imidazole or triazole nucleus. In order to improve solubility, dissolution and sustain the release of Oxiconazole. It was proposed to prepare nanosponges and incorporate them in a suitable gel base. The objective of the present study was to formulate Oxiconazole nanosponges for topical delivery. Nanosponges using ethyl cellulose polymer were prepared successfully using PVA as surfactant by an emulsion solvent diffusion method.

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A Study of Development, Validation and Forced Degradation for Quantification of Tecovirmat in Bulk and Dosage Forms by UPLC

Anusha Kota
Department of Pharmaceutical Analysis, Vinayaka Mission's College of Pharmacy, India

Abstract

Selective and novel method has been optimized for evaluation of Tecovirimat in bulk and formulation samples by UPLC. The analytical technique was with the phosphate buffer (pH:7.0): Acetonitrile, (75:25%, v/v) using the CORTECS C18 COLUMN(100x4.6mm, 2.7µ)analytical column with analysis time of five minutes. The flow of mobile phase through column was 1.0ml/min. The sample volume was 10 µL. The detection was carried at 220nm in photodiode array detector. The retention time of Tecovirimat was 6.22min. The curve indicates correlation coefficient (r2) was superior by having the value 0.9997 with linear range of 1-1000ng/ml. The LOQ for the Tecovirimat was 0.104ng/ml and 0.056ng/ml was LOD. The developed method was applied for the bulk and formulation. Forced degradation of the drug product was carried out as per the ICH guidelines with a view to establishing the stability-indicating property of this method and providing useful information about the degradation pathways, degradation products, and how the quality of a drug substance and drug product changes with time under the influence of various stressing conditions. The degradation of Tecovirimat was within the limit (5–20%, according to the guideline of ICH), while paracetamol showed & lt;20% degradation in oxidation and basic condition.

Keywords

Tecovirimat, UPLC, Bulk drug, Forced degradation and Formulation samples.

Simvastatin Loaded Nano-Structured Lipid Carriers for Repurposing in Breast Cancer

Asha Spandana K M
JSS College of Pharmacy, India
Hemanth Kumar S
JSS College of Pharmacy, India
Shailesh T
JSS College of Pharmacy, India

Abstract

Nano-structured Lipid Carriers (NLCs) are a new delivery strategy for poorly soluble drugs with poor oral bioavailability. In the present study, Simvastatin was prepared as NLCs with suitable excipients to improve the oral bioavailability utilizing the Box-Behnken design. The prepared lipid nanoparticles were characterized for particle size (nm), polydispersity index and entrapment efficiency (%). The optimized formulation was evaluated for its morphology, Crystallinity, *in vitro* drug release and storage stability studies. The optimized formulation showed smaller size, PDI, and entrapment efficiency of 84%. Scanning electron microscopy study showed that the prepared NLCs were of almost spherical shape and uniform in size. Crystallinity study using FTIR and DSC suggested entrapment of drug inside the lipid matrix. Invitro drug release exhibits biphasic release, initial burst release followed by sustained release of the drug. Stability study indicated preferable chemical and physical stability of the nanoparticles. Based on the findings of this investigation, we can conclude that NLCs are a promising strategy for the delivery of simvastatin with enhanced oral bioavailability.

Biography

I would like to introduce myself as a passionate Pharmacist who enjoys teaching Pharmacy students and do research to strengthen research in the area of Pharmaceutical sciences with the objective of developing cost effective newer delivery systems for better medication compliance. Currently I am

working as a lecturer in the JSS College of Pharmacy, and I am doing my Ph.D. in Pharmaceutical Sciences. I have published papers in peer reviewed national and international journals. I have participated and presented my research in both national and international conferences and Received best poster award at 4th EuroSciCon international Conference on Neurology & Neurological disorders held at Paris, France. Research Interest: nanoparticulate drug delivery system.

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Design, Synthesis, Characterization, and in-vitro Anti Inflammatory Activities of 2- phenyl-1-(piperidin-1-yl methyl)-1H-indole

J.Banurekha
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
S.Ruby
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
M.Kumar
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
B.S.Venkateswarlu
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India

Abstract

A series of novel **2-phenyl-1-(piperidin-1-ylmethyl)-1H-indole derivatives** were synthesized, characterized and subsequently evaluated for anti-inflammatory property. Among the novel compounds, the inhibition of bovine serum albumin denaturation assay revealed that the **2-phenyl-1-(piperidin-1-ylmethyl)-1H-indole derivatives** showed anti-inflammatory activity comparable to the standard drug diclofenac sodium. Docking studies with these compounds against cyclooxygenase-2 receptor (PDB 1D: 6COX) indicated that they exhibit specific interactions with key residues located in the site of the COX2 structure, which corroborates the hypothesis that these molecules are potential ligands of COX2. The analysis of the docking results, which takes into account the hydrophilic and hydrophobic interactions between the ligands and the target, from those results I found that the compound 3d (-9.6) shows highest and the compound 3b (-7.1) shows lowest binding energies as compared to standard Diclofenac (-6.8). All the compounds show good binding energy with the target protein.

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Keywords
Diclofenac sodium, Anti-inflammatory, bovine serum, COX-2

Biography
I am Dr.J.Banurekha working as a Professor, Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF (DU), Salem, Tamilnadu, India. I have completed my UG B. Pharmacy degree on 1997 and PG M. Pharmacy degree on 2007 from Vinayaka mission research foundation (du) Tamilnadu, India. I have completed my Ph.D from Vinayaka mission research foundation (du) Tamilnadu, India, on 2014. I have Publish my research work in the indexed journals. I am proficient in handling Pharmaceutical chemistry subjects' organic chemistry, medicinal chemistry. Present I am guiding 8 Ph.D students. Currently I am working on a funded research project sponsored by seed money research grant by VMRF (DU) on Synthesis, Characterization and pharmacological activities of 2-phenyl-1-(piperidin-1-yl methyl)-1H-indole .

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A Stability Indicating Assay Method for Isolation, Identification and Characterization of Degradation Product During the Estimation of Cangrelor Tetrasodium and its Validation

Belagala Nagesh
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Mukkamala Sailaja
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Krishna Veni Nagappan
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

Background: Cangrelor Tetrasodium (CGT) is an antiplatelet drug utilized as an intravenous application to keep the arrangement of harmful blood clusters shaped in arteries. The impacts of cangrelor are prompt and can be immediately turned around if necessary. Henceforth it is more famous medication for treatment of stenotic coronary arteries. Thus the goal of present work is to create and approve an accurate, precise, specific and sensitive RP – HPLC technique for the measurement of Cangrelor tetra sodium, an antiplatelet drug in API & in synthetic mixtures.

Methodology: The chromatographic separation was carried out on a Hibar C 18 column (250mm x 4.6 mm i.d, 5µm) with a mobile phase composition of Methanol: 0.1% formic acid in water (60:40 % v/v), at a flow rate of 1 ml/min. The eluents were monitored using a UV detector at 230 nm. The temperature of the column was maintained at ambient condition and the retention time of CGT was 5.92 ± 0.2 minutes. The method was validated for various validation parameters as per ICH Q2 (R1) guidelines.

Results: The developed method was linear for CGT in the range of 10 - 50 µg/ml and the linear regression obtained was 0.994. Precision was evaluated by intra, and inter-day assays with the relative

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standard deviation (R.S.D) values not exceeding 1.5 %. Recovery data were in the range 99.60% to 99.74% with R.S.D. values <1.5 %. The LOD and LOQ were found to be 2ng/ml and 6ng/ml respectively.

Conclusion: The developed and optimized RP-HPLC method for Cangrelor tetrasodium was observed to be precise, accurate, linear, robust and fast. Consequently, this technique can be utilized to quantify the API amid the manufacturing process.

Biography

Belagala Nagesh is currently pursuing his Master's Degree (M Pharm) in Pharmaceutical Analysis at Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He had completed his Bachelors Degree (B. Pharmacy) from Jawaharlal Nehru Technological University, Ananthapur, Andra Pradesh.

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Formulation of Macitentan fast dissolving Films and its Evaluation for the Management of Pulmonary Arterial Hypertension

Bhakti Dhimmar
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.
Dr.Amit B. Patil
Associate Professor, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India

Abstract

The paper was aimed to design, formulate, and evaluate the macitentan fast dissolving films, which is meant to be employed in the management of pulmonary arterial hypertension. Macitentan belongs to the class of endothelial receptor-antagonists and can be prescribed for adults and pediatric patients as well. The solvent casting method was employed to develop FDF. The optimized formulation is achieved by incorporating the upper and lower limits of polymers HPMC, PVA, HPC, and Pullulan in combination with plasticizers glycerol and sorbitol into 23 factorial design. The evaluation parameters such as the thickness of the film, surface-pH, folding-endurance, disintegration-time, SEM, tensile-strength, X-ray diffraction, Loss on drying were performed for optimized formulations. FM8, FM10, and Macikad10mg were subjected to In-vitro drug dissolution analysis in USPII dissolution apparatus for obtaining drug-release data using simulated saliva as a dissolution medium. Albino Wistar rats are employed in the study to obtain the in vivo drug release profile of the FM8, FM10, and Macikad10mg. Macitentan dose of 30 mg/kg/day was administered orally and the blood samples were collected at 10 min, 20 min, 30 min, 4 h, 8 h, 16 h, and 24 h. The blood samples are subjected to centrifugation for separating the plasma and samples were analyzed through HPLC. Ammonium-phosphate, and acetonitrile are employed in HPLC as the mobile phase. In the in-vitro and in-vivo drug release profile of FM8, FM10 was compared to the Macikad10mg. From the drug release profiles, it can be assured that FM8, FM10 have a rapid-onset of action when compared to that of the Macikad10mg.

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Cutting-Edge Nanoparticles: A step towards the Clinical and Industrial Applications

Miriam Colombo
Nano BioLab, University of Milano-Bicocca, Italy

Abstract

Multifunctional nanoparticles are promising tools for different kinds of applications in medicine. Most of the studies with nanoparticles in medical field focused on the development of new innovative tools. One of the greatest challenges in designing nanoparticles functionalized with bioactive molecules to optimize molecular recognition resides in the possibility to finely control the ligand orientation on the nanoparticle surface. On the other hand, many efforts have been dedicated to the study of different administration routes alternative to the intravenous one. To support the research in new drug delivery nano-systems, in the past few years, I focused my research on the exploration of new innovative approaches for nanoparticle administration that combine the nanoparticle features with the potential of innovative formulations in order to obtain a synergistic effect.

Biography

Miriam Colombo obtained her Master degree in 2008 in Medicinal Chemistry and Technology at the University of Milano with experimental thesis in the Nanobiotechnology and she made the PhD in Biology in 2012 at the University of Milano-Bicocca. In 2010 she worked in the lab of prof. W. Parak, Marburg, Germany. In January 2009, she was awarded of a 12+24 months fellowship in the field of Medical Sciences. From 2013 to 2019 she was a Researcher in Clinical Biochemistry. From October 2019 up to now she is Associate professor in Clinical Biochemistry, University of Milano-Bicocca, Department of Biotechnology and Bioscience at the Dep. Biotechnology and Bioscience of University of Milano-Bicocca. She is author of 99 scientific publications on peer-reviewed international journals. Official H-Index (Scopus): 31.

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Application of Natural Gums in the Formulation of Microspheres – A Review

Devlina Pal
Department of Pharmaceutical Technology, JIS University, India
Asim Halder
Department of Pharmaceutical Technology, JIS University, India
Himangshu Sekhar Maji
Department of Pharmaceutical Technology, JIS University, India

Abstract

Microspheres are multiparticulate drug delivery systems with diameters of 1-1000 µm. Natural gums and mucilages can be extensively used for the preparation of microspheres because they have some better qualities than synthetic polymers like non-toxicity, high water swellability, low cost and high availability. In the current review, it is found that gum acacia was successfully used as an encapsulating agent in combination with gelatin and guar gum for the preparation of microspheres. In another study, xanthan gum and guar gum were used separately in different amounts to formulate mucoadhesive microspheres of glipizide. Guar gum microspheres were used as potential system for delivery of methotrexate to colon for chemotherapy of colon cancer. Microspheres were also formulated using moi gum as rate controlling material which showed drug release beyond 10 hours in comparison to guar gum when used in 1:1 ratio. Diclofenac sodium microspheres were successfully developed by ionic gelation technique using natural polymer babul gum with sodium alginate which produced excellent controlled delivery over a prolonged period of time. Magnetic microspheres of tamarind gum were also formulated as rate controlling agent along with chitosan by suspension cross-linking technique. From this study it can be concluded that microspheres prepared from various natural gums can be effective forms of drug delivery system with one or more of the following properties such as sustained release, controlled action, muco-adhesiveness, biodegradability, drug entrapment, targeted delivery, microencapsulation and reduced toxicity.

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Keywords
Microspheres, Natural Gum, Sustained Release, Mucoadhesive, Targeted Delivery

Biography
Ms. Devlina Pal, Assistant Professor, Department of Pharmaceutical Technology, JIS University, completed her Bachelor of Pharmacy from Gurunanak Institute of Pharmaceutical Science and Technology, Kolkata and M.Pharm in Pharmaceutics from Gupta College of Technological Sciences, Asansol. She has 2 years of Industrial and 4 years of Teaching experience. During her teaching years she has taught various subjects in the courses of Bachelor of Pharmacy and Diploma in Pharmacy. Her research interests are formulation and evaluation of Novel Drug Delivery Systems like microspheres, liposomes, nanoparticles and exosomes.

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Method Development and Validation of an Oral Anti-hyperglycemic Drug: Sitagliptin and its Application in Bioequivalence Studies

Dibya Das
Department of Pharmaceutical Technology, JIS University, India
Dhiman Halder
Bioequivalence Study Centre, Dept. of Pharm. Tech., Jadavpur University, India
Himangshu Sekhar Maji
Department of Pharmaceutical Technology, JIS University, India
Tapan Kumar Pal
Bioequivalence Study Centre, Dept. of Pharm. Tech., Jadavpur University, India

Abstract

Sitagliptin is a DPP-4 inhibitor and an oral anti-hyperglycemic medication used to treat type 2 diabetes. It promotes insulin release and lowers glucagon levels in a glucose-dependent manner by inhibiting incretin inactivation. It was the second best-selling medicine in the United States in 2013. This research reported analytical method development and validation for the estimation of Sitagliptin in human blood plasma. And the stability studies were done as per USFDA and EMA guidelines. The sample extraction approach presented here was a straightforward Liquid Liquid Extraction (LLE). The linearity range was 1200 to 4.68 ng/ml. The LOD was 0.75 ng/ml and LLOQ was 4.68 ng/ml. LC-ESI-MS/MS was used to develop and validate this method, using Phenomenex Kinetex C18 column. Milli-Q water containing 10mM Ammonium Acetate (pH -3.6) and 0.1% Formic Acid (pH – 2.4) in acetonitrile as solvent systems for the estimation of Sitagliptin in single dose. In the time of this analysis we used Metoprolol as an Internal Standard. The total chromatographic run time was only 4.0 minutes and the elute time of Sitagliptin was 3.97 minutes. This method was successfully applied in bioequivalence studies.

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Keywords
Sitagliptin, Type-2 diabetes, Method development and validation, Bioequivalence and pharmacokinetic studies.

Biography
My name is Mr. Dibya Das (M. Pharm, Pharmaceutics). Presently I pursue a Ph.D. from JIS University, Kolkata, West Bengal, India. I have six years of research experience in the field of bioequivalence studies at TAAB Biostudy Services Kolkata, West Bengal, India.

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Efficacy and Safety of Triamcinolone Acetate Injection in Plantar Fasciitis: A Prospective Interventional Study

Dr Raghu N
Institute of Medical Sciences, India.

Abstract

Introduction:
Plantar fasciitis is the most common causes of heel pain. Even though it is usually a self-limiting condition with cases where majority have been resolving with in ten months, about 10% of patients develop chronic plantar fasciitis. Patients seek help from family physicians and even foot specialists when the pain becomes severe to cause significant distress and disruption to their daily activities and work.
Corticosteroid injections has been used to treat plantar heel pain since the 1950s. Orthopaedic surgeons and Rheumatologists are been known to use corticosteroid injections frequently. The advantages of corticosteroid injections include low cost, low complexity and rapid pain relief This study aims to examine the current evidence available and to provide evidence-based recommendation on the use of corticosteroid injections in patients suffering from plantar fasciitis[3].The objective of this study is to evaluate the efficacy and safety of Injection Triamcinolone acetate in Plantar Fascitis.
Materials and Methodology: An open label, Interventional study was conducted in newly registered/ diagnosed adult patients from either sex who visited orthopaedic outpatient department HIMS Teaching Hospital, Hassan.
Primary Purpose of study To study the analgesic effect and adverse effect of Triamcinolone Acetate injection in Plantar Fascitis.
Statistical analysis: Data will analyse through Descriptive analysis method.
Results: Will be discussed during the presentation.

Keywords
Triamcinolone acetate, Plantar Fascitis, Efficacy, Adverse events.

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Guggul Liposome as Drug Delivery System: A Review

Dr. Aiswarya Mohan
Second Year PG Scholar, Amrita school of Ayurveda, Amrita Viswa Vidhyapeetham, India
Dr. Arun Mohanan
Associate professor, Amrita School of Ayurveda, Amrita Viswa Vidhyapeetham, India
Dr. Vineeth P. K
Assistant professor, Amrita School of Ayurveda, Amrita Viswa Vidhyapeetham, India

Abstract
Liposomes are spherical – shaped vesicle that is composed of one or more phospholipid bilayers, which resembles the structure of cell membranes. It has an ability to encapsulate hydrophilic or lipophilic drugs which is helpful in drug delivery systems. Liposomes will increase the efficacy & stability of the drug. Guggul liposome is such a vesicular drug delivery system which is widely used in treatments. It owns several properties of liposomes, ethosomes and uses skin as alternate route of delivery. Guggul is a gum resin obtained from Commiphora mukul which is popular in Ayurveda for its anti-inflammatory action. It contains bioactive compounds like guggul lipid, Guggulsterone (Z and E stereoisomer) and triterpene called Myrrhanol which produces potent anti-inflammatory action. So in inflammatory conditions the guggul liposome will help in fast healing and fast delivery of drugs in inflammatory sites.

Biography
Dr. Aiswarya Mohan is doing post-graduation in Amrita school of Ayurveda in department of Rasashastra [Medicinal Chemistry] and Bhaishajya Kalpana [Pharmacy], Kollam, Kerala. She had done 3 international and 5 national presentations

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Application of Quality by Design for the Optimization of Push Pull Osmotic Pump of S-Metoprolol Succinate

Dr. Bhupendra G. Prajapati
Shree S.K.Patel College of Pharmaceutical Education and Research, Ganpat University, India
Dipesh V. Patel
Shree S.K.Patel College of Pharmaceutical Education and Research, Ganpat University, India
Dr. Dignesh Khunt
Shree S.K.Patel College of Pharmaceutical Education and Research, Ganpat University, India

Abstract

Present research was focus on the preparation and evaluation of push pull osmotic pump of. S-Metoprolol Succinate based on Quality by design (QbD) approaches. For preparation of push pull osmotic pump, pull layer of S-metoprolol Succinate was prepared using low molecular weight polyox by wet granulation. Push layer containing higher molecular weight polyox and sodium chloride as osmotic agent was prepared by wet granulation. Both layers were compressed to get bilayer tablets and these bilayer tablets were coated with cellulose acetate which act as semipermeable membrane and polyethylene glycol which act as pore former. Extended release coated tablets were laser drilled on drug layer side to allow delivery of drug. Formulation was optimized using Center Composite Design (CCD). Effect of different drilled diameter on drug release was also evaluated. Formulation was optimized using Center Composite Design (CCD). Results showed that with decreased concentration of sodium chloride and increase % of extended release coating decreases the drug release form tablets. Optimization study revealed that percentage weight gain, concentration of the sodium chloride and cellulose acetate to PEG ratio were significant formulation variable which affect the drug release profile. Push pull osmotic pump of S-Metoprolol Succinate was successfully developed using low molecular weight polyox in pull layer and higher molecular weight of polyox in push layer.

Biography

Dr.Bhupendra works as Professor in Department of Pharmaceutics, Shree S.K.Patel College of Pharmaceutical Education and Research, Ganpat University, North Gujarat, India. He did his Ph.D.

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from Hemchandracharya North Gujarat University, Patan. He did his PG and UG from M.S.University, Baroda. He has 19 years of experience in academic/industry (17+2). He awarded with Carrier Award for Young Teacher by AICTE, New Delhi in 2013. He also awarded for Distinguished Associate Professor by in TechNExt India 2017 by CSI, Mumbai. He claims on his name more than fifty national and international publication. He fetched grant for Research Projects, Staff Development Programs, Seminars, Conferences and Travel Grants from National and State Government agencies. He is also given his guidance in industrial consultancy projects conducted at institute. Currently, he is working in the field of lipid-based drug delivery and nanotech formulations. He guided 7 Ph.D. and 45 PG research scholars supervised. 5 Ph.D and 3 PG research scholars are currently working under his guidance in the field of Nanoparticulate Drug Delivery and Bioavailability Enhancement.

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Design and Development of Lornoxicam Modified Pulsincap for Rheumatoid Arthritis

T. Sudhamani
SSM College of Pharmacy, Jambai, Bhavani, Erode, under The Tamil Nadu Dr. M.G. R Medical University, India
P.Sutha
SSM College of Pharmacy, Jambai, Bhavani, Erode, under The Tamil Nadu Dr. M.G. R Medical University, India
K.Nithya Priya
SSM College of Pharmacy, Jambai, Bhavani, Erode, under The Tamil Nadu Dr. M.G. R Medical University, India
B.Sangameswaran
SSM College of Pharmacy, Jambai, Bhavani, Erode, under The Tamil Nadu Dr. M.G. R Medical University, India

Abstract

Pulsincap drug delivery system would be a promising chronopharmaceutical system that can be characterized by release a drug completely within a short period of time after a lag period. The present study has an aim to develop a modified pulsincap of Lornoxicam to treat rheumatoid arthritis. This development of pulsincap combined both approaches of pH- sensitive delivery and time dependent delivery. The system was fabricated into two steps: Primarly, drug was entrapped in microcapsules by using pH dependent polymers (Eudragit S-100, Eudragit L-100). The best formulation microcapsules was selected based various evaluation reports Such as drug content, entrapment efficiency, particle size and drug release. Secondly, optimized batch of microcapsules were filled in 5% ethylcellulose coated impermeable capsule body then sealed with nine different hydrogel plug. Finally the entire capsules were coated with cellulose acetate phthalate. From the *in-vitro* release studies formulation F_7 showed best drug release at end of 24 hrs followed by desired lag time of 5.5 hrs. Thus the designed pulsincap can be considered as one of the promising formulation technique for preparing colon specific

drug delivery system for chronotherapeutic management of rheumatoid arthritis by opening a new approach to an existing drug molecule.

Key words
Lornoxicam, Modified Pulsincap, Microcapsules, Rheumatoid arthritis

Biography
I am Dr.T. SUDHAMANI, working as Professor in the Department of Pharmaceutics in SSM College of Pharmacy, Erode, Tamil Nadu, India. I am having more than 15 years of teaching and research experiences in this pharmacy Profession in various institutions. I have completed my Ph.D in the year of 2016 from 'The Tamil Nadu Dr M G R Medical University', Chennai in the Development of various Chronotherapeutical Drug Delivery Systems. I am interested in the development of various novel drug delivery systems.

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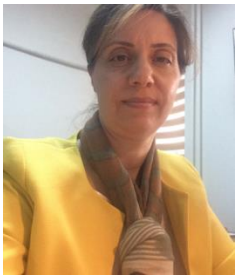
Preparation of Quercetin Microsphere Formulations by Solvent Evaporation Method and Evaluation of the Formulation Factors



Esra Demirtürk
Çukurova University Faculty of Pharmacy, Department of Pharmaceutical Technology, Adana, Turkey
Göksu Eylül İlkar
Independent Researcher
Deniz Onan
Çukurova University Faculty of Pharmacy, Department of Pharmaceutical Biotechnology, Adana, Turkey

Abstract

Quercetin, a flavonoid found in fruits and vegetables, has unique biological properties that may improve mental/physical performance and reduce infection risk. These properties form the basis for potential benefits to overall health and disease resistance, including anti-carcinogenic, anti-inflammatory, antiviral, antioxidant, and psychostimulant activities, as well as the ability to inhibit lipid peroxidation, platelet aggregation and capillary permeability, and to stimulate mitochondrial biogenesis.

Microspheres are three-dimentional delivery microsystems, containing drugs in dissolved form or dispersed form. These substances decrease the interfacial tension between the lipophilic and hydrophilic phases of the emulsions and simplify formation of microspheres, which is the reason why they are in microsphere formulation. Polymers and dispersing agents are the basic components of microsphere formulations. Dispersing agents in microsphere formulations affect the surface properties, particle sizes and release behavior of microspheres.

In order to increase the bioavailability of quercetin, which is in BCS class IV for its poorly water-solubility and poor permeability, there has been many studies conducted on nanoparticular systems. The present study aims to rationalize the use of Tween 80 and Span 80 by preparing quercetin microspheres and study their effects on different characteristics of the microspheres.

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Synthesis of New Hydrazone Derivatives bearing Imidazolidine Moiety as Monoamine Oxidase Inhibitors

Fatih Tok
Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Marmara University, Istanbul, Turkey
Begüm Nurpelin Sağlık
Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Anadolu University, Eskişehir, Turkey and Doping and Narcotic Compounds Analysis Laboratory, Faculty of Pharmacy, Anadolu University, Eskişehir, Turkey

Abstract

Monoamine Oxidase Enzymes (MAO-A and MAO-B) play an important role in the metabolism of endogenous and exogenous amines. MAO-A inhibitors can be used for the treatment of depression and anxiety, while MAO-B inhibitors are useful in the treatment of Parkinson's and Alzheimer's diseases (1). Hydrazones comprise –NH-N=CH- highly active skeleton that have proved to be useful substances in the development of new drugs (2). Besides, imidazolidine nucleus comprises an important class in the heterocyclic chemistry and it possesses different pharmacological activities (3). The aim of this study is to combine two pharmacophoric groups: imidazolidine ring and hydrazone moiety, thereby enhancing the potency of biological activity. Hence, we synthesized new hydrazone derivatives bearing imidazolidine ring and the structures were elucidated by IR, ^{1}HNMR, ^{13}C-NMR, and mass spectroscopy. Synthesized compounds were tested for their monoamine oxidase inhibitory activity. Compounds bearing electron donor groups such as methyl, hydroxyl and halogen substituents such as chloro on the phenyl ring exhibited the most potent MAO-B inhibitory activity. The IC_{50} value of compound carrying chloro substituent was found 0.078 μM (IC_{50} value = 0.037 μM for selegiline). This compound can be a lead molecule for further investigations.

Biography

Fatih Tok is an assistant professor at the Faculty of Pharmacy of Marmara University. His research is focused on the synthesis and development of new compounds showing anticancer, antidepressant, anticonvulsant activity in drug research. He graduated from Marmara University Faculty of Pharmacy in 2013. He obtained a first class honours degree in Faculty of Pharmacy at that year. He gained a

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doctoral degree from Marmara University, Department of Pharmaceutical Chemistry in 2018. He carried out numerous projects supported by TÜBİTAK and University resources. He is the author of many scientific articles both in Turkey and abroad.

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Survey and Quantification of Resvervatrol in Various Wine Sample by RP HPLC Method

G.P. Gowtham
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

N.H. Hariharan
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

M. Afrin
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

A. Ezhilmathe
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

K. Ragavarshini
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Krishna Veni Nagappan.
Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

Background: Resveratrol is a stilbenoid polyphenol, possessing antioxidant, anticarcinogenic, antitumor and estrogenic/antiestrogenic activity. A rapid Reversed-Phase High Performance

Liquid Chromatography (RP-HPLC) method was utilized for the quantification of resveratrol in wine samples & Grape juices. Totally seven wine samples were analysed for the resveratrol content. The quantification was done on commercial wine, homemade wine and commercial grape juices.

Methodology: The desired chromatographic separation was achieved on a Princeton C 18 column (250mm x 4.6 mm i.d, 5µm) under isocratic condition using UV detection at 306 nm. The optimized mobile phase consisted of a mixture of acetonitrile: water (50: 50, v/v) at a flowrate of 1 mL/min. The temperature of the column was maintained at ambient condition and the retention time of resveratrol was 4.2 ± 0.1 minutes. The method for extraction of resveratrol from various samples were optimized by performing 5 trials of liquid -liquid extraction technique.

Results: The developed method was linear for resveratrol in the range of 0.75-25µg/ml and the linear regression obtained was 0.9998. The content of resveratrol was observed between 0.7235 to 7.0153 mcg/10 for various samples analyzed.

Conclusion: Out of seven sample, homemade wine showed relatively high variability when compared to the commercial wines. The concentration in commercial wine was usually lower when compared to the homemade wine. The higher content of resveratrol was found in the grape squash.

Biography

G.P. Gowtham is currently pursuing his Master's Degree (M Pharm) in Pharmaceutical Analysis at Department of Pharmaceutical Analysis, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He had completed his Bachelor's Degree (B. Pharmacy) from JSS College of Pharmacy, Ooty, The Nilgris

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Formulation Development and Evaluation of Fast Dissolving Tablet of Acyclovir using Natural Super Disintegrants

Gomathi A.R
JKKM institute of health Sciences College of pharmacy, India

Abstract
In present work, an attempt is made to develop the fast-dissolving tablets of acyclovir with natural super disintegrants fenugreek mucilage and hibiscus mucilage and with other super disintegrant (Sodium Starch Glycolate) by direct compression method. Hibiscus mucilage was extracted from the Hibiscus rosa-sinensis leaves. Prepared tablets were evaluated for hardness, weight variation, friability, disintegration study, invitro drug release studies. It was concluded that all the formulation shows the better release in 20 min, where F4(Fenugreek Mucilage) shows maximum release in 20 mins next to that F5(Fenugreek and Hibiscus Mucilage) shows highest drug release. All the formulations follow first order, Higuchi's kinetics, Mechanism of drug release was found to be Non-Fickian Diffusion Super Case-II transport.

Key words
Acyclovir, Super disintegrants, Hibiscus rosa-sinensis, Fenugreek mucilage, Fast dissolving tablet.

Biography
I have more than two years' experience as assistant professor (Department of pharmaceutics) in the JKKM Institute of health sciences college of pharmacy, T.N.Palayam, Erode. I have completed my M. Pharm in The Erode college of pharmacy and B. Pharm in SRM college of pharmacy. I have published the journal of "DEVELOPMENT, CHARACTERIZATION AND IN-VITRO EVALUATION OF AZITHROMYCIN NIOSOMES" in IJPPR 2018:13;3. Paper presented on the topic of "ENHACEMENT OF SOLUBILITY OF CALCIUM CHANNEL BLOCKER BY SOLID DISPERSION METHOD" in 1st drug delivery congress 2017 at RVS college of pharmacy, Coimbatore. Participated in various seminars and webinars.

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Design and Evaluation of Liquid Crystalline Nanoparticles for the Effective Targeting to Triple Negative Breast Cancer

Hitesh Kumar
Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Vidya G. Bettada
Department of Biochemistry, Centre of Excellence in Molecular Biology & Regenerative Medicine, JSS Medical College, JSS Academy of Higher Education & Research, India.

SubbaRao V. Madhunapantula
Department of Biochemistry, Centre of Excellence in Molecular Biology & Regenerative Medicine, JSS Medical College, JSS Academy of Higher Education & Research, India.

Vikas Jain
Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

The research work carried out for the effective management of Triple Negative Breast Cancer (TNBC). The TNBC is highly aggressive and metastasized phenotype of breast cancer. The chemotherapeutic drug has the potential to eliminate the tumor cells as well as stem cell by inhibition of angiogenesis and other cellular events, but due to associated severe toxicity, it has the limited usage against cancer. In this study, Lipid based nanoparticles (Liquid Crystals) were established as promising drug delivery vehicle for highly lipophilic chemotherapeutic drugs. In this study, we developed drug loaded GMO based Liquid Crystalline Nanoparticles (LCNPs) and tumor targeted LCNPs by applying a full factorial as well as Box-Behnken design employing design-Expert® software. The LCNPs were characterized and tested in TNBC cell lines such as MDA-MB-468, MDA-MB-231 & MCF-7 for *in vitro* studies. The optimized formulation was depicted average particle size184.3 nm, polydispersity index 0.253, zeta potential -19.1 and entrapment efficiency 99.3+0.25%. The *in-vitro* drug release depicted sustained and controlled manner of Drug release from lipid nanocarriers and

stability study confirmed that the GMOs based NPs are stable. The *in vitro* cell lines studies suggested that LCNPs produced 4.3, 4.7 and 3.5 times higher cytotoxicity compared to pure drug against MDA-MB-468, MDA-MB-231 and MCF-7 cell lines, respectively. Cellular uptake of drug loaded LCNPs were comparatively 2.9, 3.1 and 2.6 time higher than pure drug. Furthermore, drug loaded LCNPs produced significantly higher apoptosis and inhibited the mobility of MDA-MB-468, MDA-MB-231 and MCF-7 cells. The results from this study demonstrate the utility of drug loaded LCNPs as an effective treatment against TNBC and GMO based lipid carrier as effective drug carriers to deliver the highly lipophilic drugs.

Keywords
Triple Negative Breast Cancer, Nanomedicines, Liquid Crystalline Nanoparticles, Formulation Development.

Biography
Mr. Hitesh Kumar, is perusing PhD degree Under Dr. Vikas Jain (Asso. Prof), at Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, Mysuru, India. He is working on the development of lipid based formulations for therapeutic enhancement of anticancer drugs against breast cancer. Mr. Hitesh has the experience on the formulation development and nanoformulation preparations.

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Total Synthesis and Molecular Docking of Biologically Active Natural Products using Palladium Catalyzed Biaryl Coupling Reactions

Ishtiaq Jeelani
Graduate School of Innovative Life Science, University of Toyama, 3190 Gofuku 930-8555, Japan.
Hitoshi Abe
Faculty of Engineering, University of Toyama, 3190 Gofuku, Toyama 930-8555, Japan.

Abstract

A palladium-mediated intramolecular aryl-aryl coupling reaction was applied to the total synthesis of the bioactive natural products, palmariols A (**1**), palmariols B (**2**) and Graphislactone G (**3**) which possess an unusual chloro-subsutituent on the 6H-dibenzo[b,d]pyran-6-one skeleton. A variety of natural products, which possess the 6*H*-dibenzo[*b,d*]pyran-6-one core has attracted our interest because of their unique biological activities. Palmariol A and B were isolated from *Lachnum palmae* in 2010, and their antimicrobial, antinematodal, and acetylcholinesterase inhibitory activities were investigated. The outstanding structural feature of these compounds is the presence of a chlorine atom on the 6*H*-dibenzo[*b,d*]pyran-6-one ring (Figure **1**). Natural products, possessing a halogen atom on their aromatic ring, have attracted much attention because of their interesting biological activities. Thus, the total syntheses of such compounds have also intrigued synthetic chemists as well. We have reported several natural product syntheses using the Pd-mediated intramolecular biaryl coupling reaction with phenyl benzoate derivatives for forming the 6Hdibenzo[b,d]pyran-6-one ring system. Utilizing this transformation, we planned the efficient syntheses of **1**, **2** and **3**. We commenced the synthesis of **1, 2** and **3** by the preparation of the phenolic compound involving the regioselective chlorination of orcinol using *N*chlorosuccinimide (NCS). On the other hand, corresponding benzoic acid was prepared through multistep transformations, starting with 3,5-dimethoxyaniline. This work is expected to be applicable to the synthesis of other 6*H*dibenzo[*b,d*]pyran-6-one natural products. Molecular docking of the synthesized compounds was also determined against **CYP1B1** protein and interesting results were observed.

