



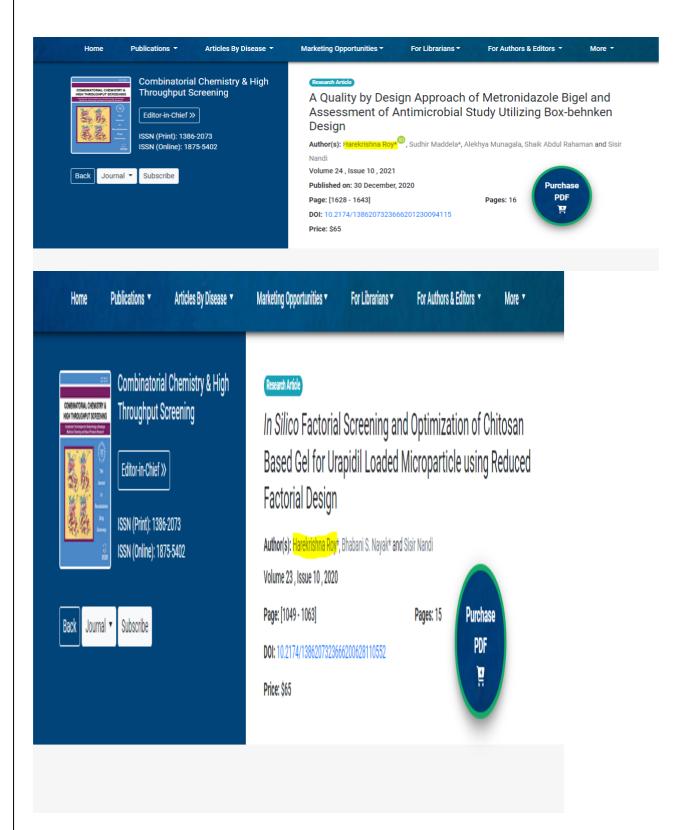
${\bf 3.3.1\ Number\ of\ research\ papers\ per\ teachers\ in\ the\ Journals\ notified\ on\ UGC\ /\ SCOPUS\ /\ WEB\ OF\ SCIENCE\ website\ during\ the\ Academic\ Year\ 2020-21}$













Mahaveer Sing et al / Int. J. Res. Ayurveda Pharm. 12 (4), 2021



Review Article

www.ijrap.net (ISSN:2229-3566)



A REVIEW OF PHYTOMORPHOLOGICAL, PHYTOCHEMICAL AND PHARMACOLOGICAL ACTIVITY ON IPOMOEA CARNEA

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Received on: 17/03/21 Accepted on: 10/07/21

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DOI: 10.7897/2277-4343.1204128

ABSTRACT

Ipomoea carnea Jacq. grows as wild plant in India. It is identified as a useful material for several applications including medicinal purposes. Different extracts of Ipomoea carnea plant possess anti-bacterial, anti-fungal, antioxidant, antimicrobial, anti-cancer, anti-convulsant, immune modulatory, anti-diabetic, hepatoprotective, anti-inflammatory, anxiolytic, sedative, cardiovascular, inhibition and wound healing activities. However, some toxicological effects have been also reported. In this review the potential of phytochemical, pharmacological and other activities of Ipomoea carnea are discussed.

Keywords: Ipomoea carnea, Chemical constituents, Phytochemical, Antimicrobial, Anti-cancer

INTRODUCTION

Ipomoea carnea is generally known as Bush Morning Glory. This

toes and fingers due to fungal infection). In Brazil, *Ipomoea carnea* is known as *canudo-de-pita*, literally "pipe-cane", as its hollow stems were used to make tubes for tobacco pipes. It acts





Tamarind Seed Polysaccharide Mouth Dissolving films for rapid drug Release in the treatment of Hypertension: In vitro Evaluation.



ABSTRACT:

Tamarind seed polysaccharide (TSP) micro sized mouth dissolving films were prepared to release the Amlodipine besylate drug for hypertension. TSP mouth dissolving films were prepared by solvent evaporation method which was further examined under







International Journal of Applied Pharmaceutics

ISSN- 0975-7058

Vol 12, Issue 6, 2020

Original Article

DEVELOPMENT AND CHARACTERIZATION OF GASTRO RETENTIVE MUCOADHESIVE MICROBEADS CONTAINING SIMVASTATIN WITH DIFFERENT CROSS LINKING AGENTS

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Received: 01 Jul 2020, Revised and Accepted: 18 Aug 2020

ABSTRACT

Objective: The aim of the present work was to prepare and examine drug release of the oral controlled release microbeads using different curing agents by emulsification internal ionic gelation technique.

Methods: Cross-linked alginate microbeads were prepared with different cross linking agents by using mucoadhesive properties. The formation and compatibility of microbeads were confirmed by compatibility studies. Prepared microbeads evaluated for encapsulated efficiency, micromeritic properties, drug loading, in vitro wash off studies, in vitro dissolution studies, drug release kinetics and stability studies

Results: The *in vitro* drug release was influenced by both type of curing agents and type of polymers and no significant changes in characterization parameters was observed after 3 mo stability studies. The sustained release profile of optimized batch was found to be 99.66±0.18% in comparison to pure drug profile of 28.64±0.02% at 12 h release study. Results of both wash-off and *in vitro* studies suggests that batch (SF2) prepared with aluminium chloride has shown better mucoadhesive property. Drug release of optimized batch follows zero order with non fickian mechanism







Vol 13, Issue 12, 2020

Online • 2455•3891 Print • 0974•2441 Review Article

A COMPREHENSIVE REVIEW OF PHYTOCHEMICAL AND PHARMACOLOGICAL OVERVIEW ON CELOSIA CRISTATA FOR FUTURE PROSPECTIVE RESEARCH

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Received: 08 September 2020, Revised and Accepted: 20 October 2020

ABSTRACT

Celosia cristata (CC) is used in traditional medicine to cure several disorders. It is a member of the genus Celosia and is commonly known as cockscomb, since the flower looks like the head on a rooster. Many sensitive ingredients were isolated from different parts of the plant. The recent studies showed that the plant exerted a wide range of pharmacological activities. The chemical constituents and pharmacological activities of CC were presented in this partieur.

Keywords: Celosia cristata, cockscomb, chemical constituent.





Journal of Global Trends in Pharmaceutical Sciences



ISSN-2230-7346

PREPARATION, EVALUATION AND OPTIMIZATION OF LERCANIDIPINE HYDROCHLORIDE FILMS

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ARTICLE INFO

Key Words

Lercanidipine, boxbehnken method, Solvent casting method, Films, HPMC, bioavailability.



