3.3.1 Number of research papers per teachers in the Journals notified on UGC website during the year **(2022-2023)**

TITLE OF THE PAPER	NAME OF THE AUTHOR/S	DEPARTMENT OF THE TEACHER	NAME OF THE JOURNAL	CALENDER 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
Design and Fabrication of Topical Niosomal Gel Containing Aceclofenac and Serratiopeptiase	P.V. Pavan Kumar1 , Pitta Lavanya2 , Vankudoth Kavitha3, Usha Kondla4	pharmaceutics	Journal For Innovative Development in Pharmaceutical and Technical Science	2022	2581-6934	https://jidps.com/	https://jidps.com/wp-content/uploads/2022/09/Design-and-Fabrication-of-Topical-Niosomal-Gel-Containing-Aceclofenac-and-Serratiopeptiase.pdf	yes
Evaluation of the bacterial, antioxidant and anticancer activity of pyrene derivatives and their synthesis	Nooreen Unissa,Gopi Swapna ,Usha Kondla,P.V.Pavan Kuma	pharmaceutical chemistry	International Journal Of Advance Research And Innovative Ideas In Education	2022	2395-4396	http://ijariie.com/	http://ijariie.com/AdminUploadPdf/Evaluation_of_the_bacterial__antioxidant_and_anticancer_activity_of_pyrene_derivatives_and_their_synthesis_ijariie18262.pdf	yes
Formulation and Evaluation of Colon Specific Drug Delivery System of Sulfasalazine Loaded Microspheres	1Pitta Lavanya, 2P.V. Thejovathi.B, 3Pavan Kumar, 4Usha Kondla	pharmaceutics	International Journal of Trend in Innovative Research	2022	2582-0354	http://ijtiir.com/	http://ijtiir.com/wp-content/uploads/2022/09/IJTIIR9104501.pdf	yes
A Comparative Study On Efficacy Of Atorvastatin And Rosuvastatin In Cad	Dr. Rama Krishna Mungi 1, K.Ashish Kumar 2, S.Gouthami Reddy 3, T.Revanth 4, Ch.Meghana5	pharmaceutics	International Journal Of Research And Analytical Reviews	2022	E-2348-1269, P-2349-5138	http://ijrar.com/	https://www.ijrar.org/papers/IJRAR22D1809.pdf	yes

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

PRINCIPAL
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M), Telangana

Novel Anlytical Rp-Hplc Method for Simultaneous Determination of Antiretroviral Drugs	Usha Kondla1, Vankudoth Kavitha2, Gopi Swapna3,Pitta Lavanya4	Pharmaceutical Analysis	International Journal of of Pharmacy Research & Technology	2023	2250-9944	https://ijprt.org/index.php/pub	https://ijprt.org/index.php/pub/article/view/203	yes(scopus)
Beta-carboline as a promising heterocyclic nucleus: Synthetic aspects, pharmacological potential and structure activity relationship	Mahender Thatikayala a , Pankaj Wadhwa a , Paranjeet Kaur , Pankaj Kumar Singh b , Ankit Yadav a , Monika Kaushik c ,	pharmaceutical chemistry	European Journal of Medicinal Chemistry Reports	2022	2772-4174	https://doaj.org/toc/2772-4174	https://doi.org/10.1016/j.ejmcr.2022.100096	yes(scopus)
A Rapid Novel Analytical Method For Simultaneous Estimation Of Grazoprevir And ElbasvirBy Using Rp-Hplc	Vankudoth Kavitha1, Usha Kondla2, P.V Pavan Kumar3, Gopi Swapna	Pharmaceutical Analysis	EPRA International Journal of Research and Development	2022	2455-7838	https://eprajournals.com/IJSR/	https://eprajournals.com/IJSR/article/7585/abstract	yes
Synthesis, Characterization of New 3-Chloro-Azetidine-2-One and 1, 3-Thiazinan-4-One Derivatives from Di Imines	Gopi Swapna, 2Thejovathi. B, 3Usha Kondla, 4Vankudoth Kavitha	pharmaceutical chemistry	International Journal of Research Publication and Reviews	2022	2582-7421	https://www.ijrpr.com/callfp.php	https://ijrpr.com/uploads/V3ISSUE9/IJRPR7021.pdf	yes
Development and In-Vitro Evaluation of a Novel Bilayered Floating Tablets of Capecitabine and Ondansetron	Soumya Senigarapu1, Santhosh A*2, Madhuri T3, Lavanya P4, Jyothi B5, Sareesh K	pharmaceutics	International Journal of Pharmacy and Pharmaceutical research	2022	2349-7203	https://portal.issn.org/resource/ISSN/2349-7203	https://ijppr.humanjournals.com/wp-content/uploads/2022/12/37.Soumya-Senigarapu-Santhosh-A-Madhuri-T-Lavanya-P-Jyothi-B-Sareesh-K.pdf	yes

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * ABDULLAPURMET *

PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist. Telangana.