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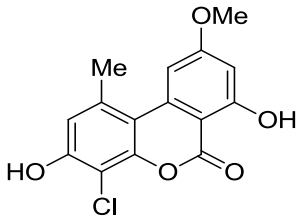
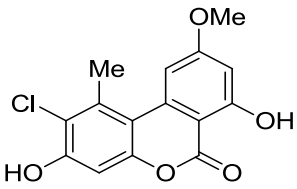
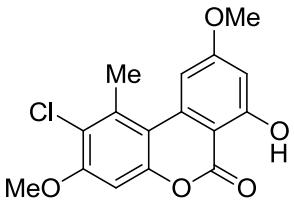


Palmariol A (**1**)



Palmariol B (**2**)



Graphislactone G (**3**)

Figure **1**: Structures of Palmariol A, B and Graphislactone G

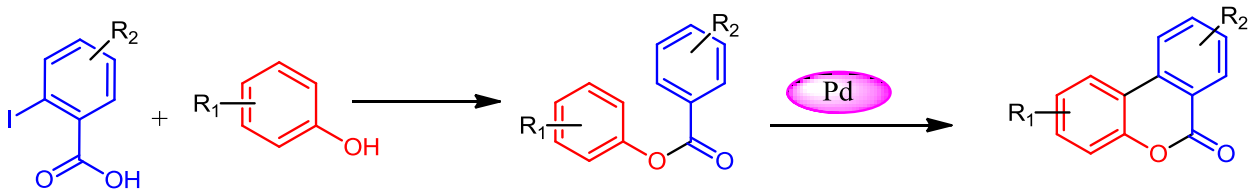


Figure: **2** General synthetic scheme

Biography

Ishtiaq Jeelani is perusing Ph.D. in organic Synthetic Chemistry, Faculty of Advanced Nano and Bio Sciences, Graduate School of Innovative life Science, University of Toyama, Japan. He is working on the total synthesis, characterization and molecular docking/simulation of biologically active natural products. His research mainly focusses on the use of Palladium catalyzed intramolecular biaryl coupling reactions of phenyl benzoate derivatives.

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Isolation and Identification of Microorganisms and Assessing of Antimicrobial Resistance in the Pharmaceutical Effluents

Kamatham Sravani
Sri Ramachandra Faculty Of Pharmacy, Sriher(Du), India
Dr. Uma Sekar
Department of Microbiology, Sriher (Du), Sri Ramachandra Faculty of Pharmacy, India
Dr. K. Sujatha
Sri Ramachandra Faculty Of Pharmacy, Sriher(Du), India
Dr. S. Manoharan
Vaccine Research Centre - Bacterial Vaccines, Centre for Animal Health Studies, India

Abstract

Antimicrobial Resistance (AMR) has been recognized as a global problem and is the focus of significant international attention. It is one of the biggest threats to global health and can affect anyone, of any age, in any country. Hence, this study is envisaged to assess the impact of pharmaceutical effluents in the development of AMR. The present study was aimed to determine the Multiple-Drug resistance among the bacterial strains that were isolated and identified from the influent and effluent of various pharmaceuticals in Chennai, A.P and Hyderabad. Also the study was carried out for wastewater effluents which were collected from a pond in Nellore, Chennai and Hyderabad. The bacterial strains were isolated and identified the bacterial pathogens of aerobic and anaerobic nature.

Antibiotic Sensitivity test was carried out against different antibiotics. Results of the study showed that *Pseudomonas sp, Klebsiella pneumonia, Enterobacter aerogenes and Corynebacterium,* expressed resistance against Ciprofloxain and Amoxacillin. *Pseudomona sps, Corynebacterium sp, Klebsiella pneumonia and Enterobacter aerogenes* expressed no organism growth against Azithromycin and Phenoxymethylpencillin. Under this situation, it is imperative to take up a complete study to assess the role of pharma industry wastes in the development and spread of AMR.

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Biography

Present Pursuing my Ph.D in Department of Pharmacology School of Pharmacy, SRIHER, Sri Ramachandra Institute of Higher Education and Research, Porur, Tamil Nadu. Participated and Presented in the International Conference, National Conference, Oral, e-poster, Poster Presentations, Faculty Development Programs, workshops and Journal club. I had 5 research publications in indexed Journals.

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Development and Characterisation of Rosuvastatin Self Microemulsifyig Drug Delivery System in a Quality by Design Framework

Kavitha AN
Department of Quality assurance, Krupanidhi College of Pharmacy, India
Pragathi
Department of Quality assurance, Krupanidhi College of Pharmacy, India

Abstract

Objective: The main objective of the present research work was to develop systematically the Self Micro Emulsifying Drug Delivery system of BCS Class 2 drug in a Quality by Design framework.
Methods: The quality by design-based formulation development proceeds with defining the Quality Target Product Profile and Critical Quality Attributes of dosage form with appropriate justification for the same. The statistical Mixture design was used for the development of the formulation. The independent variables selected for the design were Maisine CC, Labrasol and Proylene Glycol, whereas emulsification time (sec), transmittance, % drug content and % drug release at 15 min were considered as the potential quality attributes of the Self Micro Emulsifying System. The eight different batches of Rosuvastatin-Self Micro Emulsifying Systems (RST-SMEDDS) were prepared and checked for the Critical Quality Attributes. The simultaneous optimization of the formulation was done by the global desirability function approach.
Results: The characterization report obtained for all the different batches of formulation was analyzed statistically by fitting into regression models. The statistically significant models determined for, emulsification time (sec) (R^2= 0.98 and p-0.0574), Transmittance (R^2= 0.98 and p-0.0457), % drug Content (R^2= 0.98 and p-0.0563) and % drug release at 15 min (R^2= 0.95 and p-0.1251) and were statistically significant. The maximal global desirability value obtained was 0.7363 and the value indicates, the selected factors and responses have a good correlation and are significant enough for optimization and prediction of best formulation.

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Conclusion: The QbD approach utilized during the development of RST-SEDDS facilitated the identification of Critical Material Attributes and their significant impact on the Critical Quality Attributes of SMEDDS. The concept of building quality into product through the QbD application was utilized successfully in the formulation development.

Keywords
Bioavailability, Mixture design, Rosuvastatin, SMEDDS, QbD

Biography
Kavitha A N is an Vice Principal and Associate Professor in Department of Quality Assurance, Krupanidhi College of Pharmacy, Bengaluru. She researches in the drug delivery of low bioavailability drugs by nanoemulsion technique in a Quality by Design approach. She has 14 years of teaching and research experience

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Development and Evaluation of Solid Dispersion Bilayer Tablets Formulated with Some BCS Class II Drugs

Kola Hephzibah
SRM College of Pharmacy,SRMIST, India.
Dr.S.Sangeetha
SRM College of Pharmacy,SRMIST, India.

Abstract

Diabetes and hypertension are two disorders that frequently coexist. Heart disease is the leading cause of death among diabetic patients. As a result, the goal of this study was to create bi-layer tablets containing candesartan, an angiotensin receptor blocker used primarily to treat high blood pressure and congestive heart failure, and pioglitazone, an anti-diabetic, to improve patient compliance. An IR layer and an SR layer are present in each of the proposed bi-layer tablets. The poor water solubility of medicines, on the other hand, creates challenges in drug delivery formulation. As a result, efforts are being made to generate solid dispersion of these low-solubility medicines. Poloxamer 407, HPMC, Eudragit, PEG 4000, PEG 6000, and PVP K30 were used as polymeric carriers in the solvent evaporation process to manufacture solid dispersions, which were evaluated using FTIR, XRD, SEM, TEM, drug content, and in vitro dissolution investigations. The improvement in solubility and dissolution was greatest for solid dispersion of candesartan with poloxamer 407 and solid dispersion of pioglitazone with PEG 6000, according to the findings. The bilayer tablet was evaluated for hardness, thickness, drug content, weight variation, friability, disintegration duration, and in vitro dissolution experiments utilising the optimum batch of solid dispersions. It can be concluded that the manufactured bilayer tablets achieve the research goal of treating diabetes and hypertension by releasing two medicines sequentially. These tablets may be the greatest option to traditional dosage forms with more frequent administration because they minimise dosage frequency and are cost effective.

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Biography

Kola Hephzibah is a Research Scholar from dept. of Pharmaceutical Analysis at SRM College of Pharmacy, SRMIST, Chennai. She completed her masters in the dept. of Pharmaceutical Analysis from Nirmala College of Pharmacy, mangalagiri, A.P. she handled the following projects during her Bachelor's and Master's: Development and validation of stability indicating assay for simultaneous determination of bromelain, trypsin, rutoside and diclofenac by RP-HPLC & Anti- Urolithiatic activity of Piperene against ethylene glycol induced urolithiasis *in-vivo* supported by *in-vitro* study.

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Development and Evaluation of Cyclodextrin based Actarit Nanosponges

Madhavi M
Gitam Deemed to be University, India
G Shiva Kumar
Gitam Deemed to be University, India

Abstract

The aim of this study was the development of controlled release formulation of actarit with cyclodextrin Nanosponges as a nanocarrier. Preliminarily Cyclodextrin Nanosponges were prepared to determine the main factors and based on those trial experiments, a three factor, three level Box-Behnken design was used to study the effects of each independent variable on dependent variables. Two types of nanosponges from ß-cyclodextrin (NS14 and NS16) were purposely designed. By employing freeze drying method Actarit was loaded into NS14 and NS16 nanosponges. The actarit encapsulated nanosponges size range is 140 to 170 nm with low polydispersity index. the Zeta potential of ACNS14 & ACNS16 nanosponges is sufficiently high enough to get stable nanosuspension. The FTIR, DSC and XRPD studies indicating the interaction between Actarit and CD nanosponges. TEM images revealed the spherical shape of drug incorporated nanosponges. 24 h of In vitro release studies showed that the dissolution of Actarit from Actarit nanosponges was significantly high (90%) as compared with the pure drug suspension (20%) and release of Actarit from ACNS14 & ACNS16 formulations can be released slowly and reattained for long time with burst release initially.

Biography

Madhavi M * is a Research scholar in Pharmaceutics under the guidance of Dr. G Shiva Kumar at GITAM Deemed to be University and working as Associate professor at Hitech College of Pharmacy, Chandrapur, Maharashtra, India. The Area of interest is Novel drug delivery systems.

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Dissolution Enhancement of Lercanidipine using liquid- Solid Compact Technique

Manisha Kotadiya
Department of Pharmaceutical chemistry, Shree Swaminarayan Sanskar College of pharmacy, India
Jaydeep Savaliya
Formulation and development department, first to file Pharma, India
Mina Sinhar
Department of Pharmaceutics, H.N. Shukla College of pharmacy, India
Reena Korat
Department of Pharmaceutics, H.N. Shukla College of pharmacy, India

Abstract

Objectives: The purpose of present research work was development of liquid-solid compact technique of Lercanidipine HCL sublingual tablet for dissolution enhancement to improve saturation solubility.

Methods: The liquid-solid compacts were formulated with Transcutol P as solvent. Neusiline US2 was used as a carrier material, Aeroperl 300 as a coating material, PVP K-30 as a solubility enhancer, and Kyron T-314 as a disintigrants prepared by direct compression method. The melting point observed (194-197 ºC) was in accordance to the melting point reported (195-198 ºC) in Indian Pharmacopoeia (IP'2010).

Results: In the Fourier transformed infra-red absorption spectroscopy spectrum of Physical mixture and Formulation characteristic peaks corresponding to their functional groups were identified, which were same in Lercanidipine pure drug. Thus, there was no any interaction between drug and excipients. In the, Differential Scanning Calorimetry thermograms of Physical mixture and Liquid-solid compact (containing Lercanidipine HCL, Neusiline US2, Aeroperl 300, and PVP K-30) displayed complete disappearance of characteristic peaks of Lercanidipine HCL. The optimum Φ-value of carrier material could be calculated by plotting the graph of angle of slide v/s Φ-value of carrier material and

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value corresponding to 33º angle of slide was taken as optimum Φ-value of carrier material. The range of dissolution profile and disintigration time were 85 % with in 5 minutes and 33 sec. ideal for liquid-solid compact. From the regression analysis R^2 values for % CPR, Disintegration time, and T_{90} were 0.941, 0.589, and 0.860 respectively. It was found that Lercanidipine HCL showed highest solubility in Transcutol P (93.88 mg/ml).

Conclusion: The reduction in the crystallinity may be the reason for the enhanced drug dissolution from liquid-solid powder. The stability study of optimized formulation for 1 month showed no appreciable change in in-vitro drug release and hardness. It was also concluded that prepared formulation improve bioavability by prevention of first-pass metabolism.

Key words
Lercanidipine HCL, Liquid-solid technique, sublingual tablet, Dissolution rate enhancement, XRD, 3^2 full factorial design.

Biography
Shree Swaminarayan Sanskar Pharmacy College, Zundal established in 2005, is offering B.Pharm and M.Pharm (Pharmaceutics, Pharmaceutical Quality Assurance) Courses. The institute is approved by All India Council of Technical Education (AICTE), New Delhi, and Pharmacy Council of India (PCI) and affiliated to Gujarat Technological University (GTU).

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Influence of Kollicoat® IR Concentration on the Dissolution of Dried Hesperetin Nanosuspension

Maria Lucia A.D Lestari
Department of Pharmaceutical Science, Faculty of Pharmacy Universitas Airlangga, Surabaya, Indonesia
Steffi Ordelia Valentina
Pharmaceutical Engineering and Processing Research Group, Universitas Airlangga, Surabaya, Indonesia
M. Agus Sjamsur R
Pharmaceutical Engineering and Processing Research Group, Universitas Airlangga, Surabaya, Indonesia
Wahda Djuddah
Pharmaceutical Engineering and Processing Research Group, Universitas Airlangga, Surabaya, Indonesia

Abstract

Hesperetin (HPT) is a flavonoid belongs to BCS class II with low solubility and high permeability. Consequently, it has low dissolution rate hence oral bioavailability also low. Nanosuspension is a simple formulation strategy to increase drug dissolution due to particle size reduction. However, nanosuspension needs to be dried to obtain solid form which can be transferred into capsules. The use of stabilizing agent is important to stabilize nanosuspension particle size, preserve the particle size during drying, and increase dissolution of dried nanosuspension. Nanosuspension was prepared by dissolving Kollicoat® IR 20% w/w and 50% w/w in 90 mL aquadest, separately. 13 g HPT was then dispersed and milled with 0.5 mm yttrium-stabilized zirconium beads to produce nanosuspension. HPT nanosuspension obtained was dried at 45°C then evaluated for its release at pH 6.8 and characterized for its crystallinity using thermal analysis.

Results showed that HPT nanosuspension stabilized Kollicoat® IR 20% w/w and 50% w/w had particle size 151 nm and 168 nm, respectively. Dissolution of dried HPT nanosuspension stabilized Kollicoat® IR 50% w/w significantly increased the HPT dissolution but not for Kollicoat® IR 20% w/w. Thermal analysis of dried HPT nanosuspension stabilized Kollicoat® IR 50% w/w tend to have amorphous form.

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Biography

Maria L.A.D Lestari is a lecturer and also a researcher. Her research interest is increasing solubility and dissolution of BCS class II drugs using nanosizing methods in particular nanosuspension and delivering the nanosuspension into solid form as the final dosage form. She also focuses on the manufacturing process of solid dosage form including modification of the excipients.

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Supramolecular Amphiphile of Beta-Cyclodextrin and Oleylamine for Enhancement of Vancomycin Delivery Supramolecular Amphiphile of Beta-Cyclodextrin and Oleyl amine for Enhancement of Vancomycin Delivery

Mohammed Salih
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Calvin A. Omolo
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Pavan Walvekar
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Ayman Y. Waddad
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Chunderika Mocktar
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Charlotte Ramdhin
Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

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Thirumala Govender

Discipline of Pharmaceutical Sciences, College of Health Sciences, University of KwaZulu-Natal, Private Bag X54001, Durban, South Africa

Abstract

The global antimicrobial resistant threat calls for innovative strategies to solve the problem. Thus, utilizing nano delivery system for expanding the spectrum of already available antibiotic is highly promising in fighting resistance. Supramolecular amphiphiles are showing potential for effective drug delivery. The aim of this study was to synthesize and formulate a novel sugar-based cationic amphiphile (BCD-OLA) derivative from a Beta-cyclodextrin (BCD) head and long C18 carbon chain with a terminal amine; Oleylamine (OLA), using inclusion complexation for application in antibiotic delivery. A suspension method was used for preparing the BCD-OLA amphiphile. The complexation of BCD-OLA was confirmed by FTIR, 1H NMR, 2D NMR NOESY spectrum and molecular dynamic simulations. Cytotoxicity results showed cell viability of 75–100%, thus affirming biosafety of BCD-OLA complex. TEM images showed the self-assembled structures to be vesicles. The formulated nanovesicles size was shown to be 125.1 ± 8.30 nm with a PDI of 0.231 ± 0.05, and ZP of 19.3 ± 9.20mv. The encapsulation efficiency of vancomycin was 40.2 ± 4.5%. Vancomycin release from the nanovesicles was found to be sustained, with an 80% release over a 48hr period. The in vitro antibacterial test showed that the BCD-OLA had a 2-and 4-fold lower MIC against Staphylococcus aureus and Methicillin-resistant Staphylococcus aureus, respectively, compared to bare vancomycin. Intracellular and macrophage studies showed that the system had a 459-fold reduction of intracellular bacteria using infected human embryotic kidney cells, and an 8-fold reduction in infected macrophages, contrast with bare vancomycin.

Biography

Mohammed Abdeen, hold a B.Sc., MSc in pharmacy and PhD in pharmaceutics from University of Kwazulu-Natal (Durban-South Africa). I was involved in many published papers with different research topics in pharmaceutical science and pharmaceutical analysis, I have an experience of over 5 years (over 12,000 hours) of working in the pharmaceutical industries field, mainly as research and development pharmacist at leading pharmaceuticals manufacturing companies in Sudan. Now working as a Technical support specialist at Amipharma Laboratories Ltd (Khartoum-Sudan).

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Design, Molecular Docking, and Antimicrobial Assessment of Newly Synthesized Phytochemical Thymol Mannich Base Derivatives

Monalisa Mahapatra
School of Pharmaceutical Sciences, Siksha 'O' Anusandhan (Deemed to be University), India
Ajit Kumar Bishoyi
School of Pharmaceutical Sciences, Siksha 'O' Anusandhan (Deemed to be University), India
Sudhir Kumar Paidesetty
School of Pharmaceutical Sciences, Siksha 'O' Anusandhan (Deemed to be University), India
Rabindra Nath Padhy
School of Pharmaceutical Sciences, Siksha 'O' Anusandhan (Deemed to be University), India

Abstract

Antibacterial resistance brewing unnoticeably for a couple of decades has now evolved into a potential public health emergency. Thus, the present need of the day is to develop new potential candidates to overcome the resistance this effect of antibiotics. A series of thymol-bearing amino methylated sulfonamide were designed and synthesized by the mannich condensation reaction of cyclic amines or *N*-heteroaryl- 4-amino benzenesulfonamide with thymol and formaldehyde in excess of dilute hydrochloric acid**.** The structures of the obtained synthesized product were confirmed by several spectral studies. All these designed compounds have been virtually screened against both bacterial and fungal targets and also being validated by the online software PreADMET. After validation, the designed candidates were synthesized and evaluated for their *in-vitro* antimicrobial assay against several species of bacteria and fungus. All the compounds have showed moderate to excellent inhibition with all bacterial strains at MIC 3.12µg/ mL and 12.5 µg/ mL. Moreover, some compounds had shown good inhibition against both bacteria and fungus; MIC 6.25 µg/ mL both with *E.coli* and *S.aureus* and 3.12 µg/ mL *with T.rubrum*.

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Biography

Monalisa Mahapatra is a research scholar. Her research interest is to design and develop new drug entities bearing certain pharmacological action. She is also interested in the *In-silico* screening of the synthesized series of compounds along with *In-vitro* antimicrobial assay of the compounds.

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Antifungal Drug Loaded Microemulsion Based Transdermal Gel for Enhanced Skin Permeation

Nidhi P. Shah
Faculty of Pharmacy, Nootan Pharmacy College, Sankalchand Patel University, India
Dr. Khushbu S. Patel
Faculty of Pharmacy, Nootan Pharmacy College, Sankalchand Patel University, India
Dr. Jayvadan K. Patel
Faculty of Pharmacy, Nootan Pharmacy College, Sankalchand Patel University, India

Abstract

The main aim of this study was to develop suitable microemulsion based gel for topical delivery of sulconazole nitrate to enhance its solubility and to improve its skin permeability with improved safety. Microemulsion of Sulconazole nitrate was prepared by using Capmul as an oil phase, Tween 80 and Transcutol P as respectively surfactant and co-surfactant. Prepare pseudo ternary phase diagram by water titration method and applied d-optimal design. The prepared microemulsion was evaluated for viscosity, globule size, solubility, zeta potential, percentage transmittance and conductivity. Microemulsion gel was prepared by adding carbopol 940 as a gelling agent in prepared ME. The optimized gel was evaluated for viscocity, drug content, spreadability, pH, physical examination, *In-vitro* permeation study, histopathological study, stability study. Moreover, the cumulative amount of Sulconazole nitrate permeated in rat skin was studied and compared to that of marketed cream. Thus, MBG could be a promising formulation to reduce the symptoms and to cure Tinea pedis faster than marketed Sulconazole Nitrate cream.

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Biography

From the study (X_3) batch showed lower globule size (71.82 nm) and higher solubility (41.170mg\ml) was selected. The cumulative amount of drug permeated from ME, MBG and MF after 24 hr were (428.48±3.6), (302.55±3.0) and (120.76±1.8) µgcm−2, respectively. MBG showed sustained release and better retention (46.38±2.64) in the skin than MF. The drug-loaded gel showed better enhanced release of drug and better retention in the skin compared to market formulation, which could be due to special characteristics of microemulsion. It was found that optimized Microemulsion based Sulconazole Nitrate gel shows better anti-fungal activity compared to marketed Sulconazole Nitrate cream.

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Development of Nanoemulgel for Arthritic Inflammation and Pain based on Ethnomedicinal plants of Western India

Munira Momin
SVKM's Dr. Bhanuben Nanavati College of Pharmacy, University of Mumbai, India.
Anita Chando
SVKM's Dr. Bhanuben Nanavati College of Pharmacy, University of Mumbai, India.

Abstract

Introduction: Rheumatoid Arthritis (RA) is a systemic autoimmune disease manifested by chronic joint inflammation leading to severe disability and premature mortality. There is no known cure for RA leading to the ultimate goal to provide pain relief. The Over-The-Counter (OTC) topical pain relief products contain synthetic molecule with or without herbal components for additional synergistic effects. The patients for chronic pain are likely to strive for the option of Complementary and Alternative Medicine (CAM).

Objective and methodology: The main objective of the proposed nanoemulgel was to deliver highly lipophilic drugs such as Ginger Oleoresin (GOR) and Lipid Guggul Extract (LGE) at the site of application for management of pain and inflammation. A compatibility studies of actives with other excipients and the RP-HPLC method were carried out. Studies carried out for *In-vitro* and *ex-vivo* drug diffusion study, MTT cytotoxicity assay, In Vivo animal studies to estimate the drug levels in plasma and synovial fluids.

Results and discussion: The drug release kinetics was indentified to Korsmeyer's Peppas model and zero order for GOR and LGE respectively in *in-vitro* as well as *ex-vivo* diffusion studies. MTT cyctotoxicity study on RAW 264.7 cell line and HET-CAM study confirmed the non-cytotoxcity and non-irritating behaviour of both the drugs when encapsulated in nanoemulsion. LPS induced anti-inflammatory study on RAW 264.7 cells confirmed the anti-inflammatory property of the drugs and nanoemulgel. *In-vivo* animal study showed a marked reduction in inflammation based on X-ray and histopathological evaluation of hind paw. The results suggested that drug loaded nanoemulgel could reduce the nucleophilic infiltration and cartilage destruction in CFA-induced rat models. Stability studies in accordance to ICH guidelines suggested no significant change in the nanoemulgel.

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Conclusion: The developed nanoemulgel for topical application confers to a higher safety/toxicity index making it suitable for long term usage in management of pain and inflammation. The topical nanoemulgel has societal benefits such as cost-effectiveness, localized effect, lesser side effects, leading to enhanced patient compliance.

Biography

Dr. Munira Momin is a recipient of highly prestigious Nehru-Fulbright International Higher Education administrator's excellence award-2019. She is Currently serving as a Principal and Professor at SVKM's Dr. Bhanuben Nanavati College of Pharmacy, Mumbai, India. She has institutionalized number of innovative practices in teaching and research. She, as a PI and Co-PI has received research grants (Industry collaborative research and Govt. funding), with total amount of more than 1.8 crore. Under her guidance, the college faculty have received Major government grants of Indian Central Government. To mention about her academic background, she obtained her Pharmacy degree from Gujarat University, Ahmedabad, India with a Gold medal for securing highest marks in Pharmaceutical technology. She is a recipient of Prof M. L. Khurana Memorial Award for Best Research Paper published during the Year 2008-09 and she is the recipient of IDMA-ACG Best Research paper 2019-20 Award. Dr. Munira has published several research papers in national and international journals. The cumulative impact factor of Clarivates of her research and review papers is more than 110. She has one patent granted, eight patents in pipeline and one trademark to her credit. Dr. Momin has four books and 4 book chapters on pharmaceutics, and related subjects.

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Designing of Novel Topical In Situ Polymeric Film-Forming Solution Spray Formulation of Antifungal Agent: In Vitro Activity and In Vivo Characterization

Nabil Abdullah
Department of Pharmaceutics sciences, JSS College of Pharmacy, Mysuru, JSS Academy of Higher Education and Research, India.

Abstract

Objective: Voriconazole (VCZ) is a broad-spectrum antifungal medication that causes by inhibiting fungal Cytochrome P450, preventing fungi growth. The current study aims at developing and characterizing an antifungal *in situ* film-forming polymeric solution spray containing VCZ for use in topical drug delivery systems.

Methods: Optimized VCZ *in situ* polymeric film formulation was evaluated for Fourier Transform Infrared Spectroscopy (FTIR), Differential Scanning Calorimeter (DSC), X-ray Diffractometry (XRD), Scanning Electron Microscope (SEM), *in vitro* & *in vivo*, *ex-vivo* investigation using abdominal rat skin and stability studies. The *in-vivo* antifungal activity of the advanced *in situ* film was examined in albino Wistar rats.

Results: The optimized batch contained 22% Eudragit RS 100 (ERS) and 4% Sorbitol. Based on FTIR, XRD, SEM, and rheological studies, formulation ingredients of VCZ loaded topical *in situ* polymeric film spray were observed to be compatible and showed no evidence of precipitation, deformation, or discoloration. Diffusion test (*in vitro* %), and *ex-vivo* drug diffusion % obtained 99.22%, and 97.45% respectively. The maximum inhibition zone measured 13±0.07mm. The Wistar rat was employed as an animal model for skin irritation and antifungal studies. A study of short-term stability observed no significant modifications in the physical properties.

Conclusions: The findings of the optimized VCZ topical in situ polymeric film spray formulation were satisfactory, demonstrating comparable improvement in superficial antifungal treatment.

Keywords

In Situ Film, Voriconazole, *Candida Albicans, In vitro* & *In vivo* antifungal activity.

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Resveratrol Loaded Nanostructured Lipid Carriers for Brain Targeted Delivery in the Management of Parkinson's Disease

Nagashree A G
JSS College of Pharmacy, JSS Academy of Higher Education and Research, India
Asha Spandana KM
JSS College of Pharmacy, JSS Academy of Higher Education and Research, India

Abstract

Resveratrol (RES) proved to have poor brain availability which poses major hurdle to deliver the drug to the brain. The use of Nanostructured Lipid Carriers (NLCs) could be promising approach to overcome its limitations. The main purpose of the research was to prepare and evaluate the Resveratrol loaded Nanostructured Lipid Carrier (NLC). NLC was prepared by hot melt homogenization method. The effects of independent variables on dependent variables were determined using Box-Behnken design. The optimized resveratrol NLC was evaluated for Particle Size (PS), Polydispersity Index (PDI), Zeta Potential (ZP), Entrapment Efficiency (EE), crystallinity studies and in vitro drug release studies. The PS, PDI, ZP and EE were found to be 126 nm,0.32, -27.6mV ,70.2%. The statistical evaluation confirmed improvement in entrapment efficiency with increasing liquid lipid content in the formulation The DSC and XRD studies reveled structure of resveratrol from crystalline to amorphs form. In vitro drug release showed burst release followed prolonged release of drug. The release of optimized NLC was significantly higher compared to resveratrol suspension. Therefore, NLC can easily pass through the Blood–Brain Barrier (BBB). Hence, the prepared NLC showed sustained release profile for brain targeting, and it could be a promising approach for delivering brain.

Keywords

Resveratrol, Nano lipid carrier systems, in-vitro drug release, blood-brain barrier.

Biography

Nagashree AG is at present pursuing her masters in department of Industrial Pharmacy as a 2nd year student at JSS college of Pharmacy, JSS Academy of Higher Education and Research, Mysuru under the guidance of Mrs,Asha Spandana KM. Currently she is working on the nano carriers in the management of multiple sclerosis.

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Application of Subcritical Water as a Green Solvent for Extraction of Biologically Important Molecules

Nataša Nastić
Faculty of Technology, University of Novi Sad, Bulevar cara Lazara 1, Novi Sad, Serbia
Senka Vidović
Faculty of Technology, University of Novi Sad, Bulevar cara Lazara 1, Novi Sad, Serbia
Aleksandra Gavarić
Faculty of Technology, University of Novi Sad, Bulevar cara Lazara 1, Novi Sad, Serbia
Zorana Mutavski
Faculty of Technology, University of Novi Sad, Bulevar cara Lazara 1, Novi Sad, Serbia
Slađana Krivošija
Faculty of Technology, University of Novi Sad, Bulevar cara Lazara 1, Novi Sad, Serbia

Abstract

The rise in use of dietary supplements and functional foods based on plant material with great biological potential is depicted as part of a trend empowering consumers to manage their day-to-day health needs.

Significant progress has been made in the processes of isolating biologically active compounds from natural sources, primarily thanks to new scientific knowledge related to the mechanisms of separation of compounds from complex matrices. Over the past decade, the application of hydrothermal processes based on the application of water in the subcritical state has become promising alternative to traditional organic solvents extraction from both environmental and technological perspectives. Subcritical water is recognized as an effective solvent for extraction of proteins, carbohydrates, lipids and value-added compounds from various plant materials and agro-food waste due to its unique

physical and chemical properties primarily low dielectric constant and high ion product, and low environmental impact.

Potential use of SWE for extraction of biologically active molecules, preparation of ready-to-use extracts and use of SWE-based extracts to design new functional foods and nutraceuticals will be considered herein.

Biography

Nataša Nastić, PhD works as a Research Associate at the Faculty of Technology, University of Novi Sad, Serbia. Her formal education was complemented with research work and stay at Universities of Granada and Seville (2013 and 2014), CIDAF, Granada (2013 and 2016), Yildiz Technical University, Istanbul, and iBET, Oeiras (2021). Her expertise includes the experience in the extraction and isolation of biologically important molecules of natural origin, improvement, and implementation of modern extraction techniques. She has published 13 scientific papers in leading international scientific journals with impact factor and participated in the number of international and national scientific meetings.

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Effective Delivery of the Natural Occurring Compound Through Lipid Nanocarriers System for Triple Negative Breast Cancer Treatment

Pallavi Chand
Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India.

Hitesh Kumar
Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India.

SubbaRao V. Madhunapantula
Department of Biochemistry, Centre of Excellence in Molecular Biology & Regenerative Medicine, JSS Medical College, JSS Academy of Higher Education &Research, India.

Vikas Jain
Department of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India.

Abstract

Aim/ Objective: The plant derived molecules such as flavonoid and taxol are naturally occurring molecules, which have properties such as potent anti-proliferative, apoptotic, neuroprotective, anti-oxidative and anti-cancer activity over several cancers. Modification on its structures (either semi-synthetic or synthetic) enhances therapeutic efficacy and potency against cancer. These compounds also shows effective work against Triple Negative Breast Cancer (TNBC), which is characterized as being the most aggressive phenotype of breast cancer. In this study, we have developed the plant origin molecules loaded Nanostructure Lipid Carriers (NLC) and evaluated for therapeutic efficacy against TNBC.

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Methods: The present study contains optimization of lipid nanocarriers system such as NLCs by experimental design approach (DOE) using Design-Expert®software. The optimized formulation were characterized through various characterization parameters and evaluated against TNBC cell lines.
Results: The average particle size, PDI and EE was observed as 133±6.3 nm, 0.178±0.045 and 79.09±5.21%, respectively. Compatibility studies *via* FTIR and DSC results suggested that drug were completely entrapped and had no chemical bonding between drug and NLCs. SEM analysis confirm spherical shape and uniform size distribution of NLCs. *In vitro* studies on TNBC cell lines revealed that the prepared lipid nanocarriers system are highly effective compared to pure drugs. The combinatorial delivery of these molecules were given the synergistic effects through cell viability, cell migration, cell apoptosis, and cellular uptake studies.
Conclusions: According to the present studies and results we can conclude that the prepared lipid nanocarriers system have the effective and targeting delivery of flavonoid and taxol moiety for the effective treatment of TNBC.

Keywords
Design of Experiment, Flavonoid, TNBC, Lipid Nanocarriers.

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Formulation and Development of Microsponges Containing Antifungal drug Luliconazole for Dermal Route

Pragati Karn
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India
Versha Verma
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India
Gauree Kukreti
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India

Abstract

Superficial fungal infection possesses a major health issue in a wide range of people. Luliconazole is a topical applicable drug with broad spectrum antifungal activity which was approved in 2013 by FDA. Luliconazole in aqueous medium shows lower solubility that control dermal bioavailability. Present study describes some parameters like to enhance the dermal activity and to enhance permeation of the drug by increasing its bioavailability. The product was prepared by quasi emulsion solvent diffusion method. The invitro diffusion and permeation study was done, and formulated microsponges was checked. The particle size of formulated microsponges was within the range. Prepared microsponges was spherical in shape and porous surface. the prepared gel of microsponges shows 62% release of drug in 9 hours in comparison to other marketed formulation that was 35% in 9 hours. Collectively, it was concluded that the prepared gel loaded with Luliconazole microsponges has good permeation rate, improved activity and increased dermal delivery for drugs with low aqueous solubility.

Biography

A Pragati Karn is pursuing in M. pharmacy of Pharmaceutics specialization in Sardar Bhagwan Singh University, Balawala, Dehradun, Uttarakhand -248161. She's completed her Bachelor of pharmacy in 2017 from Arya college of Pharmacy, kukas, Jaipur, Rajasthan, Rajasthan university of health science.

