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3.3.1

Number of research papers per teacher in the journals notified on UGC care list during the last five years

(ACADEMIC YEAR 2018-19)

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Research papers published per teacher in the Journals notified on UGC care list during AY 2018-19

S.No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal /Digital Object Identifier (doi) number		
							Link to website of the Journal	Link to article / paper / abstract of the article	Is it listed in UGC Care list
1	The Combined Effect Of Trigonella Foenum Seeds And Coriandrum Sativum Leaf Extracts In Alloxan-Induced Diabetes Mellitus Wistar Albino Rats	R Niranjan Kumar	Pharmacology	Bioinformation	2019	0973-2063 (online)	https://bioinformation.net/	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6900327/	Yes
2	Fast, Sensitive Bioanalytical Method Development And Validation For The Determination Of Escitalopram In Human Plasma By Liquid Chromatography-Electrospray, Tandem Mass Spectrometry	Siva Sanker Reddy.L	Pharmaceutical Analysis	Latin American Journal of Pharmacy	2019	0326 2383 (print); 2362-3853 (online)	http://www.latamjpharm.org/previous_issue.php?vol=39&num=3	http://www.latamjpharm.org/resumenes/39/3/LAJOP_39_3_1_15.pdf	Scopus
3	A Case Study On Chronic Rheumatic Heart Disease With Mitral Valve Stenosis	Dr.C.Bhrgava Reddy	Pharmacy Practice	International journal of pharmacy	2019	2349-7203	http://www.ijppr.humanjournals.com/	http://www.ijppr.humanjournals.com/	web of science

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				and pharmaceutical research					
4	A Study On Drug Utilization Pattern Of Oral Hypoglycemic Agents In Type - 2 Diabetic Patients Of A Tertiary Care Teaching Hospital	Dr.C.Bhrgava Reddy	Pharmacy Practice	Journal of Global Trends in Pharmaceutical Sciences	2019	2230-7346	https://www.scimagojr.com/journalsearch.php?q=21100853545&tip=sid&clean=0	https://www.scimagojr.com/journalsearch.php?q=21100853545&tip=sid&clean=0	Web of science SCI mago
5	A New Stress Indicating Rp-Hplc Method Development And Validation For The Simultaneous Estimation Of Ertugliflozin And Metformin In Bulk And Its Tablet Dosage Form	D. Chinna Babu	Pharmaceutical analysis	Indian Drugs	2019	0019462X	https://www.indiandrugsonline.org/	https://www.indiandrugsonline.org/issuesarticle-details?id=ODk3	scopus
6	Stability Indicating Method Development And Validation Of Bicalutamide By UV, First Order, And Second Order Derivative Spectrophotometery	D. Chinna Babu	Pharmaceutical analysis	World Journal of Pharmaceutical Research	2019	2277–7105	https://www.wjpr.net/	https://1library.net/document/z1djpkez-stability-indicating-method-development-validation-bicalutamide-derivative-spectrophotometery.html	Yes

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7	Formulation And In Vitro Characterization Of Ocular In Situ Gels Of Valcyclovir	V. Vijay Kumar	Pharmacy Practice	Journal of Pharmaceutical Sciences and Research	2019	0975-1459	https://www.jpsr.pharm/ainfo.	https://www.jpsr.pharm/ainfo.inDocuments/Volumes/vol11issue08/jpsr11081932.pdf	Yes
8	Formulation And Evaluation Of Gastro Retentive Drug Delivery System Of Zanamivir Using Different Polymers	V. Vijay Kumar	Pharmacy Practice	Journal of Biomedical and Pharmaceutical Research	2019	2589-8752	https://jbpr.in/index.php/jbpr/article/view/641	https://doi.org/10.32553/jbpr.v8i4.641	No

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Research Article

The combined effect of *Trigonella foenum* seeds and *Coriandrum sativum* leaf extracts in alloxan-induced diabetes mellitus wistar albino rats

Sree Sudha Tanguturi Yella*[1], Raghupathi Niranjan Kumar[2], Chakali Ayyanna[2], Anjaly Mary Varghese[3], P. Amaravathi[3], Yakaiah Vangoori[4]

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DOI: 10.6026/97320630015716

Abstract:

Diabetes mellitus is a group of heterogeneous disorders commonly presenting with episodes of hyperglycemia and glucose intolerance, as a result of lack of insulin, ineffective insulin action, and/or both. It is our interest to study the effect of ethanolic extract of *Trigonella foenum* seeds (fenugreek) and *Coriandrum sativum* leaves (dhaniya) or its combination in alloxan induced diabetes mellitus wistar albino rats. Rats were randomly separated into six groups where group 1 animals received 2% acacia, group 2 animals received alloxan dose of 150 mg/kg, group 3 animals received glibenclamide dose of 0.5 mg/kg and group 4, 5 & 6 animals received ethanolic extracts of *Trigonella foenum* seeds, *Coriandrum sativum* leaves and combination of both extracts at the dose of 100mg/kg for 21 days. Different biochemical parameters such as hepatic & renal biomarkers and histopathology of pancreas were studied. Combination of both extracts showed significant decrease in blood glucose, cholesterol, triglycerides, LDL, VLDL levels, SGOT, SGPT, urea, creatinine and increase in HDL levels and body weight than individual extracts. Thus, we show the antidiabetic activity of poly herbal formulation using biochemical and histo pathological data.

Keywords: *Diabetes mellitus*, alloxan, glibenclamide, *Trigonella foenum*, *Coriandrum sativum*

Background:

Herbals are helpful to mankind. A number of them are used for healing purpose. The importance of medicinal plants in drug discovery is highlighted by the World Health Organization (WHO). Such plants are in demand by pharmaceutical companies for their active ingredients [1, 2]. Diabetes mellitus is a disorder affecting almost 6% of the world population and the dynamics of the diabetes are changing quickly in low- to middle-income countries [3]. It is known that 80% of the world diabetic population will be from low- and middle-income countries in 2030 as per the International Diabetes Federation's (IDF) estimates. It is one of the six major causes of death caused by various systemic problems. Diabetes mellitus is treated by hormone therapy (insulin) or by administering glucose-lowering agents such as alpha-glucosidase inhibitors, sulfonyl ureas, biguanides and thiazolidinediones.

Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense*)
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Fast, Sensitive Bioanalytical Method Development and Validation for the Determination of Escitalopram in Human Plasma by Liquid Chromatography- Electrospray, Tandem Mass Spectrometry

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SUMMARY. **A simple, reproducible and fast (1.5 min chromatogram) bioanalytical method of liquid chromatography and tandem with mass detector (LC/MS-MS) was developed and validated to determine escitalopram (ESP) in human plasma using liquid-liquid extraction technique. Imipramine (IMP) was used as internal standard (IS) and K2 EDTA was used as anti-coagulant. Analytes were extracted by methyl-*tert*-butyl ether (MTBE) and subsequent separation on a Luna 3 μm C18, 100 × 4.60 mm column using acetonitrile:10 mM ammonium formate pH 4.5 (90:10 v/v) as mobile phase at a flow rate of 1 mL/min and 30 ± 3o C column oven temperature. Analytes were monitored with electrospray ionization in positive multiple reaction mode (MRM) for both ESP and IMP using quadrupole MS/MS spectrometer. ESP and IMP were detected with proton adducts at m/z 324.20 → 110.13 for ESP and 280.8/86.0 for IMP. ESP and IMP were eluted at 0.655 and 0.745 min, respectively. The method was validated over a linear (r^2 = 0.9979) concentration range of 306.022 to 199205.354 pg/mL. The inter-day and intra-day precisions were found to be less than 15% and the accuracy was all within ±15% (at LLOQ ± 20%). The developed LC-MS/MS method was fully validated for all the other parameters as per FDA guidelines like selectivity, matrix effect, recovery and stability as well. Due to the high degree of sensitivity, very less time consuming, easy extraction procedure and low requirement of sample volume, the method will be applicable for therapeutic drug monitoring.**