Preparation and evaluation of controlled releasetablets containingibuprofen	Krishnaveni, R. Dr. M. Rama Krisha, Dr. K. Balajiand Dr. S. Ramya Sri	pharma ceutics	International Journal of Development Research	2023	230-992	https://journalijdr.com/	http://www.journalijdr.com/preparation-and-evaluation-controlled-release-tablets-containing-ibuprofen	Yes
Stability Indicating Rp Hplc Method Development And Validation For Estimation Of Dalfampridine In ItsBulk And Formulation	B. Bharath Kumar, 2Dr. Balaji	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	2022	2349-7750	https://www.iajps.com/	https://www.iajps.com/wp-content/uploads/2022/11/49.IAJPS49102022.pdf	Yes
Analytical method Development And Validation For The Simultaneous Estimation Of Cabotegravir & Rilpivirine By Rp Hplc Method	Pindi Shravani, Dr. Nihar Ranjan Das	pharmaceutical chemistry	Indo American Journal Of Pharmaceutical Sciences	2022	2349-7750	https://www.iajps.com/	.iajps.com/wp-content/uploads/2022/11/48.IAJPS48102022.pdf	Yes
Formulation And Evaluation Of Controlled ReleaseTablets Of Montelukast	Komal Yadav1*, Rama Krishna Mungi1 , Ramya Sri.S2	Pharmaceutics	High Technology Letters	2022	1006-6748	https://gistx-e.cn/	https://drive.google.com/file/d/1DL9kHm8kD8i990j7Fk493ZRGOkEb-Qes/view	Yes
Formulation And Evaluation Of Mucoad adhesive Buccal tablets OfGlipizide	N. Sreeja , Rama Krishna Mungi , RamyaSri.S	Pharmaceutics	High Technology Letters	2022	1006-6748	https://gistx-e.cn/	https://drive.google.com/file/d/1-7DvRxw3kXnH-uhfEbllmSEEv2snrZNK/view	Yes

PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),

Method Development AndValidation Of Sitagliptin And Simvastatine InTablet Dosage FormBy Rp-Hplc	Kuya Mani Kumar, 2Dr. Sai Kiran	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	2022	2349-7750	https://www.iajps.com/	https://www.iajps.com/wp-content/uploads/2022/11/53.IAJPS53102022.pdf	Yes
Effect Of Polymer Concentration on Drug Release In The Formulation Controlled ReleaseTablets Of Glipizide using Various Polymers	N. Lavanya*1, Dr. B. Majula1, Dr. K. Balaji2 and Dr. S. Ramya Sri2	Pharmaceutics	International Journal of Development Research	2023	2230-9926	https://journalijdr.com/	https://www.journalijdr.com/effect-polymer-concentration-drug-release-formulation-controlled-release-tablets-glipizideusi	Yes
Development And Validation Of A Rp -Hplc Method For The Simultaneous Determination Of Netupitant And Palonosetron InPure And Pharmaceutical Dosage Form	Angadi Nagesh, Dr k. Balaji	pharmaceutical Analysis,	Indo American Journal Of Pharmaceutical Sciences	2023	2349-7750	https://www.iajps.com/	https://www.iajps.com/wp-content/uploads/2023/03/17.IAJPS17032023.pdf	Yes

PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),

Evaluation Of Adr's Associated With Antiepileptics In Epilepsy Patients	Dr.V.Anudeep1 , Paruchuri Bhavana2 , Ravula Sruthi Yadav3 , Siraveni Anusha4	Pharmacy Practice,	International Journal Of Research And Analytical Reviews	2022	2348-1269	http://ijrar.com/	http://ijrar.com/	Yes
Development And Validation Of Rp-Hplc Method For The Simultaneous Estimation Of bilastine AndMontelucast In Tablet DosageForm	Bacha Nikhil, 2 Dr. Sai Kiran	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	2022	2349-7750	https://www.iajps.com/	https://www.iajps.com/wp-content/uploads/2022/11/47.IAJPS47102022.pdf	Yes
A Retrospective Observational Study Of Drug Utilization And Evaluation Of Anti-Diabetic Agents In Multiple Comorbidties Of Diabetes Mellitus Patients	Dr. Nihar Ranjan das 1 , Syed Shafa Raoof 2 , A. Sai Suhitha 3 , S.Kushal4	pharmaceutical chemistry	International Journal Of Research And Analytical Reviews	2023	2348-1269	http://ijrar.com/	http://ijrar.com/	Yes

PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist., Telangana.