Background: Lercanidipine hydrochloride (LER) is a BCS class II antihypertensive drug which results in limited oral bioavailability of 10%. Aim: The purpose of this study is to improve the dissolution and thus the bioavailability of LER by preparing films of LER. The objectives of the project are: To increase the solubility of Lercanidipine. Development of Lercanidipine oral fast dissolving films by use of various grades and concentrations of HPMC. Evaluation of Lercanidipine oral films by dissolution, disintegration, folding endurance and thickness studies. Method: The films were prepared by the boxbehnken method by using solvent casting method. Films obtained showed improved release compared to pure LER and physical mixture. Results: It can be confirmed from the obtained results that films can be a method of choice for increasing the solubility, dissolution and in turn the bioavailability of





An Elsevier Indexed Journal

ISSN-2230-7346



Journal of Global Trends in Pharmaceutical Sciences

CONTINUOUS GLUCOSE MONITORING DEVICES: A SYSTEMATIC REVIEW R. Naresh Babu^{*}, M.Yoshitha Lakshmi Pravallika, N.Doondi Phani Kumar, M.Bindu Bhargavi

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ARTICLE INFO

Key Words

Continuous glucose monitoring, sensor integrated insulin pump, Diabetes mellitus.



ABSTRACT Continuous glucose monitoring (CGM) is an increasingly adopted technology for insulin-requiring patients that provides insights into glycemic fluctuations. CGM can assist patients in managing their diabetes with lifestyle and medication adjustments. This article provides an overview of the technical and clinical features of CGM based on recently approved devices, i.e., from June 2018. A detailed description is presented of three professional (retrospective), three personal (real-time) continuous glucose monitors, and three sensor integrated pumps (consisting of a sensor and pump that communicate with each other to determine an optimal insulin dose and adjust the delivery of insulin) that are currently available in the United States. Outpatient CGM Outcomes, focusing on haemoglobin A1c (HbA1c), hypoglycemia, and quality of life. Issues affecting accuracy, detection of glycemic variability, strategies for optimal use, as well as cybersecurity and future directions for sensor design and use are discussed. In conclusion, CMG is an essential tool for monitoring diabetes that has been shown to improve outcomes in patients with type 1 diabetes mellitus. Given currently available data and technological developments, we believe that with appropriate patient education, CGM can also be considered for other patient populations.



ISSN 0974-3618 (Print) 0974-360X (Online) www.rjptonline.org



RESEARCH ARTICLE

Preparation and Evaluation of Aloe-Vera Hydro-Gel containing Anti-Biotic

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ABSTRACT:

The main aim of present work is to prepare and evaluate the wound healing effect of Terramycin To screen the wound healing effect of the formulated gel on the animals containing Aloe vera hydro gel and evaluate physical and microbial parameters for the formulated gel. Two gram formulations were weighed (A1, A2, A3 and A4) accurately and kept in a desiccators containing 50gm anhydrous calcium chloride. After three days, the formulations were weighed. Percentage loss is Percentage moisture loss is 1gm. The relative density of the formulation or weight/ml of the formulation was determined by taking the weight in gm of 10ml formulation and 10ml distilled water using RD bottle. Viscosity is an important feature to determine the resistance of flow of gel formulation so that it can spread on the skin properly. It was determined with the help of viscometer using 2 number spindles. pH of the formulation was determined by using pH meter. In this method, electrode was washed with double distilled water, dried with the help of tissue paper and then dipped in 20ml gel formulation. Nutrient agar media was used in microbial growth study. In this method the blank and sample (n=3) petriplates were used and the gel samples were aseptically transferred on to the sample plates in a cross pattern. The microbial growth was observed daily for 14 days.

KEYWORDS: Terramycin, formulated gel, aloe-vera, anti-biotic, pH.



PROBIOTICS-A REVIEW

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ABSTRACT

Probiotic bacteria have become increasingly popular during the last two decades as a result of the continuously expanding scientific evidence pointing to their beneficial effects on human health. As a result, they have been applied as various products with the food industry having been very active in studying and promoting them. Within this market the probiotics have been incorporated in various products, mainly fermented dairy foods. In light of this ongoing trend and despite the strong scientific evidence associating these microorganisms to various health benefits, further research is needed in order to establish them and evaluate their safety as well as their nutritional aspects. The purpose of this paper is to review the current documentation on the concept and the possible beneficial properties of probiotic bacteria in the literature, focusing on those available in food.

KEY WORDS

Probiotic bacteria, Nutritional aspects



Noorbasha and Shaik Future Journal of Pharmaceutical Sciences https://doi.org/10.1186/s43094-021-00186-7 (2021) 7:40

Future Journal of Pharmaceutical Sciences

RESEARCH Open Access

Determination of residual solvents in paclitaxel by headspace gas chromatography



Khaleel Noorbasha^{1*} and Abdul Rahaman Shaik²

Abstract

Background: A simple and sensitive gas chromatographic method was developed and validated for the simultaneous determination of methanol, ethanol, acetone, isopropyl alcohol, dichloromethane, *N*-hexane, ethyl acetate, tetrahydrofuran, and *N*,*N*-diisopropyl ethyl amine in Paclitaxel. A chromatographic separation was done on DB-624 column, 30 m length × 0.53 mm ID, and film thickness 3 µm, using a flame ionization detector (FID) with gradient column oven temperature program. The injection was carried out in split mode, with a split ratio of 5:1. A mixture of *N*-methyl-2-pyrrolidinone (contains 1% piperazine) and water in the ratio of 80:20 (v/v) was selected as a diluent to obtain good sensitivity along with the recovery.

Results: The developed gas chromatographic method offers symmetric peak shape, good resolution of more than 2.0 between the solvent peaks, and the relative standard deviation for replicate injections of all the solvents were found to be not more than 15.0% with reasonable retention time for all the solvents. The limit of detection for methanol, ethanol, acetone, isopropyl alcohol, dichloromethane, *N*-hexane, ethyl acetate, tetrahydrofuran, and *N,N*-diisopropyl ethyl amine was found to be 304.69 ppm, 497.98 ppm, 498.99 ppm, 504.49 ppm, 61.81 ppm, 30.07 ppm, 505 ppm, 73.05 ppm, and 2.09 ppm, respectively. Limit of quantitation of



Antiasthmatic activity of 2-piperidone by selective animal models

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Received: 20 May 2019 / Revised: 28 December 2019 / Accepted: 03 February 2020

ABSTRACT: 2-piperidone is a six membered heterocyclic compound existing naturally in piperaceae and portulaceae families. The synthetic derivatives of piperidone are promising bioactive molecules. They are antioxidant and antiinflammatory agents. Antihistaminic and anticholinergic studies are used as a part of antiasthmatic study. In the current study antihistaminic and anticholinergic studies were carried out using guinea pig bronchi and ilei in naturally isolated compound 2-piperidone from the plant Talinum portulacifolium. The results indicate that the compound (2 mg/kg 10.81 ± 1.29*** at p<0.001) showed profound antihistaminic activity significantly in histamine induced bronchospasm model than standard drug chlorpheniramine (2 mg/kg 8.77±0.43** at ** p<0.01). The compound can be further studied for antiasthmatic activity by various other ways to establish its mechanism of action as well as drug development studies to render it a novel antiasthmatic drug.