RESUMEN. Se desarrolló y validó un método bioanalítico simple, reproducible y rápido (cromatograma de 1,5 minutos) de cromatografía líquida en tándem con detector de masa (LC/MS-MS) para determinar el escitalopram (ESP) en plasma humano utilizando la técnica de extracción líquido-líquido. Se usó imipramina (IMP) como estándar interno (IS) y K2 EDTA como anticoagulante. Los analitos se extrajeron con metil-*tert*-butil éter (MTBE) y posterior separación en una columna Luna 3 μm C18, 100 × 4.60 mm usando acetonitrilo: formiato de amonio 10 mM pH 4.5 (90:10 v/v) como fase móvil a una velocidad de flujo 1 mL/min y temperatura de horno de columna de 30 ± 3 °C. Los analitos se monitorizaron con ionización por electropulverización en modo de reacción múltiple positiva (MRM) tanto para ESP como para IMP usando un espectrómetro de cuadrupolo MS/MS. ESP e IMP se detectaron con aductos de protones a m/z 324.20 → 110.13 para ESP y 280.8/86.0 para IMP. ESP e IMP eluyeron a 0.655 y 0.745 min, respectivamente. El método fue validado en un rango de concentración lineal (r^2 = 0.9979) de 306.022 a 199205.354 pg/mL. Se encontró que las precisiones interdía e intradía eran inferiores al 15% y la precisión estaba dentro de ± 15% (en LLOQ ± 20%). El método LC-MS/MS desarrollado fue completamente validado para todos los demás parámetros según las pautas de la FDA, como selectividad, efecto de matriz, recuperación y estabilidad también. Debido al alto grado de sensibilidad, mucho menos tiempo, procedimiento de extracción fácil y bajo requerimiento de volumen de muestra, el método es aplicable para el monitoreo terapéutico de drogas.

KEY WORDS: ammonium formate, escitalopram, human plasma, imipramine, methyl-tert-butyl ether.

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A Case Study on Chronic Rheumatic Heart Disease with Mitral Valve Stenosis

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HUMAN

M.Swapna*, S.Irfan, C.Bhargava Reddy

Department of pharmacy practice, Santhiram, college of pharmacy, Nandyal.

Submission: 25 October 2019

Accepted: 30 October 2019

Published: 30 November 2019

Keywords: Rheumatic heart disease, Mitral valve stenosis, atrial fibrillation, Shortness of breath, Mitral regurgitation, Inferior vena cava filter, DVT

ABSTRACT

A female patient of age 62 years admitted in hospital 5 months back with shortness of breath and chest discomfort and she was diagnosed as chronic rheumatic heart disease, moderate mitral valve stenosis with moderate mitral valve regurgitation, history of deep vein thrombosis 2 years back and treated with IVC Filter Implantation. Then treated with anticoagulants, antihypertensive agents. She complained 4 days back with shortness of breath admitted in ICU department and treated with furosemide infusion, T.Acenocoumain 1mg, T.Metoprolol 25 mg, T.torsemide10 mg and spironolactone50mg, T. Digoxin 0.25 mg and she improved symptomatically in two days and vitals are normal and stable.

Article Details

A NEW STRESS INDICATING RP-HPLC METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF ERTUGLIFLOZIN AND METFORMIN IN BULK AND ITS TABLET DOSAGE FORM

D. China Babu[a*], C. Madhusudhana Chetty[b] and Sk. Mastanamma[c]

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ABSTRACT

A simple, accurate, precise and robust reversed phase high performance liquid chromatographic (RP-HPLC) method was developed for the estimation of Ertugliflozin (ETZ) and metformin (MFN) in bulk and in tablet dosage form. The method was carried out by used Waters (5µm, C18 250 x 4.6 mm) column with mobile phase consists of 0.75 mM sodium dihydrogen orthophosphate buffer pH adjusted to 8.5, with NaOH, and acetonitrile in the ratio of 60:40 v/v, a flow rate of 1.5 mL/min and photodiode detection at 263 nm. The method was validated as per ICH guidelines with different parameters, the mean retention times of ertugliflozin and metformin were found to be 3.5& 2.0 min, respectively. The correlation coefficient values of calibration curves were found to be 0.999 for both ETZ and MFN, respectively. The LOD and LOQ for ertugliflozin and metformin were found to be 0.02-0.06 µg/mL and 17.5-58.3 µg/mL respectively.

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STABILITY INDICATING METHOD DEVELOPMENT AND VALIDATION OF BICALUTAMIDE BY UV, FIRST ORDER, AND SECOND ORDER DERIVATIVE SPECTROPHOTOMETERY