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Protein-Polysaccharide Scaffold of Fish Collagen and Nano-Hydroxyapatite Crystals for Bone Regeneration

Prakruti P Acharya
School of Basic and Applied Sciences, Dayananda Sagar University, India
Manjushree
School of Basic and Applied Sciences, Dayananda Sagar University, India
Aneesa Fasim
School of Basic and Applied Sciences, Dayananda Sagar University, India
Sunil S More
School of Basic and Applied Sciences, Dayananda Sagar University, India

Abstract

Ideal scaffolds for tissue engineering should mimic natural Extra Cellular Matrix (ECM) as much as possible. The aim of the study is to fabricate a biomimetic scaffold from collagen type 1(swim bladder) and hydroxyapatite(bones) extracted from *catla catla* fish waste. The nano crystals of Hydroxyapatite (HA) were obtained by calcifying it at 950°C. The Ca/P ratio of HA was found to be 1.76 which is close to natural hydroxyapatite. Biophysical (XRD, FTIR) analysis confirmed the nano-size of HA and spectral (CD, UV) characterisation of collagen type 1 determined its structural integrity. The protein-polysaccharide scaffold was fabricated by combining collagen type 1, HA, hyaluronic acid and chondroitin sulphate in the prescribed ratio (98:80:50:44). The physical and chemical performance of the scaffold was enhanced by EDC-NHS crosslinker. The thermostable nature of the scaffold was determined by TGA analysis and it was also found to be highly porous and hygroscopic by SEM analysis and swelling ratio studies. *In vitro* studies confirmed the biocompatible nature of scaffold that promotes osteoblast adherence, growth and proliferation with less than 2% toxicity. Thus, the fish waste can be utilised in fabrication of a scaffold that mimics all the properties of natural ECM for enhanced bone regeneration.

Keywords
Hydroxyapatite; Hyaluronic acid; Collagen type 1; Scaffold; tissue engineering.

Biography
I am Prakruti P Acharya, a research scholar from Dayananda Sagar University is currently pursuing by Ph.D. in biochemistry. I was working as a DST-JRF for a central government funded project (DST/SERB/001526) for a period of 2 years and 4 months, a project based on bone regeneration. The same work was presented in an International Conference on Recent Trends in Bioengineering 2019 conducted by MIT School of Bioengineering Sciences and Research, Pune and was awarded as best presentation. My current work is based on contrivance of protein-polysaccharide biocompatible scaffold for bone regeneration.

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Clinically Relevant Concepts on Polymer-Paclitaxel Conjugates

Preeta Bose
Department of Pharmaceutical Technology, JIS University, India
Pintu Kumar De
Department of Pharmaceutical Technology, JIS University, India

Abstract
Paclitaxel is a most prominent natural chemotherapeutic agent over decades now. It is used in broad spectrum of many types of cancers as well as cancer research medications. Isolated from the fungi living in the bark of Pacific yew tree, this drug has seen major application in the field of cancer but due to solubility issues and hypersensitivity reactions in normal cells have restricted its applications. For this fabrication of polymer –drug conjugate have been successful as well as have been reported to have lowered the toxicity and has shown to have improved patient compliance with many other benefits as well. Clinically relevant concept is what is lacking for the researchers working in this field. I have had recent developments while formulating enhanced delivery system using polymer conjugation technique. So, in my work I have summarized progress in the polymer –paclitaxel conjugates designed and evaluated in the last decade to make this miracle drug more efficacious and where dealing with the aftermath has become easier. This presentation will shed light on fabrication of newer and much better polymeric conjugates of paclitaxel for prospective anticancer applications in the future.

Keywords
paclitaxel, anticancer, polymer, conjugates, clinical.

Biography
I am Preeta Bose, Assistant Professor and research scholar in the Department of Pharmaceutical Technology, JIS University (Kolkata, West Bengal). I am also currently pursuing Ph.D in Pharmaceutical Technology. My research interest is in the field of formulation and development and process development.

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Development and Evaluation of Naphthoquinone Compound Loaded NLCs against Breast Cancer Cell line for the Treatment of Triple Negative Breast Cancer

Preethi. S
Department of Pharmaceutics, JSS College of Pharmacy, JSSAHER, India
Vikas Jain
Department of Pharmaceutics, JSS College of Pharmacy, JSSAHER, India
Hitesh Kumar
Department of Pharmaceutics, JSS College of Pharmacy, JSSAHER, India

Abstract

Background: The triple-negative breast cancer refers to the cancer cells that lack estrogen, progesterone receptors and HER2.
Purpose: The conventional therapies face numerous challenges in breast cancer treatment. Thus, nanotechnology-based delivery systems play a key role in targeted drug delivery at the tumor site with enhanced bioavailability.
Objective: The current research aimed to develop a marketed naphthoquinone drug loaded Nanostructured Lipid Carriers (NLCs) and their evaluation for the treatment triple-negative breast cancer.
Method: The drug loaded NLCs were prepared by using Precirol, labrafac and Tween 80. The NLCs were prepared by hot melt homogenization method. DSC, FT-IR studies indicated that the components and drugs were compatible with each other.
Result: The λ max of drug was confirmed at 258nm. SEM photographs revealed the spherical shape of the formulated NLCs. The *in vitro* release studies demonstrated a controlled and stable release profile of NLCs.
Conclusion: The particle size, PDI and EE of drug loaded optimized NLCs were 113.9nm, 0.154 and 82.35% respectively. Stability studies of the NLCs stored at 10˚C for 60 days confirmed the stability of the formulation. Cytotoxicity studies of drug alone as well as drug loaded NLCs against MDA-MB-468

cell lines revealed that the drug loaded NLCs can be a promising approach in Triple-negative breast cancer treatment.

Keywords

Brest Cancer, Triple Negative Breast Cancer (TNBC), Nanostructured Lipid Carriers (NLCs), Poly Dispersity Index (PDI), Entrapment Efficiency, Cytotoxicity.

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Multifunctional Ceramic Nanocarriers in Targeted Drug Delivery

Aparna Datta
Department of Pharmaceutical Technology, School of Health Sciences, NSHM Knowledge Campus, India
Rajkumar Ghosh
Department of Pharmaceutical Technology, School of Health Sciences, NSHM Knowledge Campus, India
Somenath Roy
CSIR Central Glass and Ceramics Research Institute, 196 Raja S.C. Mullick Road, India

Abstract

Drug delivery systems usually includes drug formulation in addition to delivery process and device, while designing integral parts of targeted drug delivery system. Of late nanomaterials have been of interest due to their extraordinary properties of large surface area, appreciably high drug loading capacity, tunability of size and shape, surface decoration per the requirement in addition to longer blood circulation time. More specifically, ceramic nanoparticles are gaining prominence yet again owing to superior characteristics over polymer particles of same range. The greatest drawback of the polymeric nanoparticles is its tendency to deform while drug loading and optimising. To overcome this discrepancy, ceramic nanoparticles are replacing polymeric nanocarriers, with more rugged and encouraging characteristics. Nevertheless, potential risks offered by nanoparticles due to their high aspect ratio can be handled by opting for those non polymeric nanoparticles that have established biocompatibilities and approved by FDA for other purposes. Repurposing such materials like nano titania, ceria, ferrous oxide, zinc oxide and the like scan serve the purpose of replacing the conventional polymeric nano drug carriers for targeted drug delivery. Several reports reveal that couple of these nanocarriers of ceramic origin have shown self-regenerating, antioxidant properties, promising data on cell viability, evidence on cell degeneration, neuro degenerative property without any drugs loaded into them. These and similar studies divulge that the nano-sized payload releasers in the range of 30 – 120 nm have given hopeful outcomes that have indeed excited pharmaceutical scientists in taking ahead these materials while targeting drugs to the site.

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Keywords
Nanocarrier, Nanomaterials, Repurposing, Titania, Ceria

Biography
Rajkumar is a researcher at the post-graduation level. He is presently perusing Master of Pharmacy with specialization in Pharmaceutics at NSHM Knowledge Campus, Kolkata. He has special interest in liposomal drug delivery system and solid semi emulsifying drug delivery systems. So far he has acquired 3rd position in National seminar and look forward to contribute more while experimenting with drug delivery systems.

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Formulation and Evaluation of Trandolapril Nanostructured Lipid Carrier Loaded Transdermal Drug Delivery System

Ramankit Jaiswal
University Department of Pharmaceutical Sciences, India
Rita Wadetwar
University Department of Pharmaceutical Sciences, India

Abstract

The main aim of the present study was development and optimisation of Trandolapril (TRA) Nanostructured Lipid Carrier (NLC) loaded transdermal patch for the treatment of hypertension. TRA-NLC were formulated using High Pressure Homogenization (HPH) technique using Precirol ATO-5 as solid lipid, oelic acid as liquid lipid and Poloxomer 188 as surfactant. The optimised formulation was evaluated for in-vitro drug release, transmission electron microscopy and in-vivo absorption study. The optimised NLC showed lower particle size (82.48 nm), higher entrapment efficiency (85.86 %) and prolonged drug release. Spherical shape and size were confirmed using transmission electron microscopy. The nanostructured lipid carriers was loaded in transdermal patch by solvent evaporation method and evaluated for physical characteristics, drug content and skin permeation studies. The in-vivo absorption study showed improved bioavailability of TRA in the wistar rats. Hence TRA-NLC loaded transdermal patch will be a promising drug delivery system for poorly bioavailable drugs.

Biography

Ramankit Jaiswal is presently a Ph. D. Research Scholar of University Department of Pharmaceutical Sciences, Nagpur, India. He has done his B. Pharm from Sonekar college of Pharmacy and M. Pharm from Priyadarshini college of Pharmacy, Nagpur. In addition he has also done post graduate diploma in Forensic Science from Nagpur University. Previously he worked as a senior officer in Glenmark Pharmaceuticals, Goa.

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Development of Solid Self Emulsifying Drug Delivery System for Enhancement of Oral Bioavailability of Quercetin

Roma Mathew
College of Pharmaceutical Sciences, Government Medical College, India
Dr JoyammaVarkey
College of Pharmaceutical Sciences, Government Medical College, India

Abstract

Quercetin is a polyphenolic flavonoid, which is the safe, most abundant, and commonly ingested dietary phytochemical which possess a wide spectrum of pharmacological action mainly antiviral, antidiabetic, anti-inflammatory, neuroprotection and anti-proliferative. However, clinical applications of quercetin are limited due to its hydrophobicity and poor gastrointestinal absorption. Several attempts have been made to improve the poor bioavailability of Quercetin including Self-Emulsifying Drug Delivery System (SEDDS). SEDDS are isotropic mixture of an oil, surfactant, co-surfactant and drug, that has the ability to form emulsion with water under gentle agitation as in the gastrointestinal tract. From the screening of oils, surfactant and cosurfactant the combination of Triacetin as oil phase, Tween 20 as surfactant and Ethanol as co-surfactant was selected for development of SNEDDS (Self Nano-Emulsifying Drug Delivery System) of Quercetin. The composition of the developed SNEDDS formulation was optimized using pseudo ternary phase diagram. The optimized formulation has been evaluated and found to have good physical stability and is converted to Solid Self Nano-Emulsifying Drug Delivery System (S-SNEDDS) using solid adsorption technique using Aerosil 200 as carrier. The developed S-SNEDDS was then optimized using design expert software and the developed powder formulation was further evaluated for micromeritic properties and in vitro drug release. A stable S-SNEDDS of Quercetin was developed, and results indicated substantial enhancement in dissolution of the drug when formulated as stable S-SNEDDS indicating its potential to enhance oral solubility and bioavailability of the drug.

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Biography

1) Currently working as Assistant Professor of Pharmaceutics at College of Pharmaceutical Sciences, Government Medical College, Thiruvananthapuram, Kerala, India .
2) Completed Masters in M.Pharm (Pharmaceutics) From University of Kerala, India
3) PhD scholar at University of Kerala, India

Current research interests include development of Novel Drug Delivery systems

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Application of Co-crystal Technology in Formulation of Pharmaceuticals

Sanika Kole
School of Pharmacy, Dr. Vishwanath Karad, MIT World Peace University, India
Ratnaprabha Kinikar
School of Pharmacy, Dr. Vishwanath Karad, MIT World Peace University, India
Ashwin Kuchekar
School of Pharmacy, Dr. Vishwanath Karad, MIT World Peace University, India
Ashwini Gawade
School of Pharmacy, Dr. Vishwanath Karad, MIT World Peace University, India

Abstract

Objective: To determine the impact of co-formers on formation of co-crystals. The effect of co-formers ensures the stability of co-crystals.

Methodology: Aim of the study was to formulate co-crystals using different concentration of co-formers by Solvent Evaporation method. Three co-formers namely Fumaric acid, Tartaric acid, and Citric acid were used. Solvent used was Ethanol. Concentration of API and solvent was kept constant where co-formers were used in different concentrations. API: Co-former: Solvent ratios were 1:1:2.5, 1:2:2.5 and 1:3:2.5. API and co-formers were kneaded continuously for 5 min in mortar and pestle. After complete kneading solvent was added drop by drop and that mixture was kept aside in petri dish for evaporation of solvent and co-crystals were prepared.

Results: Co-crystals of API and Fumaric acid, Tartaric acid with ethanol was formed successfully as solvent was evaporated completely. The co-crystal batches of 1:1:2.5 (API: Fumaric acid: Ethanol) and 1:1:2.5 (API: Tartaric acid: Ethanol) were showed effective results.

Conclusion: The study was carried out to formulate co-crystals of accurate concentrations of API, Co-former and solvent. Study revealed that 1:1:2.5 (API: Fumaric acid: Ethanol) and 1:1:2.5 (API: Tartaric acid: Ethanol) ratios were more stable for over three months period.

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Biography

I Sanika Kole, M. Pharm Research Scholar studying at School of Pharmacy, Dr. Vishwanath Karad, MIT World Peace University, Kothrud, Pune. I have pursued Bachelor's degree from Appasaheb Birnale College of Pharmacy, Sangli. Current research work of co-crystal formation is performed under the guidance of Dr. Ashwin Kuchekar and Dr. Ashwini Gawade. My one review paper entitled "Advancements in Formulation Approaches to Pediatric Oral Drug Delivery Systems" is accepted in International Journal for the publication and other review of co-crystal formulation is under process.

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One Pot Synthesis, Evaluation and Molecular Docking of Some Novel Imidazole Derivatives

Santhia P
Department of Pharmaceutical Chemistry, SRM Institute of Science and Technology, India
Varsha G
Department of Pharmaceutical Chemistry, SRM Institute of Science and Technology, India
Bhavana TN
Department of Pharmaceutical Chemistry, SRM Institute of Science and Technology, India
Bharkath Nisha
Department of Pharmaceutical Chemistry, SRM Institute of Science and Technology, India
Louise Swetha
Department of Pharmaceutical Chemistry, SRM Institute of Science and Technology, India

Abstract

Imidazole is a heterocyclic compound with two nitrogen atoms in the position of 1 and 3. In the domain of medicinal chemistry, imidazole derivatives have a special role. It is a very significant class of pharmaceutical compounds and a constituent of various natural compounds such as histamine, histamine, biotin, alkaloids, and nucleic acid. A large number of imidazole compounds are being researched for various medicinal purposes. Some novel imidazole derivatives were synthesized and investigated for anti-tuberculosis activity against H37 RV strain and Insilco studies for the synthesized compounds was also done. There are five imidazole derivatives which were synthesized and tested for antituberculosis activity against the H37 RV strain. The compound A and B shows good antituberculosis activity against the strain H37 RV by using MABA assay. Docking also performed to find out the binding efficacy of the ligand molecules and the compound A and B also shows good binding affinity

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Insilico Recognition of Novel Antimicrobial Peptide Targeting Biofilms and Characterization

Saravana Kumar V
JSS College of Pharmacy, India
Raman Rajeshkumar
JSS College of Pharmacy, India

Abstract
In the global pandemic, several microorganisms began to become resistant to the drugs due to abuse or prolonged use. They also get multidrug resistance through quorum sensing. The modulation of gene expression in response to oscillations in cell-population density is known as quorum sensing. With quorum sensing, the benefit increases as the cell population increases. Biofilms consist of a large number of extracellular polymer compounds that are released by the bacteria living in them. By ingesting this extracellular polymeric substance, they become cross-resistant to the given drugs and act as a protective layer for the pathogenic microbes. To overcome these biofilms, Antimicrobial Peptides (AMP) can be characterized, insilico rather using classical techniques. Several insilico techniques were employed to identify an unidentified effective AMP against the biofilms produced by P. aeruginosa mixed culture. It is a preliminary study that can be further investigated in the future.

Keywords
AMP, Biofilm, Quorum Sensing, Insilico, MDR.

Biography
Saravana Kumar is currently pursuing his M. pharm in Pharmaceutical biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He has completed her B. pharm from JSS College of Pharmacy, Ooty, The Nilgiris

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Structural-Profiling of Fucoidan Derived from Brown Seaweed Stoechospermum marginatum (C. Agardh) Kutzing and Insilico Screening for its Potential Antiviral Activity against Dengue Virus (DENV)

Saravanan Muniappan
Vinayaka mission's Research Foundation (Deemed to be University), Vinayaka Mission's College of Pharmacy, India.

Arul Balasubramanian
Vinayaka mission's Research Foundation (Deemed to be University), Vinayaka Mission's College of Pharmacy, India.

Kothai Ramalingam
Vinayaka mission's Research Foundation (Deemed to be University), Vinayaka Mission's College of Pharmacy, India.

Abstract

Fucoidans are marine sulfated biopolysaccharides derived from brown seaweeds. The aim of this research work was to isolate fucoidan (Sulfated Polysaccharides) from of brown seaweed: *Stoechospermum marginatum* (C. Agardh) Kutzing and characterise the structural entity using modern spectral techniques like ATR-FTIR, NMR and Mass spectroscopy. The brown seaweed *S.marginatum* was collected from the coast of Tamilnadu in the Tuticorin seashore during the low tide season. The phytochemical screening, revealed the presence of fucoidans (Sulfated Polysaccharides) as the major constituents along with noticeable amount of flavonoid, tannin, alkaloid, glycosides, fatty acids, and mucilage. Fucoidans were isolated by a chitosan mediated eco-friendly technique and purified by ion exchange chromatographic techniques to remove the possible cationic and anionic impurities. Trace element analysis report indicated that metallic impurities were within the permissible limit. Structural elucidation of fucoidan was conducted with the aid of ATR-FTIR, NMR and GC-MS analysis, and the presence of sulfated polysaccharides with the repeated units of fucopyranose units through 1-3, and 1-4 linkage was proved to be present. Fucoidans were structurally

modified and screened for its Antidengue efficacy against different serotypes of Dengue (DENV) namely DENV1 to DENV4. The derivatives of fucoidans were studied for the ADMET and toxicity studies. Molecular docking study results predicted that Fucoidans found to posses potent antidengue activity when docked with different target dengue viral proteins. The secondary metabolite Fucoidans from *S.marginatum* and its derivatives will be serving as a potent lead molecule if subjected to wet lab synthesis and subjecting them to extensive research in the mere future for the cure Dengue viral infections.

Keywords
Seaweed; fucoidans; polysaccharides; antibacterial, *S. marginatum*.

Biography
I am M.Saravanan currently pursuing my Ph.D as a Fulltime Research Scholar at Vinayaka mission's Research Foundation (Deemed to be University), under the guidance of Dr.,B.Arul, Professor and Head, Department of Pharmacy Practice, Vinayaka Mission's College of Pharmacy, Salem, Tamilnadu, India with scholarship . My research work is focused on isolation, characteridsation and *in-vitro* screening of sulfated polysaccharide – fucoidan from brown seaweed *Stoechospermum marginatum* (C. Agardh) Kutzing against Dengue Virus. I hold a Diploma in pharmacy from Coimbatore medical College, B.Pharm Degree from Madras Medical College, Chennai and an M.Pharm in the specialisation of Quality assurance from Goa College of Pharmacy. I have more than 20 years of teaching experiences and 15 years of research experience in the field of analytical method development, development of novel drug delivery system and antiviral screening for natural polysaccharides from seaweeds.

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Design, Synthesis and Evaluation of Diphenyl Ether Derivatives as Antitubercular and Antibacterial Agents

Sari S Nair
Al Azhar College of Pharmacy, India
Dr. Cinu Thomas A
Al Azhar College of Pharmacy, India

Abstract

Tuberculosis is an ancient infectious disease of global influence, re-emerged with multi drug resistant strains and acquired immune deficiency syndrome. In the last few years, M.tuberculosis enzymes involved in the fatty acid synthase type- II systems have been identified and validated as relevant drug targets. Among the FAS-II enzymes, InhA, a trans-2-enoyl-ACP reductase, is one of the most druggable targets in tuberculosis field. Resistance of Mycobacterium tuberculosis strains to the two main drugs, isoniazid and rifampicin, used in therapy regimen of tuberculosis is a burning problem nowadays. Thus it is well recognized that there is a pressing need for the development of more effective antimicrobial agents. A new series of diphenyl ether derivatives were synthesized from meta phenoxy benzaldehyde and aniline. These were screened for invitro antimycobacterial, antibacterial and cytotoxicity studies. The synthesized compound 2a have shown potential activity against Mycobacterium tuberculosis H37Rv strain with MIC 12.5. These diphenyl ether derivatives were subjected to docking studies and virtual screening. The receptor specificity of the synthesized compounds were shown from the antibacterial activity study since none of the synthesized compounds showed activity, so it have been proved that newly synthesized compounds were specifically act on the enoyl acyl carrier protein receptor.

Biography

Mrs. Sari S Nair, currently working as Associate Professor at Al Azhar College of Pharmacy, Thodupuzha, Kerala and Research scholar of JJTU, Rajastan, India. She have 6 years of teaching experience and started her teaching carrer from Nehru college of pharmacy, Thrissur as Assistant professor. She completed M Pharm in Pharmaceutical Chemistry from Department of Pharmaceutical sciences, M G University, Kottayam and B Pharm from Nehru College of Pharmacy, Thrissur, Kerala. She had published five research articles in various UGC care listed journals, presented papers in two national conferences and one international conference.

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Enhancement of Dissolution and Oral Bioavailability of Glimepiride via Pluronic F127/F68 Mixed Micelles: Formulation and Optimization Using Central Composite Design

Senthil kumaran K
Department of Pharamaceutics, K.K. College of Pharmacy, India
Pavithra M
Department of Pharamaceutics, K.K. College of Pharmacy, India
Sripriya S
Department of Pharamaceutics, K.K. College of Pharmacy, India
Meena A
Department of Pharamaceutics, K.K. College of Pharmacy, India

Abstract

This study aims at preparing and optimizing glimepride micelles using solvent evaporation techniques in order to overcome glimepride solubility limited oral bioavailability. A two-factor three-level Central Composite Face-centred Design (CCFD) was employed to optimize the formulation variables to obtain glimepride polymeric micelles of high entrapment efficiency and small and uniform particle size (PS). Formulation variables were: Pluronic to drug ratio (A) and Pluronic F127/F68 percentage (B). Glimepride loaded mixed polymeric micelles were assessed for entrapment efficiency (EE %), PS. The values of the formulation variables (A and B) in the optimized polymeric micelles formula were 45% and 80%, respectively. Optimum glimepride polymeric micelles had entrapment efficiency of 88.3%, PS of 260.11 nm. Optimum glimepride polymeric micelles formula was physically characterized using transmission electron microscopy. The drug release rate of Glimepiride from GLP micelle was significantly improved (73.6%) to the drug released from GLP aqueous dispersion was (32.3 %) Glimepride polymeric micelles showed enhanced dissolution rate 2 fold increase compared to

aqueous suspension. Further in vivo evaluation study in rabbits will confirm enhancement of bioavailability of glimepride.

Keywords
Glimepride, Pluronic micelles, Solvent evaporation technique

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Designing Next-Generation Multi-Epitope Vaccine against a Pathogenic Strain of *Pseudomonas aeruginosa*

Sindhu K
JSS College of Pharmacy, India
Raman Rajeshkumar
JSS College of Pharmacy, India

Abstract
To design a vaccine against *Pseudomonas aeruginosa* and evaluate the vaccine's safety and efficacy, a stable epitope sequence of the *Pseudomonas aeruginosa* was taken from the NCBI server in FASTA format. CD8+, CD4+, and Linear B epitope cell's antigen peptides were generated, and these peptides were evaluated for antigenic, non-allergic, non-toxic, and non-homologous properties. Subsequently, an adjuvant was selected and linked with the antigenic peptide sequence with the suitable linkers, and the vaccine's 3D structure was predicted, refined. The vaccine was further evaluated for immuno-stimulation and molecular dynamic studies. The vaccine increases innate immunity by interacting with Toll-like Receptors in the body. An increase in the production of immunity cells and rapid clearance of the antigenic peptides were observed, and the assessment of molecular dynamics and immuno-stimulation were carried out for the whole sequence. Two vaccine candidates were constructed based on the procedure above, which produces antibodies against the *Pseudomonas aeruginosa*. The antigenic sequence will be stored in T-memory cells, and the defense mechanism against the *Pseudomonas aeruginosa* increases.

Keywords
Bacterial vaccine, *Pseudomonas aeruginosa,* TLR, Antibodies, *Insilico*

Biography
Sindhu K is currently pursuing her M. pharm in Pharmaceutical biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. She has completed her B. pharm from JSS College of Pharmacy, Ooty, The Nilgiris.

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Simultaneous Quantification of Lupeol, Stigmasterol and β-Sitosterol in Methanolic Extract of Tricovas Capsule- a Polyherbal Marketed Formulation by a Validated RP-HPLC Method

Sireesha Rayadurgam
Department of Pharmaceutical Analysis, SRM College of Pharmacy, SRMIST, India.
Mohan Kumar R
Interdisciplinary Institute of Indian system of medicine, SRMIST, India.
Satish Kumar R C
Interdisciplinary Institute of Indian system of medicine, SRMIST, India.
Manikandan K
Department of Pharmaceutical Analysis, SRM College of Pharmacy, SRMIST, India.

Abstract

Background: The ayurvedic medication tricovas capsule is used to treat atherosclerosis.
Objective: To develop a simple method for the simultaneous quantification of lupeol, stigmasterol and ß-sitosterol in methanolic extract of Tricovas capsule**.**
Materials and Methods: The compounds were separated on RP-Phenomenex C18 (250mm×4.6mm; 5µ) column with a mobile phase comprising of methanol and water pH adjusted with 0.1% formic acid as gradient elution purged at a flow rate of 1.8 mL/min with PDA detector at 208nm.
Results: The retention time of lupeol, stigmasterol and ß-sitosterol was found to be 14.64, 16.34 and 18.60 minutes respectively. The amount of lupeol, stigmasterol and ß-sitosterol in methanolic extract of 100 mg of tricovas capsule was found to be 0.45 %w/w, 7.60 %w/w and 1.79 %w/w. The optimized method was validated for different parameters and all the validated constraints were within the limits as per ICH guidelines. The proposed method was linear over the concentration range of 31.25-500 µg/mL with correlation coefficients greater than 0.996. The LOD and LOQ values of lupeol,

stigmasterol and ß-sitosterol were found to be 0.029, 0.095 and 0.121 ng/mL and 0.088, 0.289 and 0.369 ng/mL respectively.

Conclusion: The developed method was found to be reliable for the quality control investigations of crude drugs and its herbal formulations.

Key words

HPLC, Lupeol, ß-sitosterol, Stigmasterol, Tricovas capsule.

Biography

I am Sireesha R, 32 years old working as a full time research scholar in SRM College of Pharmacy, SRMIST, Chennai, India, under the guidance of Dr K Manikandan, Department of Pharmaceutical analysis in the same institution. Previously I worked as an Assistant professor for 3 years in Seven Hills College of Pharmacy, Tirupati, Andhra pradesh, India. I am married and having a son of 10 years old.

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In silico Design of an Epitope-Based Vaccine Ensemble for SARS-CoV-2

Sivaa Arumugam R
JSS College of Pharmacy, India
Raman Rajesh kumar
JSS College of Pharmacy, India

Abstract

SARS-CoV-2 is one of the pandemic diseases the world has experienced. This prompted global health workers to look for a cure. Even then, few are considered anymore about immunological trigger epitopes of the novel coronavirus (SARS-CoV-2), which are included to elicit adaptive immune responses. The protein sequence of the SARS-CoV-2 spike epitope was preserved and its elementary and physicochemical properties were precisely assessed. HLA-I / MHC-I, HLA-II / MHC-II and LBC were examined for their antigenicity, allergic properties, toxicity and homology. Appropriate auxiliary proteins were selected and their sequence was actually recorded, followed by physicochemical parameters were examined and these were connected with appropriate linkers. Then the 3D models of the vaccine were developed, refined and further examined for their amino acid benefits. The performance test is then carried out and the X-ray crystallography and the NMR curve were collected to analyze the results. Docking analyzes were then carried out with the selective receptors (TLR-3, 4 & 7) and the association properties were assessed. The energy required for affinity was taken into account when interpreting docking studies. According to the results of the above evaluation studies, when combined with TLR, the vaccine improves immunity and cleanses from the body easily.

Keywords

Epitope, Vaccine, Toll-like Receptors, SARS-CoV-2, Antibody.

Biography

Sivaa Arumugam R is currently pursuing his M. pharm in pharmaceutical biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He has completed her B. pharm from JSS College of Pharmacy, Ooty, The Nilgiris.

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Formulation and Characterization of Glipizide Microspheres

Subhajit Sarkar
Department of Pharmaceutics, NSHM Knowledge Campus, Kolkata-Group of Institutions, India
Richa Deb
Department of Pharmaceutics, NSHM Knowledge Campus, Kolkata-Group of Institutions, India
Swarupananda Mukherjee
Department of Pharmaceutics, NSHM Knowledge Campus, Kolkata-Group of Institutions, India

Abstract
The purpose of this study is to create and evaluate Glipizide microspheres in order to improve medication bioavailability by providing a longer effect with fewer changes in drug plasma concentration levels. These microspheres were made utilizing numerous types of polymers such as Carbopol, HPMC K100, and Sodium Alginate in a solvent by Ionotropic Geletion Method. We'll look at morphology, drug polymer compatibility, entrapment efficiency, drug content, and in vitro research, among other things. Entrapment efficiency is higher in microspheres containing Carbopol, HPMC K100 and Sodium Alginate. A ten-hour in vitro drug release investigation was conducted. The produced microspheres could be used to distribute Glipizide for diabetic treatment in a regulated manner.

Keywords
Glipizide, HPMC K100, Carbopol, Sodium Alginate, Ionotropic Gelation Method

Biography
Subhajit Sarkar is a master of pharmacy (Pharmaceutics) student from NSHM Knowledge Campus, Kolkata-Group of Institutions. Currently, he is in the second semester.

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Formulation of Orodispersible Films of Lornoxicam and its Evaluation

Supriya Chandramouli
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.
Suraj S
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.
Dr. Amit B Patil
Associate Professor, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.

Abstract

Lornoxicam is a new Nonsteroidal Anti-Inflammatory Drug (NSAID) of the oxicam class, non-selective COX inhibitors. It has good analgesic, anti-inflammatory, and antipyretic properties. The present work aimed to formulate and evaluate Orodispersible films composed of Lornoxicam which was meant to manage pain post tooth extraction. The solvent casting method was employed to develop ODFs using Pullulan and HPC as film-forming polymers combined with glycerol. The optimized formulations were selected by incorporating the upper and lower limits of polymers into the factorial design to which the solubility-enhanced Lornoxicam was added. The evaluation parameters such as the disintegration time, thickness of the film, tensile strength, folding endurance, surface pH, SEM, and X-ray diffraction studies were conducted. The optimized formulations S5, S9, and the marketed formulation Lorsaid SD4 were subjected to in vitro dissolution analysis in the USP I dissolution apparatus for obtaining drug release data using simulated saliva media. The stability studies showed that the optimized ODFs were stable when stored at room temperature. All the results obtained from the evaluation studies were satisfactory and were within the specifications. The drug release profiles depicted that S5 and S9 have a rapid onset of action compared to Lorsaid SD4.

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In Silico Prediction and Characterization of Biosynthetic Gene Clusters in the *Staphylococcus Aureus Subsp. Aureus* NCTC-8325

Thanga Raj
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Vigneshwar
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Bharathan J
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Kamesh
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Dr. Rajesh Kumar R
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

Background: Biosynthetic Gene Clusters (BCGs) are group of genes that are encoded to produce specialized secondary, which helps producing strain to cope stresses required at particular physiological or developmental stages. Besides this they are of foremost therapeutic and industrial importance Thus, the goal of present work to identify and characterise the biosynthetic gene clusters from bacteria (STAPHYLOCOCCUS AUREUS SUBSP. AUREUS NCTC-8325) to link their expected production of secondary metabolites

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Methodology: The species was submitted to antiSMASH version 4.2.0 (Antibiotics and Secondary Metabolites Analysis Shell) and the integrated ClusterFinder algorithm, and hidden Markov model based probabilistic algorithm to detect BGC-like regions in genomes of unknown types, to identify both the characterized and unknown secondary metabolite biosynthesis gene clusters in the *Staphylococcus aureus* subsp. aureus NCTC-8325.Both modules were selected to identify similar clusters in sequenced genomes by genome comparisons.
Results: Observed that the *Staphylococcus aureus* subsp. aureus NCTC-8325 encode numerous NRPS, PKS, NRPS/PKS hybrid, and lanthipeptide gene clusters. The majority of the antiSMASH-identified putative BGCs showed 100% similarities with known clusters. One out of the total five antiSMASH-identified putative species BCGs exhibited varying degrees of similarity to known gene clusters.
Conclusion: Analysis of putative secondary metabolites BGCs in the *Staphylococcus aureus* subsp. aureus NCTC-8325 yielded a total of Five, ClusterFinder-identified one putative BGCs. The overall novelty and diversity of these BGCs provided convincing evidence that the species possesses broad potential to produce new metabolite products with novel structures and mechanisms.

Biography

Thanga Raj P is currently pursuing his Master's Degree (M Pharm) in Pharmaceutical Biotechnology at Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He had completed his Bachelor's Degree (B. Pharmacy) from JSS College of Pharmacy, Ooty, The Nilgris

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5-O-Acetylpinostrobin as Potential Agent of Breast Cancer with Estrogen Receptor Alpha: Cytotoxic Activity and Molecular Docking Study

Tri Widiandani
Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Mohammad Gerry Oxa
Undergraduate Student of Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Ersanda Nurma Praditapuspa
Master Student of Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Andi Suryadi
Master Student of Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Bambang Tri Purwanto
Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia
Siswandono
Department of Pharmaceutical Sciences, Faculty of Pharmacy, Universitas Airlangga, Mulyorejo, Surabaya 60115, Indonesia

Abstract

Breast cancer is currently one of the most common causes of death in women all over the world. Estrogen Receptor Alpha (ER-α) plays a major role in breast cancer pathogenesis because about 75% of breast cancers are associated with estrogen receptor expression. The purpose of this study was

to determine the cytotoxic activity of a pinostrobin derivative, 5-O-acetylpinostrobin, against breast cancer and normal cells, as well as to determine its interaction with ER-α by molecular docking. Cytotoxicity was tested using the MTT method against T47D and Vero cells. Molecular docking was determined using the MVD Ver.5.5 program. The results showed that the IC50 and CC50 values of the 5-O-acetylpinostrobin were 0.34 mM and 1.16 mM, respectively. The selectivity index value of 5-O-acetylpinostrobin is greater than pinostrobin, with an SI value of 3. Molecular docking results showed an interaction between the ligand and ER-α (PDB ID: 5W9C) through the formation of hydrogen bonds with Arg394; Thr347; Ala350 and clarified by the binding affinity with a slightly different rerank score of 5-O-acetylpinostrobin (-85.3151 kcal/mol) and co-crystal ligand OHT_601 (-95.1011 kcal/mol). It can be concluded that 5-O-acetylpinostrobin has the potential as an anti-breast cancer candidate with estrogen-alpha expression that works selectively.