Post Covid Complications And Impact Of Drug Therapy In Covid Patients	Dr. Nihar Ranjan Das 1 ,GK.Shivani 2 K.Rajavamsh i Goud 3 ,M.Kiranmai 4 M.Harshini5	pharma ceutical chemistry	International Journal Of Research And Analytical Reviews	2023	2348-1269	http://ijrar.com/	https://www.ijrar.org/papers/IJRAR23A2277.pdf	Yes
Formulation And Evaluation Of Oral Disintegrating Tablets Of Flurbiprofen	Divya, S., Dr. B. Manjula, Dr. K. Balaji, Dr. S. Ramya Sri	Pharma ceutics	International Journal of Development Research	2023	2230-9926	http://www.journalijdr.com/	http://www.journalijdr.com/sites/default/files/issue-pdf/26424.pdf	Yes
A Prospective Case Study On Complications Of Hypertension	K.Balaji1, A.Venkatesh 2, A.Srujana 3, B. Nikitha4, B.Sravani5	Pharmacy Practice	International Journal Of Research And Analytical Reviews	2023	2348-1269	http://ijrar.com/	https://www.ijrar.org/papers/IJRAR23A2418.pdf	Yes
Study On Prescribing Patterns Of Antimicrobials And Antibiotic Resistance To Bacterial Infections In Patients With Liver And Non-Liver Diseases	B. Manjula 1,G.Sai pragna2, G. Mahathi 3, P.Mounika4	Pharmacy Practice	International Journal Of Research And Analytical Reviews	2023	2348-1269	http://ijrar.com/	https://www.ijrar.org/papers/IJRAR23A2350.pdf	Yes
A Prospective Observational Study On Incidence Of Calcineurin Inhibitors Related Toxicity In Post Transplant Patients	B. Manjula 1, P. Vamshi Krishna 2, P. Ravali 3, P. Simi 4, P. Bindhu	Pharmacy Practice,	International Journal Of Research And Analytical Reviews	2023	2348-1269	http://ijrar.com/	https://www.ijrar.org/papers/IJRAR23A2376.pdf	Yes

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * ABDULLAPURMET *

PRINCIPAL
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist. Telangana.

Pharma cognostical, Phytochemical And Diuretic Activity Of Tamilnadia Ulignosa (Retz.) Tirven&Sastre (Rubiaceae)	1Rodda. Naganjaneyulu,2kammari. Hari Krishna, 3kuruva.Anusha, 4 Konapuram. Harshitha	Pharma cognosy	International Journal Of Novel Research And Development	2023	2456-4184	https://www.ijnrd.org/pastissue.php	https://www.ijnrd.org/papers/IJNRD2302199.pdf	Yes
Development and Validation of Stability-Indicating RP-HPLC method for the simultaneous estimation of Olanzapine and Samidorphan in pure API and tablet dosage form in accordance with ICH guidelines	Shaik Harun Rasheed , CH.Pavani , P.Pranaya , Md.Abdul rafay , S.Praveena	pharma analysis	journal of drug and alcohol research	2022	2090-8334	https://www.pnrjournal.com/index.php/home/article/view/1846	https://www.pnrjournal.com/index.php/home/article/view/1846/3264	Yes

PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist. Telangana.

The Development Of A Novel Stability-Indicating Rp-Hplc Method For The Simultaneous Evaluation Of Rilpivirine And Cabotegravir In Pure Api Form And Tablet Dosage In Accordance With Ich Guidelines	Challamalla Pavani[a], Dr.V. Jayashree[b]*	pharma analysis	European chemical bulletin	2022	2063-5346	https://www.eurchembull.com/	https://www.eurchembull.com/uploads/paper/46b5cea195dc07ce241bb2e0797318e9.pdf	Yes
Development And Validation Of A Bioanalytical Method Using Rp-Hplc For Estimation Of Glecaprevir And Pibrentasvir In Human Plasma	Challamalla Pavani1 and Dr.V. Jayashree2*	pharma analysis	Neuro Quantology	2022	7129-7145	https://www.neuroquantology.com/	Https://www.neuroquantology.com/open-access/development+and+validation+of+a+bioanalytical+method+using+rp-hplc+for	Yes
A Review On Antimicrobial Activity Of Indian Traditional Medicinal Plants	1Kammari.Hari Krishna, 2R.Nagaanjaneylu.	Pharma cognosy	International Journal Of Novel Research And Development	2023	2456-4184	https://ijnrd.org/?gad_source=1&gclid=EAIaIQobChMIheDqnoSvhAMV0ME8Ah1FigQbEAAYASAAEgLP-vD_BwE	https://ijnrd.org/papers/IJNRD2302155.pdf	Yes

PRINCIPAL
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist. Telangana.

formulation And In Vitro Evaluation Of Trifluoperazine Hcl Gastro Retentive Floating Tablets	Pogula Narsimha1 , Naga Raju Kandukoori 1*, Balaji Kaveti 1 , Ramya Sri.S2	Pharma ceutics	High Technology Letters	2022	1006-6748	https://www.ashdin.com/drug-alcohol-research.html	https://www.ashdin.com/articles/development-of-a-novel-stability-quoting-rpultra-performance-liquid-chromatography-approach-for-synchronous-assessment-of-doraviri-94036.html	yes
A New Analytical Rp-Hplc Method For The Estimation Of Letrozole In Pure Tablet Form	Pogula Narsimha1 , Naga Raju Kandukoori 1*, Balaji Kaveti 1 , Ramya Sri.S2	Pharma ceutical Analysis,	High Technology Letters	2022	1006-6748	https://www.ashdin.com/drug-alcohol-research.html	https://drive.google.com/file/d/1cxcJ4_IAmO8BC_30bv9fgh10S8FUM-MH/view	yes
Formulation Developme nt And Invitro Evaluation Of Ritonavir Floating Tablets	K. Ramakrishn a Reddy1, B. Manjula1*, Ramya Sri.S2	Pharma ceutics	High Technology Letters	2022	1006-6748	https://www.ashdin.com/drug-alcohol-research.html vD.BwE	https://drive.google.com/file/d/1bREqLjvenEgsOAfIRTPHXMn9ARRBR7rZ/view	yes