KEYWORDS: Antiasthmatic; bronchospasm; antihistaminic; 2-piperidone.



Combinatorial Chemistry & High Throughput Screening

Title: A Quality by Design Approach of Metronidazole Bigel and Assessment of Antimicrobial Study Utilizing Box-behnken Design

Volume: 24 Issue: 10

Author(s): Harekrishna Roy*, Sudhir Maddela*, Alekhya Munagala, Shaik Abdul Rahaman and Sisir Nandi

Affiliation:

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Keywords: Metronidazole bigel, Box Behnken design, response surface design, antimicrobial efficacy, hydrogel, oleogel.

Abstract:

Objective: The present investigation aimed to prepare metronidazole (MTZ) topical bigel for the effective delivery of MTZ and to study the effect of applied variables as per statistical design. The study also signifies the implementation of the statistical method using the Quality by Design technique for MTZ bigel.

Methods: The MTZ bigels were prepared as per the runs suggested by Box Behnken design (BBD) using statistical software. A total of 28 runs were suggested by the BBD, considering sodium carboxymethylcellulose (Na CMC), guar gum, hydrogel and RPM as independent variables. The prepared bigels were evaluated for organoleptic properties, percentage drug content, spreadability, viscosity, percentage in-vitro drug release, and antimicrobial efficacy. Model selectivity was ascertained by p-value considering responses along with predicted R² and adjusted R² values. The fitting of model was



In Vitro – In Vivo Evaluation of Antiurolithiatic activity of piperine from Piper nigrum

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ABSTRACT:

Background: A natural product is a organic compound or substance produced by a living organism that is, found in nature. Natural products show significant pharmacological or biological activity that can be of therapeutic benefit in treating diseases. Now a day's Urolithiasis or Urinary calculi or Kidney stone formation becoming very prevalent in the world and it is reported that Urolithiasis is the 3rd most prevalent disease among the kidney diseases. Therefore there is an immediate urge in searching for alternative treatment for urolithiasis. Fruits of Piper longum Linn were commonly called as Black pepper have a long history in Indian traditional medicine and in Ayurveda for the treatment of Gastrointestinal and Respiratory complications. 1-(5(1,2benzodioxol-5-yl)-1-oxo-2,4-pentadieneyl) piperidine commonly known as piperine were reported to possess many pharmacological activities. Purpose: This study evaluated the effect of Piperine on anti-urolithiatic activity in invitro and invivo models. Method: The anti-urolithiatic activity of Piperine was evaluated by using invitro methods like titrimetric method and aggregation assay. In vivo studies were done using male wistar rats. Results: The results of this study proved that Piperine has a significant anti-urolithiatic activity in rats (in-vivo) as well as in in-vitro models. Two test doses of piperine (40.80 mg/kg P.O) are evaluated using urolithiasis induced rats in in-vivo, titrimetric and aggregation in in-vitro models and it showed significant inhibition of crystallization with a significance of p<0.01 and p<0.05 when compared with the standard drug cystone (750mg/kg P.O.) Different serum parameters such as calcium, urea, uric acid, creatinine and urine parameters such as calcium and oxalate are assessed to evaluate anti urolithiatic activity of piperine in in-vivo study. The results were presented as mean±SEM. Difference among data was statistically analysed using One-way ANOVA to determine the level of significance using Graph pad Prism Differences between the data were considered significant at P < 0.05 and P<0.01. Conclusion: In in-vitro method of evaluation, piperine (20mg/kg) demonstrated a significant anti-urolithiatic activity than piperine (10mg/kg) when compared with a standard drug Cystone and in in-vivo models, piperine (40mg/kg) demonstrated a significant anti- urolithiatic activity than piperine (80mg/kg) when compared with a standard drug Cystone.

Background: Derived from polyose, chitosan is an outstanding natural linear polysaccharide comprised of random arrangement of β -(1-4)-linked D-Glucosamine and N-acetyl-DGlucosamine units.

Objective: Researchers have been using chitosan as a network forming or gelling agent with economically available, present polyose, low immunogenicity, biocompatibility, non-toxicity, biodegradability, protects against secretion from irritation and don't suffer the danger of transmission animal infective agent.

Methods: Furthermore, recent studies gear up the chitosan used in the development of various biopharmaceutical formulations, including nanoparticles, hydrogels, implants, films, fibers, etc.

GUNTUR DI

Current Drug Discovery Technologies

Title:Current Development on Chitosan-based Antimicrobial Drug Formulations for the Wound Healing

Volume: 17 Issue: 4

Author(s): Harekrishna Roy*, Shaik A. Rahaman, Theendra V. Kumar and Sisir Nandi*

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Keywords: Natural linear polysaccharide, chitosan, films, hydrogels, nanoparticles, fibers, implant coatings, wound care.

Abstract:

Background: Derived from polyose, chitosan is an outstanding natural linear polysaccharide comprised of random arrangement of β -(1-4)-linked D-Glucosamine and N-acetyl-DGlucosamine units.

Objective: Researchers have been using chitosan as a network forming or gelling agent with economically available, present polyose, low immunogenicity, biocompatibility, non-toxicity, biodegradability, protects against secretion from irritation and don't suffer the danger of transmission animal infective agent.

Methods: Furthermore, recent studies gear up the chitosan used in the development of various biopharmaceutical formulations, including nanoparticles, hydrogels, implants, films, fibers, etc.