Keywords
5-O-acetylpinostrobin, Breast cancer, Estrogen, Cytotoxic, Molecular docking

Biography
Tri Widiandani is a lecturer at Faculty of Pharmacy, Universitas Airlangga. She obtained her bachelor's degree in pharmacy at Faculty of Pharmacy. She was further persued her Specialist of Hospital Pharmacy and Doctoral degree at Faculty of Pharmacy, Universitas Airlangga. Her main courses is Medicinal Chemistry. Her research is focuses on virtual modeling, synthesis of biologically active compounds especially for cancer targeted.

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Effect of Formulation Variables of Gastro Retentive Floating Tablets of an Anti-Hypertensive Agent using Different Grades of Hydrophillic Polymers

Vamshi Krishna Lekkala
Research Scholar, Himalayan University, India
N Siva Subramanian
Research Guide, Himalayan University, India

Abstract

Losartan Potassium (LP) is an oral antihypertensive drug with active angiotensin -II receptor antagonist, and have narrow therapeutic index, short biological half-life (1-2h), poor bio availability (25-35%), Due to these reasons conservative dosage forms should administer 3-4 times per day to sustain plasma drug concentrations within the therapeutic window. To mitigate these disadvantages, sustained release gastro retentive floating tablets were fabricated to reinforce the patient compliance. Floating tablets were prepared with various grades of Hypromellose polymers along with combination of citric acid, Sodium bicarbonate and characterized (blend stage and core tablets parameters) to optimize the best formulation. Lubricated granules were characterized for bulk density, tapped density and compressibility index. The compressed tablets were characterized for physico-chemical characterization like assay, related substances, in vitro drug release friability, Hardness, etc. Based on the experimental observations and results, it was determined that LFT10 formulation prepared with combination of Metolose 90SH-4000SR and Metolose 90SH-100000SR was optimized as best formulation. Dissolution data of best formulation fitted in various mathematical models like zero, first orders, Higuchi, Hixon Crowell and Korsmeyer Peppas models and found that the drug release following non fickian diffusion mechanism and zero order kinetics. The finalized formulation (LFT10) also exposed to accelerated stability condition (40°C/ 75%RH) and found satisfactory as per ICH guidelines.

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Biography

Vamshi Krishna Lekkala is a formulation scientist and a Researcher. His research interest is development of modified release dosage with novel polymers or combination of various polymers using different manufacturing techniques. He is expertise in improving the solubility of low soluble drugs by Hot melt extrusion and spray drying techniques.

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Insilico Docking of Cyanidin on Molecular Proteins of Mitogen-Activated Protein Kinase (MAPK) Pathway

Thivya Rajeshwary.A
Mother Theresa Post Graduate and Research Institute of Health Sciences, India
Padmanaban.R
Mother Theresa Post Graduate and Research Institute of Health Sciences, India
Swethasri.S
Mother Theresa Post Graduate and Research Institute of Health Sciences, India
Vimalavathini.R
Mother Theresa Post Graduate and Research Institute of Health Sciences, India
Sindhuja.A
Mother Theresa Post Graduate and Research Institute of Health Sciences, India

Abstract

Mitogen-activated Protein Kinase (MAPK) pathway plays a pivotal role in cell proliferation, growth and survival process. Cyanidin is a naturally occurring flavonoid with antioxidant activity, anti-inflammatory activity, anti-apoptosis activity, anti-mutagenic activity and anti-carcinogenic activity. Though a naturally occurring anthocyanins with good anticancer, antioxidant and free radical scavenging activity the mode of these action of cyanidin is poorly established. Hence we propose that cyanidin may exhibit these activity by modulating the MAPK pathway. Thus the aim of our present study was to determine the effect of cyanidin on molecular proteins of MAPK pathway by insilico docking using Auto dock 4.2. The structure of cyanidin was imported and drawn in Marvin sketch. Nearly 12 molecular proteins of MAPK pathway were docked with cyanidin using Auto dock tools 4. 2 (version 1. 5. 6) software. The present study showed that out of 12 molecular proteins of the MAPK pathway, 11 molecules namely EGF, FGF, PDGF, RTK, RAS, MEK, RAF, ERK, JUN, FOS and SOS exhibited favorable binding energy above (-5kcal/mol) and formed nearly 1-3 hydrogen bonds. Cyanidin exhibited good inhibition constant of 215.32 µm with 1 hydrogen bond and binding energy of -5.00

kcal/mol for PDGFR. Cyanidin did not show favorable interaction with MAPK. Cyanidin modulates MAPK kinase pathway by inhibiting PDGFR and modulating EGF, FGF, PDGF, RTK, RAS, MEK, RAF, ERK, JUN, FOS and SOS. However further insilico and invitro studies are necessary to validate this claim of modulating MAPK pathway by cyanidin.

Biography

Working as Assistant Professor in Department of Pharmacology, College of Pharmacy, MTPG&RIHS, Puducherry, India. Research areas of interest are Drug interaction and Pharmacokinetic studies.

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Acceptance of COVID-19 Vaccines among Iraqi Pharmacy Students

Ghazwan Alhashem
Department of Pharmacy, AlSafwa University College, Iraq
Alaa Abdulhasan
Department of Pharmacy, AlSafwa University College, Iraq
Abbas
Department of Pharmacy, AlSafwa University College, Iraq
Osama Q. Fadhil
Department of Pharmacy, AlSafwa University College, Iraq
Karam A. Al-akkam
Department of Pharmacy, AlSafwa University College, Iraq

Abstract

This study aimed to evaluate COVID-19 vaccines acceptance and hesitancy among undergraduate pharmacy students of Iraqi public and private universities. A cross-sectional survey was conducted in May-June 2021 with randomly sampled pharmacy students from public and private Iraqi universities. The survey questionnaire consists of a total of 20 items evaluating acceptance of the currently available COVID-19 vaccines. A total of 346 respondents, (25.4%) male and 329 (74.6%) females, 50% were prepharmacy stages (first and second), 50% were pharmacy stages (third, fourth and fifth), (44.4%) of respondents reported that they would be completely or somewhat agree to take a COVID-19 vaccine, (7.2%) completely disagree to take COVID-19. (45.5) have previous COVID-19 infection, (54.5) have no previous infection, (48.6%). (9%) of infected cases were severe and hospitalized. (69%) of respondents were not yet vaccinated, (31%) vaccinated respondents. The preferences of vaccines among respondents were 49.1% Pfizer-BioNTech, (14.4%) Oxford-AstraZeneca, 6.6% Sinopharm and 29.9% stated that they will not take any vaccine. There was a significant association

between female gender and acceptance of the vaccine. Moreover, the acceptance of vaccines was significantly associated with the previous infection. In conclusion, Iraqi Pharmacy students' current levels of COVID-19 vaccination and/or willingness to vaccination are insufficient. Female and previously infected students were more agreeable to take the vaccine. It is recommended to implement.
Biography: Alaa Abdulhasan Abbas is a lecturer in the pharmacy department at AlSafwa University College. He received a bachelor's degree in pharmacy from Al-Mustansiriya University and a master's degree in pharmaceutical chemistry from Baghdad University, Baghdad, Iraq. His current field and interests are drug design and pharmaceutical care researches.

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Social Media's Impact on Pharmacovigilance

Anuj Kumar Singh
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India
Alin Bose J
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India
Vasanth Raj P
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India
Raman Rajeshkumar
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education &Research, India

Abstract

Because of the exponential growth in technological advancements over the last several years, there have been various improvements in the healthcare and pharmaceutical industries. Apart from the fact that technology has enhanced our machines by making them faster and more effective, it has also exposed us to new concepts such as Artificial Intelligence (AI) and Social Media (SM). Over the last few years, social media has experienced a meteoric rise in popularity. Almost everyone today possesses a smartphone and has access to the World Wide Web, thanks to the increased accessibility and affordability of internet-based services in recent years. Social media has evolved into a platform that can be used for not only entertainment, but also education and information gathering as well as networking. According to recent reports, sharing information between patients is considered one of the most important trends in digital healthcare. Patients can more easily express their symptoms and diagnosis on social media, which helps them to feel less alone in their struggles. Although self-medication and patients mindlessly following whatever information or remedy, they discover on the internet are on the rise, there is also an increase in patients who self-medicate. When it comes to

pharmacovigilance, this is a considerable hurdle in terms of identifying relevant and high-quality data and mining data from the daily deluge of information. This influence looks to be increasing as the number of people using social media grows on a daily basis and the internet becomes more widely available to everyone. On a daily basis, people are overwhelmed with new information and content, much of which is misleading and can frequently lead to serious health problems.

Keywords
Social media, Pharmacovigilance, self-medication, Health Problems

Biography
Anuj Kumar Singh is currently pursuing his Master's degree (M. Pharm) in Pharmaceutical Biotechnology at Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, the Nilgiris. He had completed his Bachelor's degree (B. Pharmacy) from School of Pharmacy, ITM University, Gwalior, M.P.

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Development and Optimization of Nebivolol Hydrochloride Loaded Nano- Transferosome Patches for Transdermal Drug Delivery

Aparanjitha.R
University College of Pharmaceutical Sciences, India.
Sunitha Reddy.M
Center for Pharmaceutical Sciences, India.
Sarangapani.M
University College of Pharmaceutical Sciences, India.

Abstract

Introduction: High blood pressure, is a major risk factor for death in cardiovascular patients. The medication for these diseases are less and difficult to overcome the problems present in dosage regimen. Objective of the current research is to design and develop nebivolol hydrochloride loaded nano-transferosomal patches for transdermal delivery for the treatment of hypertension.
Methods: Transferosomes formed with the help of soy lecithin and surfactant (labrosol, Tween 80, Span 80) act as an edge activator. The morphology, entrapment efficiency, the size and zeta potential of transferosomes were evaluated. The optimized transferosomes were further made into patch with the help of HPMC 5cps and PVP using water as a solvent.
Results and discussion: The formulations used were evaluated for various parameters, like in vitro skin permeation, skin irritation in-vivo. The optimized formulation (T8) is established with vesicle size, high efficiency and marked improvement in transdermal permeation. The drug maximal concentrations (Cmax) of it was declared to be short while the Area Under Curve (AUC), as well as Mean Residence Time (MRT), were enhanced. The research suggest that the prepared nano vesicles are prominent carriers for transdermal delivery of drugs.

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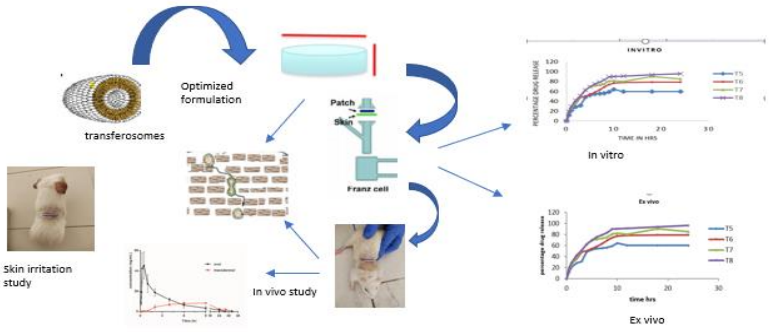
Keywords
Nebivolol hydrochloride, transferosomes, transdermal drug delivery.

Graphical abstract



Biography

Gupta, A., Aggarwal, G., Singlam, S., Arora, R., 2012. Transfersomes: a novel vesicular carrierfor enhanced transdermal delivery of sertraline: development, characterization, and performance evaluation. Sci. Pharm. 80, 1061–1080. https:// doi.org/10.3797/scipharm.1208-02.

Mohamed Kassem, G.A., Abdel – Moneim Ahmed, M., Hanaa Abdel Rahman, H., Amira Moustafa, H.E., 2019. Use of Span80 and Tween80 for blending gasoline and alcohol linspark ignition engines. Energy Reports 5, 221–230. https://doi.org/10.1016/. egyr.2019.01.009.

Qushawy, M., Nasr, A., Abd-Alhaseeb, M., Swidan, S., 2018. Design, Optimization and Characterization of a Transfersomal Gel Using Miconazole Nitrate for the Treatment of Candida Skin Infections. Pharmaceutics 10, 26. https://doi.org/10.3390/ pharmaceutics10010026.

Rai, S., Pandey, V., Rai, G., 2017. Transfersomes as versatile and flexible nano-vesicular carriers in skin cancer therapy: the state of the art. Nano. Rev. Exp. 8, 1–18. https:// doi.org/10.1080/20022727.2017.1325708.

Rane., Bhushan Rajendra, Gujarathi., Nayan Ashok, 2017. Transfersomes and Protransfersome: Ultradeformable Vesicular System, Novel approach for drug delivery. IGI Global, pp. 149–169. https://doi.org/10.4103/2231-4040.85524

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Comparative Assessment of the Effects of Canagliflozin and Sitagliptin in Scopolamine Induced Cognitive Impairment in Rat

Arpan Adak
Department of Pharmacology, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India
Dr. Mamta F. Singh
Department of Pharmacology, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India

Abstract

Background: Dementia is a type of cognitive impairment that interferes daily functioning. Brain acetylcholine choline, oxidative stress and many other factor are the pathological hallmarks for cognitive impairment. Based on literature survey canagliflozin and sitagliptin are the novel antidiabetic drug that's can treat cognitive impairment in rat by their unique mechanisms.
Methods: Cognitive impairment was induced by scopolamine 3 mg/kg, i.p. given for a period of 7 days. The demented animals were treated with canagliflozin and sitagliptin at 3 dose level for 14 days. After induction period by scopolamine behavioural parameter were evaluated. The tests were performed for evaluation of learning and memory capacity. Treatment with canagliflozin and sitagliptin for 14 days different biochemical parameters were evaluated. Histopathological evaluation was performed for both dugs.
Results: Scopolamine given for 7 days caused induction of cognitive impairment. Treatment with canagliflozin and sitagliptin for 14 days showed gradually decrease on brain acetylcholinesterase, calcium, LPO level and increase SOD and GSH level. Canagliflozin and sitagliptin treatment on total cholesterol and HDL level showed slightly increase. Histopathology of canagliflozin and sitagliptin treatment showed lowering of neuroinflammation.
Conclusion: Result of the study conclude that both canagliflozin and sitagliptin showed most promising effects at highest dose level.

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Biography

This is Arpan Adak from West Bengal, India. I am a Drug Safety Associate. I have done my masters in Pharmacology from Sardar Bhagwan Singh University and present my research work which suggests the comparative assessment of the effects of canagliflozin and sitagliptin in scopolamine induced cognitive impairment in rat.

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Past, Present and Future of Clinical Research in India

Arpan Bera
Bioequivalence Study Centre, Department of Pharmaceutical Technology, Jadavpur University, India.
Dibya Das
Department of Pharmaceutical Technology, JIS University, India.
Himangshu Sekhar Maji
Department of Pharmaceutical Technology, JIS University, India.
Sanmoy Karmakar
Bioequivalence Study Centre, Department of Pharmaceutical Technology, Jadavpur University

Abstract

Clinical Research is a part of medical science which ascertains the effectiveness and safety of treatment regimens, diagnostic products, devices and medications directed for human use. The progression of Clinical Research spans through an enchanting corridor of time and events. From the pre-Christ era primitive trials by King Nebuchadnezzar to the famous Scurvy Trial of 1747, carried out by Physician James Lind and the recent Global Pandemic of COVID-19, the field of Clinical Research has emerged as an indispensable pillar of Medical Sciences. The process of Clinical Research is spread over four phases, which forms the basis of all activities carried out by all stakeholders. As of 2017, India is expected to become one of the hotbeds of all Clinical Researches conducted globally thanks to the Simplification of Regulatory Procedures in the country, Encouragement of local stakeholders and the latest proactive steps taken by the Drug Control General of India to encourage pharmaceutical firms to carry out regulated trials. India offers a huge pool of physicians and medical technicians, data specialists, a genetically diverse population in need of medical treatment, a good regulatory framework, and an economical advantage to all stakeholders, which in the context of the growth of Clinical Research as an industry/ Service offers a huge prospect in the coming years.

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Key Words
Clinical Research, Drug Control General of India, Regulatory Procedures, Genetically diverse population.

Biography
I, Mr. Arpan Bera (B. Pharm), am currently pursuing Post-Graduate Diploma in Clinical Research and Regulatory Affairs from Jadavpur University, Kolkata, West Bengal, India.

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Phenytoin Loaded Copper Nanoparticles used in Wound Healing

Bhawana Chand
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, Balawala, India
Manoj Kumar Sarangi
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, Balawala, India

Abstract

Copper nanoparticles is known as antimicrobial activity and it is used in healing elements in wounds in skin remodulation and anti- inflammatory therapies. Copper Nanoparticles have a wide variety in the field of optics, electronics and antimicrobial activity and applied in wound healing, skin remodulation and anti-inflammatory therapies. It also helps to reduce the microbial load at the site of wound and enhances the healing. Copper nanoparticle attracted toward themselves due to its cheaper cost. Copper Nanoparticles have one of the most compatible activity of cell proliferation also copper nanoparticles mostly come under the range of 1-1-100nm. Anti-microbial activity of copper helps to reduce the microbial load at the site of wound and enhance the pace of healing. Copper nanoparticles has been synthesis by various routes including chemical reduction, thermal decomposition, the polyol method, reverse micelles, electron beam irritation, micro- emulsion techniques, wire explosion and in situ chemical synthesis. Copper Nanoparticles have catalytic activity and better bioavailability, compared with its native form. The Nanoparticles were synthesized in an aqueous solution CuSo4.5H2O precursor. The synthesis proceeded with addition of ascorbic acid as anti-oxidant and sodium borohydride as a reducing agent. The drug used in preparation is phenytoin for wound healing activity. Phenytoin is a well-known anti-epileptic drug that treat various seizures such as tonic clonic seizures. Phenytoin help in vascularization by stimulation fibroblastic activity and other tissue components. Phenytoin is a valuable cell proliferating heling agent which stimulates healthy tissue formation.

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Biography

A Bhawna Chand is pursuing in M. pharmacy of Pharmaceutics specialization in Sardar Bhagwan Singh University, Balawala, Dehradun, Uttarakhand -248161. She's completed her Bachelor of pharmacy in 2019 from Sardar Bhagwan Singh University, Balawala, Dehradun, Uttarakhand.

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Therapeutic Moral through Traditional Medicine on Transplacental Genotoxicity Caused By Modern Medicines in Pregnant Women

Camellia Roy
CEFTE, SRIHER, India
V. Gayathri
Faculty of Pharmacy, SRIHER, India

Abstract

Regardless of the mutilation caused by certain drugs, today's generation prefers to treat disease conditions quickly or leave them untreated. Overall, our concern is about everyone's lifestyle, especially pregnant women's, and the medications they get exposed to during their pregnancy. According to the National Institutes of Health, the most commonly reported pregnancy complications are spontaneous abortion, hypertension, gestational diabetes, allergies, preeclampsia, premature labor, depression and anxiety, and functional or metabolic abnormalities. Anti-emetics, antacids, antihistamines, analgesics, antimicrobial drugs, diuretics, sedatives, social and illegal drugs, and other drugs prescribed for the complications, and their usage is increasing. These drugs reach the fetus via the placenta within 30 to 60 minutes depending on factors such as gestational age at the time of exposure, placental patency, maternal factors, drug efficacy, and drug dosage. During the first 12 weeks of pregnancy, the developing fetus is more sensitive than the mother. Despite the above-mentioned tendency, no evidence-based guidelines for drug use during pregnancy exist. As a result, our research intends to develop a traditional medicine-based treatment for transplacental genotoxicity produced by modern medicines.

Biography

Ms. Camellia Roy is pursuing her Ph.D. in Clinical Research and completed M.Sc. Biotechnology being a university topper from Guru Nanak Institute of Pharmaceutical Science and Technology, West Bengal, India in, 2019. Her area of research is in the field of toxicology and pharmacology.

She has worked and earned experience at OECD, AAALAC, and Good Laboratory Practice (GLP) certified pre-clinical test labs investigating toxicity in both *in vivo* and *in vitro*.

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Docking-based Strategy to Design Novel Isatin Derivatives as Potent MAO-A Inhibitors with Prediction of their Drug-likeness and ADMET Properties

Divya Sreepada
University College of Pharmaceutical Sciences, India
Sarangapani. M
University College of Pharmaceutical Sciences, India

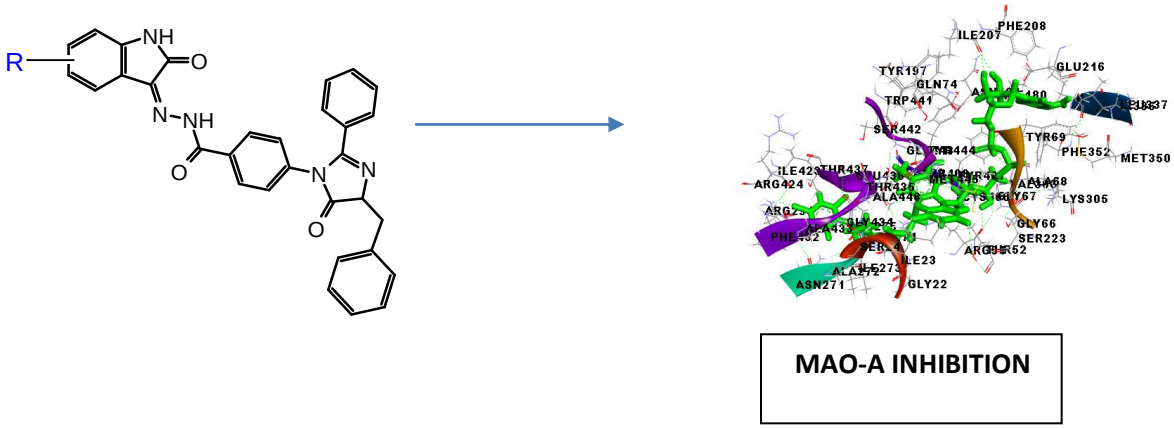
Abstract

CNS disorders are major and serious health problems affecting large number of population in the world. Mono Amine Oxidase (MAO) inhibitors were found to have pharmacological significance in treating CNS diseases. MAO-A inhibitors were found to have predominant antidepressant activity. A novel series of ten Isatin derivatives were designed and docked against MAO-A enzyme. The drug-likeness and ADMET properties of the compounds were predicted using Swiss ADME software. The 3D crystal structure of MAO-A enzyme used for docking was obtained from RCSB protein data bank (PDB ID: 2BXR). Molecular docking studies were performed using Auto Dock 4.0 software. The ligand-receptor interactions, 3D and 2D visualizations of complexes were studied using Discovery studio visualizer. The docking results revealed that most of them bind strongly to active site of the enzyme with binding energies ranging from -4.85k.cal/mol to -13.58k.cal/mol. Ligands with R=5-H and R=5-Cl have shown best binding affinity of -13.58k.cal and -13.37k.cal respectively. They formed hydrophobic interaction and hydrogen bonds with MAO-A enzyme's amino acids. Studies also revealed that binding energies of compounds were better than that of standard drug, Clorgiline (-7.95k.cal/mol) and also showed good ADMET properties. This study provided a valuable approach for synthesizing more potent antidepressants.

Key words

MAO-A, Molecular docking, Binding energy, Depression

Graphical Abstract



Bibliography

- Tavari, M., Malan, S. F. & Joubert, J. Design, synthesis, biological evaluation and docking studies of sulfonyl isatin derivatives as monoamine oxidase and caspase-3 inhibitors. *Medchemcomm* **7**, 1628–1639 (2016).
- Kerzare, D. R., Menghani, S. S. & Khedekar, P. B. Synthesis, characterization, antidepressant activity and docking studies of some novel indole bearing azetidinone derivatives. *Indian J. Pharm. Educ. Res.* **52**, 110–121 (2018).
- Anna P. Nikalje., Altamash Ansari., Sanjay Bari & Vinod Ugale. Synthesis, Biological Activity, and Docking Study of Novel Isatin Coupled Thiazolidin-4-one Derivatives as Anticonvulsants. *Arch. Pharm. Chem. Life Sci.* **348,** 1–13 (2015)

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Effect of Enoxaparin on D-Dimer Level in Hospitalized COVID-19 Patients: An Observational Study

Nayak Ayasha
Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), India
Dr. Akshey Bhargava
Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), India
Rath Bhabagrahi
Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), India
Sahu Yajnesh
Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), India

Abstract

Introduction– Coronavirus disease 2019 (COVID-19), is associated with a severe coagulopathy for which optimum strategies ought to be developed for early treatment. D-dimer, a fibrin degradation product, is raised in critical COVID-19 pneumonia and increases mortality. Enoxaparin has shown beneficial results in prevention and treatment of hypercoagulability but there is lack of evidences. So our aim was to evaluate changes in D-dimer level before and after treatment with subcutaneous enoxaparin in COVID-19 patients.

Methodology– It was an observational study with data collected from 86 patients admitted to COVID hospital, VIMSAR, Burla, Odisha, from May to September 2021.Medical records of all hospitalized COVID-19 patients with D-dimer $> 0.5 mg/l$ and prescribed enoxaparin (40mg s.c.) were analyzed. D-dimer level was evaluated before and after treatment with enoxaparin (on the day of admission and on day 5).

Results – 86 case records were analyzed and there was significant reduction in D-dimer level in COVID patients after subcutaneous enoxaparin (z value= -5.265, p value <.ooo1). **Statistical Analysis -** Data analysis was done in SPSS software version 21 using Wilcoxon Signed Ranks Test.

Conclusion – Subcutaneous enoxaparin causes significant reduction in D-dimer level in COVID patients.

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Biography

I am Dr Ayasha Nayak doing my Second Year Post Graduate Resident, Department of Pharmacology, Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), Burla, India.

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CONTRACEPTIVE PILLS":- A Dental Nightmare!



Dr.Kumar Sougata
Dr.Sree ChandanaShreya Sivalanka
Dr.Nitya Jha

Abstract

Background: - An estimated 7 million women in India alone use oral contraception. With more than 20.56 billion at stake and a forecasted growth of 5.8% by the year 2026 alone it's a long run before we actually stop to turn a leaf and think about the impact this pharmaceutical idea has had on our body especially our oral structure, but that of course isn't mentioned on the caution list! From tooth extractions to life-long periodontal problems the intimacy of the "pill" on our body weighs beyond the facts that have been discussed or assured of so far. Well! While the previous generations surely did boast of oral contraception we are now in the era of injectable ones. Although innovations and necessities of evolving has changed the very course of our fragmented imagination however the fundamental question regarding our body is always a matter of our future selves, so shouldn't we be well informed?

Aim of the Study: To assess the curious relationship of birth control "pill"/contraception and dental health.

Research Question: Is there a need to redefine our thought processes before using birth control contraception?

Materials & Methods: With the MEDLINE database taken as a source for authenticated scientific research data, articles were selected having undergone Randomized Control Trial. Out of these, articles (studies) were chosen which met the criterion for Systematic Review.

Results & Conclusion: Since the study is still in progress, the results will be discussed at the venue on the day of the conference

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Biography

Author: - Dr.Kumar Sougata (BDS) is a dental student and is currently interning at the United Nations Volunteering Program in Uganda he has been a part of several national and international conferences and has authored papers for several national and international journals.

Co-Author:- 1. Dr. Sree Chandana Shreya Sivalanka (BDS) is currently a practicing dentist. Quite often she navigates the world of dentistry and health care with a passionate heart and a concerned mind. She has represented her college and university in several national and international dental competitions. She is currenty working in a dental clinic in Hyderabad.

2. Dr.Nitya Jha – (BDS) is currently practicing dentistry as an independent practioner in the city of Mumbai. She has been associated with a number of papers and scientific research journals for the past few years.

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Comparative Study between the Safety and Efficacy of Phenylephrine and Mephentermine in the Management of Hypotension Induced by Spinal Anaesthesia

Dr Manjula MJ
Senior resident, Department of Pharmacology, Hassan Institute of Medical Sciences, India.
Dr Sahana GN
Assistant Professor, Department of Pharmacology, Hassan Institute of Medical Sciences, India
Dr Nagesha KA
Associate professor, Department of Anesthesiology, Hassan Institute of Medical Sciences, India

Abstract

Introduction: Spinal anaesthesia induced hypotension, commonest side effect with the prevalence of 16-33% Due to preganglionic sympathetic blockade resulting in vasodilation and pooling of blood in the lower limbs. Elevation of the Patient leg, head down tilt and use of pressure stockings augment venous return and increase cardiac output and sufficient to restore blood pressure to an acceptable level.

Ephedrine/Norepinephrine was the first agent to be used successfully to treat hypotension induced by spinal anaesthesia. Mephentermine is the most commonly used drug but it is known to cause tachycardia. Phenylephrine is alpha agonist, α1 mediated vasoconstrictor action, causes elevation in blood pressure. Does not have much cardiac side effects and hence better drug in patients with cardiovascular comorbid conditions.

Objectives: To compare the efficacy and safety of Phenylephrine and Mephentermine in spinal anaesthesia induced hypotension.

Methodology: After Ethics Committee clearance, recruited 100 patients, posted for operation from the department of Surgery, Orthopaedics, Gynaecology and developed hypotension followed by spinal anaesthesia were recruited for the study based. Divided into two groups by simple randomization, 50 patients in each group. One group had received 100mcg i.v bolus dose of Phenylephrine another group received 6mg/i.v bolus dose of Mephentermine.

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Results: BP fall and recovery time showed moderate significance. Least recovery time was in Phenylephrine group (6.08±3.53) and whereas 7.42±4.00 for Mephentermine group. Statistically significant variation in heart rate was seen after administration of Mephentermine but was insignificant clinically. Variation in the systolic, Diastolic and Mean arterial pressure were not significant.

Conclusion: Phenylephrine and Mephentermine are equally efficacious in controlling the hypotension due to spinal anaesthesia. Phenylephrine comparatively needs lesser time to show recovery with lesser number of bolus doses. Phenylephrine is better drug in patients who are prone to develop tachycardia.

Biography

I have done three oral presentation and one poster so far, in different conferences. Have published three of my articles. Have been awarded for oral presentation under junior scientist and young research forum. Hobbies being writing motivational short poems, photography, trekking and travelling.

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A Systematic Review on Novel Antifungal 1,3 Beta-D-Glucan Inhibitor Role in Resistant Vulvovaginitis

Shoebul haque
PG Resident, Department of Pharmacology & Therapeutics, King George Medical University, India.
Farah Asif
PG Resident, Department of Pharmacology & Therapeutics, King George Medical University, India.
Rajendra Nath
Professor, Department of Pharmacology and Therapeutics, King George Medical University, India.
A.K. Sachan
Professor, Department of Pharmacology and Therapeutics, King George Medical University, India.
R.K. Dixit
Professor, Department of Pharmacology and Therapeutics, King George Medical University, India.

Abstract

Introduction: Vulvovaginal candidiasis is a common infectious disease that markedly impacts the quality of life of young females. Echinocandins are utilized as the first-line treatment in resistance cases. However, they are only available intravenously and themselves resistant to different Candida species. IBX is a member of a new FDA-approved glucan synthase enzyme inhibitor that interferes with the formation of the fungal cell wall polymer ß-(1,3)-D-glucan. They inhibit the growth of resistant Candida species by acting on alternate catalytic sites.

Aim and Objectives: This study aims to assess the antifungal effect of IBX in resistance cases of vulvovaginitis

Material and Methods: PubMed, Scopus, and Google scholar databases are used to search with the proper keywords such as IBX, Oral antifungal, glucan synthase inhibitor, vulvovaginal candidiasis by using the publications published from July 2018

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Results: Among 120 articles retrieved from initial database searches. After the exclusion of 113, 7 articles were included in final analysis. According to the extracted data, there is a significant antifungal activity of IBX in vulvovaginitis
Conclusion: All 7 studies verified that IBX is a optimistic antifungal agent for the treatment of vulvovaginal candidiasis. There are advances in favour of IBX like low toxicities, better activity in tissues at low pH, tissue penetrating activity for invasive disease, due to low drug-drug interaction can be used in infection caused by multiple microorganisms in developing countries.

Keywords
Ibrexafungerp (IBX), Oral antifungal, glucan synthase inhibitor, vulvovaginal candidiasis

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In Vitro Antiviral Potential of *Myxopyrum Serratulum* and Its Nanoparticle against PPRV and GPV

Dr. K. Sujatha
Sri Ramachandra Faculty of Pharmacy, Sriher (Du), India

Dr. S. Manoharan
Vaccine Research Centre - Bacterial Vaccines, Centre for Animal Health Studies, India.

Abstract
In an attempt to discover new antiviral agents from natural herbal product, ethanolic extract of *Myxopyrum Serratulum* and its nanoparticle were assessed for their antiviral activities by *in vitro* method using *Peste des Petits Ruminants* Virus (PPRV) and Goat Pox Virus (GPV) in the Vero cell system by cytopathic effect inhibition assay method. The nanoparticles of *Myxopyrum serratulum* with polymer was prepared by solvent evaporation method and characterized by various techniques. The study showed that *Myxopyrum serratulum* extract and its nanoparticle are capable of inhibiting 99% of GPV and 98% PPRV *in vitro*. Results demonstrated that both extract and nanoparticle exhibited antiviral activity with different degrees of potency. This indicates that active principle(s) of extract either inactivated the virus or inhibited the viral release. These results suggest that ethanolic extract of *Myxopyrum Serratulum* and its nanoparticle could be a potential natural antiviral agent for management of PPR and GPV disease.

Biography
Committed teacher with 25 years of experience to provide the students with the highest possible quality education and mentor students for their overall development. Organized guest lectures on Pharmacy Education, Faculty Development Programs, workshops and Journal club. Co-authored a chapter in Elsevier publication and published 50 papers including 2 international research papers in Bio organic and medicinal chemistry letters with a total citation of 517, h-index 9 and i10-index 6 and a cumulative impact factor of 35.48. Academic Research Guide to several current/past UG, PG, PhD projects. Editorial Board member and reviewed the research articles of various journals.

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Evaluation of Analgesic Potential of Methanolic Extracts of Paddy Clove Leaves in Swiss Albino Mice

Mohammad Shamim Qureshi
Anwarul Uloom College of Pharmacy, India.
A Venkateshwar Reddy
Anwarul Uloom College of Pharmacy, India.
Lubna Nousheen
Anwarul Uloom College of Pharmacy, India.

Abstract

Ludwigia perennis L. (Paddy Clove) is a weed of wet rice fields, banks of channels and diverse muddy places belonging to the family Onagraceae and that has not been investigated before. The present study aimed to explore the analgesic activity of *Ludwigia perennis* leaves methanolic extract of (LPLME) using acetic acid writhing reflex method formalin-induced paw licking, hot plate method and tail immersion test models. The involvement of opioid receptors in the analgesic mechanism was investigated using naloxone antagonism. Results demonstrated that LPLME exhibited a potent dose-dependent analgesic activity in all tested models for analgesia. The analgesic effect involved activation of opioid receptors in the central nervous system, where both spinal and supraspinal components might be involved.

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Study on Drug Therapy Problems (DTPs) in Hypertensive Patients with Cardiovascular Diseases (CVD) at Multispecialty Teaching Care Hospital, South India – A Prospective Study

Dr. R.A.M.Jainaf Nachiya
Dept.of Pharmacy, BS.Abdur Rahman Crescent Institute of Science and Technology, India
Dr.S.Parimalakrishnan
Dept.of Pharmacy, Annamalai University, India.