- PRINCIPAL
Avanthi's Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

Development Of A Novel Stability Quoting RP-Ultra Performance Liquid Chromatography Approach For Synchronous Assessment Of Doravirine, Lamivudine, And Tenofovir Disproxil Fumarate In Pure API Form And Tablet Dosage Based On ICH Guidelines	Challamalla Pavani and V. Jayashree*	Pharma ceutical Analysis	Journal of Drug and Alcohol Research	2022	2090-8334	https://www.ashdin.com/drug-alcohol-research.html	https://www.ashdin.com/articles/development-of-a-novel-stability-quoting-rpultra-performance-liquid-chromatography-approach-for-synchronous-assessment-of-doraviri-94036.html	Yes
Systematic Approach to study the various nanoparticle formulations that can be delivered directly to treat the cancerous nodes	Dr. Nihar Ranjan Das	Pharma chemistry	Patent Application Publication	2022	Patent office journal number 40/2022	https://ipindia.gov.in/journal.htm	https://search.ipindia.gov.in/DynamicUtility/Journal/Patent Sr no : 74 , part 1 , page 63880	Yes

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * ABDULLAPURMET *

PRINCIPAL
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M)
R.R. Dist. Telangana

Journal For Innovative Development in Pharmaceutical and Technical Science (JIDPTS)
Volume:5, Issue:09, Sep:2022

(J I D P T S)
ISSN(O):2581-6934

Design and Fabrication of Topical Niosomal Gel Containing Aceclofenac and Serratiopeptiase

P.V. Pavan Kumar[1], Pitta Lavanya[2], Vankudoth Kavitha[3], Usha Kondla[4]

[1 2 3 4] Avanthi Institute of Pharmaceutical Sciences.,

Approved by AICTE, PCI, NAAC, JNTUH,Gunthapally, Hayathnagar, Hyderabad-501512.

ABSTRACT: Aceclofenac is classified as a BCS Class II drug because of its low water solubility. Systemic adverse effects, such as anticoagulant effects, have been described when SRP is taken orally. The goal of this study was to see how well a topical Niosomal gel containing Aceclofenac (ACE) and Serratopeptidase (SRP) could deliver the drugs. Particle size, shape, entrapment efficiency, and in vitro properties of Niosomal formulations produced using the thin film hydration process at varied cholesterol and Span 40 ratios were studied.The average particle size of the Niosomal formulation was determined to be between 1 μm - 2μm. The entrapment efficiency of the Niosomal formulations F2 (1:1:1) and F6 (1: 2: 1) of cholesterol and surfactant was 65 percent and 66.4 percent, respectively. Niosomal formulation (F2 and F6) displayed high percentage of drug release after 12 hr. For the convenience of application, greater stability, reduced aspect effects, greater affected person compliance, and the convenience of discontinuation on desire, there were numerous advantages to deliver ACE through topical route. Therefore, topical therapy isn't most effective promising at the protection and efficacy fronts however additionally at the financial fronts too. Niosomal gel had greater pores and skin penetration, according to an in vitro study results.

Keywords: ACE; SRP; Topical Niosomal gel; Niosomal gel.

Introduction

Topical drug delivery systems include a large variety of pharmaceutical dosage form like semisolids, liquid preparation, sprays and solid powders. Most widely used semisolid preparation for topical drug delivery includes gels, creams and ointments [1]. Topical preparations are applied to the skin for surface, local or systemic effects. In some cases, the base may be used alone for its therapeutic properties, such as emollient, soothing or protective action. Many topical preparations, however, contain therapeutically active ingredients which is dispersed or dissolved in the base. The combination of active ingredients and base provides the opportunity for a wide range of topical preparations, appropriate for many types of drug delivery and therapy terms used to classify the bases of topical preparations in which therapeutically active ingredients are incorporated, may be based on their physical properties (suspension) or on their intended use (liniments) or on their composition (hydrophilic creams)[2].Topical preparation prevents the GI-irritation; prevent the metabolism of drug in the liver so as increase the bioavailability of the drug. Topical preparations give its action directly at the site of action. It can penetrate deeper into skin and hence give better absorption. Topical application has no of advantages over the conventional dosage forms [3].