Article Details

DEVELOPMENT AND VALIDATION OF NOVEL STABILITY INDICATING RP-HPLC METHOD FOR QUANTIFICATION OF TOLVAPTAN IN BULK AND PHARMACEUTICAL DOSAGE FORM

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https://doi.org/10.53879/id.57.03.11817

ABSTRACT

Specific stability-indicating reversed-phase high performance liquid chromatography (HPLC) method has been developed and validated for the quantification of tolvaptan in bulk drug and pharmaceutical dosage form. The optimized conditions for the developed HPLC method are; Inertil ODS-3V column (150 x 4.6 mm, 5.0 mm) maintained at 30°C with mobile phase consisting of 0.1% ortho phosphoric acid and acetonitrile in the ratio 40:60%v/v on isocratic mode at flow rate of 1.0 mL/min and detection wavelength 254 nm. The retention time of tolvaptan was found to be 2.59 min with linearity in the concentration range from 37.5 – 225.0 µg/mL, respectively. The mean percentage recovery of tolvaptan was found to be 98.30 – 101.13 %, respectively. The percent relative standard values were less than 2.0 at all the levels and indicates a satisfactory accuracy and precision. The robustness of the method found to meet the acceptance criteria. The stress study against qualified working standard of Tolvaptan, indicated that the developed HPLC method was stability- indicating, conducted as per ICH requirements. The developed method can be handy in the quality control of bulk and pharmaceutical dosage forms.



Experimental design optimization of RP-HPLC method for simultaneous estimation of metsulfuron-methyl, chlorantraniliprole and chlorimuron-ethyl residues in stems of *Oryza sativa*

Shanta Kumari Adiki ☑, Prakash Katakam & Fathi H. Assaleh

Future Journal of Pharmaceutical Sciences 7, Article number: 217 (2021) Cite this article

437 Accesses 1 Altmetric Metrics

Abstract

Background

The study aims to develop a chemometrics optimized D-optimal mixture design approach assisted RP- HPLC method for the determination of pesticide residues of metsulfuron-methyl, chlorantraniliprole, and chlorimuron-ethyl in the stems of *Oryza sativa*. Chromatographic separation was achieved on a C18 column using a mobile phase consisting of a pH 3.5 phosphate buffer and acetonitrile in the ratio 85:15.



Indo Global Journal of Pharmaceutical Sciences, 2020; 10(1): 12-18



INDO GLOBAL JOURNAL OF PHARMACEUTICAL SCIENCES ISSN 2249- 1023

An Update on Therapeutic Repurposing Strategies for COVID-19

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Received: 20.04.2020 Accepted: 23.04.2020

Keywords COVID-19; SARS-CoV-2; Repurposing; Therapeutic Strategies; Treatment. ABSTRACT: The severe acute respiratory syndrome coronavirus 2, well known as COVID-19 has become the current health distress to the entire world. In the pandemic scenario the research on the rapid development of new drug molecules is highly risky and tedious process. The current COVID-19 emergency demands an urgent development of possible strategies to protect people at high risk of infection and hence the drug repurposing became an emerging approach to fight COVID-19. This review summarizes an update on various therapeutic strategies with special attention on repurposing of drugs to fight against SARS-CoV-2 worldwide. The investigation of existing drugs for new therapeutic purposes is one line of scientific research followed to develop safe and effective COVID-19 treatments. Broad-spectrum antiviral agents (BSAAs) that have been believed to be safe through testing on early phase clinical trials have been hyped as good drug repurposing candidates. Broad-spectrum antiviral drugs such as Ribavirin, Umifenovir were advised for COVID-19 treatment. Some antibiotics may be repurposed as COVID-19 treatments such as teicoplanin, oritavancin, dalbavancin, monensin and azithromycin. Ivermectin an antiparasitic is recently repurposed. Hydroxychloroquine and chloroquine, having immunomodulating effect on humans, have been shown to have



Journal of Cardiovascular Disease Research

ISSN:0975-3583,0976-2833

VOL12,ISSUE05,2021

CHEMOMETRIC ASSISTED NEW STABILITY INDICATING NP-HPLC METHOD DEVELOPMENT AND VALIDATION OF CLAVULANIC ACID, AMOXCILLNE AND LACTOBACILLUS IN COMBINED DOSAGE FORM

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ABSTRACT

A new chemometric assisted by high-performance liquid chromatography (HPLC) with photodiode array (PDA) detection was implemented for the simultaneous determination of tablet dosage form. Two chemometric calibration techniques, principle component analysis (PCA) and partial least squares (PLS) were applied to the peak area at 246nm of PDA detector responses. Chromatographic separation of Amoxicillin, Clavulanic acid and Lactobacillus was achieved on Waters Alliance-e2695, by using Chiral Cell ODH 150x4.6mm, 5µ column and the mobile phase containing Hexane: THF: Acetic acid in the ratio of 96.5:3:0.5% v/v. The flow rate was 1.0 ml/min; detection was carried out by absorption at 246nm using a photodiode array detector at ambient temperature. The number of theoretical plates and tailing factor for Amoxicillin, Clavulanic acid and Lactobacillus were NLT 2000 and should not more than 2 respectively. % Relative standard deviation of peak areas of all measurements always less than 2.0. The proposed method was validated according to ICH guidelines. The method was found to be simple, economical, suitable, precise, accurate & robust method for quantitative analysis of Amoxicillin, Clavulanic acid and Lactobacillus and study of its stability. The 'UNSCRAMBLER(camo)'software was used for the numerical calculations. All of the two-chemometric analysis methods in this study can be satisfactorily applied for thequantitative analysis of Amoxicillin, Clavulanic acid and Lactobacillus in pharmaceutical tablet dosage form

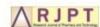
Key words: HPLC Amoxicillin, Clavulanic acid and Lactobacillus

INTRODUCTION



Research J. Pharm. and Tech. 13(4): April 2020

ISSN 0974-3618 (Print) 0974-360X (Online) www.rjptonline.org



RESEARCH ARTICLE

Preparation and Evaluation of Aloe-Vera Hydro-Gel containing Anti-Biotic

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ABSTRACT:

The main aim of present work is to prepare and evaluate the wound healing effect of Terramycin To screen the wound healing effect of the formulated gel on the animals containing Aloe vera hydro gel and evaluate physical and microbial parameters for the formulated gel. Two gram formulations were weighed (A1, A2, A3 and A4) accurately and kept in a desiccators containing 50gm anhydrous calcium chloride. After three days, the formulations were weighed. Percentage loss is Percentage moisture loss is 1gm. The relative density of the formulation or weight/ml of the formulation was determined by taking the weight in gm of 10ml formulation and 10ml distilled water using RD bottle. Viscosity is an important feature to determine the resistance of flow of gel formulation so that it can spread on the skin properly. It was determined with the help of viscometer using 2 number spindles. pH of the formulation was determined by using pH meter. In this method, electrode was washed with double distilled water, dried with the help of tissue paper and then dipped in 20ml gel formulation. Nutrient agar media was used in microbial growth study. In this method the blank and sample (n=3) petriplates were used and the gel samples were aseptically transferred on to the sample plates in a cross pattern. The microbial growth was observed daily for 14 days.