Abstract

To study and identify risk factors on DTPs in hypertensive subjects with CVDs diseases. The prescriptions' analysis investigated for the period of 360days from March 2020 to April, 2021. The analyzed data gathered from hospitalized discharged patients at multispecialty care teaching hospital rural counterpart, using PCNE Tools. The highest subjects were geriatrics, average age ≥60, they received ±12 polypharmacy. Total of 344 DTPs was identified from 75 hospitalized discharged subjects. Among them, 94.5% had one DTP, an average 2.0 ± 1.4 DTPs/subject. The frequent DTPs were identified for the following clinical domains: Adverse reactions 9%, Therapy not administered/followed 35%, unawareness of health and diseases 68%, drug interactions 35%, inappropriate drug choice 30% and administration of dosing intervals 25%, forgets to use drugs 43%, and then followed by, unclear instructions 22.5%, missing dose 8%, and unreadable prescription 25% and without package size 50% were identified by technically. The most prescribed drugs were Lasix, Envas, Amlodipine, Atorvastatin, Clopidogrel and Metformin received due to elderly age, length of hospital stay, CVDs diseases, and multiple comorbidities. Risk factors versus six domains and causes were proved statistically significant. In this study, unawareness of health and diseases subjects identified highly, due to uneducated from the rural counterpart.

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A Prospective Randomised Study of Propofol and Etomidate on Recovery Profile and Adverse Effects in Electrconvulsive Therapy

Skandshree B S
Rajiv Gandhi University of Health Sciences/Mysore Medical College and Research Institute, India.
Hema N G
Rajiv Gandhi University of Health Sciences/Mysore Medical College and Research Institute, India.
Dinesh G Rao
Rajiv Gandhi University of Health Sciences/Mysore Medical College and Research Institute, India.

Abstract

Background:
Electroconvulsive therapy or ECT involves the induction of a generalized therapeutic seizure that serves to treat and improve psychiatric patients symptomatically. Anaesthetic agents are used in the currently practiced modified ECT regimen .A successful ECT treatment apart from providing adequate seizure should also ensure quick and smooth recovery from the induction period and have minimal adverse effects.

Objectives:
1.To compare the two anaesthetic agents, Propofol and Etomidate in terms recovery profiles and adverse effects when used in modified ECT.

Methods:
After Institutional Ethical Committee approval, eighty adult patients of both sexes, admitted to the Psychiatry department of Krishna Rajendra Hospital, from October 2017 to May 2019 requiring ECT, were selected for this study. The patients after randomization, assigned in group A received Intravenous Propofol 2mg/kg and those in group B received Intravenous Etomidate 0.3mg/kg as an induction agents.

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Results:
Propofol showed a faster recovery compared to Etomidate with p value = 0.0001 Etomidate group on the other hand had fewer adverse events than Propofol group.

Conclusion:
Propofol is assessed to have a better recovery than Etomidate as induction agent in modified ECT. Etomidate on the other hand is found to be safer with fewer adverse effects .

Biography

I am Dr Skandashree B S currently working as a senior resident at HIMS, Hassan. Pharmacology and research has always fascinated me through my days of primary medical education. Research stimulates learning and knowledge giving birth to greater dimensions of understanding .As a budding researcher I have few publications and presentations to my name. I look forward to make ample contributions in the future.

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The Science Behind the Scents: Their Effect on Human Senses

Dr. Akshaya Sridhar
Sri Ramachandra Institute of higher education & Research, India.

Abstract
Dentistry has emerged as one of the invincible branches of healthcare sector. However, one of the most common area of concern in bridging the gap between patient and a dentist is the fear and anxiety about the dental set up and treatment processes; mostly due to previous traumatic experiences or word of mouth tales from acquaintances.
Aromatherapy can serve as one of the effective means of attempting to solve this hurdle. It is a type of complementary and alternative medicine that utilizes plant oils which give off strong pleasant aroma to promote relaxation, a sense of well-being, and healing.
There are a multitude of studies pertaining to applications of aromatherapy in the horizons of holistic medicine; Therapeutic applications of these essential oils are a procedural aspect of any dental organization. This presentation attempts to highlight the existing evidence and prospective scope regarding maximum effectuation of Aromatherapy in the dentistry.

Biography
Dr. Akshaya. S is a Dentist from Sri Venkateshwaraa Dental College, Puducherry, pursuing her final year post-graduation in Clinical Research at Sri Ramachandra Institute of Higher education & Research, Chennai. She has 2 book chapters publication to her credit and her research works are in the process of publication.

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Preparation and Physicochemical Characterization of Succinyl Chitosan Coated Liposomes for Oral Delivery of Grape Extract and Evaluation of its Effect on Pulmonary Fibrosis Induced by Bleomycin in Rats

Neda Bavarsada
Ahvaz Jundishapur University of Medical Sciences, Iran
Ali Asghar Hemmati
Ahvaz Jundishapur University of Medical Sciences, Iran
Fateme Jafarian
Ahvaz Jundishapur University of Medical Sciences, Iran
Azar Mostoufie
Ahvaz Jundishapur University of Medical Sciences, Iran
Amir Siahpooshd
Ahvaz Jundishapur University of Medical Sciences, Iran
Mohammadreza Rashidi Nooshabadi
Ahvaz Jundishapur University of Medical Sciences, Iran
Esrafil Mansouri
Ahvaz Jundishapur University of Medical Sciences, Iran

Abstract

Background: Pulmonary Fibrosis (PF) is a fibroproliferative lung disorder with unknown etiology. This study aimed to develop an oral succinyl chitosan-coated liposomal formulation containing grape seed extract and evaluate the therapeutic effects of the preparation on pulmonary fibrosis induced by bleomycin in rats.

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Methods: N-acetyl succinyl chitosan was synthesized, the formulations were prepared using probe sonication method and characterized for the size, encapsulation efficiency, and FESEM liposome morphology. Drug release from liposomal formulations was checked in vitro using dialysis bag diffusion technique. Rats were divided into 5 groups of 6 and pulmonary fibrosis was induced by intratracheal injection of bleomycin, then measurements of hydroxyproline, lung weight, animal body weight, and histopathological studies were performed.
Results: The results show that coated liposomes with succinyl chitosan have suitable resistance to acidic conditions. Succinyl chitosan increases the physical stability of the formulation. The Grape Seed Extract (GSE) was successfully loaded into liposomes and the loading percentage was more than 90%. The results of zeta potential of the selected formulation (CF2) confirmed the homogeneity of the formulation. Drug release studies show that 66.27% of the loaded drug was released from CF2 in acidic medium in 2 hours but in pH=7 medium, 92.31% of the drug was released in 8 hours. In vivo study showed that rats exposured to bleomycin alone significantly reduced weight, and body weight of those treated with CF2 (400 mg/kg) was partly corrected, but there is still a significant difference compared to that of normal saline group. The results showed that receiving bleomycin increased the mean lung weight of rats; the mean lung weight of rats in the bleomycin group was 5.4 ± 0.96 g, but the mean lung weight of rats in the group treated with 400 mg/kg CF2 was 3.22 ± 0.46 g. According to the Tukey HSD test, the lung index of the normal saline group was significantly different from the bleomycin and CF2 groups of 400, 200, 100 mg/kg. The highest amount of hydroxyproline was observed in bleomycin group. Treating with 400 mg/kg CF2 caused a significant reduction ($p<0.05$) in hydroxyproline amount compared to the bleomycin group. But there is no significant difference in comparison with that of the normal saline group. The results of histopathological examination showed that alveoli and the wall between them were normal in normal saline group and no pathological changes were observed. Tissue damage was significantly observed and in bleomycin group treating with 400 mg/kg CF2 resoled in a significant improvement in pathological damage compared to the bleomycin group.
Conclusion: The results of this study showed that oral administration of N-succinyl chitosan-coated liposomal formulation containing grape seed extract in a dose of 400 mg/kg would lead to an improvement in pulmonary fibrosis caused by bleomycin in rats.

Keywords
pulmonary fibrosis; succinyl chitosan; grape seed extract; liposomes

Biography
My name is **Fateme Jafarian**. I was born in February 1993. I understand Arabic, Persian and English well. Due to having a good grade point average, I was able to be accepted in the field of pharmacy in 2016. And in 2018, I received a pharm.D degree. I work in an infertility clinic now

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The Effect of Topical Quercetin Loaded Liposome on Pressure Ulcer Healing in Rats

N. Bavarsad
Nanotechnology Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran and Department of Pharmaceutics, Faculty of Pharmacy, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

N. Sistani Karampour
Department of Pharmacology, Faculty of Pharmacy, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

G. Hemmati
Student Research Committee, Faculty of Pharmacy, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

A. Rezaie
Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Abstract

Quercetin antioxidant properties could play an important role in various fields of health. However, its use has been limited because of several disadvantages such as very low solubility in water and high instability in the presence of air, light and heat. Encapsulation of quercetin in nanostructure systems such as liposome may lead to decrease the adverse effects and protect this molecule against degradation. The aim of this study was preparation and in-vitro and in-vivo evaluation of liposomes for topical delivery of quercetin to improve the pressure ulcers. Liposomal formulations were prepared by fusion method and characterized. The amount of drug retained in and penetrated through mouse skin after 8 hours were determined. Also microscopic and macroscopic examination of laboratory animals was performed. Encapsulation efficacy of liposomes was in range 64.66-77.83%. Formulation F4 showed maximum drug release in 8 hours and the remaining drug in the skin layers was more than 46%. Histological investigation suggested that F4 and phenytoin 1% cream have the healing effect on

the pressure ulcer during 28 day-treatment. Quercetin liposomes due to its natural structure and minimal systemic absorption and side effects can be a suitable candidate for the treatment of pressure ulcers.

Key words
Fusion; Liposome; Pressure ulcer; Quercetin; Topical delivery

Biography
G. Hemmati born in 1993/04/24 in Iran. She graduated from Ahvaz University of Medical Sciences in pharmD. She has worked alongside professors in two projects at the university and has been named a collaborator in two published papers. This article is the doctoral dissertation of this student. She is working in drug store for two years.

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Amphotericin – Gold Standard of Antifungal Therapy for Corona Viruse Disease Associated Mucormycosis (CAM)

Harshada Ramesh kajave
Pharm D (Doctor of Pharmacy) student, Dattakala College of Pharmacy, India.
Namrata sanjitkumar sant
Mpth neurosciences & Assistant professor MGM School of physiotherapy, India
Simanchal Panda
Faculty, Dattakala College of Pharmacy, India.

Abstract

Mucormycosis / Zygomycosis / Black fungus is a life threatening, protruding, devious fungal infection. The organism which causes the infection is mucormycetes. Healthy individuals normally do not affected by Black fungus which is present usually in soil, rotting fruits and vegetables but the patients who are highly immunocompromised are more susceptible for this. In case of this pandemic CAM with comorbid patients likes high blood sugar level, Cancer, organ transplant, leucopenia, Renal failure, Hemochromatosis is prone to have more chances. As we use corticosteroids for covid-19 this suppresses our immunity is also biggest reason for mucormycosis. Mucormycosis commonly infects to nose, sinuses, brain, eye and causes bleeding nose, stiffness of nose, face swelling, proptosis blurring vision and tissue death. Complications may lead to blindness and thrombosis. Amphotericin B is polyene antibiotic used against wide range of fungal and Yeast infection. Polyene in the sence highly double bounded structure which is obtained by streptomyces nodosua. Structure of amphotericin is very complex, having macrolytic ring with many conjugated double bonds. All these polyenes are having lower aqueous solubility and non stability in hydrophilic medium. Fungal cell membrane made up of ergosterol and these polyenes antibiotics having high affinity for ergosterol. Amphotericin makes a complex with ergosterol and penetrates into membrane and several polyene molecule together forms a micropore, through this micropore intracellular materials such as ions, amino acids, water soluble substances squeeze to extracellular media. Membrane sterols stabilized the micropore and this causes the space filling between amphotericin molecules on lipophilic side, in this way cell permeability is gets up. In this way amphotericin acts on cell membrane lead to cell death

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Biography

Harshada Ramesh kajave *

Are students of Pharm D (Doctor of Pharmacy), Dattakala College of Pharmacy,affiliated to Savitribai Phule Pune University and having many achievements and publication of scientific literatures.

Dr Namrata Sant, undergraduation from LTMMC Sion hospital and postgraduation, mpth in neuroscience from Seth GSMC KEM Hospital, Parel, Mumbai.

Working in MGM School of Physiotherapy, Aurangabad as assistant professor

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Synergistic Effect of Farnesoid X receptor and Fasting-mimicking Diet against Metastasis Castration -Resistant Prostate Cancers

Wrood S. Al-Khfajy
Department of Pharmacology and Toxicology, College of Pharmacy, Mustansiriyah University, Baghdad. Iraq
Inam Sameh Arif
Department of Pharmacology and Toxicology, College of Pharmacy, Mustansiriyah University, Baghdad. Iraq
Basma T. Al-Sudani
Department of Pharmacology and Toxicology, College of Pharmacy, Mustansiriyah University, Baghdad. Iraq

Abstract

Background: Even with the development of various novel therapy techniques that have improved survival, metastatic Castration-Resistant Prostate Cancer (mCRPC) is still a fatal illness. To enable rapid proliferation, survival, invasion, metastasis, and resistance to cancer treatments, cancer cells are known to reorganize their metabolism and energy production networks. Therefore, identification of pharmacological agents with potential to reprogram cancer cell metabolism may would be beneficial for cancer therapy. Several recent studies have indicated that Farnesoid X Receptor (FXR), a metabolic nuclear receptor, is extensively associated in human tumorigenesis. The FXR agonist obeticholic acid (INT 747) has preliminarily exhibited tumors suppressor potential. Though, the anticancer effects of this agent on mCRPC remain undecided.

Aim: here we assess the potential synergism of FXR activation under nutrient deprivation in prostate cancer cell lines to investigate whether FXR activation enhances starvation-induced apoptosis in PC3 cells.

Results: in this study, the treatment of prostate cancer cells with INT 747 significantly repressed cell proliferation and clonogenic potential. In addition, it significantly induced apoptosis of PC-3 cells and

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decreased their *In vitro* cancerogenic potential, as evaluated by impairment of migration assay. Additionally, we observed 50% cell death, which was accompanied by elevated levels of Reactive Oxidative Species (ROS). Furthermore, Fasting-mimicking Diet (FMD) potentiated the anti-proliferative, pro-apoptotic effects of INT 747. Mechanistically, the anti-proliferative, anti-metastasis and anti-survival effects are predominantly mediated through downregulation of cyclin D1 and upregulation of PTEN.

Conclusions: INT 747 alone markedly decreases, and combined with FMD abrogates growth and migration of prostate cancer cells in vitro. In conclusion, our findings suggest that targeting FXR and enhancing its function by FMD could be a promising therapy option for mCRPC.

Keywords

FXR; FMD; Prostate cancer; proliferation; apoptosis; Migration

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Formulation of Moxifloxacin Loaded Solid Lipid Nanoparticles for Ophthalmic Delivery

Jayvadan Patel
Faculty of Pharmacy, Sankalchand Patel University, India
Anita Patel
Faculty of Pharmacy, Sankalchand Patel University, India
Sivam Upadhay
Faculty of Pharmacy, Sankalchand Patel University, India

Abstract

Moxifloxacin is a synthetic flouroquinolone analogue antibiotic, can be widely used for the treatment of certain infections like conjunctivitis, kerato conjunctivitis as well as keratitis. It has relatively very less side effects on the normal ocular surface epithelium when administered via ocular route. Highly water soluble drugs like Moxifloxacin are quickly drained from the site of action as soon as administered topically in ocular cavity as a conventional eye drops formulation and resultant into reduction in bioavailability of drug in ocular cavity. This problem can be solved by developing in-situ gel forming systems formulated from Solid Lipid Nanoparticles (SLN) which are administered in eye cavity as a drop and then it undergo a sol-gel transition in the cul-de-sac and provide sustained drug release behavior. SLNs of moxifloxacin were prepared with different concentration of lipid, lipophilic surfactant and hydrophilic surfactant using 3 factor 3 levels Box Behnken design. SLNs based in-situ gel were characterized for entrapment efficiency, in-vitro gelling capacity, FTIR, DSC, x-ray diffraction, viscosity, particle size, PDI, zeta potential analysis, in-vitro drug release study, in-vitro antimicrobial efficacy, histopathological study, ex-vivo efficacy and ex-vivo ocular irritation study. Stability studies were also performed for SLNs. Lipophilic surfactant (Soya Phosphatidylcholine) and hydrophilic surfactant (Stearoyl polyoxyl-32 glycerides) played an important role in entrapment and was found maximum about 57%. TEM photomicrographs revealed that moxifloxacin SLNs found to be homogenous sphere-shaped with smooth surface and exhibits solid dense structure. There was not any noticeable aggregation detected in the formulation. The in-situ gel forming system of Moxifloxacin

showed sustained release of drug over a period of 12 h. Study of ex-vivo efficacy showed in-situ formulation exhibits not as much of haziness corresponding to positive control. It is thus concluded that in-situ gel is an effective drug delivery system for the management of conjunctivitis, kerato conjunctivitis as well as keratitis when administered topically in ocular cavity.

Biography

Dr. Jayvadan Patel is a Professor of Pharmaceutics and Principal, Nootan Pharmacy College and Dean (Faculty of Pharmacy), Sankalchand Patel University, Visnagar, Gujarat, India. Dr. Patel has more than 25 years of academic as well as research experience, has published greater than 230 review and research articles in reputed international as well as national Journals. Dr. Patel is an author of 15 books in addition to 65 book chapters. Dr. Patel has guided 45 PhD scholar; 104 M Pharm students for dissertation work. To his credit, Dr. Patel is recipients of several awards including, very prestigious "AICTE-Visvesvaraya Best Teachers Award-2020" by All India Council for Technical Education, Government of India and "APTI Young Pharmacy Teacher Award-2014" by Association of Pharmaceutical Teachers of India (APTI). Dr. Patel has been working as Peer reviewers for 58 well reputed international and national Journals. He is also serving role as an Associate editor/member editorial board of 15 Journals.

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Formulation Development, Optimization and In-vitro, Ex-vivo and In-vivo Characterization of Self-nano Emulsifying Drug Delivery Systems of Ibrutinib

K.Anie Vijetha
Centre for Pharmaceutical sciences, IST, JNTUH, India.
M.Sunitha Reddy
Centre for Pharmaceutical sciences, IST, JNTUH, India.

Abstract

Ibrutinib is an anticancer drug which binds irreversibly to Bruton's Tyrosine Kinase (BTK) receptor that binds to a cysteine residue and inhibits BTK active site. Ibrutinib is used for the treatment of mantle cell lymphoma. Mantle cell lymphoma is a fastgrowing cancer which begins in the cells of immune system. It blocks the abnormal protein that signals cancer cells multiplication and finally stops dispersion of cancer. It belongs to BCS class II and a large percentage of drug molecules in pharma development pipelines can be classified according to the Biopharmaceutics Classification System (BCS) as Class II compounds (compounds having good permeability but poor solubility). Hence, it is prepared as lipid-based drug delivery systems with an aim to enhance its dissolution rate. The objective of the research is to develop Self Emulsifying Drug Delivery Systems (SNEDDS) of IBR. Screening of excipients was done by determining the saturation solubility studies in various oils, surfactants and co-surfactants by using HPLC. Capryol 90 was selected as an oil phase, kolliphor EL as surfactant and transcutol HP as co-surfactant due to their higher solubilization effect. The best composition of oil, surfactant and co-surfactant was obtained by aqueous titration method and further optimized by design of experiments. The formulations were prepared by cyclo-mixing and the optimized SNEDDS was composed of IBR (7.4%w/w), Capryol 90 (9.4 w/w), Kolliphor EL (66.5 w/w) and Transcutol HP (16.6 w/w). The optimized SNEDDS were evaluated for droplet size, morphology, zeta potential, poly dispersibility index, self-emulsification, in-vitro drug release studies. The ex-vivo permeability assessment and in-vivo pharmacokinetics study of optimized SNEDDS formulation showed higher than the pure drug.

Key Words

Ibrutinib, Capryol 90, Kolliphor EL, Transcutol HP, zeta potential, Cancer etc.

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Comparative Study of Anti-inflammatory and Anthelmintic Activities of T.Orientalis by In-vitro Method

Kaustav Mahapatra
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Kiran Bilgundi
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Kiran Choudhary
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Junaid Mushtaq Peer
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Kalaiyarasu M
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

Background: Helminth infection and inflammation are two of the most widely spread diseases in the world. Approximately 3 million people worldwide suffer from these diseases. Trema Orientalis is an evergreen shrub which is found in different parts of India mainly in the lowland humid tropical region. Various parts of the plant has medicinal properties. However there has been no conclusive comparative study on T.Orientalis to check inflammatory and anthelmintic activity. Various earlier studies reported extracting leaves of T.guineense and T.micrantha producing arthritic and analgesic activity. This could also potentially lead us to other species like T.orientalis for other activity.

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Methodology: The powdered material was subjected to extraction by maceration. The extract obtained was analysed for its major chemical phytoconstituents. Different concentrations of the extract were subjected to anti-inflammatory studies by inhibition of albumin denaturation method, heat induced and hypotonicity induced haemolysis method. To assess the anthelmintic activity, Dip method was studied.

Results: Aspire was used as a standard drug to measure the anti-inflammatory activity and it showed the maximum inhibition and haemolysis of 56% at the concentration of 100µg/ml, whereas the test drug showed maximum action of 56% at concentration of 400µg/ml.

Albendazole was used a std drug to measure the anthelmintic activity and showed paralysis at 2.5±1min and death after 62±2min at 20mg/ml concentration, whereas the test drug showed paralysis at 3±0.5 min and death after 10±0.2 min at 100mg/ml concentration.

Conclusion: the comparative study to check the anthelminthic and anti-inflammatory activity was performed and that data showed that the extract possesses greater extent of the anthelminthic activity to that of anti-inflammatory activity when compared with the standard drug.

Biography

Kaustav Mahapatra is currently pursuing his Master's degree (M.Pharm) in pharmaceutical biotechnology at JSS College of Pharmacy, JSS Academy of higher Education and research, Ooty, The Nilgiris. He had completed his Bachelor's degree (B.Pharm) from College of Pharmaceutical Sciences, Dayananda Sagar University, Bangalore, Karnataka.

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Brain Eating Amoeba': A Review

Ketakee Prakash Gosavi
Pharm D (Doctor of Pharmacy) sudent, Dattakala College of Pharmacy, India
Bhagyashree Chandrashekar Wagh
Pharm D (Doctor of Pharmacy) sudent, Dattakala College of Pharmacy, India
Simanchal Panda
Faculty, Dattakala College of Pharmacy, , India

Abstract

Everyone loves, going to waterpark, but now there is a threat of deadly amoeba. Naegleria fowleri is a protist that, infects the Central Nervous System. It produces primary amoebic meningoencephalitis. The infection is very dangerous because it has 95% mortality rate. More number of cases are seen in countries like Australia, United States, Europe and Pakistan. There are 3 cases in which Naegleria fowleri may come in contact with human i.e by recreational activities, ritual practices and by involvement of therapies (Nasal Irrigation Therapy). In various countries recreational activities are performed in summer, which is the main cause of the disease. Primary amoebic meningoencephalitis can also be caused by performing ritual practices with untreated water. There are primary treatment and adjunctive treatment to cure this infection. Many a times while performing nasal irrigation therapy, if non sterile water is used the amoeba may travel to the brain from the nostrils. Prevention of this disease can be done, by simply disinfecting various water bodies and using sterile water for nasal irrigation therapy. The huge mortality rate can be reduced by early diagnosis of the disease. We can reduce these threat, by avoiding the entry of water into our nostrils.

Biography

Ketakee Prakash Gosavi and Bhagyashree Chandrashekar Wagh Are students of Pharm D (Doctor of Pharmacy), Dattakala College of Pharmacy,affiliated to Savitribai Phule Pune University and having many achievements and publication of scientific literatures.

Simanchal Panda is Faculty in Dattakala College of Pharmacy. He is having almost 67 research publications, 01 patent file and 6 International Awards (young Scientist, out standing Scientist,

Academic excellence, Young Leadership, Young Talent, Distinguished Researcher in Pharmacy litrature) from Different countries' Conferences like Malaysia, Dubai, Mumbai, Indonesia, Nepal, Thailand and many more. He is an MBA and AIC and Awarded Honoris Causa Doctoral from World Human Right Protection Comission, New Delhi , India.

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Nimesulide Loaded Silver Nano formulation used in Psoriasis and Psoriatic Arthritis

Komal Raj
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India.
Manoj Kumar Sarangi
Department of Pharmaceutics, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India.

Abstract

Psoriasis and Psoriatic arthritis are chronic autoimmune disease in which immune system by mistakenly attack body cells and cause skin inflammation, joint pain, swelling, and hyperproliferation of keratinocytes. In case of psoriasis skin become rigid due to thickening of stratum corneum that generate a challenge for topical approach for treatment. Silver nanoparticle have various application because of their unique properties, used in wound healing, anti-cancer, anti-microbial, and cosmetic. Nanorods in nanotechnology are nanoscale objects with the size range 1-100nm. It's had higher surface to volume ratio than nanoparticles and also have very small size by which they easily penetrate into the cells. Nanorods synthesized by various method but seed mediated synthesis is a simplest method. in this method first silver seeds are prepared and then adding them to silver growth solution to form nanorods. Nimesulide is a non- steroidal anti-inflammatory drug with analgesic and antipyretic activity. It's also used in the case of psoriasis and psoriatic arthritis because of their action like inhibition of TNF alpha (play important role in psoriasis and Psoriatic arthritis) and preferential block of cox-2 and other action. A higher level of TNF alpha found in psoriatic lesional skin than in normal skin so blocking the TNF alpha can expanded the therapeutic option for patient with Psoriasis and Psoriatic arthritis.

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Biography

A Komal Raj is pursuing in M. pharmacy of Pharmaceutics specialization in Sardar Bhagwan Singh University, Balawala, Dehradun, Uttarakhand -248161. She's completed her Bachelor of pharmacy in 2019 from Hemwati Nandan Bahuguna Garhwal University, Srinagar Pauri Garhwal, Uttarakhand.

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Evaluation of Toxicological Studies of *Cardiospermum halicacabum Linn*

M.V.Kumudhavalli
Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation (Deemed University), India
V.Nandhinipriya
Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation (Deemed University), India

Abstract
Acute toxicity of ethanolic fraction of *Cardiospermum halicacabum Linn*. whole plant was tested in zebrafish embryos as per OECD guideline 236 that is the unfertilized eggs and those showing cleavage irregularities or injuries were discarded. Based on "Fish Embryo Toxicity Test" Zebrafish embryos were grouped into twenty embryos each in 0.1 %v/v methylene blue treated fresh water to prevent fungal out breaks. A stock solution of 1 mg/ml ethanolic fraction of Cardiospermum halicacabum Linn. were prepared in 0.1% v/v ethanol (absolute). Normal developmental process was noted in groups exposed to graded concentrations of ethanolic fraction of Cardiospermum halicacabum Linn. whole plant which was comparable to group I control. There was no sign of delayed hatching, yolk sac edema, pericardial edema, craniofacial abnormalities (snout, jaw, eye, otolith, brain), curved body axis, notochord curvature, lordosis, scoliosis, kyphosis, tail distortion, growth retardation, haemorrhage, tail malformation and crooked spine. There was no mortality till the dose level of 100 mg/L. From the results it is evident that the fraction is safe up to a dose level of 100 mg/L in Fish embryo toxicity assay

Keywords
Cardiospermum halicacabum, Ethanolic fraction, Acute toxicity, Zebra fish

Biography

Dr.M.V.Kumadhavalli M.Pharm, Ph.D is Presently working as Professsor and Head Department of Pharmacognosy, Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation(Deemed University), Salem,Tamilnadu. She has 24 years of Teaching and 18 years of Research experience. She did her graduate from Tamilnadu Dr. MGR Medical University and Post graduate from Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation(Deemed University). She completed her Doctoral Degree in Pharmaceutical Sciences from Vinayaka mission's Research foundation (Deemed University). She has a good track record of publishing many number of Research and Review articles in National and International Journals which are indexed in Scopus, web of science, springer and elesvier etc. She published one book Titled "Quality Assurance " for B.Pharm 6th semester with ISBN 978-93-89627-90-9, Published by Thakur Publication Pvt.Ltd. Her patent was published and completed the hearing and waiting for the result from IPR. She has guided 20 batches of B.Pharm and 60 Nos of M.Pharm projects to her credit. Presently she is guiding 08 Ph.D research Scholars in various Research Topics. In addition she played a role as a resource person in many National and International conferences by various colleges from various Universities. She is a Peer Reviewer of many National and International Scientific Journals. She is a member of many statutory bodies.

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Linear Discriminant Analysis and Artificial Neural Network Modeling of Molecular Descriptors of COX-2 – Targeted Non-Steroidal Anti-inflammatory Drugs (NSAIDs)

Liza T. Billones
Department of Physical Sciences and Mathematics College of Arts and Sciences, University of the Philippines Manila, Padre Faura, Ermita, Manila, 1000 Philippines
Alex C. Gonzaga
Department of Physical Sciences and Mathematics College of Arts and Sciences, University of the Philippines Manila, Padre Faura, Ermita, Manila, 1000 Philippines

Abstract

The large amount of chemical and biological data can furnish far-reaching research insights which can expedite the discovery and development of a new drug. Computational statistics and machine learning techniques have been applied in deciphering inherent chemical features that influence the therapeutic potential of a compound. An active area of research involves the development of next generation Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). With over 1.5 billion people suffering from chronic pain and inflammation, this disease is a serious health problem worldwide. Establishing the quantitative relationship between anti-inflammatory activity and the key molecular features of known inhibitors of the drug target is crucial in the development of novel NSAIDs devoid of adverse side effects. In this work, Linear Discriminant Analysis (LDA), and Artificial Neural Network (ANN) methods were employed to develop quantitative models of inhibitory activity of cyclooxygenase-2 (COX-2), an enzyme that facilitates the production of inflammatory prostanoids. The models were used to predict the classification of an external set of compounds, the variants of known COX-2 inhibitors that were generated by isosteric replacement. The designer compounds that were predicted to be COX-2 active are rational goals of future organic synthesis and COX-2 inhibitory testing efforts en route to next generation of NSAIDs.

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Keywords
anti-inflammatory drugs (NSAID), COX-2 inhibitors

Biography
Liza T. Billones is an Assistant Professor of the Department of Physical Sciences and Mathematics, College of Arts and Sciences, University of the Philippines Manila, Philippines. Her research interest is in Statistics and Cheminformatics.

Dr. Alex C. Gonzaga is a Professor of the Department of Physical Sciences and Mathematics, College of Arts and Sciences, University of the Philippines Manila, Philippines. His research interest is in Statistics and Data Analytics.

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In-Silico studies, Molecular Docking, Synthesis and Characterization of 4-methyl 9, 10-dihydro-2H, 8H-chromeno [8, 7-e][1, 3]oxazin-2-one as Antimicrobial and Anticoagulant Agents

M.Parkavi
Department of Pharmaceutical Chemistry, J.K.K.Nattraja College of Pharmacy, India
M.Senthilraja
Department of Pharmaceutical Chemistry, J.K.K.Nattraja College of Pharmacy, India

Abstract

A rapid and efficient synthesis of coumarin derivatives by Pechmann condensation reactions of resorcinol with ethyl acetoacetate using Sulphuric acid as a catalyst under microwave irradiation is described. Followed by Chromeno Oxazin-8-0ne derivative were synthesized by reaction between coumarin and various substituted amines. The synthetic route was easy to access and gave excellent yields under microwave irradiation conditions compared to the conventional heating route then it is evaluated for antimicrobial & anticoagulant activity. Using MOLINSPIRATION and ADMET toolkits, pharmacokinetic profiles of the designed scaffolds were investigated and the results showed their potential as promising drug candidates. Moreover docking studies has been performed against Vitamin K Epoxide Reductase (VKOR) for anticoagulant activity that showed good binding interactions. The newly synthesized compounds were systematically characterized by IR, 1H-NMR, 13C-NMR, MS analyses. .Further studies are warranted to check the efficacy of these molecules by various *in vitro* and *in vivo methods* and elucidation of mechanism of action.

Key words

Peckmann Condensation, Microwave irradiation, antimicrobial and anticoagulant, In-silico study, docking.

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Pre-Existing and Latest Paradigms Explored in the Domain of Precision Medicine

Monalisha Jena
Bharati Vidyapeeth's College of Pharmacy, University of Mumbai, India

Abstract

With the advent of technological innovations, the inception of a knowledge premise by integrating health and genetics for better patient outcomes has become substantial for curating newer treatment and diagnostic strategies. Making a shift from the traditional one-size-fits-all stratagem to a dynamic risk reckoning and optimization based upon present-day and forthcoming health status employing entrenched and actionable determinants (like environmental and lifestyle) is what precision medicine entails. Computing population-based genome sequencing and its amalgamation with clinical data via various global research initiatives that assess progress towards the implementation of precision medicine has been substantial for clinicians and healthcare providers to impart enhanced individualized patient care. This review also emphasizes contemporary applications of precision medicine, their advantages, and various challenges faced in scientific explorations.

Biography

Monalisha Jena is currently pursuing her Bachelor's in Pharmacy under University of Mumbai, India, and is in her third year of study. At present, she's the Joint Public Health Officer at Indian Pharmaceutical Association Maharashtra State Branch Students' Forum, Member of American Chemical Society-Bombay College of Pharmacy Student Chapter, and Council Member at Society of Pharmaceutical Education and Research. She has numerous scientific and literary publications to her name, including co-authoring experience in four novels. She recently had the privilege to present her review on "Overview on Iron Oxide Magnetic Nanoparticles and Polyol Method of Synthesis" at the American Chemical Society Eastern US YCC Global Virtual Symposium.

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Carbon Nanotubes: Treatment and Applications in Neurodegenerative and Alzheimer's Disease

Niharika Modi
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Alin Bose J
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Vasanth Raj P
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India
Raman Rajeshkumar
Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, India

Abstract

Carbon Nanotubes are allotropes of carbon that are formed of graphite and are shaped into cylindrical tubes with nanometer-sized diameters and lengths ranging from several millimeters to several meters. In addition to their compact size and mass and high mechanical potency, they also have a high electrical and thermal conductivity, which all contribute to their amazing structural, mechanical, and electronic qualities. As a result of their large surface area, Carbon Nanotubes (CNTs) have been successfully used in pharmacy and medicine because they are capable of adsorbing or conjugating with a wide variety of medicinal and diagnostic chemicals. They were the first to demonstrate that they are a great vehicle for drug delivery straight into cells without the need for metabolic processing by the body. As a result of their exceptional physicochemical features, Carbon Nanotubes have the potential to be used as theragnostic instruments to treat neurological diseases such as Alzheimer's disease. In the modern day, stroke is considered to be the third leading cause of mortality and the primary cause of immobility around the world. It is necessary to continue the

development and enhancement of efficient and effective processes for the diagnosis and treatment of CNS diseases. CNTs have been used in the field of neuroscience because they are a potential biological material. Given their small size and easily accessible exterior alterations, CNTs are capable of crossing the blood brain barrier through a variety of targeting mechanisms, allowing them to serve as effective delivery vehicles for the target nervous system. SWCNTs (Single Walled Carbon Nanotubes) have been successfully employed to deliver acetylcholine into Alzheimer's disease-affected mice brains with a high level of safety over a long period of time. There have been numerous other functionalized SWCNTs or MWCNTs (Multi Walled Carbon Nanotubes) that have been employed successfully as a delivery mechanism for the treatment of neurodegenerative illnesses or brain malignancies in the past.