The term 'Gel' was introduced in the late 1800 to name some semisolid material according to their physiological characteristics rather than molecular composition [5-6]. A gel is a two-component, cross linked three-dimensional network consisting of structural materials. The structural materials that form the gel network can be composed of inorganic particles or organic macromolecules, primarily polymers. U.S.P. defines gels as a semisolid system consisting of dispersion made up of either small inorganic particle or large organic molecule

Evaluation of the bacterial, antioxidant and anticancer activity of pyrene derivatives and their synthesis

Nooreen Unissa,Gopi Swapna,Usha Kondla,P.V.Pavan Kumar.
Avanthi Institute of Pharmaceutical Sciences
Approved by AICTE, PCI, NAAC, JNTUH,Gunthapally, Hayathnagar, Hyderabad-501512

Abstract

Using ethanol as a solvent, heterocyclic hexagonal rings for 2-amino-pyran derivatives (I33-I40) were produced by reacting a mole of chalcones derivatives with a mole of malononitrile. Physical properties such as melting point, colour, and molecular weight and spectroscopic measurements such as the infrared spectrum, [^{1}H-NMR], [^{13}C-NMR] spectrum were used to confirm the accuracy of the prepared compounds' compositions. The biological activity of various produced compounds was investigated in two species of pathogenic bacteria, one of which is Gram-positive, Staphylococcus aureus, and the other, Gram-negative, Escherichia coli. Chemical solutions for the two substances (I25, I32) with concentrations (0,01, 0.001, 0.0001) mg /ml were created using a solvent DMSO and Multer Hinton Agar growth medium. The antibiotic Ciprofloxacin was utilized as a control sample for the diffusion sensitivity test of the bacterial isolates used in the investigation. Using DPPH root and varied concentrations, the impact of chemical (I32) on the elimination of free radicals was also investigated. Breast cancer cells were taken from Baghdad's Medical City and used to test the efficiency of several produced chemicals against them. 200 µl of the prepared concentrations of the compounds produced for the research (25, 50, 100, 200) g/ml were added to the pits at three concentrations, cytotoxicity tests were conducted in three duplicates, and (IC50) values were computed. The cytotoxicity impact of the compounds was evaluated and produced using MTT and solute solutions on breast cancer cells and the ordinary cell line WRL68 for comparison.

Keywords 2-amino-pyran, staphylococcus aureus, escherichia coli, antioxidant activity, breast cancer.

Introduction

Pyrene or pyran is a heterocyclic, unsaturated organic compound consisting of six central atoms, five of which are carbon atoms and one oxygen atom, and contains two double bonds. It has the chemical formula C5H6O, and the molar mass is
82.10 g/mol [1]. Its common name is (IUPAC) 2H-Pyran, 4H-Pyran, and its other names are 2H-Oxine and 4H-Oxine [2]. There are two isomers of pyran that differ in the location of the double bonds. In 2H- pyran, the saturated carbon is in position 2 [3]. In contrast, in 4H-pyran, the saturated carbon is in position 4. 4H- pyran was first isolated, prepared and distinguished in 1962 by the pyrolysis of 2- acetoxy-3,4-dihydro-2H-pyran [4], and found to be very unstable, particularly in the presence of air, 4H-pyran does not readily match the corresponding dihydropyran and beryllium ion, which readily decomposes in an aqueous medium [5]. Although pyrenes themselves are of little importance in chemistry, many of their derivatives are essential biological molecules [6], such as pyranoflavonoids, and pyranones are also important derivatives, which are natural products, an

International Journal of Trend in Innovative Research (IJTIIR)
Available Online @ www.ijtiir.com | ISSN: 2582-0354

Formulation and Evaluation of Colon Specific Drug Delivery System of Sulfasalazine Loaded Microspheres

[1]Pitta Lavanya, [2]P.V. Thejovathi.B, [3]Pavan Kumar, [4]Usha Kondla
[1,2,3,4]Avanthi Institute of Pharmaceutical Sciences
[1,2,3,4]Approved by AICTE, PCI, NAAC, JNTUH,Gunthapally, Hayathnagar, Hyderabad-501512

***Abstract*--**Oral colon-targeted microsphere based drug delivery system containing sulfasalazine was prepared, optimized and characterized. The microspheres were successfully prepared by simple emulsification phase-separation technique followed by crosslinking. The formulations were optimized on the basis of drug: polymer ratio, stirring speed, concentration of glutraldehyde. The prepared microspheres were characterized on the basis of morphology, entrapment efficiency, particle size and in-vitro release.

***Keywords*--** *Microspheres, colon-targeted drug delivery systems, double-emulsion solvent diffusion method, chitosan, salfasalzine*

I. INTRODUCTION

Oral colon-targeted drug delivery systems have recently gained recognition for efficient delivery of therapeutic agent for both local as well as systemic action for the treatment of various colonic inflammatory diseases. The successful targeted delivery of drugs to the colon via the gastrointestinal tract requires the protection of a drug degradation and release in the stomach and small intestine and ensures immediate controlled release in the proximal colon [1, 2]. Microsphere based drug delivery systems are known to increase the life span of active pharmaceutical ingredient (API) and also involved in controlled release of API. Small particle size of microspheres with large surface area attributed for controlled release of insoluble drugs [3, 4]. Thus microspheres targeted to colon would be a promising for both local and systemic drug delivery. The prepared microspheres may be advantageous in term of reduced dose frequency, improved patient compliances, reduced side effects, high drug loading, and improves bioavailability [5]. Sulfasalazine (SLZ) is the anti-inflammatory drugs used to treat various inflammatory bowel diseases such as ulcerative colitis, and Crohn's disease due to induction of T-lymphocyte apoptosis modulates inflammatory mediators. It is poorly absorbed drug with approximately 5-19 hr elimination half-life [6]. Sulfasalazine is a derivative of mesalazine and also a prodrug of 5 aminosalicylic acid that is covalently linked to the antibiotic sulfapyridine by an azo bond. The objective of 54 present research works is to prepare, optimize and characterize the mucoadhesive microspheres for enhanced delivery of active ingredients [7-9].