KEYWORDS: Terramycin, formulated gel, aloe-vera, anti-biotic, pH.

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Received: 26.10.2018 Accepted: 12.03.2019 Published: 05.12.2020

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Keywords

Acetaminophen; Dextromethorpha n; Phenylephrine; API; Drug Analysis. ABSTRACT: A new simple, precise, accurate and selective RP-HPLC method has been developed and validated for stability indicating RP-HPLC method for simultaneous estimation of Acetaminophen, Dextromethorphan hydrobromide and Phenylephrine hydrochloride in powder dosage form by chemometric analysis methods. Two chemometric methods of PCA (principal component analysis), PLS (principal least square analysis) were applied for simultaneous estimation of Acetaminophen, Dextromethorphan hydrobromide and phenylephrine hydrochloride in powder dosage form. The chemometric applications were performed by using the UNSCRAMBLER software. Partial least square (PLS), principal component analysis (PCA) methods do not need any prior graphical treatment of the overlapping spectra of three drugs in a mixture. The method was carried out on a LunaC18, 250mm x 4.6mm, 5µm column with a mobile phase consisting of acetonitrile and buffer in the ratio of (20:80 v/v) and flow rate of Iml/min. The detection was carried out at 210nm. The retention time for Acetominophen, Dextrometharphan hydrobromide and Phenylephrine hydrochloride were found to be 4.22, 6.21 and 2.46mins respectively. The method was



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Experimental design optimization of RP-HPLC method for simultaneous estimation of metsulfuron-methyl, chlorantraniliprole and chlorimuron-ethyl residues in stems of *Oryza sativa*

Shanta Kumari Adiki ⊠, Prakash Katakam & Fathi H. Assaleh

Future Journal of Pharmaceutical Sciences 7, Article number: 217 (2021) | Cite this article

437 Accesses 1 Altmetric Metrics

Abstract

Background

The study aims to develop a chemometrics optimized D-optimal mixture design approach assisted RP- HPLC method for the determination of pesticide residues of metsulfuron-methyl, chlorantraniliprole, and chlorimuron-ethyl in the stems of *Oryza sativa*. Chromatographic separation was achieved on a C18 column using a mobile phase consisting of a pH 3.5 phosphate buffer and acetonitrile in the ratio 85:15.



Indo Global Journal of Pharmaceutical Sciences, 2020; 10(1): 12-18



INDO GLOBAL JOURNAL OF PHARMACEUTICAL SCIENCES ISSN 2249- 1023

An Update on Therapeutic Repurposing Strategies for COVID-19

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Received: 20.04.2020 Accepted: 23.04.2020

Keywords COVID-19; SARS-CoV-2; Repurposing; Therapeutic Strategies; Treatment. ABSTRACT: The severe acute respiratory syndrome coronavirus 2, well known as COVID-19 has become the current health distress to the entire world. In the pandemic scenario the research on the rapid development of new drug molecules is highly risky and tedious process. The current COVID-19 emergency demands an urgent development of possible strategies to protect people at high risk of infection and hence the drug repurposing became an emerging approach to fight COVID-19. This review summarizes an update on various therapeutic strategies with special attention on repurposing of drugs to fight against SARS-CoV-2 worldwide. The investigation of existing drugs for new therapeutic purposes is one line of scientific research followed to develop safe and effective COVID-19 treatments. Broad-spectrum antiviral agents (BSAAs) that have been believed to be safe through testing on early phase clinical trials have been hyped as good drug repurposing candidates. Broad-spectrum antiviral drugs such as Ribavirin, Umifenovir were advised for COVID-19 treatment. Some antibiotics may be repurposed as COVID-19 treatments such as teicoplanin, oritavancin, dalbavancin, monensin and azithromycin. Ivermectin an antiparasitic is recently repurposed. Hydroxychloroquine and chloroquine, having immunomodulating effect on humans, have been shown to have



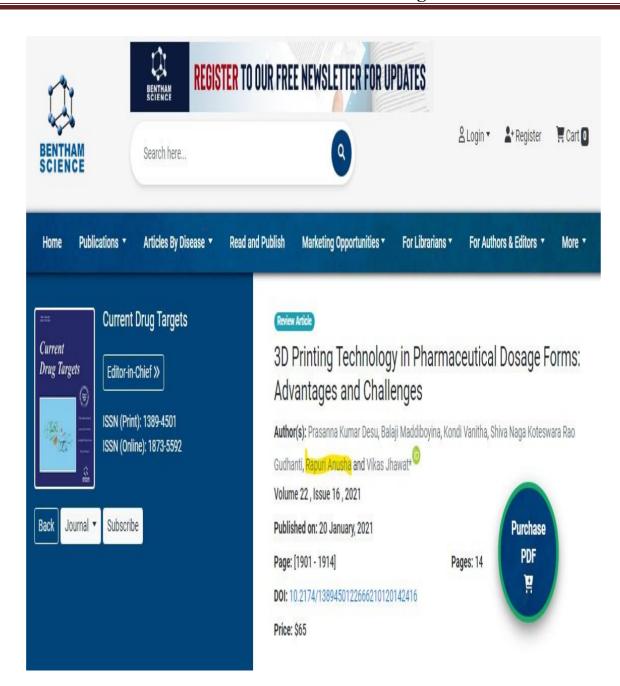




Results: These formulations produce potential activities as antimicrobials, cancer treatment, medical aid, and











SJIF Impact Factor: 7.001 ISI I.F.Value: 1.241 Journal DOI: 10.36713/epra2016

ISSN: 2455-7838(Online)

EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 1 | January 2021

- Peer Reviewed Journal

DEVELOPMENT AND EVALUATION OF POLYHERBAL POWDER FORMULATION AS IMMUNITY POWER BOOSTER

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High Technology Letters ISSN NO: 1006-6748

FORMULATION AND EVALUATION OF ORODISPERSIBLE TABLETS OF OLMESARTAN MEDOXOMILE USING DIRECTLY COMPRESSIBLE EXCIPIENT OF NATURAL GUM AND SUPERDISINTEGRANTS

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ABSTRACT

Aims: The aim of the present research work is to develop fast-dissolving tablets of Olmesartan Medoxomile applying novel directly compressible co processed excipient which improves the functionality and masking the undesirable properties of the drug without any chemical modification.

Subjects and Methods: For the development of coprocess excipient, synthetic superdisintegrants such as crospovidone, sodium starch Glycolate (SSG), and croscarmellose sodium were processed with natural disintegrates Moringa gum in varying ratios 1:1–1:4.