Biography

Niharika Modi is currently pursuing her Master's degree (M. Pharm) in Pharmaceutical Biotechnology at Department of Pharmaceutical Biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, the Nilgiris. She had completed her Bachelor's degree (B. Pharmacy) from School of Pharmacy, ITM University, Gwalior, M.P.

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Role, Guidelines, and Consequences Related to Iron Supplements

Noor Subhi Fawwaz
School of pharmaceutical sciences and Technology, Sardar Bhagwan Singh University, India

Abstract

Iron deficiency affecting third of the world population, mostly affecting women and children and it's the leading cause of iron deficiency anemia. Iron deficiency negatively impact pregnant women and affect immunity and neurodevelopment in children, in the early development stages can lead to mental retardation. Iron supplements are on the first line therapy in iron deficiency anemia, also recommended in athletes to enhance their performance. Iron is hardly absorbed from the GIT so guidelines regard iron consumption to be followed to ensure its biological efficiency like administration along with ascorbic acid due to luminal reduction of ferric to ferrous (the absorbable form of iron), should be taken on an empty stomach as its absorption inhibited by food and drink components like phytic acid in pulses and whole grains, polyphenols in coffee, teas and chocolate, iron supplements shows better absorption when given every 3rd day unlike consecutive administration which lead to decrease in absorption leading to mucosal block, chronotherapeutic study on pigs revealed better absorption at night hours. Despite its therapeutic importance high doses of iron lead to depletion of copper and impair its utilization, increase oxidative stress which increase risk of cancer, nervous and cardiovascular diseases. Oxidative damage due to high doses found to affect reproductive system in male rats. Several neurodegenerative diseases such as Alzheimer's and Parkinson's diseases are associated with increased iron levels in the affected region of the brain. It is found that low doses of iron are as effective as low doses as per patient requirement

Biography

Noor subhi fawwaz is an M.pharm student in final year at School of pharmaceutical sciences and technology Sardar Bhagwan Singh University, Balawala,Dehradun-248001, Uttarakhand, India. In pharmacology specialization for the session 2019-2021

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Management of Age-related Macular degeneration by Nanostructured composites of Axitinib

Omkar Vanarote
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research India.

Saheli Das
Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research India.

Dr. Venkatesh M.P
Associate Professor, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS Academy of Higher Education and Research, India.

Abstract

The current study was aimed to develop and evaluate Axitinib loaded NLC (AXT-NLC) for the management of Age-related Macular Degeneration (AMD). The drug-loaded NLCs were prepared by melt-emulsification prior to the ultrasonication method with the following excipients: Compritol ATO 888, Tween 80 (polysorbate 80), and Labrasol, as solid lipid, surfactant, and liquid lipid respectively. The drug-loaded NLC is composed of two phases: lipid, and aqueous phases. The lipid phase was composed of the drug and the mentioned lipids whereas the aqueous phase was composed of water and Tween 80. By the Box-Behnken method in design expert (Design expert 10.0) software the NLC formula was optimized. The optimized NLC formulation (AX-3) was further evaluated for the particle size, zeta potential, Polydispersity Index (PDI), entrapment efficiency, FTIR, DSC, SEM, *in-vitro* study, and stability study. The particle size, zeta potential, and PDI were reported 193.1nm, -3.16mV, and 0.072 respectively. The entrapment efficiency of AXT-NLC was reported to be 96.58%. According to the result of the FTIR and DSC study, the drug was completely encapsulated into lipid matrix. SEM analysis study confirmed that the particles of AXT-NLC were circular in shape. *In vitro* release of drug was executed by dialysis-membrane/bag technique in the Phosphate Buffer (PBS) with pH of 7.4 and 0.1 percent Tween 80, resulted in 92% of drug release from the NLC at 24hrs. The

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stability study confirmed that there is no phase separation and no significant changes after 45 days in refrigerator condition. The above results concluded that AXT-NLC could be promising delivery system for the management of age-related macular degeneration.

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Patient Adherence to Anti-Tubercular Medication at a Tertiary Care Teaching Hospital in Mahabubnagar

P. Ushasree
Research Scholar, Himalayan University, India.
Vishal Bhargava
Research Guide, Himalayan University, India

Abstract

Tuberculosis till date is one of the major socioeconomic diseases which is prevailing world wide with high infection as well as mortality rate. Medication against TB is considered to be most significant challenge which reflects the treatment success and appearance of the Multidrug Resistance-TB (MDR-TB). In my knowledge adherence to anti TB medication is missing till date in our country. The main aim of the study was to investigate anti TB medication adherence and to know the factors which cause non adherence. This study was conducted for duration of 12 months. The results has depicted an overall non- adherence for TB medication in patients was 17.5%. Age, socio economic status, educational status, income of the family and place where they reside have shown a great impact on medication non adherence. Disease and medication knowledge, side effect management also played a pivotal role in non adherence. Nevertheless health care workers should have more commitment towards the patients and their problems being addressed will lead to a decrease in anti TB medication non adherence.

Keywords

Multidrug Resistance, Tuberculosis, Tertiary Care.

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Design and Evaluation of Ornidazole Loaded Microsphere Drug Delivery System

Plaban Saha
Department of Pharmaceutical Technology, School of Health Sciences, NSHM Knowledge Campus, India
Anindita Dutta Roy
Department of Pharmaceutical Technology, School of Health Sciences, NSHM Knowledge Campus, India
Swarupananda Mukherjee
Department of Pharmaceutical Technology, School of Health Sciences, NSHM Knowledge Campus, India

Abstract
This study involves preparation and evaluation of microspheres drug delivery system of Ornidazole as a novel approach. The emulsion gelation technique was used to create formulations containing peppermint oil encased in enhanced sodium alginate and pectin polymers. The inclusion of volatile oil (Peppermint Oil) was intended to provide flovour as well as cool sensation after intake to the patient. Evaluation was done to determine drug polymer compatibility. The medication is compatible with the polymers utilized, according to the FT-IR spectra of the physical mixture. Particle size, percentage yield, entrapment efficiency, density, and in-vitro drug release experiments, among other things, were all examined on the manufactured beads. For 6 hours, in-vitro drug release tests were conducted. The findings showed that the percentage of oil had a noteworthy influence. As the quantity of oil phase in the beads grows, so does the particle size of the beads. The percentage yield and percent drug entrapment efficiency decline as the oil phase lengthens. The prepared microspheres could be used to distribute or in a regulated manner.

Keywords
Ornidazole, Emulsion gelation technique, FT-IR spectra, Oil phase.

Biography

Plaban is a researcher at the post-graduation level. He is presently perusing Master of Pharmacy with specialization in Pharmaceutics at NSHM Knowledge Campus, Kolkata. He has special interest in microsphere drug delivery system.

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Microbial Drug Delivery System: A Newer Approach

Pratyusa Sar
Division of Microbiology and Pharmaceutical Biotechnology, Department of Pharmaceutical Technology, Jadavpur University, India.

Sudipta Saha
UCD School of Public Health, Physiotherapy and Sports science, University College Dublin, Ireland.

Dibya Das
Department of Pharmaceutical Technology, JIS University, India.

Amalesh Samanta
Division of Microbiology and Pharmaceutical Biotechnology, Department of Pharmaceutical Technology, Jadavpur University, India.

Abstract

Nowadays, microbes are being used for many beneficial purposes extensively in pharmaceutical technology, food technology, pest controlling and so on. Pharmaceutical scholars have been working for more than years to build an effective target-specific drug delivery method to enhance therapeutic benefits along with reducing adverse effects of conventional drug delivery methods. Around 70% of the global death occurs because of non-communicable diseases like cardiac disease, cancer, diabetes etc. Patients experiencing those, suffer from some adverse effects like drug resistance and more. Hence, the limelight is turning into some extraordinary delivery systems other than the conventional ones where Microbial drug delivery system is a ray of hope. Now, bacterial drug delivery system for some specific disease is under Phase 1 clinical. Investigation on *Clostridium novyi NT* is going on for its exclusive properties to treat hypoxic tumour. Oncolytic viruses along with viral vectors, viral immunotherapy can be used to treat cancer. Chitosan, a carrier derived from fungal cell wall is an emerging component in nano drug delivery system. It has some drawbacks along with benefits like DNA mutation, partial tumor lysis etc. Despite these, it can lead to a very promising delivery system, and we are a very few years away from the first FDA approved microbial therapeutics.

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Keywords
Microbes, Drug delivery, Viral immunotherapy.

Biography
My name is Pratyusa Sar (B. Pharm), currently pursuing M. Pharm from Jadavpur University, Kolkata, West Bengal, India. I have completed B. Pharm from BCDA College of Pharmacy & Technology, MAKAUT in 2020.

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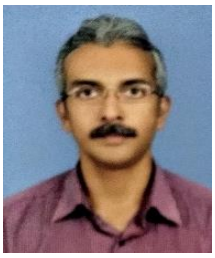
Effect of Body Weight and Organs on Dactylorhiza hatagirea (D. Don) Soo. root extract using Cyclophosphamide induced method in Male Albino Rats



G Raju
Research Scholar, Vinayaka Mission's Research Foundation (Deemed to be University), India.
Rajitha V
Vinayaka Mission's Research Foundation (Deemed to be University), Salem, Tamil Nadu, India

Abstract

The present study was carried out to investigate the possible protective effect of *Dactylorhiza hatagirea on* reproductive toxicity induced by Cyclophosphamide (CP) in male albino rats. The aim of this study was evaluating the effect of different doses of this drug on male rat reproductive parameters. Animals were divided into six groups. G1 was considered as control received normal diet and water. G2 was given CP at a dose level of 6.5 mg/kg body weight/day, for 4 weeks. G3 was orally given CP at a dose level of 6.5 mg/ kg body weight/day for 4 weeks followed by vehicle administration for 8 weeks. G4 was orally administered ethanolic extract of root of *Dactylorhiza hatagirea* 100mg/kg and CP daily for 4 weeks. G5 was orally administered ethanolic extract of root of *Dactylorhiza hatagirea* 200mg/kg and CP daily for 4 weeks. G6 was orally administered ethanolic extract of root of *Dactylorhiza hatagirea* 200mg/kg and CP daily for 8 weeks. The extract will be administered after 2 hours before CP administration.

Animals from **Groups 1**, **2**, **4** and **5** was sacrificed after 4 weeks **(day 29)** of the experiment; while animals of Group **3** and **6** was sacrificed after 8 weeks **(day 57)** of the experiment. The body weights of the animals was recorded before and at weekly intervals during the course of experiment and the relative organ weights was recorded at the time of sacrifice. Blood was collected by cardiac puncture immediately after euthanasia. Prostate & Seminal vesicles were removed and weighed. The difference in weight were calculated and compared with normal group. After sacrification every organ like liver, pancreas and kidneys were weighed and mean weight was calculated. The results of this study indicated that ethanolic extract protected rat against CP induced reproductive toxicity.

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Keywords
Dactylorhiza hatagirea, Cyclophosphamide, Prostate, Seminal vesicle

Biography
G Raju, Assistant Professor, Department of Anatomy, Sree Gokulam Medical College & Research Foundation, Thiruvananthapuram, Kerala, India. Research Scholar, Vinayaka Mission's Research Foundation (Deemed to be University), Salem, Tamil Nadu, India

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Evaluation of Synergism Effect of Combinational Treatment of Epicathechine and Edaravone in Parkinson Model Induced by 6 -Hydroxydopamine in Male Rats

Ramin Ataee
Pharmaceutical sciences research center, Mazandaran University of Medical Sciences, Sari, Iran and Thalassemia research center, Mazandaran University of Medical Sciences, Sari, Iran.
Moein Khoshsaz
Pharmaceutical sciences research center, Mazandaran University of Medical Sciences, Sari, Iran.
Mohammas Karami
Thalassemia research center, Mazandaran University of Medical Sciences, Sari, Iran.

Abstract

Background and Objectives: Parkinson's disease is a common neuropathological disorder caused by degeneration of dopaminergic neurons. The aim of this study was to investigate the evaluation of combinational treatment of epicatechin and edaravone with Madopar on behavioral effects of prkinson model induced by 6 -Hydroxydopamine in male rats.

Materials and Methods: In this study, 40 male Wistar rats weighing 200-250 g randomly divided into 5 groups of 8. Sham group did not receive any lesions or treatments; the Parkinson's group received unilateral injection of 4 micrograms of neurotoxin 6-hydroxy dopamine, the third group received epicatechin (50 mg / kg, ip) and edaravone (10 mg / kg, ip) for 14 days after brain lesions , the fourth group Madopar (50 mg / kg, gavage) and the fifth group epicatechin -edarvon-madopar .after 14 days of treatments, behavioral tests including balance test (Narrow Beam Test), apomorphine-induced rotational test and open field test were performed.

Results: Injection of 6-hydroxy dopamine cerebroventcularly caused a significant increase in number of rotations induced by apomorphine, total balance test times and change in open field test compared with the control group ($p < 0.001$). Treatment by epicatechin-edaravone, madopar alone and in combination significantly reduced number of rotations of apomorphine test, increased time of (Narrow Duct Test) and improved movement in open field test compared with Parkinson groups

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Conclusion: Based on the results of this study, combinational therapy of epicatechin-edaravone with Madopar improved the behavioral changes in Parkinson's model in rat.

Keyword
Parkinson's disease, Epicatechin, Edaravone, Behavioral tests

Biography
Ramin Ataee born in 4/4/1970,PharmD PhD in Pharmacology was official researcher of Institute Pasteur, Amol Branch (2000-2012),Associate Prof of Pharmacology MUMS since dec 2012 till now ,he has passed 6 months scholarship in QIMR,Brisbane Australia at July 2009 focused on immunohistochemistry of cancer and have had 3 months grant(trainee ship) in Armand Frappier Institute, Montreal Canada about cellular techniques in cancer studies he is editorial board of some international journals. he has published 60 national and international articles ,at least 30 of them indexed in ISI,PubMed or scopus.,3 books .His H-index 10,research gate index 24.6 .he is member of Iranian Pharmacy council member, Iranian Medical council member, Australian Society of Medical research (ASMR) member .his fields of researches:-Cancer Pharmacology-Neuro-Pharmacology-herbal medicine researches and diabetes.

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In-vitro Evaluation of a Synthetic Compound 1-(4-nitrophenyl)-N-Phenylmethanimine against Breast Cancer

Reetuparna Acharya
Division of Advanced Pharmacology, Department of Pharmaceutical Sciences and Technology, Birla Institute of Technology, India

Shivesh Jha
Division of Pharmacognosy, Department of Pharmaceutical Sciences and Technology, Birla Institute of Technology, India

Shakti Prasad Pattanayak
Department of Pharmacy, School of Health Sciences, Central University of South Bihar, India.

Abstract

Breast cancer has been marked the most common (11.7%) and 5th deadliest (6.9%) of all cancers globally by GLOBOCAN report 2020. The conventional chemotherapeutic treatment strategies have toxic effects (Anemia, Alopecia, and Diarrhea). Development of resistance against chemotherapy also remains a major concern. To overcome these shortcomings, introduction of new molecules has become absolutely necessary. Design and synthesis of Small Molecules (SM) (MW: <500Da) inhibitors is recently showing promising results because of their higher selectivity towards multiple molecular cancer targets and lesser toxicity. Schiff bases are one such class of SM having multiple pharmacological actions including anti-cancer potential. SM competes with ATP binding site of the catalytic domain of tyrosine kinases regulating carcinogenesis. Oral activity, simplified treatment regimen and patient compliance are added advantages of SM over conventional therapy. In the current study, 1-(4-nitrophenyl)-N-phenylmethanimine was synthesized and characterized using mass spectrometry, ^{1}H and ^{13}C-NMR. The major objective of the study was to evaluate the anti-breast cancer potential for which cell viability study was performed using MTT assay on MCF-7 breast cancer cell lines which confirmed the IC_{50} value of 22.5µg/ml. The result gave a thrust to further investigate the anti-cancer potential of the phenylmethanimine derivative compound.

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Biography

Reetuparna Acharya is a PhD scholar at Birla Institute of Technology, Mesra currently working on synthetic small molecules against breast cancer. Dr. Shivesh Jha is a senior professor at Birla Institute of Technology, Mesra who has past experiences on natural products for the treatment of various ailments. Dr. Shakti Prasad Pattanayak is the corresponding author who is an associate professor from Central University of South Bihar, Gaya who has more than 15 years of experience with mammary cancer research with small molecules.

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Disinformation and Misinformation on Covid-19 Vaccines: Springboard for an Information-Driven Advertisement

Rey Avila Mangarin
The University of Mindanao (Panabo), Philippines

Abstract

This study explored disinformation and misinformation of Covid-19 vaccines through scientific and socio-political lens utilizing mixed methods research to generate an intervention in reinforcing the advocacy on vaccination against Covid. Several videos and news circulating on the negative impacts of Covid-19 were circulating in the information highway and people were hesitant to get vaccinated because of these media. In the light of quantitative approach, survey was conducted to identify the preference of teachers in a certain municipality in the Philippines and it was found out that 35% preferred to be vaccinated while 52% do not want to get vaccinated and the rest 13% are not sure. Followed up by a qualitative approach, it was found out that misinformation and disinformation through videos watched in social media reinforced their perspectives on their decision on the acceptance of vaccination. Further, selected videos were used in the analysis and it was found out that lack of scientific back up and more on socio-political perspectives backed up these videos against vaccination. With this, a framework on information-driven advertisement for pharmaceutical companies is designed and recommended to strengthen the advocacy on vaccination against Covid-19.

Keywords

Covid-19 vaccination, misinformation, disinformation, information-driven

Biography

Rey Avila Mangarin is a teacher, a researcher, an education leader who optimizes research in bringing out change for an effective workplace. He has participated several Massive Open Online Courses and led MOOC Camps and learning action cells towards the professional development of his colleagues. He has presented to several international forums on studies involving research-based outputs, approaches, and best practices. Further, he was a former public school teacher in the Department of Education who transferred to Higher Education institution to teach in the Teacher Education Program. Currently, he

handles Mathematics, Research, and Professional Education subjects. He is a graduate of Master of Education major in Teaching Mathematics at The University of Mindanao, Davao City, Philippines. Currently, he is pursuing Master of Science in Public Policy and Management at Carnegie Mellon University Australia as a CHEd-CMUA Scholar.

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Brk/PTK6- siRNA: A Novel Therapeutic Agent for Treatment of Breast Cancer

Roja Sahu
Division of Advanced Pharmacology, Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology (BIT), India.

Shivesh Jha
Division of Pharmacognosy and Phytochemistry, Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology University, India.

Shakti P. Pattanayak
Department of Pharmacy, Central University of South Bihar (Gaya), Bihar-India, India (Government of India).

Abstract
Small interfering RNA (siRNA)-based therapeutics is a novel strategy to address problems of gene mutation or gene overexpression in various diseases including cancer, viral infections etc. Now-a-days such therapeutic approach is main focus of medical fraternity for management of cancer due to its capability of targeting key molecular pathways of cancer along with its specificity, adoptability and broad targeting capability. Mammary carcinogenesis stands as the second deadliest cancer worldwide with nearly 7,12,758 new cases reported recently among Indian women. Brk (Breast Tumor Kinase)/ PTK6 (protein-tyrosine Kinase 6) was reported to be upregulated in nearly 85% of breast carcinoma and is associated with reduced probability of disease-free and metastasis-free survival. Further, Brk has a prominent role in cell proliferation, migration, invasion, metastasis, angiogenesis and dysregulation of apoptosis in breast carcinoma which validates its candidature as an ideal therapeutic target. An early investigation by our research group, involving 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay in MCF-7 cell line depicted a prominent decline in cell proliferation following Brk silencing with Brk-siRNA intervention (up to 93% inhibition compared to non-treated control), that stands as a proof-of-concept of therapeutic efficacy of Brk-siRNA and open path for future research on Brk/PTK6 targeting for the management of breast cancer.

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Biography

Roja Sahu is currently working as a PhD scholar in Birla Institute of Technology, Mesra, Ranchi on siRNA-based gene therapy for the treatment of mammary carcinogenesis. Dr. Shivesh Jha is a senior professor at Birla Institute of Technology, Mesra, Ranchi with prominent experience in the field of natural product research. Dr. Shakti P. Pattanayak, corresponding author of this work, has more than 15 years of experience in mammary cancer research with high level of expertise in molecular biology techniques and gene therapy studies.

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Development and *In Vitro* Evaluation of Ceftriaxone Sodium Coated Suture for Antibacterial Activity

S.Pranav Ragavendra
PSG College of Pharmacy, India.
Dr. V Sankar
PSG College of Pharmacy, India.

Abstract

Aim: This research aim is to develop and evaluate the ceftriaxone sodium coated suture for antibacterial activity by in-vitro methods.

Methods: Ceftriaxone sodium was coated on to the marketed suture and prepared suture. Monofilament sutures prepared by water extrusion method with 40% PLGA were found to be milk-white in color and fragile in nature. Anti-microbial efficacy of ceftriaxone sodium coated prepared sutures was assessed by using an Agar diffusion assay for antibacterial activity against most two common organisms that cause Surgical Site Infection (SSI) such as *Staphylococcus aureus* and *E.coli* then it was compared with pre-processed ceftriaxone sodium coated marketed suture.

Result: Ceftriaxone sodium coated suture was prepared by dip-coating technique and the surface morphology was analyzed by Scanning Electron Microscope (SEM). It reveals that the PLGA suture surface was found to be smooth with thickness 220 microns and the marketed suture was 350 micron. Drug adsorbed on the suture per sq.cm was found to be 0.47 mg. The *in Vitro* drug release of Ceftriaxone sodium from the prepared PLGA suture at pH 7.4 after 45 mins was found to be 38.7 %. Ceftriaxone coated marketed suture has more antimicrobial property when compared with PLGA suture, against *S.aureus and E.coli.* This confirms ceftriaxone sodium coated suture will be effective against surgical site infections causing microorganisms.

Keywords

Ceftriaxone sodium, antibacterial suture, wound closure, PLGA suture, water bath extruder.

Pharmacist's Role in Antimicrobial Stewardship Program Application in Pediatric Hospital

Dr. Sajid Majeed Hameed

Saladin Health Directorate – Head of Antimicrobial Resistance Control Unit, Iraq

Abstract

This presentation will be provided advanced understanding of several aspects regarding pharmacist's responsibilities to take prominent roles in antimicrobial stewardship program & participate in the infection prevention & control programs of health systems.

Objectives:

1- Definition of antimicrobials stewardship program
2- What are the 3 types of antibiotic stewardship interventions?
3- Illustration the goals & principle of antimicrobial stewardship program
4- Antimicrobial stewardship in hospital settings (UpToDate)
5- Illustration core elements of antimicrobial stewardship program
6- Why antimicrobial stewardship is important in residential care settings?

Antimicrobial stewardship is a coordinated program that promotes the appropriate use of antimicrobials (including antibiotics), improves patient outcomes, reduces microbial resistance, & decreases the spread of infections caused by multidrug-resistant organisms. Antimicrobial stewardship focuses on prescribers, be it physician, physician assistant, nurse practitioner, on the prescription and the microorganism, if any. At a hospital, it can be organized in the form of a committee that meets monthly. The day-to-day work is done by a core group, usually an infectious disease physician, who may or may not serve in hospital epidemiology and infection control, or/ and an infectious diseases or antimicrobial certified pharmacist, ideally but rarely aided by an information technologist.

Biography

My name is Sajid Majeed Hameed, senior in pharmacy practice. I enjoy using my skills to contribute to the exciting clinical pharmaceutical advances that happen every day. I graduated from the University of Philadelphia, faculty of pharmacy at Jordan in 2016 with a bachelor's degree in pharmaceutical

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sciences. After graduating from the university, I got the membership of the royal pharmaceutical society, British society of antimicrobial chemotherapy, and European society for clinical oncology, I was appointed to Saladin health directorate – as trainee pharmacist in general, I got training opportunity for antimicrobial stewardship program in Dubai 2-5 February 2020. I am interested in attending conferences as a speaker, especially on pediatric topics, the latest of which was the Arab Neonatal Group Conference in Dubai 23-25 September 2021. I gave two lectures on neonatal dermatological emergencies & neonatal screening program

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Toxicity and Cardiac Effect during Acute Exposure of Non-essential Amino Acids in Combination with Prokinetic agent in Early Developing Zebrafish (*Danio rerio*)

Samrat Bose
Department of Pharmaceutical Technology, JIS University, Kolkata, India and Division of Pharmacology, Guru Nanak Institute of Pharmaceutical Science and Technology, India.
Ivy Ghosh
Division of Pharmacology, Guru Nanak Institute of Pharmaceutical Science and Technology, India.
Himangshu Sekhar Maji
Department of Pharmaceutical Technology, JIS University, India

Abstract

Both the prospective and case control studies have shown that an elevated plasma total homocysteine is an independent risk factor for cardiovascular disease. Cysteine is a sulfhydryl-containing amino acid having similar chemical and structural properties of homocysteine. L-arginine as non essential amino acids, no adverse effect reported but the lack of clinical safety information on amino acids used in general population as dietary supplement is ongoing reality. Domperidone as prokinetic agent has hazardous Cardiovascular (CV) adverse effects due to its delaying cardiac repolarization which prolongs the QT interval, considered to involve blockage of IKr. However, it is unclear their effect on cardiac system fully. Thus this study will examine the actual toxicity and cardiac effect of non essential amino acids, prokinetic agent at different concentration on zebrafish embryos starting at the blastula period (4 hpf) up to 120 hpf.

At 24-hour, 48-hour, 72-hour, 96-hour,120-hour LC50 values were determined upto 120 hpf embryos as: 3.148 mg/L,2.754 mg/L,2.606 mg/L,2.109 mg/L,1.651 mg/L for Domperidone, 0.58mg/ml, 0.38 mg/ml, 0.273 mg/ml, 0.141 mg/ml, 0.126 mg/ml for L- Arginine, 109.396 gm/ml, 102.802 gm/ml, 89.73 gm/ml, 72.78 gm/ml, 61.518 gm/ml for Cysteine. In addition, treatment with different concentrations of non essential amino acids (0.025 mg/ml and 0.030 mg /ml for L- Arginine), prokinetic agent (0.6 mg/L and 1 mg/L for Domperidone) caused a dose-dependent decrease in heartbeat. But treatment with Cysteine

(0.060 gm/L)caused a dose-dependent increase in heartbeat. Certain developmental toxicity found like for Domperidone at 3mg/L and 3.4 mg/L embryos of this species have been destroyed. ,4 mg/L the tail end bending of the larvae, 5 mg/L the notochord bending of the zebrafish larvae has been found. Arginine causes tail bending at 0.060 mg/ml Concentration, at 0.100 mg/L embryos ruptured totally, at 0.540 mg/L larvae found in bending shape. Cysteine at 0.060 gm/L the head portion of the larvae has been fully ruptured, 0.100 gm/L total bending of the body shape has been found.
After the above study it can concluded that consumption of food supplement containing nonessential amino acids along with prokinetic agent may create severe cardiac adverse effect as they are showing significant cardiac effect on *Danio rerio* which is 84% genetic similarity with human.

Keywords
Cardiac toxicity, Non-essential amino acid, *Danio rerio*, LC_{50}, Developmental toxicity.

Biography
Myself Samrat Bose, (M.Pharm, Pharmacology, MBA in HR & Pharmaceutical Technology Management). Currently I pursue a Ph.D from JIS University, Kolkata,West Bengal, India. I have total 9 years of teaching and research experience in the field of Pharmacology & Toxicology. Under my guidance total 12 post graduate students completed their M.Pharm Project work.

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Opening the Treasure Chest of the Non-coding RNA

Sayantan Pal
JSS College of Pharmacy, India
Raman Rajeshkumar
JSS College of Pharmacy, India

Abstract

Long non-protein-coding RNAs (lncRNAs) are all non-protein-coding transcripts that are longer than 200 nucleotides. Their vital involvement in several biological processes is known. Changes in the expression of lncRNAs can also play a role in the development and / or progression of cancer. They have several hidden features which are not yet identified. The annotation of the genome-wide transcriptional repertoire has garnered a lot of interest in recent years. Recent findings of the diverse biological activities of non-coding RNAs (ncRNAs) emphasize the biological importance of these hitherto 'forgotten' RNA species. ncRNAs are increasingly regarded as a biological hotspot, as they are engaged in a variety of cellular activities such as cis- or trans-regulation of protein-coding genes and alternative splicing. These can be determined by the Deep Learning (DL), Machine Learning (ML) and they can be decoded to unlock the power of the future which is hidden inside within every cell.

Keywords

Non coding RNA, RNA seq analysis, genome, insilico

Biography

Sayantan Pal is currently pursuing his M. pharm in Pharmaceutical biotechnology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Ooty, The Nilgiris. He has completed her B. pharm from Rungta College of Pharmaceutical Science and Research, Bhilai,Chhattisgarh.

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The Levels of Interleukin-1 Family Cytokines and Oxidative Stress in Rheumatoid Arthritis Patients in terms of Disease Activity

Sezen Yılmaz Sarıaltın
Ankara University Faculty of Pharmacy, Department of Pharmaceutical Toxicology, Ankara, Turkey.
Orhan Küçükşahin
Ankara City Hospital, Department of Internal Medicine, Division of Rheumatology, Ankara, Turkey.
Cemil Nural
Ankara Pursaklar Public Hospital, Medical Laboratory, Ankara, Turkey
Leyla Didem Kozacı
Ankara Yıldırım Beyazıt University, Faculty of Medicine, Department of Medical Biochemistry, Ankara, Turkey.
Tülay Çoban
Ankara University Faculty of Pharmacy, Department of Pharmaceutical Toxicology, Ankara, Turkey.

Abstract

TRheumatoid Arthritis (RA) is a systemic autoimmune disease that causes chronic inflammation characterized by pain, swelling, and irreversible damage to various joints, mainly synovial joints. The formation and development mechanism of RA has not been clearly elucidated yet. Many factors, including genetic and environmental factors, may contribute to the onset and progression of the disease. Interleukin-1 (IL-1) family cytokines are key signaling molecules in inflammatory diseases. These diseases are often the outcome of excessive oxidative stress which occurs by increasing inflammation, regulating apoptotic cell death, and disrupting immunity. Therefore, this study aimed to assess the levels of interleukin-1 family cytokines and oxidative stress status in RA patients with different disease activities. The mean plasma IL-1ß levels of the patient group were approximately 5.6-fold higher than the control group ($p<0.001$). Plasma IL-18 levels were 4-fold greater in the RA group compared to the control group ($p<0.001$). Patients with active disease had 1.9 and 1.5-fold higher IL-1ß

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and IL-18 levels than patients in the remission period, respectively. Similar to the results of the ILs, plasma reactive oxygen species increased considerably in RA patients compared to the control ($p<0.001$). Among all groups, the highest levels of IL-1ß, IL-18, and reactive oxygen species were detected in the group of patients with active RA. Data from the present study exhibited that increase in the levels of oxidative stress and IL-1 family cytokines can contribute to higher disease activity.

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Diabetic Nephropathy: A Catastrophic Disease

Shilpi Sharma
I.T.S College of Pharmacy, India
Manisha Kumari
I.T.S College of Pharmacy, India
Dr. Radha Goel
I.T.S College of Pharmacy, India

Abstract

Diabetic nephropathy is leading cause of chronic kidney disease. It is reported that about 35% of IDDM and 15% of NIDDM patients develop diabetic nephropathy. India has largest number of diabetics in the world with pervasiveness of 3.8% in rural and 11.8% in urban adults.

Diabetic nephropathy is a slowly progressive renal damage and is mainly indicated as microalbuminuria, decreased glomerular filtration rate, glomerular hypertrophy, mesangial expansion and glomerular basement membrane thickening. The major clinical associations with diabetic nephropathy are hyperglycemia and hypertension.

Hyperglycemia leads to renal damage directly or through hemodynamic modifications. It promotes activation of protein kinase C, increased production of advanced glycosylation end products, and diacylglycerol synthesis. Along with, it is responsible for hemodynamic alterations such as glomerular hyper filtration, shear stress, and microalbuminuria. These alterations contribute to an abnormal stimulation of resident renal cells that produce TGF-ß1. TGF-ß1 causes augmented extracellular matrix protein deposition (collagen types I, IV, V, and VI; fibronectin, and laminin) at the glomerular level, thus inducing mesangial expansion and glomerular basement membrane thickening.

Diabetic nephropathy treatment attempts to manage and slow the progression of the disease. The major targets include control of blood sugar & blood pressure, restriction of dietary protein intake and treatment of dyslipidemia. The prevention of diabetic nephropathy includes screening for high risk factors for kidney disease with a healthy lifestyle.

So we conclude that the burden of diabetic nephropathy is important among people with diabetes. But in the last few years we have seen an enormous progress in understanding risk, control and

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mechanism of diabetic nephropathy. Despite the challenges new strategies and treatments will nevertheless be continued to look for.

Biography

Shilpi Sharma is a Research Scholar of M Pharmacology student at the university of A.P.J Abdul Kalam of I.T.S College of pharmacy. She received a Bachelor's degree in Pharmacy from A.P.J Abdul Kalam University.

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pH-Sensitive Compound Liposomes of Mesalazine and Curcumin Prompt Instantaneous Relief to Guinea Pig Models of Ulcerative Colitis: Investigating Drug Synergy Along Colon-Targeting Approach

Soumayya Aib
The University of Lahore, Islamabad Pakistan.
Junaid Dar
The University of Lahore, Islamabad Pakistan.
Syed Muhammad Umair
The University of Lahore, Islamabad Pakistan.

Abstract

The prevalence of mild to moderate UC has been increasing in an alarming rate, resulting in a high global burden of colorectal cancer cases. Due to the incompetence of the current management of UC, it is important to employ novel pharmaceutical techniques and alternative therapeutic strategies to facilitate safe and efficacious treatment of the disease. In this quest, mesalazine, a 5-aminosalicylate with anti-inflammatory and potent antioxidant activities, along with curcumin, a natural anti-inflammatory and antioxidant polyphenol, have been found to produce a synergistic efficacy to efficiently alleviate mild-moderate UC. In the current research, we have formulated pH-sensitive liposomes of a low-dosed combination of mesalazine and curcumin as a potential therapy for UC. It was hypothesized that the synergistic action of the two drugs, pH-dependent colon-specific delivery, and use of nano-technological drug carrier system would undermine the risk of drug-associated side effects, reduce the total administration dose, and provide instant and high efficacy to ameliorate UC. The hypothesis was validated using guinea pig model of mild-moderate UC, where eudragit S100 coated MZ-CM co-loaded liposomes were found to be more efficacious than single-drug liposomes or drug's solution form. Furthermore, both drugs exhibited high antioxidant activity and mitigated the oxidative stress present along UC; hence, prompted an instantaneous, efficient, and safe treatment of UC. We,

therefore, validate that eudragit S100 coated MZ-CM LS is a promising therapy that needs to be developed as a marketed product for the management of IBD.

Biography

Ms. Soumayya Aib is an Algerian doctor of pharmacy. She is a holder of a master of philosophy degree in Pharmaceutics. She demonstrates excellent research skills and was volunteered by the University of Lahore to present on the International Conference on Recent Innovations in Pharmaceutical Sciences ICRIPS 2017. Her interests include targeted therapy and nanotechnology in drug development and delivery. She has been involved in academics and works as a researcher and academic writer. Ms. Soumayya exhibits good intellectual capacity and sense of professionalism. She is looking forward to more research and clinical expertise in future.