II. MATERIALS AND METHODS

Materials

Sulfasalazine (SLZ) was received as a gift sample from Syntho Pharmaceuticals, Lucknow, India. Chitosan, light liquid paraffin, heavy liquid paraffin, Span 85, lsoproyl alcohol and glutraldehyde were procured from Himedia, Mumbai, India. All other chemicals, reagents and solvents used were of analytical grade.

Preparation of Sulfasalazine Microspheres

The sulfasalazine loaded microspheres were prepared by simple emulsification method followed by cross-linking method. Chitosan solution was prepared by dissolving the 100 mg of chitosan 1% v/v acetic acid (50 ml). The sulfasalazine (100 mg) was added to the disperse phase (chitosan solution). The drug-chitosan solution was extruded through a syringe (No. 20) in liquid paraffin (100 ml, heavy and light, 1 : 1 ratio) containing Span 85 (0.5%), and it was stirred at 1500 rpm using mechanical shaker. After 15 minutes, crosslinking agent (v/v aqueous solution) was added and stirring was continued for next 3 hours. The obtained microsphere were filtered and washed with isopropyl alcohol to remove traces of oil. They were finally washed with water to remove excess of crosslinking agent. The microspheres were then dried at 25°C and 60% relative humidity for 24 hrs [10].

Optimization of SLZ Microspheres

The SLZ microspheres were optimized by preparing six formulations (Table 1) using different variables such as drug: polymer ration, stirring speed, volume of gluteraldehyde. The resultant particle size, entrapment efficiency and drug release studies were considered for optimization process.

Table 1: Optimization of SLZ Microspheres

Formulation Code	Variables		
	(Drug: polymer)	(stirring speed) rpm	(Vol. of gluteraldehyde) (v/v)
SLZ-1	(1:1)	(500)	(0.5)
SLZ-2	(1:1)	(1000)	(1.0)
SLZ-3	(1:1)	(1500)	(1.5)
SLZ-4	(1:2)	(500)	(1.0)

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A COMPARATIVE STUDY ON EFFICACY OF ATORVASTATIN AND ROSUVASTATIN IN CAD

Dr. Rama Krishna Mungi [1], K.Ashish Kumar [2], S.Gouthami Reddy [3], T.Revanth [4], Ch.Meghana[5]

[1]Associate Professor, Dept of Pharmaceutics, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

[2345] Pharm.D 5th Year, Dept of Pharmacy Practice, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

ABSTRACT

Background: Purpose of this study was to examine the efficacy of two statin medicines, Atorvastatin and Rosuvastatin, in individuals with coronary artery disease.

Objective: Its purpose is to see which drug (Atorvastatin and Rosuvastatin) is more effective at decreasing lipids that can lead to CAD.

Methods: This was a 6-month observational, comparative, and prospective study that included 100 individuals with CAD aged 20 and above years old. The patients were split into two groups, with 41 receiving atorvastatin and 59 receiving rosuvastatin. At the end of six months, the levels of TG, LDL, HDL, and TC were evaluated. The acquired data will be analyzed using GraphPad by Dotmatics and Microsoft Excel Version 18.2110.13110.0.

Results: There were 73 men and 27 women among the study's 100 participants. Males are more likely than females to develop coronary artery disease. When compared to Atorvastatin [0.0030], the level of serum total cholesterol in patients on Rosuvastatin was lower after intervention P [0.0011]. When rosuvastatin was compared to atorvastatin [0.0010], the level of TG in rosuvastatin was lowered P [0.001]. When comparing LDL levels Rosuvastatin P [0.004] has shown lower levels than Atorvastatin P [0.0423]. Rosuvastatin is more effective than Atorvastatin when their respective efficacy levels are compared.

Conclusion: Finally, the study concluded that rosuvastatin 10 mg, 20 mg, and 40 mg are more efficient than atorvastatin 10 mg, 20 mg, 40 mg, and 80 mg in people diagnosed with CAD based on lipid profile values.

Keywords: Rosuvastatin, Atorvastatin, CAD, LDL, HDL, TG, TC.

INTRODUCTION

In India, where studies have been undertaken in both rural and urban areas over the last 30 years, the prevalence of CAD has increased. The survey conducted by the national statistical survey organization is the greatest recent investigation on the prevalence of coronary artery disease in India. Because of demography and economic development, CAD has a high prevalence rate. CAD differs between both native and migrant Indians due to cultural changes due to migration. Asian Indians have a low level of HDL, which is also a major risk-factor for premature CAD. Prevalence in men is 6.9% and in women it is 6%. The prevalence is 11.4 among white people of age 18 and above. Women appear to be less vulnerable to CHD than males, yet hormonal changes cause them to lose this protection after menopause. Obesity, bad cholesterol markers, higher blood pressure, and greater c-reactive protein measures, an indication of inflammatory activity, are all linked to poor social and economic status.