Results: Co processed excipient prepared from polymers ratio of 1:1 and 1:2 have shown good physicochemical properties and pre-compression parameters such as angle of repose, bulk

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High Technology Letters ISSN NO: 1006-6748

DEVELOPMENT OF NANOPARTICLES LOADED TOPICAL GEL OF TACROLIMUS FOR THE TREATMENT OF PSORIASIS

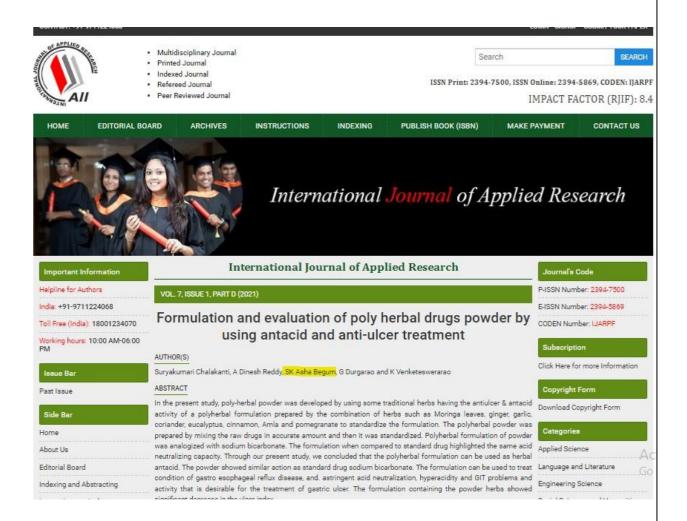
Suryakumari Chalakanti¹*, Narender Malothu¹, A.Dinesh Reddy², Asha Begum³, G.Durgarao⁴, K. Venketeswerarao⁴.

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ABSTRACT:

In the present study, lipid nanoparticles enabled Nano-structured Lipid Carriers (NLCs) based topical gels of Tacrolimus were formulated and evaluated for transdermal delivery for the treatment of psoriasis. NLC is composed of a binary mixture (solid lipid and liquid lipid) as the carrier and it works with improved drug load capacity. Stearic acid (solid lipid), oleic acid (liquid lipid), Tween 80 (surfactant), and Poloxamer (co-surfactant) were used in the formulations. NLCs were prepared by a high-speed hot homogenization method and were studied for particle size, % encapsulation efficiency, zeta potential, loading capacity and drug content etc. The results of particle size (161.2 nm), % encapsulation efficiency (91.3±12), and









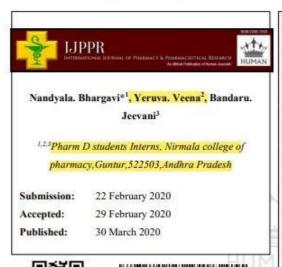
Human Journals

Case Report

March 2020 Vol.:17, Issue:4

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Congenital Myasthenia Syndrome: A Case Report



Keywords: congenital myasthenia syndrome, acetylcholine, muscle weakness

ABSTRACT

The Congenital Myasthenia Syndromes (CMS) are a diverse group of disorders that have an underlying defect in the transmission of signals from nerve cells to muscles. These disorders are characterized by muscle weakness, which is worsened upon exertion. The age of onset, severity of presenting symptoms and distribution of muscle weakness can vary from one patient to another. The neurotransmitter, acetylcholine, or ACh for short that acts as a chemical 'messenger' with instructions for the muscles to contract. A three years old child female patient was brought to our department with the complaints of drooping of the left eyelid





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ASIAN JOURNAL OF PHARMACEUTICAL AND CLINICAL RESEARCH



Vol 13, Issue 8, 2020

0nline - 2455-3891 Print - 0974-2441 Research Article

ANALYZING THE IMPACT OF STATINS USE IN TYPE 2 DIABETES MELLITUS PATIENTS AT A TERTIARY CARE HOSPITAL IN ANDHRA PRADESH

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Received: 10 April 2020, Revised and Accepted: 01 June 2020

ABSTRACT

Objectives. The objectives of the study were to analyze the impact of statins uses in Type-2 diabetes mellitus patients at a tertiary hospital.

Methods: It is a hospital-based prospective and observational study. The study was conducted in the General Medicine Department of Manipal Super Speciality Hospital, Vijayawada, Andhra Pradesh, India. Six months (August 2018-January 2019), 450 cases were collected from the general medicine department.

Results: A total of 450 patients data were collected, the results show that rosuvastatin at its list dose in this study (10 mg) was more effective at reducing fasting blood sugar (FBS), post-prandial blood sugar (FPBS), and hemoglobin A1C (HhA1c) levels than rosuvastatin combination. Moreover, significant increment of these levels (FBS, PPBS, and HbA1c) was observed with atorvastatin combination followed by atorvastatin (10 mg, 20 mg, and 40 mg) in both treatment group as well as a control group.

Conclusion: We concluded that there is a significant rise in blood glucose levels (both FBS and PPBS) and also HbA1c levels (glycated hemoglobin) due to the usage of statins for a longer duration. Statistical analysis was performed using the Pearson correlation coefficient method (SPSS 20. Version) and two-tailed analysis of variance. The results were represented as Z value (correlation coefficient) and p-value.

Keywords: Type 2 diabetes mellitus, New-onset diabetic statins, Fasting blood sugar, Fost-prandial blood sugar, Glycated hemoglobin, Cardiovascular disease.

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ISSN 0975-2366

DOI: https://doi.org/10.31838/ijpr/2021.13.03.103

Research Article

Ethnopharmacology, Phytochemistry and Biological activities of *Euphorbia hirta*: A Review

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Received: 23.02.21, Revised: 22.03.21, Accepted: 20.04.21

ABSTRACT

Ethnopharmacological relevance: Euphorbia hirta belongs to genus Euphorbia and family Euphorbiaceae, The plant is commonly found in China, India, Philippines, Australia, Africa, and Malaysia. It has various traditional medicine applications including treating female disorders, respiratory ailments (cough, coryza, bronchitis, and asthma) worm infestations in children, dysentery, jaundice, gonorrhea with the use of the plant and weed





Results: Based on the inclusion criteria there were 24 retrospective studies involving 5686 subjects were included. The outcomes of the meta-analysis have revealed that the TCZ has reduced mortality (M-H, RE-OR -0.11(-0.18--0.04) 95% CI, p=0.001, I2 =88%) and increased the incidences of super infections (M-H, RE-OR 1.49(1.13-1.96) 95% CI, p=0.004, I2=47%). However, there is no significant difference in ICU admissions rate (M-H, RE-OR -0.06(-0.23-0.12), I2=93%), need for mechanical ventilation (M-H, RE-OR of 0.00(-0.06-0.07), I=74%), LOS (IV -2.86(-0.91-3.38), I2=100%), LOS-ICU (IV: -3.93(-12.35-4.48), I2=100%), and incidences of pulmonary thrombosis (MH, RE-OR 1.01 (0.45-2.26), 12=0%) compared to SOC/control.

were evaluated by Newcastle-Ottawa scale.