D. China Babu*, P. Sravana Sandya, C. Madhusudhana Chetty, Siva Sankar Reddy L., T. Venkat Ramaiah, Srinivasareddy N.

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ABSRACT

The present study was an attempt to develop a simple, sensitive, precise, accurate, and low economical method and validated the method for determination of Bicalutamide by UV, First and Second order derivative spectrophotometry. The solvent was used Ethanol and maximum absorbance(λ_{max}) was found to be 272.20nm, 257nm, 228.20nm for UV, first and second order derivative spectrophotometry. Beers law obeyed at the concentration range of 3-11µg/ml, 8-12µg/ml, and 10-18µg/ml for UV, First and Second order derivative spectrophotometry respectively. The correlation coefficient for all the three methods were found to 0.999, and % recovery was found to be 100.05, 99.76 & 99.87% for UV, First and Second order derivative spectrophotometry respectively. The proposed method has been validated as per ICH guidelines for Linearity, Accuracy, Precision, Specificity, LOD, and LOQ. The method was also applied for the degradations studies. The LOD values were found to be 0.04µg/ml, 0.12µg/ml, 0.14µg/ml and LOQ values were found to be 0.13µg/ml, 0.41µg/ml, 0.45µg/ml for UV, First and Second order derivative spectrophotometer respectively. The developedmethod was validated successfully for the estimation of Bicalutamide in bulk and dosage form.

KEYWORDS: UV-Visible spectroscopy, Bicalutamide, Stability studies, UV, First and second order derivative.

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Formulation and *in vitro* Characterization of Ocular *in situ* Gels of Valcyclovir

V.Vijaya Kumar[1*], C. Madhusudhana Chetty[1], Y. Dastagiri Reddy[1], R. E.Ugandar[1] & B. Deekshi Gladiola[1]
Department of Pharmaceutics, Santhiram College of Pharmacy, Nandyal.

Abstract:

Rapid precorneal elimination of drug results in poor availability and exhibits poor therapeutic response. This can be overcome by the use of novel drug delivery systems. The present work mainly aims to develop and evaluate Valacyclovir ophthalmic in-situ gels based on the concept of a p^H-triggered system for the prolonged corneal residence time. Formulations were prepared using Carbopol 940 as a gelling agent and HPMC K100 M as a viscosity enhancer. The prepared formulations were evaluated for various parameters like viscosity, gelling capacity, and drug content, sterility test, and in-vitro drug release profile for selection of an optimized formulation. The developed formulations with satisfactory visual appearance, clarity, drug content, viscosity, gelling capacity were selected for in-vitro release studies. An optimized formulation that shows sustained and prolonged release for an extended period of time for 10 hours was finalized for further evaluations like; antimicrobial efficacy and irritation test. Formulations were found to be a nonirritant, effective against the test and exhibited Zero-order release kinetics. The developed formulation with Carbopol 940 as a gelling agent and HPMC K100M as a viscosity enhancer can be a viable alternative to conventional eye drops.

Keywords: Carbopol 940, HPMC K100M, Insitu gels, Ocular drug delivery, Sustained delivery, Valacyclovir.

INTRODUCTION:

Ocular drug delivery has remained as one of the most demanding tasks for pharmaceutical scientists. The unique structure of the eye does not allow the drug molecules at the required site of action [1]. Conventional systems like solutions, suspensions and ointment have not been used extensively due various drawbacks like increased precorneal elimination, reduced drug concentration and blurred vision [2] .Low absorption results are shorter duration of action due to this high frequency of eye drop installation required. An alternative approach that significantly increases the precorneal residence time and bioavailability of the drug can be achieved by using the novel delivery system based on the concept of in situ gel formation [3]. In situ gel forming system can be described as liquids dosage form that can be delivered in a drop form and they undergo a phase transition in the ocular cul-de-sac to form a visco-elastic gel. In situ activated gelling systems on contact to physiological conditions will change to a gel phase [4] Gelation occurs via the cross-linking of polymer chains that can be achieved by covalent bond formation (chemical cross-linking) or non-covalent bond formation (physical cross-linking). In situ gel-forming systems on installation in the conjunctival cul-de-sac form visco-elastic gels due to conformational changes of polymers in response to the physiological environment. In the present study, Ophthalmic in-situ gels of Valacyclovir were prepared based on the concept of P^H triggered system of the formulation. Valacyclovir is a nucleoside analog that mimics one of the building blocks of DNA, which is active against the herpes viruses [5]. It is used to treat infections with Shingles (herpes zoster), Genital herpes (herpes simplex genitals), cold sores (herpes labialis). The high penetration into the aqueous humor and low toxicity of Valacyclovir make it a good candidate for consideration as a topical ocular antiviral agent.[6]

MATERIALS:

Val acyclovir was received as a gift sample from Hetero Pharma Ltd, Hyderabad. Carbopol 940, HPMC K 100M , Tween 60 were purchased from S.D. Fine Chem, Mumbai, Sodium Chloride was purchased from Karnataka Fine Chemicals, Bangalore and Benzalkonium chloride was procured from Ozone chemicals, Mumbai

EXREPIMENTAL METHODS:

Drug-excipients compatibility studies:

Fourier Transform-Infrared spectroscopic studies:

Interaction between drug and polymer should be observed to check the compatibility between various ingredients of the formulation by Fourier Transform Infra Red (FTIR) spectroscopy analysis of their physical mixture by employing Potassium bromide pellet method (2 mg sample in 200 mg KBr). The spectrum of each sample was recorded over the range of 400-4000 cm^{-1} and the resolution was 1 cm-1.Compatibility studies were performed for the pure drug of Valacyclovir and Valacyclovir along with physical mixture (Carbopol 940 and HPMC K100 M).