Coronary Heart Disease is also known as coronary artery disease or ischemic heart disease. It is a condition in which the vascular supply to the heart is impaired by atheroma, thrombosis, or spasm of coronary arteries. One of the common reasons for this is dyslipidemia. This could reduce the flow of oxygenated blood to the heart muscle and result in myocardial ischemia. When the oxygen supply is insufficient compared to the oxygen demand, myocardial ischemia happens. Adenosine is released by the ischemic myocardium that results. A1 receptors on the cardiac nerve terminals are activated by

E-ISSN 2250-0944
ISSN 2250-1150
doi: 10.31838/ijprt/13.01.11

Research Article

Novel Anlytical Rp-Hplc Method for Simultaneous Determination of Antiretroviral Drugs

USHA KONDLA[1], VANKUDOTH KAVITHA[2],GOPI SWAPNA[3],PITTA LAVANYA[4]
Avanthi Institute of Pharmaceutical Sciences, Approved by AICTE, PCI, NAAC, JNTUH, Gunthapally, Hayathnagar, Hyderabad-501512
Received: 18.04.23, Revised: 21.05.23, Accepted: 03.06.23

ABSTRACT
A simple, precise, rapid and accurate reverse phase HPLC method was developed for the simultaneous estimation of cobicistat and elvitegravir in the pharmaceutical dosage form. A column of ODS (250mm 4.6mm; i.d and 5µ particle size) was used along with the mobile phase comprising of 0.02M dipotassium hydrogen orthophosphate buffer (pH adjusted to 3.3) and methanol in the ratio of 80:20 (v/v). The flow rate was maintained at 1.0 ml/min and the effluents monitored at 254 nm. The retention time for cobicistat was found to be 2.58 ± 0.3 min and elvitegravir was 3.71 ± 0.3 min. The detection concentration was linear over 125-750 µg/ml for cobicistat and 12.5-75 µg/ml for elvitegravir. Regression equations of cobicistat and elvitegravir were found to be y = 25883x + 19711 and y = 27696x + 6046 respectively with regression co-efficient 0.999. The % RSD for Intra and Inter day precision was < 2%. The accuracy of method was validated by recovery studies and found to be significant within acceptable range 98-102%. The developed method was successfully validated in accordance with ICH guidelines.

Keywords: Cobicistat, Elvitegravir, Anti-HIV agent, CYP3A Inhibitors, Validation, ICH guidelines

INTRODUCTION
Cobicistat and Elvitegravir combined dosage form is used for the treatment of HIV infection in adult patients. Cobicistat is chemically as 1,3-thiazol-5-ylmethyl N-[(2R,5R)-5-[[(2S)-2-[[methyl [(2propa2-yl-1, 3-thiazol-4-yl) methyl] carbamoyl] amino]-4 morpholin-4-yl buta-noyl] amino]-1, 6- diphenylhexan-2-yl] carbamate which acts as an HIV integrase inhibitor [1, 2].

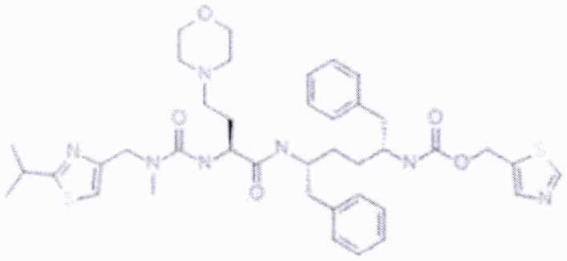


Fig. 1: Chemical Structure Of Cobicistat

It has a molecular formula of C40H53N7O5S2 and a molecular weight of 776.0 g/mol Fig. 1. It is a mechanism- based inhibitor of cytochrome P450 3A (CYP3A) isoforms. Cobicistat does not have any anti-HIV activity on its own. It is a new pharmacokinetic enhancer, metabolized by CYP3A and especially used to increase elvitegravir levels when administered.

Elvitegravir is chemically 6-(3-chloro-2-fluorobenzyl) -1- [(2S) -1-hydroxy-3-methyl butan -2- yl] -7-methoxy -4- oxo-1, 4 dihydro quinoline -3- carboxylic acid. It has a molecular formula of C23H23ClFNO5 and a molecular weight of 447.883 g/mol Fig. 2. Elvitegravir inhibits the strand transfer activity of HIV-1 integrase (integrase strand transfer inhibitor; INSTI), an HIV-1 encoded enzyme that is required for viral replication.