Conclusions: Based on cumulative low-to-moderate certainty evidence shows that TCZ could reduce the risk of mortality in hospitalised patients. However, there is no statistically significant difference observed between the TCZ and SOC/control groups in other parameters.



Related information



International Journal of Pharmacy and Pharmaceutical Sciences

Print 1936: 2656-4047 | Online 1936: 0475-1491

Vol 12, braze 11, 2020

Original Article

DEVELOPMENT AND VALIDATION OF STABILITY INDICATING RP-UPLC METHOD FOR THE QUANTIFICATION OF BALOXAVIR MARBOXIL IN TABLET FORMULATION

T. VENKATA RAVEENDRANATHI", R. T. SARAVANAKUMARI, C. H. K. V. L. S. N. ANJANAI

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Received: 22 May 2020, Revised and Accepted: 03 Sep 2020

ABSTRACT

Objective: Aim of the present work is to develop a simple, accurate and precise stability-indicating method for the quantification of baloxavir marboxil (BLMS) in tablet dosage form by UPLC.

Methods: Orronatographic elution was processed through a HSS C18 (100 x 2.1 mm, 1.8 mm) reverse phase column and the mobile phase composition of buffer 0.1% orthophosphoric acid and acronitrile in the ratio of 50:50 was processed through a column at a flow rate of 0.3 ml/min. Column oven temperature was maintained at 30 °C and the detection wavelength was processed at 240 mm.

Results: Retention time of BLMX was found to be 0.87 min. Repeatability of the method was determined in the form of %RSD and the value was 0.2. The percentage mean recovery of the method was found to be 99.47%. LOO, LOQ values obtained from the regression equation of BLMX were 0.69 and 2.10 µg/ml, respectively. Regression equation and correlation coefficient values of BLMX were y = 16994x-7179.2 and 0.9996. Drug was subjected for acid, peroside, photolytic, alkali, neutral and thermal degradation studies and the results shown that the percentage of degradation was found between 5.96% and 9.55%.

Conclusion: Retention time and total run time of the drug was decreased and the developed method was simple and economical. So, the developed method can be adopted in industries as a regular quality control test for the quantification of BLMX.

Keywords: Baloxavir marbool, UPLC, Specificity, Validation, Stability studies

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200 htm://doi.org/10.22159/Scienc.2020/42311.38436. Sciences Interes/Science



ejbps, 2020, Volume 7, Issue 7, 539-541.

Case Study

SJIF Impact Factor 6.044



EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES

http://www.ejbps.com

ISSN 2349-8870 Volume: 7 Issue: 7 539-541 Year: 2020

A CLINICAL CASE REPORT ON PREDICTABLE DRUG-INDUCED LIVER INJURY

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Article Received on 06/05/2020

Article Revised on 26/05/2020

Article Accepted on 16/06/2020

ABSTRACT

Drug-induced hepatitis is one of the major drug-related problems which a general practitioner encounters in his clinical practice. Predictable Drug-Induced Liver Injury is generally characterized by certain dose-related injury in experimental animal models, has a higher attack rate, and tends to occur rapidly. Injurious free radicals cause hepatocyte necrosis in zones farthest from the hepatic arterioles, where metabolism is greatest and antioxidant detoxifying capacity is the least. Unpredictable or idiosyncratic reactions comprise most types of DILI. These hypersensitivity or metabolic reactions occur largely independent of dose and relatively rarely for each drug, and may result in hepatocellular injury and/or cholestasis. This is a case report focusing on a 46 years female patient who experienced hepatotoxicity after administration of antitubercular drugs, like Isoniazid, Rifampicin, Pyrazinamide, and Ethambutol are the first-line agents in the treatment of Tuberculosis. The patient was receiving anti-tubercular drugs for 6 months and developed hepatitis, which is a severe adverse drug reaction of





Assessment and Evaluation of Drug-Drug Interactions in an Intensive Care unit of a Tertiary Care Hospital and Clinical Pharmacist's Intervention Strategies









International Journal of Pharmacy and Pharmaceutical Sciences

Print ISSN: 2656-0097 | Online ISSN: 0975-1491

Vol 12, Issue 11, 2020

Original Article

DEVELOPMENT AND VALIDATION OF STABILITY INDICATING RP-UPLC METHOD FOR THE QUANTIFICATION OF BALOXAVIR MARBOXIL IN TABLET FORMULATION

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Received: 22 May 2020, Revised and Accepted: 03 Sep 2020

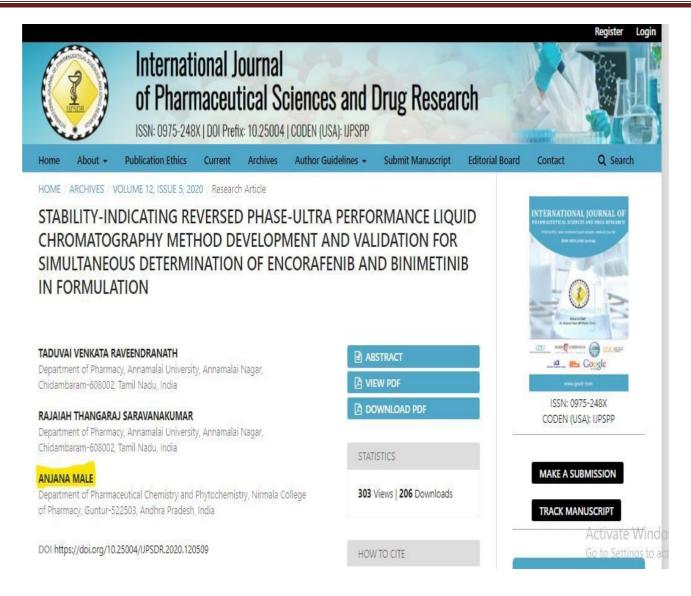
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Objective: Aim of the present work is to develop a simple, accurate and precise stability-indicating method for the quantification of baloxavir marboxil (BLMX) in tablet dosage form by UPLC.

Methods: Chromatographic elution was processed through a HSS C18 (100 x 2.1 mm, 1.8 mm) reverse phase column and the mobile phase composition of buffer 0.1% orthophosphoric acid and acetonitrile in the ratio of 50:50 was processed through a column at a flow rate of 0.3 ml/min. Column oven temperature was maintained at 30 °C and the detection wavelength was processed at 240 nm.