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Knowledge, Attitude and Practice of Needle Stick Injuries among Dental and Nursing Students

Sunil Kumar Prajapati
Department of Pharmaceutical Science,SHUATS University, India.
Teh Jing Jin
Faculty of Pharmacy, Unit of Clinical Pharmacy & Pharmacy Practice, AIMST University, Bedong, Kedah, Malaysia.

Abstract

Objective: The study was carried out to assess the knowledge, attitude, and prevalence of needle stick injury among dental and nursing students in AIMST University, Malaysia.
Method: A cross sectional studies was conducted by using questionnaire. Sample size of this study was 310 individuals of medical university of Malaysia, AIMST University. Convenience sampling was used. Our study data was analyzed by Statistical Package for the Social Sciences (SPSS) version 20.0.
Results: The response rate of the survey was 92%. A large number of individuals (97.9%) were aware about needle-stick injuries. In aspect of knowledge on blood borne diseases transmitted by NSI, majority knew HIV/AIDS (89.5%), Hepatitis B and C (77.2%) can be transmitted by NSI.
Among the common causes that contributes to NSIs, individual carelessness is the major causes (31.6%), followed by recapping needle (27.7%), drawing blood/giving injections (21%), and suturing/surgery (17.9%).
Among 285 students, there were no students (0.0%) were having poor attitude and preventive practices towards NSIs while most students have good attitude (90.9%) and preventive practices (97.5%) towards this incidence.
Conclusion: Overall, dental and nursing students in AIMST University were having adequate knowledge, good attitude, and preventive practices towards NSIs.

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Biography

Mr. Sunil Kumar Prajapati has done B. Pharm. and M. Pharm. (Pharmacy Practice) from Punjabi university, Punjab. He is perusing Doctorate from the Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad, India. He has qualified GATE 2003, GATE 2004 and GPAT 2013 as well as UGC NET 2014 in subject Social Medicine & Community Health. His cumulative academia and industrial experiences are of 14 years.

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Evaluation of the Protective Effect of Hydroalcoholic Extract of Brassica Nigra Seeds on Manganese Induced Neurotoxicity in Mice

Sushila Rawat
Department of Pharmacology, School of Pharmaceutical Sciences and Technology Sardar Bhagwan Singh University, India.
Dr. Yogita Dobhal
Department of Pharmacology, School of Pharmaceutical Sciences and Technology Sardar Bhagwan Singh University, India.

Abstract

Aim: The present study was aimed to evaluate the protective effect of hydroalcoholic extract of *B.nigra* seeds in Mn induced neurotoxicity in mice.

Methods- The positive control group was administered with Mn (60mg/kg of bodyweight, orally) 5 days a week upto 8 weeks for induction of neurotoxicity. The treatment groups were administered with hydroalcoholic extract of *B.nigra* seeds at dose levels of 75, 150 and 300mg/kg of body weight and Mn(60mg/kg) 5 days a week upto 8 weeks. The behavioral parameters were determined on the 0,28th and 56th day of the study using elevated plus maze, light and dark field and morris water maze. The biochemical parameters were evaluated in blood serum on 0,28th 56th day and in tissue homogenate on 56th day of the study. Histopathology of the
isolated brain tissue was done on the 56th day of the study using TTC staining.

Results- The transfer latency and the escape latency in elevated plus maze and morris water maze were significantly improved in the extract of *B.nigra* seeds treated group at dose 300mg/kg as compared to positive control group. Further, significant decrease in LPO and AchE level and a significant increase in SOD and GSH level in blood serum and tissue homogenate in the treatment group at dose 300mg/kg as compared to the positive control group. In the histopathology of brain tissue, the number of dead cells were significantly attenuated as comapred to positive control group on 56th day of the study.

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Conclusion- From this experimental study, it may be concluded that the hydroalcoholic extract of *B. nigra* seeds has a potential effect against Mn induced neurotoxicity at dose level of 300mg/kg of body weight in mice. Further study will be needed for the explanation of detailed mechanisms.

Keywords
B.nigra, Manganese, Neurotoxicity, Oxidative stress

Biography
This is Sushila Rawat from Uttarakhand, India. I am an assistant professor in pharmacy in Dehradun. I have done my masters in pharmacology from Sardar Bhagwan Singh University and present my research work which suggests the role of phytoconstituents obtained from the food that we consume daily in the treatment of neurodegenerative disorders. These phytoconstituents may not only help in treatment but can also delay the onset of some disorders for some years.

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Development of an Optimized Fraction of *Strobilanthes Crispus* using Response Surface Methodology for Anticancer Activity

Sutha Devaraj
AIMST University, Kedah, Malaysia
Nik Soriani Yaacob
Universiti Sains Malaysia, Penang, Malaysia

Abstract

Strobilanthes crispus L. Bremek is a bush-like tropical shrub utilized as traditional remedy for the treatment of diabetes, cancer, as a diuretic, for blood pressure control and in the healing of wounds. In this study, the extraction conditions of *S. crispus* plants were optimized using response surface methodology technique based on single factor experiment for an optimum anticancer activity against MCF-& breast cancer cell lines. Powdered freeze- dried leaves (particle size 1.0 mm) were added to Dichloromethane (DCM) at a ratio of 1:10 (w/v). This was followed by 38 minutes of ultrasonication at a temperature of 27.2°C. This yielded a crude extract having higher cytotoxic activity (66 %) compared to the initial extraction method (50-55 %). The DCM crude extract was further fractionated to obtain the most active fraction, fraction 3 (F3). Following this, the isolation of the major components in F3 was carried out using normal-phase silica gel chromatographic techniques. The isolated compounds were subjected for standardization of the F3 fraction using a novel and validated HPTLC method. In short, the present study managed to prepare an optimized, active and chemically standardized fraction of *S. crispus* which possess anticancer effects against breast cancer.

Biography

I am an educator cum researcher. Currently, I am working as a lecturer in AIMST University in Pharmacology Unit. My research expertise would be in drug discovery and natural product research.

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Hypobaric Hypoxia induced Renal Injury in Rats: Prophylactic Amelioration by Quercetin Supplementation

Vaishnavi Rathi
Defence Institute of physiology and Allied Sciences, India.
Sarada SKS
Defence Institute of physiology and Allied Sciences, India.
Somnath S
Defence Institute of physiology and Allied Sciences, India.

Abstract

The proposed study aims at assessing the effect of hypobaric hypoxia on kidneys and its associated renal injury in rats. In addition to this, we have addressed to find out the prophylactic efficacy of quercetin in restoring the altered kidney functions under hypobaric hypoxia conditions. Male Sprague Dawley rats of 180-200g were exposed to 25,000 ft at 25±2^{0}C for different hours viz. 1h, 3h, 6h, 12h, 24h and 48h. Quercetin (50 mg/kg BW) supplemented orally 1h prior to hypoxia exposure, which was considered to be the optimum dose, due to significant reduction ($p<0.001$) in plasma creatinine and Blood Urea Nitrogen (BUN) compared to control (hypoxia, 12h). Further, biochemical parameters such as plasma creatinine, BUN and plasma uric acid were analyzed to evaluate the kidney performance. Lactate Dehydrogenase (LDH) was measured as a marker of renal tissue injury. Moreover, ROS, MDA, GSH, GPx and SOD levels were estimated for assessment of oxidative stress parameters along with differential expression of proteins (Hif-1 α and VEGF) by western blotting in kidney homogenate of rats exposed to hypoxia.

The findings showed a significant increase in creatinine, BUN and uric acid from 1h of hypoxia exposure to 48h of hypoxia exposure. Significant loss in kidney functions started at 12h of hypoxia exposure among the tested hypoxia exposure durations, hence considered this duration as optimum time at which maximum renal dysfunction takes place under hypoxia. In support to this, as the duration of hypoxia exposure increased, the oxidative stress parameters also showed a continuous and persistent increase in ROS, MDA levels followed by significant decrease in GSH, GPx and SOD levels

in kidney homogenate of rats compared to control. LDH levels were increased with time of hypoxia exposure in tissue extracts of rat kidney compared to control along with increased Hif-1 α and one of its downstream gene VEGF expressions compared to control ($p<0.001$).
Prophylactic administration of quercetin to rats and exposed them to hypoxia for 12h showed a significant reduction in plasma creatinine, BUN and uric acid levels in rats compared to control. Further, with Quercetin prophylaxis, there was a substantial decrease in ROS, MDA levels followed by increased GSH, along with considerable increase in anti-oxidative enzymes i.e. GPx and SOD ($P<0.001$) at 12 hr hypoxia exposure compared to control. However, the hypoxia mediated increase in HIF-1α was stabilized and VEGF levels in kidney's were significantly down regulated by quercetin supplementation in rats under hypoxia compared to control. These studies indicated that hypoxia induced renal injury is diminished by quercetin prophylaxis in rats.

Key words
Hypoxia, Kidney, Renal injury, High altitude, Hif-1 α, Quercetin, Creatinine.

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QSAR and Molecular Docking Studies for Prediction of Novel Potential Anti-Tubercular Leads

Venkatesan S
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India
Pavithra L
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India
Haritha M
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India
Aparna Ram
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India
Gopinath P
Dr. APJ Abdul Kalam Research Lab, SRM College of Pharmacy, SRMIST, India
Kathiravan M K
Dr. APJ Abdul Kalam Research Lab, SRM College of Pharmacy, SRMIST, India

Abstract

DNA gyrase B subunit, a druggable target of potent anti-tubercular agents is involved in the process of ATP hydrolysis which in turn provides energy to gyrase A subunit for maintaining the DNA topological state. In the present study, we employed structural optimization of the reported GyrB inhibitors possessing quinoline nucleus employing QSAR and docking studies. QSAR studies were carried out by QSARINS software on 4-aminoquinoline derivatives for the best model having four variables L1i, MoRSEN26, RDFM5 and RDFE25 with statistical values R^2 = 0.7430, LOF=0.0608, CCC_{tr} = 0.8525, Q^2_{LOO} = 0.6461, $Q2_{LMO}$ = 0.6189, CCC_{cv} = 0.7972, R^2_{ext} = 0.8294, and CCC_{ext} = 0.8898. The developed QSAR model suggests that the 3D-WHIM, MoRSE and RDF descriptors play key roles

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in predicting bioactivity. The designed compounds using QSAR model predicted molecular descriptor information yielded compounds 42a and 42c as good potential theoretical candidates. Binding energy scores of the designed compounds provided nanomolar activity binding interactions in the activesite of 3zkd: DNA Gyrase B enzyme. Compound 42a, with predicted activity of ~80nM MIC will be take over for further experimental studies as anti-tubercular lead.

Keywords
QSAR, Anti-mycobacterial activity, MoRSE, Autodock

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Mitigative Effect of Zanthoxylum rhesta Linn Ethanolic Extract in Letrozole Induced Polycystic Ovarian Syndrome (PCOS) in a Murine Model

A. Vijay Babu
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India.
T. Sundarrajan
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India.
M.K. Kathiravan
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India.
V. Chitra
Department of Pharmacology, SRM College of Pharmacy, SRMIST, India.
V.Vijayan
Department of Pharmaceutical Technology, AIMST University, Kedah, Malaysia
P. Krishnakumar
Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRMIST, India.

Abstract

Background and Aims:
Polycystic Ovary Syndrome (PCOS) is an alarming clinical condition which has significant morbidity and mortality. Allopathic management exerts mounting adverse effects and economic burden. In this backdrop, the present study was carried out to showcase the efficacy of *Zanthoxylum rhesta* Linn seed ethanolic extract in Letrazole mediated PCOS.

Materials and Methods:
The animals were divided into five groups (n=20). PCOS was induced by intoxication of Letrozole (1mg/kg; b.wt) daily for 21 days. *Z.rhesta* was administered at the dose of 200 and 400 mg/kg for 21 days. At the end of the experimental period, the hormone levels such as FSH, LH, Estradiol,

Progesterone and Testosterone were estimated. Invitro antidiabetic activity of the isolated compound was done using glucose uptake assay, α-amylase and ß-glucosidase inhibition assay and enzyme kinetic studies.

Results

Z.rhesta displayed significantly prevented the PCOS by restoration of altered hormones level in Letrozole induced PCOS. Based on the spectral studies the isolated compound was found to be rutin. In invitro antidiabetic activity of rutin was revealed by marked increase in glucose uptake and inhibition of α-amylase and ß-glucosidase at the IC50 value of 0.49 and 0.40 mg/ml respectively. The enzyme kinetic study reveals that the activity of rutin on α-amylase was mediated by competitive type inhibition mechanism.

Conclusion

The present study showed the ameliorative effect of *Zanthoxylum rhesta* in letrozole induced PCOS in female Wistar rats. The activity rendered by *Z.rhesta* is might be due to the presence of rutin.

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Phytochemical and Proximate Analysis of Selected Medicinal Plants

A. Srivani
Centre for Pharmaceutical Sciences, Institute of Science & Technology (Autonomous), Jawaharlal Nehru Technological University, India.
Dr. G. Krishna Mohan
Centre for Pharmaceutical Sciences, Institute of Science & Technology (Autonomous), Jawaharlal Nehru Technological University, India.

Abstract
The phytochemical investigation is effective in discovering bioactive markers of plants with therapeutic value. Hence several phytochemical surveys have been carried out for detecting diverse groups of naturally occurring phytochemicals. Present study describes some parameters like extractive values, preliminary phytochemical studies, ash value, foreign organic matter, foaming index, swelling index, loss on drying and crude fibre of selected plants namely *Pterospermum suberifolium, Givotia moluccana, Ixora parviflora*. All methods were carried out using standard methods. For extractive values and preliminary studies various solvents like hexane, chloroform, ethyl acetate, acetone, methanol, ethanol and water were used. *G.molucanna* and *I.parviflora* showed high extractive value and significant phytoconstituents like alkaloids, flavoniods, glycosides, saponins, phenols, tannins in ethanolic extract whereas *P.suberifolium* showed high extractive yield and phytoconstituents in methanolic extract. There was no foreign organic matter in all three plants. The foaming index was less than 100 for both *P.suberifolium, G.molucanna* and greater than 100 for *I.parviflora*. The total ash value was obtained as 12.36%, 14.58%, 11.78%, the swelling index was 7.4cm, 6.2cm, 3.6cm, loss on drying was 11%, 13%, 9% and crude fibre content was 26.58%, 34.18%, 41.24% for *P.suberifolium, G.molucanna and I.parviflora* respectively.

Key words
Extractive values, Ash value, Foaming index, Swelling index, Crude fibre

Biography

A. Srivani is presently working as Assistant Professor at Centre for Pharmaceutical Sciences, Institute of Science and Technology, JNTUH, Telangana, India. She is working there since 2014. She did her maters in M. Pharmacy of Pharmacognosy specialization and pursuing Ph.D at JNTU Hyderabad University.

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Pharmacognostical and Anti-Convulsant Potential of *Rhus Parviflora roxb*

Anubi Badhani
Department of Pharmacognosy, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India
Ankush Sundriyal
Department of Pharmacognosy, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India

Abstract
Rhus Parviflora Roxb be a member of family Anacardiaceae and is frequently called as Sumac. It is a much-branched shrub having stalked leaves with three leaflets and the last leaflet is huge. The leaflets of the plant are obviate, with rounded tips, irregularly Toothed margins and tapering bases. The flowers are small and yellowish, and having sweet-scented . The fruit is small, round and become red when matured .It is used in the therapy of Vāta vikāra, a condition that is connected to neurological disorders as well as treatment for stomach disorders. The medicinal plant has also been described to have number of pharmacological activities, such as anti-HIV, antioxidant, immune system regulation, antibacterial, antihypertensive and anti-inflammatory activity. In Rhus parviflora eighteen compound were segregation from its fruits. The leaves consists of flavonoids, kaempferol and their-O-rhamnosides; myricetin, quercetin ; the stems and leaves also found to consists hentriacontane, hentriacontanol, lignoceric acid, beta-sitosterol, and iso-rhamnetin--alpha-L-arvinoside. Pericarp of the fruit consists of ellagic acid. An acid isolated from the fruit is described to have cardiotonic and sympathomimetic activity. The wax secured from the pulpy pericarp of the fruit consist of dibasic 6%, palmitic77%, oleic 12%, stearic 5%, and linoleic acid (a trace). It is used as a surrogate for beeswax.

Keywords
Rhus Parviflora Roxb, leaves, fruit, neurological complications.

Biography
Anubi Badhani is pursuing M. pharmacy in pharmacognosy specialization in Sardar Bhagwan Singh University, Balawala, Dehradun, Uttrakhand- 248161. She has completed her Bachelor of pharmacy in 2019 from Sardar Bhagwan Singh Post Graduate Institute of Biomedical Sciences And Research Balawala Dehradun Uttrakhand- 248161.

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Qualitative Phytochemical Screening Through HPTLC and GCMS Analysis of Nilavembu Kudineer: A Siddha Preparation

Asali Ahamed Abdul Sukkur
Department of Siddha Medicine, Tamil University, India
Anbu Jeba Sunilson John Samuel
Department of Siddha Medicine, Tamil University, India
Sangeetha .S
SRM College of Pharmacy, SRM Institute of Science and Technology, India

Abstract

A huge variety of medicinal plants are being exploited from the natural flora as drugs for treating various ailments. Among them Nilavembu Kudineer (NVK) which consists of nine herbs has been used as anti- viral, especially in siddha NVK used to epidemiological disease like dengue, chikungunya and moreover treated for the present covid-19. HPTLC studies was carried out for the methanolic extract of NVK to screen the presence of flavonoids. Analytical and preparative TLC was used to isolate flavonoids from the NVK extract using the mobile phase methanol/chloroform/hexane in the ratio of 7:2:1, v/v/v. The present study results show that NVK contain 14 different flavonoid types which makes the preparation very effective for treating the above mentioned disease conditions. Also, the investigation was carried out to determine the possible chemical components from NVK by GC-MS technique. The analysis revealed that the NVK methanolic extract contains 10,12 pentacosadiynoic acid, methyl ester, 1,2,3,5 cyclohexanetetrol, 2,5 octadecadiynoic acid etc. The results of the present study proved that the traditional usage of NVK possess several known and unknown bioactive compounds which can be further isolated and made to a suitable formulation to treat various disease conditions.

Biography

Dr.A.Asali Ahamed is a Research Scholar from Department of Siddha Medicine, Tamil University, Thanjavur, Tamilnadu. As a post graduate in Pharmacy Practice from India, Dr Asali Ahamed practiced as Senior Pharmacist in Ambulatory Healthcare Services (AHS) – SEHA, Abu Dhabi since

2007.Being a pioneer provider of ambulatory care Pharmaceutical services in this region, he has developed pharmacist based competency programs. Dr Asali Ahamed has been recognized as an expert in developing sustained partnerships with ambulatory patients and practicing in the context of family and community with quality improvement across the continuum of care.

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Formulation and Evaluation of Spray Dried extract from *Cynara scolymus* L


Ciobanu Cristina

Department of Drug Technology, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau, Republic of Moldova

Tomuta Ioan

Department of Pharmaceutical Technology and Biopharmacy, University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca, Romania

Abstract

Cynara scolymus L. is a well known medicinal plant native to the Mediterranean basin, with wide *spectrum of* therapeutic properties, including: antioxidant, hepatoprotective, cholesterol-lowering, antimicrobial and other effects, generally linked to their secondary metabolites *phenol*-derived structures. The paper aims to obtain a spray dried extract from leaves of C. scolymus L. and technological processes validation. The fluidized bed granulation technique is currently very often used in pharmaceutical industry because it allows the production of uniform granules. For this purpose the aeromatic fluidized air bed granulator Stearea I, with the following technical parameters: atom pressure 1.5 atm; flow 20-25 λpm; fan 4; time 45 min and temperature 80°C, was used. The C. scolymus L. liquid extracts obtained by u*ltrasound-assisted extraction* [1] were sprayed in 5 steps, after each step a respective amount of samples were taken for analysis. The series of granules were subjected to pharmaco-technical evaluation and to quantitative analysis by HPLC and spectrophotometric method for determination in subseries of polyphenol and flavonoid contents. This study showed that the granulate of C. scolymus L. present omogeneous physical characteristics and chemical content and induces the possibility of various processing of the granulated product for therapeutic purposes.

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Evaluation of Cardioprotective Effect of *Raphanus sativus* Linn. (Red variety) Roots Extract on Doxorubicin Induced Cardiotoxicity in Rats

Deepshikha Rawat
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India

Kiran Chamoli
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India

Dr. Veerma Ram
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India

Abstract

Herbal medicines have proved their potential in treating cardiovascular diseases due to the presence of plant secondary metabolites. *Raphanus sativus Linn.* belonging to the *Brassicaceae* family contains various phytoconstituents and used for treating various ailments in the traditional system of medicine. The present study was focused on the evaluation of the cardioprotective effect of *Raphanus sativus Linn.* (Red Variety) on doxorubicin induced cardiotoxicity in albino rats. Male wistar rats were divided into five groups, each containing six rats. The animals received ethanolic extract of *Raphanus sativus Linn.* at a dose of 500 mg/kg and 1000 mg/kg and standard drug verapamil (2.273mg/kg) for a period of 10 days. Doxorubicin (15 mg/kg, i.p.) was given to different group of animals on 7th day of study to induce cardiotoxicity. On the 10th day, various cardiac biomarkers (LDH, CK, AST, Troponin), total cholesterol, triglycerides and HDL level was estimated in the serum of animals. Histopathology of heart was also performed. Ethanolic extract of *Raphanus sativus* Linn at a dose of 500 mg/kg and 1000 mg/kg caused significant decrease ($p<0.001$) in the level of serum LDH, CK and AST. It also improved the level of HDL and decreased the level of total cholesterol and triglyceride in cardiotoxic rats. There was significant reduction ($p<0.001$) in cardiac troponin level in cardiotoxic rats after treatment with ethanolic extract of *Raphanus sativus Linn.* Histopathological studies of

heart indicate that the ethanolic extract is quite effective in improving the status of cardiomyocytes. Results of the study concludes that *Raphanus sativus Linn.* (Red Variety) can be a potential treatment option for cardiotoxicity.

Keywords
Cardiomyocytes, Doxorubicin, Raphanus sativus Linn., Verapamil.

Biography
Deepshikha Rawat is presently pursuing M.Pharm (Pharmacology) final year at Department of Pharmacology, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, Dehradun, Uttarakhand, India, She did her Bachelor of pharmacy - (2015-2019 Batch) from Sardar Bhagwan Singh University, Dehradun, Uttarakhand, India.

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Integrating Ayurvedic Knowledge into Modern Computational Tools with Special Focus on Triphala

Dr Devasena K M
PG Scholar, Department of Rasashastra and Bhaishajyakalpana, Amrita School of Ayurveda, Amrita Vishwavidyapeetham, India.

Dr Arun Mohanan
Associate Professor, Department of Rasashastra and Bhaishajyakalpana, Amrita School of Ayurveda, Amrita Vishwavidyapeetham, India.

Dr Ramesh N V
Professor, Department of Rasashastra and Bhaishajyakalpana, Amrita School of Ayurveda, Amrita Vishwavidyapeetham, India.

Abstract

Ayurveda is a traditional Indian system of medicine which has been practiced for 3000 years. It gives single and combinations of herbal and mineral drugs for various conditions. Novel technologies like *in silico* approaches and network pharmacology make use of such traditional knowledge and help develop new drugs and therapeutic uses as well as give evidence to traditional practices.

This review is based on Ayurvedic texts and scientific online databases like PubMed, Google Scholar, ScienceDirect to study use of modern network pharmacology approaches in ayurvedic medicines. Keywords used: 'Ayurveda' 'Network pharmacology' etc.

A network pharmacology and bioinformatics analysis-based research was done to study the multi-targets mechanism of triphala on cardio-cerebral vascular diseases. Network analysis revealed over 130 compounds, out of which 10, which actually linked to more than three genes, are determined as crucial chemicals. *In silico* approaches help explian the mechanism by which triphala inhibit angiogenesis. The anti-angiogenic effect was mediated by the combined effect of punicalagin and chebulagic acid. Another analysis, with special focus on triphala's anti-cancer activity, offered new relationships among bioactives, targets and applications of cancer etiology.

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Such studies help in analyzing multi-target action of traditional medicines and may help identify new drugs as well as targets.

Biography

Dr Devasena K M is a PG Scholar in Amrita School of Ayurveda, Vallikkavu, India. Her favourite areas of research include neurodegenerative disorders and computational approaches to ayurvedic medicines.

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Antibacterial Activity of Ethanolic Extracts of the Leaves of Terminalia Coriacea and Artocarpus hirsutus

Jitendra Patel
Gitam School of Pharmacy, GITAM Deemed to be University, India.
G. Shiva Kumar
Gitam School of Pharmacy, GITAM Deemed to be University, India.

Abstract

Lymphoedema patients are at great risk of having fungal and bacterial wound infections causing to acute inflammation. Wound healing treatment is done by medicinal plants and its products. Ethanolic extracts of two Indian medicinal plants *Terminalia coriacea* and *Artocarpus hirsutus*, were used against *Streptococcus pyogenes Klebsiella pneumoniae, Shewanella alage*, *Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa Staphylococcus aureus* ATCC25923, *Klebsiella pneumoniae* ATCC700603, methicillin-resistant *S. aureus* ATCC®43300TM, *Pseudomonas aeruginosa* ATCC37853 and *Escherichia coli* ATCC25922; by Microdilution and Agar diffusion methods for Antibacterial activity. The ethanolic extract of *T. coriacea* leaves given high effect against all tested species of bacteria which was compared to the standard drugs. However, the extract of *A. hirsutus* revealed the moderate activity against all bacterial species tested except *Streptococcus pyogenes* isolates. The least (MIC) minimum inhibitory concentration was noted with the extract of *T. coriacea* against *E. coli* isolate and also *S. aureus* ATCC 25923. The *T. coriacea* leaves extract showed the excellent activity. The traditional uses of these plants leaves for antimicrobial activity was justified by the results obtained, this can be utilized for curing of wound contaminations related with lymphoedema.

Biography

Dr. Jitendra Patel is currently working as Assistant Professor, in Gitam University, Hyderabad Campus, Rudraram, Sangareddy, Hyderabad (TS). He has Awarded his PhD. (Pharmaceutical Sciences) on 8th December 2017 from JNTUH University; Hyderabad (TS) for his research work entitled "Phytochemical Evaluation and Biological Screening of Some Medicinal Plants against Liver Diseases". The research work was carried out under the esteemed **guid**ance of **Dr. G. Shiva Kumar**,

Principal & Professor, School of pharmacy, GITAM deemed to be University, Rudraram (M) Sangareddy (D), Hyderabad.

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Immuno Modulation with Ayurveda During the Pandemic

Dr.Parvathy.C
PG Scholar, Amrita Vishwa Vidyapeetham, Coimbatore /Amrita School of Ayurveda, India.
Dr.Vineeth P.K
Assistant Professor, Amrita Vishwa Vidyapeetham, Coimbatore /Amrita School of Ayurveda, India.
Dr.Arun Mohanan
Associate Professor, Amrita Vishwa Vidyapeetham, Coimbatore /Amrita School of Ayurveda, India.

Abstract

Ayurveda is the ancient practice of living in harmony with nature. The two aims of Ayurvedic system of medicine are prevention of disease and cure of disease. Ayurveda emphasizes on daily practices and natural medicines to promote health, to prevent the occurrence of diseases. A number of ayurvedic drugs are now proved to have evident immunomodulatory effects. The COVID-19 pandemic has made us aware of the necessity of immunomodulation above all other measures to achieve health. This article is a review on the published articles on the immunomodulatory effects of ayurvedic medicinal plants and the application of new dosage forms in Ayurvedic medicine. In Ayurveda drugs which help to improve immunity are termed as Rasayana drugs.*Withaniasomnifera, Oscimum sanctum, Tinospora cordifolia, Asparagus racemosus*are examples of few plants with immunomodulatory effects. Most of the immunomodulatory plants also contain other medicinal properties like anti-inflammatory, antioxidant, cardioprotective, hepatoprotective actions. Unlike modern medical pharmaceuticals ayurvedic pharmaceutical industry has grown tremendously during the pandemic, since the people has realized the importance of immunomodulation with natural remedies. Implementation of new dosage forms in ayurvedic medicines can be a useful tool to improve the market of ayurvedic medicine and powerful tool to withstand the pandemic with sound immune system.

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Biography

I am Dr. Parvathy C PG Scholar from Amrita Vishwa Vidyapeetham, Coimbatore /Amrita School of Ayurveda, India.

ACHIEVEMENTS

- Jeevaka Award winner from Himalaya Drug Company for first rank in final BAMS – 2012
- Alternative Healing – Completed Reiki Third Level from Acutherapy and Holistic Health Association. (AHHA)
- Presented two international papers and five poster presentations in national seminars.

ACADEMIC CREDENTIALS

- Graduation: BAMS with Distinction

College: KVG Ayurveda Medical College & Research Centre, Sullya
University: Rajiv Gandhi University, Karnataka

- Completed Ayurvedic Pharmacist Certificate Course under Kerala Govt.

CLINICAL EXPERIENCE

Relevant Experience: - 5 Years

- PRODUCTION MANAGER at capsulation and pharmaceuticals, Aroor P.O, Alappuzha
  2 years (Softgel).
- RMO in AgasthyaAyurvedic Medical Centre, Ezhupunna P.O
  February 2015 – March 2017
- RMO in Santhosh Ayurveda Specialty Hospital, KadalundiNagaram
  April 2014 – January 2015
- District Ayurveda Hospital, Alappuzha and Ernakulam (Internship).

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Standardization and Toxicological Profiling of Polyherbal Anti-Diabetic Siddha Formulations

S.Ruby
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
J.Banurekha
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
M. Kumar
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India
B. S. Venketeswarlu
Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF(DU), India

Abstract

In spite of all the advances in therapeutics, diabetes still remains a major cause of morbidity and mortality in the world. Diabetes mellitus leads to elevated cost of healthcare. This imposes a huge economic burden on households, societies, and nations. In India it is proving to be a major health problem, especially in the urban areas. Herbal formulations are becoming popular now days particularly in the treatment of Type 2 diabetes. Though there are various approaches to reduce the ill effects of diabetes and its secondary complications, herbal formulations are preferred due to lesser side effect and low cost. This study focuses on the potential of different polyherbal formulation in the treatment of diabetes and also reviews their standardization. A list of siddha medicinal plants with proven anti-diabetic and related beneficial effects such as sirukurinjan (*Gymnema sylvestre*), Vendhayam (*Trigonella foenum graecum*), avarai (*Cassia auriculata*), Kondrai (*Cassia fistula*), Naval (*Eugenia jambolana*), Vilvam (*Aegle marmelos*). These siddha Herbal remedies have been practiced by humans and therefore possess time-proven safety. It is to evaluate the toxic effects of herbal medicine to confirm their safety, particularly when developing therapeutic leads. Use of laboratory animals such as rats, mice, and rabbits was considered as gold standard in herbal toxicity assessments. However, in the last few decades, the ethical consideration of using higher vertebrates for toxicity testing has become more contentious. Thus, possible alternative models entailing lower vertebrates such as

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zebrafish were introduced. The zebra fish embryo toxicity model is at the forefront of toxicology assessment due to the transparent nature of embryos, low cost, short cycle, higher fecundity, and genetic redundancy to the humans. Recently, its application has been extended to herbal toxicology.

Key words
Polyherbal, antidiabetic, medicinal plants, Type 2 diabetes, Zebra fish, Embryo toxicity

Biography
I am Dr. S. Ruby working as a associate professor, Department of Pharmaceutical chemistry, Vinayaka Mission's College of Pharmacy, VMRF (DU), Salem, Tamilnadu, India. I have completed my UG B.Pharmacy degree on 1999 and PG M. Pharmacy degree on 2006 from The Tamilnadu Dr.MGR Medical University. I have completed my Ph.D from Vinayaka mission research foundation (du) Tamilnadu, India, on 2020. I have Publish my research work in the indexed journals. I hold a copyright issued by Government of India for the manual titled "Medicinal chemistry-I" in the year 2021. I am proficient in handling Pharmaceutical chemistry subjects' organic chemistry, medicinal chemistry. Currently I am working on a funded research project sponsored by seed money research grant by VMRF (DU) on herbal standardization of anti-diabetic siddha formulations.

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Prevention Oxidation of LDL and Foam Cell Formation by Tannin Methanol Extract from *Citrus Limon* and Honey Mixture

Hari Priyaa G
School of Basic and Applied Sciences, Dayananda Sagar University, India
Dr. Sunil S. More
Professor & Dean, School of Basic and Applied Sciences, Dayananda Sagar University, India

Abstract

Atherosclerosis is caused from high plasma concentrations of Low Density Lipoprotein (LDL), resulting in development of lipid laden plaques on the arterial walls leading to blockage and heart attack. Macrophages takes up Oxidised low density lipoproteins which results in the formation of foam cells, which are critical in the initiation of atherosclerosis. Till today contemporary drugs used for the treatment and prevention are statins, nevertheless, some of these have serious side effects. Medicinal plants have wide range of phytochemicals used for treatment, and are rich in as yet unexplored novel natural products. Ayurveda and Siddha recommends a list of medicines which also serve as food in our daily lives thus called Nutraceuticals. *C. limon* was collected and phytochemical (tannin) was extracted using two solvents i.e. water and methanol. Antioxidant assays such as Superoxide, DPPH, and Nitric Oxide scavenging activity was performed. LDL isolation and oxidation inhibition assay were performed and were evaluated. Highest active sample was then subjected to Anti-proliferative, Anti-apoptotic and foam cell inhibition studies on cell lines (Raw 264.7 and THP-1 cells). Significant inhibition and anti-oxidant activity were observed in tannins from methanolic extract. Further, tannin extract was evaluated on RAW264.7, THP-1 cell lines in which foam cell inhibition assay revealed the potential to prevent foam cell formation. Thus active phytochemical acts as antilipidemic and anti-atherogenic property. Hence, contemplating the side effects of presently available treatment. The present paper provides a comparison of action of phytochemical and statin on cell lines (RAW 264.7, THP-1) as the major therapy for atherosclerosis.

Keywords

C. limon honey; Tannin; foam cell inhibition; Phytochemical.

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Phytochemical, FTIR and NMR of Isolated Compounds of Methanolic Extract of Limnobium laevigaetum Hump and Bonpl

Keserla Bhavani
Department of Pharmacology, Krupanidhi college of Pharmacy, India
Dr. Alagu Manivasagam
Department of Pharmacy, Annamalai University, India
Dr. Amit Kumar Das
Department of Pharmaceutical Chemistry, Acharya B.M. Reddy college of pharmacy, India

Abstract

The present study is to evaluate the phytochemical constituents from the methanolic extract of *Limnobium laevigaetum* Hump and Bonpl. Seaweeds are excellent sources of biologically active ingredients. Several Asian countries have a strong tradition of various seaweeds in herbal medicine preparations. These plants contain various phytochemical constituents. They are potentially prolific sources of highly bioactive secondary metabolites, which manifest various therapeutic effects like anticancer, anti-inflammatory, antioxidant, antidiabetic properties. In the present study phytochemical investigation of the seaweed *Limnobium laevigaetum* Hump and Bonpl was studied. The constituents that are identified are alkaloids, tannins, phenols, proteins and amino acids, steroids, terpenoids, glycosides, quinines, fixed oils and resins. GC-MS analysis was done on prepared methanolic extract of *Limnobium laevigaetum* Hump and Bonpl for identifying the bioactive compounds. By GC-MS analysis 9 varieties of compounds are identified. Among which hexadecenoic acid, pentadecanoic acid, dodecanal, sigma steroyl tosylate are the major compounds. Many of them have antioxidant, anticancer, antidiabetic, anti-inflammatory and anti-hyperlipidemic and antiangiogenic properties. FTIR spectroscopy reveled the presence of aliphatic alcohols, furans, chlorinated hydrocarbons from IR absorption bands with the wavelength range of 3421cm^{-1}to 1521 cm^{-1}and the active compounds were identified comparing with the standard chart. The number of protons present and the electronic state of the protons were identified by NMR. Further studies were carried out to find out the pharmacological activities of the plant.