Formulation Development:

Total nine formulations have been prepared by employing pH-triggered in-situ gelation method using different concentrations of gelling agents i.e., Carbopol 940 as p^H-sensitive polymer and HPMC K100 M. The composition of each and every formulation was shown in the formulation Table 1. All the nine formulations contain Carbopol 940 as p^H-sensitive polymer, HPMC K 100 M as viscosity enhancer, sodium chloride as an Isotonicity ad justifier, Tween 60 as a surfactant and Benzalkonium chloride as preservative. The method of preparation Valacyclovir ophthalmic in situ gels formulations are as follows:

pH triggered in situ gelation method: All the Formulations have been prepared by this method in which carbopol 940 has been used as pH triggered polymer.

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Research Article

FORMULATION AND EVALUATION OF GASTRO RETENTIVE DRUG DELIVERY SYSTEM OF ZANAMIVIR USING DIFFERENT POLYMERS

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Conflict of interest statement: No conflict of interest

ABSTRACT:

The objective of the present study is to develop gastro retentive drug delivery system of Zanamivir .Floating tablets of Zanamivir were developed with a gas generating agent $NaHCO_3$ and in combination of different hydrophobic and hydrophilic polymers like xanthan gum, guar gum, HPMC and methyl cellulose .In the present work attempts have been made to prepare six formulations of Zanamivir in different ratios of drug and polymer to get a desired release profile by direct compression method .All the prepared tablets were evaluated in terms of pre compression and post compression parameters. FTIR studies revealed the absence of drug polymer interactions .Among all the formulations F5 Showed 97.4% of in vitro drug release for 10 hours and hence formulation F5 is selected as an optimized formulation. The optimized formulation F5 was found to follow Higuchi release kinetics and zero order. Further formulation F5 was subjected to accelerated stability studies for 3 months. It showed that the optimized formulation was intact without any interactions. Finally the optimized formulation F5 complying with all properties of floating tablets was found to be satisfactory

Keywords: Zanamivir, floating tablet, natural gums, sodium bicarbonate, gastro retentive drug delivery systems

INTRODUCTION

Oral drug administration is the most convenient mode of delivery when compared to other routes .Due to its ease of administration, it has widely accepted patient compliance and to maintain the drug concentration within the therapeutic range, these dosage forms are to be taken several times in a day .This resulted in a fluctuated drug level and consequently undesirable toxicity and poor efficiency.[1]To overcome these demerits an unique oral controlled dosage forms known as gastro retentive dosage forms were developed These dosage forms possess gastro retentive properties which can retain in the stomach for longer period of time and hence significantly prolong GRT of drugs which improves bioavailability, reduces wastage and improves the solubility of drug in the GIT.[2]Several approaches were attempted by researchers for enhancing gastric retention such as floating systems, swelling systems, bio adhesive systems and high density systems .Floating drug delivery systems have a bulk density lower than gastric fluid and thus remain buoyant in the stomach for a prolonged period of time. This results in an increase gastric retention time and a better control of fluctuations in plasma drug concentration. [3] .Zanamivir is an acetyl guanido neuraminic acid, a structural homolog of sialic acid. It is a white crystalline powder and was found to be highly soluble in water.[4] Zanamivir acts as an antiviral agent and neuraminidase inhibitor indicated for the treatment of influenza A and Influenza B. The elimination half life of zanamivir is about 2.5 to 5.1 hours.[5]

MATERIALS AND METHODS:

Materials:

Zanamivir was obtained from Chandra labs, Hyderabad. Xanthan gum and guar gum were purchased from Mylchem, Mumbai, HPMC and PVP are obtained from Sysco Research labs Pvt, Ltd. Mumbai. NaHCO3, Microcrystalline cellulose ,Magnesium stearate were purchased from SD Fine Chemicals Ltd, Mumbai.