Results: Retention time of BLMX was found to be 0.87 min. Repeatability of the method was determined in the form of %RSD and the value was 0.2. The percentage mean recovery of the method was found to be 99.47%. LOD, LOQ values obtained from the regression equation of BLMX were 0.69 and 2.10 µg/ml, respectively. Regression equation and correlation coefficient values of BLMX were y = 16994x+7179.2 and 0.9996. Drug was to Se subjected for acid, peroxide, photolytic, alkali, neutral and thermal degradation studies and the results shown that the percentage of degradation was found between 5.96% and 9.55%.









International Journal of Pharmacy and Pharmaceutical Sciences

Print ISSN: 2656-0097 | Online ISSN: 0975-1491

Vol 12. Issue 11. 2020

Original Article

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Conclusion: Retention time and total run time of the drug was decreased and the developed method was simple and economical. So, the developed method can be adopted in industries as a regular quality control test for the quantification of BLMX.

Keywords: Baloxavir marboxil, UPLC, Specificity, Validation, Stability studies

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INTRODUCTION

BLMX, sold under the brand name Xofluza, is an antiviral medication for the treatment of influenza A and influenza B flu [1]. Baloxavir marboxil was developed as a prodrug strategy, with its

MATERIALS AND METHODS

API of BLMX was obtained from spectrum Pharma Research HPLC-grade methanol and acetonitrile were







Available Online at www.ijpba.info International Journal of Pharmaceutical & Biological Archives 2021; 12(2):1-5

RESEARCH ARTICLE

Evaluation of Prescribing Pattern and Rational Use of Antibiotics at Surgery Department in a Tertiary Care Teaching Hospital

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Received: 30 January 2021; Revised: 25 February 2021; Accepted: 01 April 2021

ABSTRACT

Antibiotics are medicines that fight bacterial infections in people and animals. They work by killing the bacteria or by making it hard for the bacteria to grow and multiply. An antibiotic is a type of antimicrobial substance active against bacteria and is the most important type of antibacterial agent for fighting bacterial infections. These medications were widely used in the treatment and prevention of infections. Hence, there should be combined effort from all the health-care professionals and pharmacist to diversify the prescribing pattern of antibiotics, ideally by formulating prescribing guidelines, to make the prognosis and therapy more effective and for the ultimate goal of welfare of patient. This study concluded that, the ANTIBIOTIC use was found to be reasonable and rational in all the cases, all the antibiotics were prescribed from inside the essential drug list.

Keywords: Antimicrobial, Antibiotic, Bacterial infection



Bulletin of Environment, Pharmacology and Life Sciences

Bull. Env. Pharmacol. Life Sci., Vol 10 [3] February 2021: 36-41 ©2021 Academy for Environment and Life Sciences, India Online ISSN 2277-1808 Journal's URL:http://www.bepls.com

CODEN: BEPLAD

ORIGINAL ARTICLE



Synergistic anti-hyperglycemic activity of *Coriandrum sativum* with Metformin in Streptozotocin-induced Diabetic Rats

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ABSTRACT

Coriandrum sativum is a culinary herb whose seeds and leaves are used commonly in flavoring various food items. The seeds of this plant are associated with number of pharmacological benefits including anti diabetic potential. Worldwide diabetes is the most prevailing disease and many of the diabetic patients are regularly consuming oral hypoglycemic drugs like Metformin. So, there is a probability of herb drug interaction when the herb interferes with the way a drug acts in the body. Hence the present study is designed to explore the herb drug interactions of Coriandrum sativum powder with an oral hypoglycemic drug Metformin in Streptozotocin induced diabetic rats. In the present study animals were divided into seven groups of six each. Group-I served as normal control, Group-II and III received Metformin and aqueous extract of seeds of Coriandrum sativum. Diabetes was induced in animals of remaining groups using streptozotocin. Group IV served as diabetic control, Group V and Group VI treated with Metformin and Coraindrum respectively. Whereas Group-VII animals treated with both Metformin and seed extract. Pharmacokinetic interactions were studied after regular time intervals using HPLC -UV method. Further pharmacodynamic interactions were studied by estimating glucose levels and lipid profile on 1, 7, 14 and 21st day. Animals administrated with both Coraindrum sativum and Metformin showed significant potential in pharmacokinetic parameters by elevating the levels like Cmax. Tmax and Vd. Further pharmacodynamic studies showed synergistic antidiabetic effect in these animals by decreasing blood glucose levels and ameliorating the lipid profile when compared with Metformin and coriandrum alone treated diabetic rats. The findings of study evidences that there is a significant herb drug interaction occurred between Coriandrum sativum and Metformin. In conclusion, Coriandrum sativum can elevate the bioavailability of Metformin which seems to be beneficial in diabetic patients receiving Metformin.

KEYWORDS: Coriandrum sativum, Metformin, anti diabetic, herb drug interaction.

Received 02.01.2021 Revised 12.01.2021 Accepted 13.02.2021



ijlpr 2021; doi 10.22376/ijpbs/lpr.2021.11.4.P42-48



International Journal of Life science and Pharma Research ISSN 2250-0480

Research Article

Herbs for Better Drug Therapy



Interactive Effect of Seeds of Coriandrum Sativum L. With Glimepiride in Streptozotocin-Induced Diabetic Rats

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Abstract: Diabetes mellitus is a serious and most prevailing glycemic disorder mainly managed by using allopathic medicines. Due to various side effects of allopathic drugs, till today medicinal plants were widely used in treating diabetes. Among them, spices like Coriander sativum L. play a prominent role in managing diabetes. Type-2 diabetic patients use oral hypoglycemic drugs and also follow herbal remedies. There is a probability of interactions when herb interferes with the drug action in the body. The aim of the present study was to assess the interaction of aqueous extract of seeds of Coriandrum sativum with oral hypoglycemic drug glimepiride in streptozotocin-induced diabetic rats. In the present study, animals were grouped into seven of six each. Group-I, Group-II, Group-IV, Group-V, Group-V, and Group-VII included normal control, glimepiride, Coriandrum sativum, diabetic control, diabetic animals treated with glimepiride, diabetic animals treated with Coriandrum sativum, respectively. Pharmacokinetic and pharmacodynamic interactions were studied. The animals treated with both Coriandrum sativum and glimepiride showed significant activity in pharmacokinetic parameters by increasing the levels of the maximum serum concentration (Cmax), Time taken to reach maximum serum concentration (Tmax) and Volume of distribution (Vd). Further pharmacodynamic studies showed promising