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Biography

I am Keserla Bhavani, working as an assistant Professor in Department of Pharmacology, Krupanidhi college of Pharmacy, Bengaluru, Karnataka, India. I am persuing my PhD in Annamalai University, Tamilnadu, India. I have about 15 review and research articles. I am the gold medalist in M. pharmacy.

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Formulation, Optimization and Evaluation of Polyherbal UNANI Formulation Marham Karish Jadeed for the Treatment of Psoriasis

Kumar Mohan
Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation, (DU), India
M. V. Kumudhavalli
Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation, (DU), India
B. S. Venteswarlu
Vinayaka Mission's College of Pharmacy, Vinayaka Mission's Research Foundation, (DU), India

Abstract

Development of effective standardization technique with proven efficacy is mandatory necessary to establish standards through advanced scientific and techniques. This will lead to the increase reputation and acceptance of traditional medicines. Marham Karish Jadeed (MKJ), a unani polyherbal formulation is used by Unani physicians for treatment of psoriasis. The current work involves standardization of MKJ in order to assess the quality of In-house and marketed formulations. In-house and marketed formulations were In-house and marketed formulations were subjected to pharmacognostic studies, physico-chemical properties, phytochemical analysis and HPTLC fingerprint profile to set the standards, which can be used as reference standard to evaluate the quality control in herbal industries and to avoid batch to batch variations in traditional preparation. In the present study, the anatomical markers of the constituents were observed. Microbial load was determined using different strains of pathogenic bacteria. The extractive values were found to be more for alcohol than water. The preliminary phytochemical analysis, heavy metal analysis indicated the presence of tannins, camphor, and sulfur and acacia catechu. HPTLC and ATR FTIR fingerprint profile of in house and marketed formulations were found to prove the active medicaments incorporated in the unani formulation.

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Keywords
Marham Karish Jadeed; Unani, Psoriasis; Standardisation; Formulation;

Biography
Dr.M. Kumar is currently working as a Professor, and Head Department of Pharmaceutical chemistry at Vinayaka Mission's College of Pharmacy, VMRF-DU. I got more than 30 years of teaching and research experience in the field of Pharmacy. I have guided more than 50 M.Pharm students and currently guiding 7 Ph.D Students. One Student got Awarded Ph.D under my guidance. I've published more than 100 research work in indexed journals. Currently I am working on a research project funded by VMRF-DU SEED money on Formulation and Standardization of Unani Formulations for the treatment of psoriasis.

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Bio-Availability of Tender Coconut Water in Ayurvedic Formulations

Lekshmi Devi S
Amrita School of Ayurveda, Amritapuri, Amrita Vishwa Vidyapeetham, India.
Ramesh N. V
Amrita School of Ayurveda, Amritapuri, Amrita Vishwa Vidyapeetham, India.
Dhanya.S
Amrita School of Ayurveda, Amritapuri, Amrita Vishwa Vidyapeetham, India.

Abstract

The coconut [Cocos nucifera L.] water provides natural refresher and nutritional beverage for millions of people world-wide and it is often called the "tree of life. The tender coconut water is used in Ayurveda potentially as a therapeutic agent in acute conditions. The compounds in tender coconut water on primary rat hepatocytes expression shows reduced inflammation, increases acute phase protein and antioxidant and shows hepatic Nos2 expression. The extent of oxidative stress generated by acute whole-body heat exposure and levels of endogenous antioxidants to prevent this effect in heat-stressed murine testicles. The classical five phytochromes helps to give anti-thrombotic, anti-ageing, anti-cancerous, anti-platelet and cell proliferating activities. The soil and climate will affect the micronutrients as well as elemental constituents in coconut water. The process used in Ayurvedic formulations facilitates the biomolecular availability of the tender coconut water to a deep extent. The single and double emulsion technique used for the encapsulation of micro and nano-particle solidification is through solvent vaporization. The common tender coconut preparations of Karikku kasha yam and Ilaneerkuzhambu are overviewed for the techniques used in Ayurveda pharmaceutical chemistry which gives high therapeutic bio availability of the tender coconut water through Classical Ayurvedic and modern databases.

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Biography

[1]P.G Scholar in Ayurvedic pharmacology and Medicinal Chemistry in Amrita School of Ayurveda, Kollam, Kerala, India.
[2.] Professor and Head of the department of Ayurvedic pharmacology and Medicinal Chemistry in Amrita School of Ayurveda, Kollam, Kerala. Principal-in charge of Amrita School of Ayurveda
[3.] Assistant Professor in department of Ayurvedic pharmacology and Medicinal Chemistry in Amrita School of Ayurveda, Kollam, Kerala.

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Phytochemical Screening, Physicochemical Studies of Seed Extract of Asclepias exaltata (Poke Milkweed) L.from Southern India

Lingaraj Nayak
Research Scholar, LUC, Malaysia
Sreemoy Kanti Das
Deputy Dean, Faculty of Pharmacy, LUC, Malaysia

Abstract

Asclepias exaltata is an herbaceous, tall perennial milkweed that gets its name from the milky sap it produces, which contains latex, alkaloids, and other substances, and is commonly found on the outskirts of woods. It looks similar to *Asclepias syriaca*, the common milkweed, and has been found to hybridise with it in regions where both species coexist. Poke milkweed, like other therapeutic plants, is best known for its beneficial secondary metabolites (Tannins, Glycosides and Saponins). They have been used to treat numerous disorders such as tumours, asthma, fever, diarrhoea, gonorrhoea, and warts since ancient times because of its curative characteristics. As a result, the current research use good diffusion techniques to explore distinct phytochemicals contained in seed of different solvent (Ethanol, Chloroform, Petroleum Ether) extracts. Steroids, glycosides, phenols, tannins, and saponins were found in the phytochemical screening of seeds. The seeds' moisture content, total ash and acid-insoluble ash were found to be 88.01 percent, 4.10 percent, and 0.30 percent, respectively, in physico-chemical tests. This study provided the strongest support for the use of this plant in herbal medicine and took a step forward in revealing new information about its therapeutic efficacy.

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Solubility Enhancement of Lornoxicam with Poloxamer 188 by Solvent Evaporation Method

Lubna Nousheen
Anwarul Uloom College of Pharmacy, India
A Venkateshwar Reddy
Anwarul Uloom College of Pharmacy, India
Md. Shamim Qureshi
Anwarul Uloom College of Pharmacy, India

Abstract

Lornoxicam is an Oxicam and Non-steroidal Anti-inflammatory Drug (NSAID), with analgesic, anti-pyretic, anti-thrombotic and anti-inflammatory activities. It belongs to Biopharmaceutical Classification System (BCS) - class II substance with low solubility and high permeability. The aim of the present investigation was to enhance the aqueous solubility and therapeutic efficacy of the drug by formulating Solid Dispersions (SD) of LOR with a hydrophilic carrier Poloxamer 188(PXM) by solvent evaporation method. Phase solubility study with increasing PXM concentrations (0.5 to 2 % w/v) was done to study the influence of polymer concentration on solubility of LOR. SD's of LOR and PXM in 1:1, 1:2 and 1:3 w/w ratios were prepared by physical mixing and solvent evaporation method, followed by dissolution studies. Evaluation of the properties of the SDs was performed by using dissolution, Fourier-transform Infrared (FTIR) spectroscopy, Differential Scanning Calorimetry (DSC) and X-ray Diffraction (XRD) studies. The SDs of LOR with PXM exhibited more enhanced dissolution rate than physical mixture and pure drug, and the rate increased with increasing concentration of Poloxamer 188 in SDs. The FTIR spectroscopic studies showed the stability of LOR and absence of well-defined LOR – PXM interaction. The DSC and XRD studies indicated that the transformation of Lornoxicam from crystalline to amorphous state by solvent evaporation method.

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Valorisation of *Pacu* Skin Collagen for Enhancing the Burn Wound Healing Process

Manjushree H K
School of Basic and Applied Sciences, Dayananda Sagar University, India
Prakruti P Acharya
School of Basic and Applied Sciences, Dayananda Sagar University, India
Sunil S More
School of Basic and Applied Sciences, Dayananda Sagar University, India
Aneesa Fasim
School of Basic and Applied Sciences, Dayananda Sagar University, India

Abstract

The present bioactive bandages and ointments used to treat burn wounds are very scarce and highly priced. They also come with certain disadvantages like, causing excessive dryness that hinders healing and it also leads to hypertrophic scar formation. Collagen is a conserved protein across species and fish collagen, which can be easily extracted has found many applications in field of regenerative medicine and wound healing. Upon fragmentation of collagen, certain sequences called cryptic peptides are released that are known to possess bioactive properties. So the current study focuses on extraction, fragmentation, biophysical characterization and wound healing properties of pacu fish skin collagen. 71.5% collagen type I was extracted from *Pacu* skin and fragmented using collagenase resulting in a hydrolysate (PaCH). Comparative biophysical analysis (SDS-PAGE, FTIR and CD) of the extracted collagen and hydrolysate showed similar structural conformation. SEM and TGA analysis revealed hydrolysate to be highly porous and thermostable compared to collagen. In vitro studies revealed that the PaCH has high peroxide quenching, antioxidant, antimicrobial and hemocompactible properties. MTT assay proved PaCH to be non-cytotoxic and scratch assay displayed significant wound closure property. The study shows that collagen recycled from *Pacu* skin is a promising bioactive compound for the fabrication of low cost and effective burn wound healing agents.

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Key Words
Fish Collagen, collagen hydrolysate, wound closure, burn wound healing.

Biography
I, Manjushree H K is a DST-INSPIRE research scholar pursuing PhD in Dayananda Sagar University, Karnataka, India. I was awarded the fellowship in 2019. My work involves fabrication of low cost and effective bioactive bandages/ointments for burn wounds using recycled fish collagen.

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Pharmacognostical and Anti-Diarrheal Activity of *Grewia Optiva J.R. Drummond Ex Burret Stem Bark*

Monika Jagtap
Department of Pharmacognosy, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India
Rekha Jethi
Department of pharmacognosy, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India
Anupama Singh
Department of pharmacognosy, School of Pharmaceutical Science, Sardar Bhagwan Singh University, India

Abstract

Grewia optiva belongs to family Malvaceae and is ccommonly known as Bhimal. It is a flowering plant and also known as rainbow shower tree, bihul, dhaman etc. *Grewia optiva* is used traditionally in treatment of fever, arthritis, diarrhea, reduce hair sebum, facilitates child birth, inflammation and arthritis. In *Grewia optiva* phytoconstituents like tannins, flavonoids, alkaloids, phenolic compound, triterpenoids, fixed oil, sterols, glycosides, carbohydrates, amino acids are present. In literature review there is no evidence of pharmacognosy of Grewia optiva stem bark and its anti-diarrheal activity. Therefore, an attempt was made and planned a study that involves pharmacognosy of *Grewia optiva* stem bark, chemoprofiling of *Grewia optiva* stem bark extracts and evaluation of anti-diarrheal activity of different extracts. Standardization parameters were performed as per WHO guidelines, Ayurvedic Pharmacopoeia and Indian Pharmacopoeia. Anti- diarrheal activity was performed using castor oil induced diarrhea and gastrointestinal motility test by charcoal meal. All standardization parameters are with in limits as per different pharmacopoeias and guidelines. Anti-diarrheal activity was performed and further active extracts will be used for isolation and formulation development.

Keywords

Grewia optiva, Bhimal, Rainbow shower tree, Diarrhea, Stem bark.

Biography

Monika Jagtap is pursuing M. pharmacy in pharmacognosy specialization in Sardar Bhagwan Singh University, Balawala, Dehradun, Uttrakhand- 248161. She has completed her Bachelor of pharmacy in 2019 from Central India Institute of Pharmacy, Indore, Madhya Pradesh.

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Evaluation of the Antidiabetic Effect of Leave Extracts of *Pterocarpus marsupium* Roxb. on Streptozotocin Induced Diabetic Rats

Muhammad Murtaza
School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India
Abhishek Prajapati
School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India
Veerma Ram
School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India
Dr. Mamta F Singh
School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India

Abstract

The present study was performed to determine the effect of *Pterocarpus marsupium* Roxb. leaves extract on streptozotocin induce diabetes mellitus in rats. Diabetes was induced by a single dose (60mg/kg) of streptozotocin for a period of 72 hours. Animals with fasting bood glucose level more than 200 mg/dl were selected for the study. Animal were divided into seven groups with six animal each. One group served as normal control. Methanolic and aqueous extracts were prepared from fresh leaves of the plant. The diabetic rats received methanolic and aqueous extracts at a dose level of 150 mg/kg and 300 mg/kg for a period of 21 days. Standard drugs glibenclamide (10 mg/kg, p.o.) was also given for a period of 21 days. Effect of the treatment was observed on fasting blood sugar level on 0, 7th, 14th and 21st days. Lipid profile (Cholesterol, TG, HDL), kidney function tests (Creatinine, Uric acid, Urea) and liver function test (SGOT and SGPT) were checked at the end of treatment period. Oxidative stress and anti-oxidant activity was also evaluated at the end of study. Methanolic and aqueous extracts at a dose of 300 mg/kg/day caused significant decrease ($p<0.001$) in fasting blood sugar level. Both of the extracts at a dose level of 300 mg/kg caused significant decrease ($p<0.01$) in the level of lipid profile, kidney function and liver function tests. There was a significant decrease in oxidative stress and anti-oxidant enzymes level in diabetic rats after treatment with plant extract. Results of the study

concludes that the leave extracts of *Pterocarpus marsupium* Roxb have the potential to treat streptozotocin induced diabetes mellitus.

Keywords
Anti-diabetic, Pharmacological, *Pterocarpus marsupium,* Streptozotocin

Biography
Muhammad Murtaza is presently pursuing M.pharm (Pharmacology) final Year at Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, Balawala, Dehradun – 248001, Uttrakhand, India. He did his Bechelor of Pharmacy [2015-2019] from Glocal University Saharanpur U.P.

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Standarization and Validation of Traditional Claim of Maesa Indica (ROXB.) Found in Uttarakhand

Saraswati Bahuguna
Department of Pharmacognosy, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India
Anupama Singh
Department of Pharmacognosy, School of Pharmaceutical Sciences and Technology, Sardar Bhagwan Singh University, India

Abstract

Nagpadhera is a small tree having common name of *Maesa indica (*Roxb.), (Myrsinaceae). *Maesa indica (*Roxb.) contains xanthoproteins, tannins, flavanoids, steroids, glycosides, proteins, oils, alkaloids, and phenols in its stem and bark. Fruits contain kiritiquinone, quercetin, caffeic acid, rutin, chlorogenic acid and benzoquinones. Lupeol present in stem bark is anti diabetic phytoconstituent.. Nagpadhera is used in the treatment of diabetes, cellulitis, cough and cold (stem bark), anti-cancer, antioxidant, anti-HIV, blood purifier and hepato-protective (Leaves and bark). Also, fruits are used anti-helmintics and roots are used as blood purifier and anti-hypertensive agent.

In spite of this pharmacological importance, no literature is available till date on pharmacognostical parameters and only few are there on phytochemicals present in leaf. Therefore, this research includes macroscopic & microscopic characterisation, physicochemical analysis (Ash values, extractive values, moisture content) and chemo-profiling (Phytochemical screening, thin layer chromatography, quantitative estimation using spectroscopic methods). Along with this the acute toxicity study and analgesic activity were also performed.

All the pharmacognostical studies are found within the limits as in official compendias. The extract did not show any toxic effect and then showed the analgesic effect. Pharmacognostical and preliminary phytochemical investigations helped in identification of drug, development of monograph and isolation of phytoconstituents.

Key words

Analgesic, Hepatoprotective, Maesa, Myrsinaceae, Nagpadhera

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Green Technology for Medical Herbs Processing: Supercritical Carbon Dioxide Extraction Through Basics and Case Studies

Senka Vidović
Faculty of Technology Novi Sad, University of Novi Sad, Serbia
Nataša Nastić
Faculty of Technology Novi Sad, University of Novi Sad, Serbia
Jelena Vladić
Faculty of Technology Novi Sad, University of Novi Sad, Serbia
Simiša Simić
Faculty of Technology Novi Sad, University of Novi Sad, Serbia
Mirjana Sulejmanović
Faculty of Technology Novi Sad, University of Novi Sad, Serbia

Abstract

Supercritical CO_2 extraction is advanced green extraction technique which enables production of higher quality herbal extracts in means:

- ✓ production of extracts without trace of applied extraction solvent, and
- ✓ production of extracts with preserved thermo sensitive compounds as their degradation is avoided by the setup of the process at the low temperature conditions.

Beside production of solvent free high quality herbal extracts, compared to conventional extraction techniques it has several other advantages: it is fast due to increased diffusivity of extraction solvent, it is therefore time and energy efficient, and environmentally friendly.

This technique, by the change of process parameters such are temperature and pressure, or by addition of polar co-solvent, enables the selective extraction of non and low polar compounds in high rates, as well as some bioactives of moderate polarity.

Because of all these facts extraction by supercritical CO_2 is often method of choice for production of fragrances and aromas, essential oils, fatty acids, pigments, sterols and other bioactive compounds for

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pharmaceutical and food industry. It is applied for extraction of variety of medical herbs (*Satureja montana*, *Achillea millefolium*, *Ocimum basilicum*, *Echinacea purpurea* and many more), extraction of microalgae, purification of coffee or seed-meals for protein isolation.

Biography

Senka Vidović is Associate Professor at Department of Biotechnology and Pharmaceutical Engineering. She has published more than 100 manuscripts with impact factor; her *h* index is 24, citation more than 2000. She was the Vice Dean for Science and Academic Erasmus coordinator at her institution. She is lecturing more than 40 students per year in the field of pharmaceutical engineering, was mentor of 35 bachelor, master and 5 PhD Thesis. She is Science Communication Manager of COST Action Greenering (CA18224) founded by European Cooperation in Science and Technology. She has lead several national and international scientific projects.

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Ayurvedic Tamra Bhasma (Incinerated Copper Nanoparticles) as Agents for Desired Drug Delivery

Sreenisha S S
P G Scholar, Amrita School of Ayurveda, Amritapuri, Amrita Vishwavidyapeetham, India
Dhanya S
Assistant Professor,Amrita School of Ayurveda, Amritapuri, Amrita Vishwavidyapeetham, India
Vineeth P K
Assistant Professor,Amrita School of Ayurveda, Amritapuri, Amrita Vishwavidyapeetham, India

Abstract

Nanotechnology has attracted researchers all over the world due to its unique properties and actions. Tamra Bhasma or incinerated copper nanoparticles, is traditionally used in Ayurveda for various therapeutic purposes including ailments of liver and spleen, fever, dropsy, abdominal pain, heart disease, colitis, tumors, anemia, loss of appetite, tuberculosis, as well as eye problems etc. since ancient times.

Copper is an important micronutrient which is to be maintained in limited quantity in human body as it plays important role in oxygen transport, enzyme activity and cell signaling.

Tamra bhasma is already proven to have anti-inflammatory, immunomodulatory, antiviral and adjuvant activities. These properties point to its efficacy as an antiviral agent which should be further studied especially against current pandemic SARS-CoV-2.

Ayurvedic preparation of bhasma removes the toxic effects of metals and transforms it into biologically active nanoparticles. Bhasmas with their large surface area and small particle size, can be easily transported into cell nucleus and to specific target sites as desired.

Further studies are required to understand the exact mechanism by which Tamra bhasma is reaching the desired target and achieving its therapeutic effect.

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Biography

Dr Sreenisha.S.S, is currently P.G Scholar in Rasashastra and Bhaishajya Kalpana (Medicinal Chemistry & Pharmacy) from Amrita School of Ayurveda Vallikav, Kollam. I have presented two international paper presentation and one national paper presentation. Also presented two international and two national poster presentations. I got first prize in poster presentation conducted in Parul university.

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Assessment of the Effect of Agomelatine on High Fat Diet and Fructose Induced Metabolic Syndrome in Rats

Subhashini Badoni
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India
Shubham Baliyan
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India
Dr. Mamta F. Singh
Department of Pharmacology, School of Pharmaceutical Science & Technology, Sardar Bhagwan Singh University, India

Abstract

The present study was designed to evaluate the effect of melatonin agonist agomelatine in High Fat Diet (HFD) and fructose induced metabolic syndrome. The high fat diet and fructose was fed to the rats in diet and drinking water respectively, for a period of 45 days. Animals having body weight of 300 g and fasting blood sugar level of 200 mg/dl were considered as hyperlipidemic diabetic rats and were selected for the study. The hyperlipidemic diabetic rats were divided into four groups, each group containing six animals. The hyperlipidemic diabetic rats received agomelatine (20 mg/kg, p.o.) and standard drugs melatonin (20 mg/kg, p.o.) for a period of 30 days. Body weight and BMI of animals was checked regularly on weekly basis. Various biochemical, hormonal and tissue parameters were evaluated at the end of treatment period. Agomelatine and melatonin significantly decreased ($p<0.001$) body weight, BMI, fasting blood sugar and insulin level in hyperlipidemic diabetic rats. Treatment also improved insulin resistance in hyperlipidaemic diabetic rats as compared to high fat diet and fructose fed positive control group. Agomelatine significantly improved the level of lipid profile, C-reactive protein, LDH and CK-MB in the serum of hyperlipidaemic diabetic rats but does not have significant effect on NO level. However, agomelatine caused significant decrease ($p<0.001$) in malondialdehyde level and significantly restored the depleted level of superoxide dismutase and reduced glutathione in the pancreas of hyperlipidaemic diabetic rats. It also improved the histology of pancreatic beta cells.

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Results of the study concludes that agomelatine caused significant improvement in the abnormalities of metabolic syndrome and can be explored as potential treatment strategy for the management of conditions related to metabolic syndrome.

Keywords
Agomelatine, Fructose, High Fat Diet, Hyperlipidemia, Metabolic Syndrome

Biography
Subhashini Badoni is presently pursuing M. Pharm (Pharmacology) Final Year at Department of Pharmacology, School of Pharmaceutical Science & Technology, SBS University, Dehradun, Uttarakhand, India. She did her Bachelor of Pharmacy [2015-2019 Batch] from HNBGU Srinagar Garhwal, Pauri, Uttarakhand.

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Plant Based Medicines for Prevention and Treatment of Age-related Macular Degeneration

Suraj N. Pattekari
Annasaheb Dange College of B. Pharmacy, India
Dr. Arehalli S. Manjappa
Tatyasaheb Kore College of Pharmacy, India

Abstract

Across the world, around 2.2 billion people suffer the personal and economic consequences of blindness or impairment in vision. Age-related Macular Degeneration (AMD) has been one of the major reasons behind irreversible loss of vision and blindness amongst 1.88 billion population of the world which is above 50 years of age. The current treatment of AMD is mainly focused on dietary supplements and medicinal agents that are antioxidants, anti-neovascularization or reduce oxidative stress. These treatments have limitations like economic, longer periods and patient compliance. Thus, alternative or complementary approaches are desperately anticipated to the existing therapy. Plant based medicines including traditional plants, phytoconstituents and supplements may address the unmet need for prevention and treatment of AMD. Neuroprotective, antioxidant, anti-inflammatory, antiangiogenic and anti-vascular endothelial growth factor properties exhibited by several herbal medicines advocate their potential in AMD therapy. An attempt is made to review the noteworthy plant based medicines reported to have significant effect in management of AMD.

Biography

Suraj N. Pattekari is presenting author, working as Assistant Professor, Pharmaceutics Department at Annasaheb Dange College of B. Pharmacy, Ashta. He is pursuing his Ph.D. (Pharmacy) from Shivaji University, Kolhapur, India. Dr. Arehalli S. Manjappa, Associate professor and PG guide at Tatyasaheb Kore College of Pharmacy, Warananagar. He is a recognized research guide from Shivaji University, Kolhapur, India.

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Evaluation of *In-Vitro* Antioxidant Potential of *Terminalia Tomentosa* Wright & Arn. Fruits Extracts

Syed Arif Pasha
Research Scholar, Himalayan University, India.
Dr. N. Siva Subramanian
Research Guide, Himalayan University, India.

Abstract

The present study was conducted to perform phytochemical, proximate analysis and assess *in-vitro* anti-oxidant potential of *Terminalia tomentosa* Wright & Arn. fruit extracts**.** The Methanolic extract (90.25± 0.70%) was found to have good free radical scavenging activity / anti-oxidant activity when compared to Petroleum Ether (40.65±1.10%), Chloroform (56.95± 1.35%) & Aqueous extracts (82.65±0.30%) at the concentrations of 100 µg/ ml. The percentage of free radical activity for Ascorbic acid (Standard) was found to be 95.45±0.31. The IC_{50} value for Methanolic extract was 51.2±0.20µg/ml, Petroleum Ether extract 96±1.55µg/ml, Chloroform Extract 82±1.10µg/ml and Aqueous Extract 74±0.66µg/ml and for Standard Ascorbic acid was 42.11µg/ml. However, it showed less prominent activity in Hydrogen peroxide radical scavenging assay. The anti-oxidant activity of Methanolic extract may be due to inhibition of DPPH radicals, decreased production of Nitric oxide and by quenching Superoxide radicals as observed in the respective assays. Further the bioactive Methanolic extract of *Terminalia tomentosa* fruits was subjected to extensive phytochemical investigation like qualitative chemical analysis, isolation and characterization of a bioactive phytoconstituent to identify the probable phytochemical responsible for the observed *in-vitro* anti-oxidant activity. Therefore it would be reasonable to conclude that flavonoidal compounds present in Methanolic extracts could be responsible for anti-oxidant activity.

Biography

Syed Arif Pasha**,** Research Scholar, Himalayan University, Research interest in Anti Oxidant Activity of *Terminalia Tomentosa* Fruits Extracts.

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Formulation and Evaluation of Betacyclodextrin Complexed Curcumin Transdermal Patches

Simachal Panda
PhD Scholar, Pharmacy Department, Faculty of Health Sciences, Lincoln University College, DarulEhsan, Malaysia
Sreemoykanti Das
Professor, Pharmacy Department, Faculty of Health Sciences, Lincoln University College, DarulEhsan, Malaysia

Abstract

Curcumin is Biopharmaceutical classification System III drug. It is very useful drug, but due to its solubility issues most of the drug eliminated from body without giving effect in our body.in this research an attempt has been done to enhance its in vitro bioavailability enhancement study by making different formulation and solubility modification of active ingradient. Beta cyclodextrin is the unit from starch which is having 7 glucose subunit in a cyclic form. Drugs are entrapped inside a bucket like structure, in which outside structure is highly aqueous soluble. Here attempt has been done complexation of curcumin with betacyclodextrin. Inclusion complex of curcumin in ß-cyclodextrin was prepared by the solvent evaporation encapsulation method as reported by Yadav et al. (2010). In the present study, quantity of ß-CD (80 mg) was kept constant; while concentration of curcumin was varied in an increasing order. b-CD was dissolved in 16ml of deionized water. Different concentrations of curcumin solution were prepared separately in acetone. The solution in an open system was stirred overnight under constant temperature; allow the solvent to evaporate at 1500 rpm for 5 min. Supernatant containing highly water soluble curcumin- ß-cyclodextrin inclusion complexes (Cur-CD) were recovered by freeze drying. The inclusion complex curcumin ß-cyclodextrin was stored at 4°C until further use.

Determination of curcumin loading

Curcumin-ß-cyclodextrin (1 mg) inclusion complex was dissolved in 50ml DMSO to extract curcumin in DMSO for the loading estimations. The curcumin-b-cyclodextrin sample in DMSO was gently shaken on a shaker incubator for 24 h at room temperature in the dark. The curcumin extracted DMSO solution was centrifuged at 14000rpm to remove clumps of ß -cyclodextrin and a clear supernatant

DMSO solution containing curcumin was collected and used for the estimations. The curcumin concentration was determined by using standard curve of curcumin in DMSO. Characterization of optimized complex was done by the FT-IR spectroscopy

Preparation of transdermal patch

The transdermal patches were prepared by solvent casting technique by using bangles. The casting solutions for transdermal patches were prepared as per composition stated in Table 2. Weighed quantities of HPMC and EC were dissolved in measured quantities of ethanol and chloroform (1:1). The drug curcumin 20mg is dissolved in the solvent mixture along with natural oils as permeation enhancer which was mixed thoroughly to form homogeneous mixture. This mixture was then poured onto the mercury surface placed in the petridish in between bangle and then covered using glass funnels and allowed to dry at room temperature for 24 hr by solvent evaporation. The patches were removed and cut into required dimension. The prepared patches are kept in dessicator for 2 days for further drying and wrapped in aluminium foil and then packed in self sealing covers.

Biography

Mr. Simanchal Panda has completed his Post Graduate degree (M. Pharmacy, Specialization-Pharmaceutics) from Department of Pharmaceutical Sciences, Utkal University, and persuing Ph. D. from Lincoln University College, Malaysia. He is an MBA in pharmaceutical management. presently working as Associate Professor Pharmaceutics, at Pratap University –School of Pharmaceutical Sciences, Jaipur, Rajasthan, India. He has around 11.5 years of teaching and research experience. co author of " Probiotic Research in Therapeutics" for chapter "Metabiotics in Colorectal Cancer: Crosstalk Between Gut Microbiota and Host Pathology " from springer publication. His prime research area includes the formulation of multiple herbal medicines, formulation of sustained released floating drug delivery system, complexation, nano suspensions, advanced herbal cosmetics formulations. He has 45 research and review papers published in reputed national and international journals. He has successfully organized international seminar as an active member, Local Organizing Committee at Utkal University, Vani Vihar Bhubaneswar (ICNDTC), Odisha. Outstanding Scientist Award" in the International Scientist Awards on Engineering, Science and Medicine which will take place on 10 & 11-Apr-2021 in Bangalore, India. He has won the achievement award title, “Distinguished Researcher in Pharmacy“ Awarded by, “RULA Awards” Powered by, “World Research Council” & “United Medical Council”. He achieved Young Scientist Award in 2019 by Doc Rosh at Hilton International at Mumbai. He has recieved Young Talent 2019 Award at Kualalumpur, Malaysia by Bioleague, APTI and SPER. He is active organizing committee member of 7th world conference on Pharmaceutical Science and manufacturing, Dubai2020.He has been recognized by InSc Bangaluru as Excellency in Academic Award January 2020and received 2020 SPER young talent Award at AKS University, Satna, M.P.He has been attached to a number of reputed institution with academic and research activities as in Utkal University, Andhra University, Lovely Professional University, Trinity w. University, UK, Lincoln University College, Malaysia.He is Doctorate of alternative medicine and P.I., International Forensic Sciences.he has completed his AIC from Kolkata in 2021 January . He is having Doctoral award Honoris Causa from world human right commission.

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Determination and Quantification of Cypermethrin Pesticide Residue in Cucumber using RP-HPLC

Vasudha R
JSS College of Pharmacy, JSS Academy of Higher Education and Research Mysuru, India
Chandan r S
JSS College of Pharmacy, JSS Academy of Higher Education and Research Mysuru, India

Abstract

The objective of the research was to detect and quantify cypermethrin pesticide residue in cucumber using ultra-fast liquid chromatography (RP-HPLC). Pesticides play a vital role in increasing crop production in large quantities, it may lead to health hazards in human beings. Cypermethrin is pyrethroid pesticide that acts on insects as a fast-acting neurotoxin. The maximum residue limit for Cypermethrin in cucumbers is 0.5mg/kg. The column used in the study was the Phenomenex Luna C_{18} column (250mm 4.60 mm 5µ). The mobile phase used in the study was acetonitrile and methanol in the ratio of 60:40. The injection volume of the sample was 10 µL. The wavelength of 235nm was selected and the Retention time was found to be 3.4 minutes. The run time was 6 minutes. Linearity samples in a range of 10-30µg/mL was prepared. The regression coefficient was found to be 0.995. The LOD and LOQ were 0.4 and 0.3µg/ml. The method was validated according to ICH guidelines which include system suitability, precision, accuracy, linearity, robustness, LOD and LOQ. The developed analytical method was easy, accurate and can be successfully applied to estimate the Cypermethrin present in the vegetables like cucumber and can determine the safety of vegetables consumed.

Keywords

Pesticide, Cypermethrin, Cucumber, HPLC, ICH guidelines.

Biography

Vasudha R is currently pursuing her masters in department of Pharmaceutical Analysis as a second-year student at JSS College of Pharmacy, JSS AHER Mysuru under the guidance of Dr. Chandan R S. She has hands on experience on various analytical instruments like Shimadzu UFLC with LC solution software, Shimadzu GC equipped with GC solution software, Shimadzu HPLC prominence I series with lab solutions, Shimadzu UV visible spectrometer and Shimadzu FT-IR Solution.

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Antimutagenic Activity of Ethanolic Extract of the Fruits of Manilkara zapota. Linn in Swiss Albino Mice

Vivek .H.S
Department of Pharmacology, Krupanidhi college of Pharmacy, India
Keserla Bhavani
Department of Pharmacology, Krupanidhi college of Pharmacy, India
Medicherla Sai Prathima
Department of Pharmacology, Krupanidhi college of Pharmacy, India
Sravani singirikonda
Department of Pharmacognosy, Krupanidhi college of Pharmacy, India

Abstract

The present study is to evaluate the antimutagenic activity of the ethanolic extract of the fruits of Manilkara zapota. Linn in mice. Genotoxicity evaluation is one of the crucial non-clinical environmental safety studies, which is mandatory for registration of pharmaceutical and agrochemical products. A risk assessment of any therapeutic product must be evaluated to identify its mutagenicity and carcinogenicity effect. Toxicological studies have undergone a significant evolution during the past decade, with inclusion and great emphasis on chronic toxicity, carcinogenicity, teratogenicity and mutagenicity. Present study was taken up to evaluate antimutagenicity of ethanolic extract of the fruits of Manilkara zapota. Linn by bone Marrow Micronucleus Assay (MNT) and Chromosomal Aberration Test (CAT) in mice. Cyclophosphamide (100 mg/kg, i. p) was used as a genotoxic challenge and bone marrow of control and MC treated mice was collected after 24, 48 and 72 h, respectively. In MNT, the bone marrow smears were stained with May-Grunwald's followed by Giemsa stain. Polychromatic and Normochromatic erythrocytes were counted and P/N ratio was calculated. In CAT, colchicine, four mg/kg, i. p, was administered 90 min before sacrifice, bone marrow smears were prepared, stained with Giemsa stain and observed under 100X for different types of chromosomal aberrations. Mitotic index was calculated. The MC has significantly decreased the formation of

micronuclei, increased the P/N ratio, inhibited the formation of chromosomal aberrations and increased the mitotic index. Hence, Manilkara zapota. Linn has significant antimutagenic activity.

Biography

I Vivek H S pursuing M pharm in pharmacology in krupanidhi college of pharmacy Bengaluru, I have completed my certification course on clinical research for the duration of 4 months from SS bio research solution, Bengaluru and I'm currently preparing to working on my research topic of amelioration of oxidative stress in liver and kidney in rats as my M pharm project.

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