European Journal of Medicinal Chemistry Reports 6 (2022) 100096

Contents lists available at ScienceDirect

European Journal of Medicinal Chemistry Reports

journal homepage: www.editorialmanager.com/ejmcr/default.aspx

Beta-carboline as a promising heterocyclic nucleus: Synthetic aspects, pharmacological potential and structure activity relationship

Mahender Thatikayala [a], Pankaj Wadhwa [a], Paranjeet Kaur [a], Pankaj Kumar Singh [b], Ankit Yadav [a], Monika Kaushik [c], Sanjeev Kumar Sahu [a,*]

[a] School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab, 144401, India
[b] Department of Pharmaceutics, National Institute of Pharmaceutical Education and Research, Hyderabad, 500037, India
[c] Amity Institute of Pharmacy, Amity University Madhya Pradesh (AUMP), Gwalior, 474005, India

ARTICLE INFO

Keywords:
Beta-carboline
Anticancer
Anti-HIV
Antileishmanial
Antimalarial
Anti-trypanosomal

ABSTRACT

Beta-carboline is an indole alkaloid which has been identified as a valuable heterocyclic nucleus in the field of medicinal chemistry. It has different biological activities like antibacterial, anticancer, antifungal, antimalarial, antileishmanial, anti-HIV, anti-trypanosomal, and anti-toxoplosmal respectively in various medicinal compounds. The study of various potent beta-carboline derivatives and their synthetic aspects helps to design other potent derivatives for the effective treatment of multiple diseases like leishmaniasis, malaria, cancer, AIDS, tuberculosis, and bacterial and fungal infections. Incorporation of beta-carboline nucleus improves physiochemical and pharmacological properties. This review is mainly focused on various potential pharmacological active beta-carboline derivatives developed in the last twenty years with their synthetic aspects and structure activity relationship. It is helpful to synthetic chemists, drug designers, and medicinal chemists to design target-based new beta-carboline derivatives with good pharmacological activities in the future.

1. Introduction

Beta-carboline is chemically 9*H*-pyrido[3,4-*b*] indole. It is also known as nor-harmane, a member of the indole alkaloids family, containing a pyridine ring linked to an indole molecule [1]. Beta-carbolines are found in plants, food, microbes and insects [2]. Many of these alkaloids have been reported to be isolated from plants belonging to the family i.e., Rutaceae, Zygophyllaceae, Simaroubaceae, Amaranthaceae, Caryophyllaceae and Rubiaceae. as well as marine sources such as soft hydroids, corals and bryozoans [3,4]. Tryptophan and tryptamine are considered as precursors for the biosynthesis of beta-carbolines [5]. Beta-carbolines are classified based on the level of saturation of pyridine rings. The beta-carbolines with total unsaturated aromatic pyridine ring are called as fully aromatic beta carbolines (FAβCs), beta-carbolines with partially saturated aromatic pyridine ring as 3,4 dihydro-beta-carbolines (DHβCs), and, beta-carbolines with fully saturated aromatic pyridine ring tetrahydro-beta-carbolines (THβCs) (Fig. 1) [6]. The Beta-carboline-1 proponoicacid, Canthi-6-one, 1-Methoxycanthione, 6-Methoxycanthione, Eudistomin-I, Eudistomin-H, Harmane, Harmine, Harmol, Norharmane, are examples of pharmacologically active fully aromatic beta-carboline plant products (Fig. 2) [4,7–19]. The Fascalpysin, Hyrtioerectin-A, Plakortamine-A, Plakortamine-B, Plakortamine-C, Plakortamine-D, Manzamine-A, 6-Deoxymanzamine-X, 8-Hydroxymanzamine-A, 8-Methoxymanzamine-A and Thorectandramine are the examples ofpharmacologically active fully aromatic beta-carboline marine products (Fig. 2) [20–26]. The Harmaline and Harmalol are the examples of the pharmacologically active 3, 4-dihydro beta-carboline plant products (Fig. 3) [10,27–29]. The 3, 4-dihydro manzamine and Xestomanzamine are the examples of the pharmacologically active 3,4-dihydro beta-carboline marine products [23,24]. The Ajmalicine, Harmalacidine, Pegaharmaline-A, Pegaharmaline-B, Pegaharmine-D, Peganumine-A, Sacleuximine-A, Reserpine, Tangutorine, Vincaamine are examples of the pharmacologically active tetrahydro beta-carboline plant products (Fig. 4) [30–39]. The Bengacarboline, Callophycin-A, Hytioerectin-B, Maganedin-A, (+)-Milnamide-C are the examples of the pharmacologically active fully aromatic beta-carboline marine products (Fig. 4) [40–42]. The natural beta-carbolines have a wide range of biological activities, including antibacterial [11,35], anticancer [8,17,35], antifungal [11], anti-microbial [4], antimalarial [23], antileishmanial [7,10,24,28], anti-HIV [9,13], anti-trypanosomal [26] and, anti-toxoplosmal [16], respectively (Fig. 5).

* Corresponding author.
E-mail address: sanjeevsahu82@yahoo.co.in (S.K. Sahu).

https://doi.org/10.1016/j.ejmcr.2022.100096
Received 12 July 2022; Received in revised form 10 November 2022; Accepted 20 November 2022
Available online 22 November 2022

SJIF Impact Factor 2022: 8.197| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 7 | Issue: 9 | September 2022 - Peer Reviewed Journal

A RAPID NOVEL ANALYTICAL METHOD FOR SIMULTANEOUS ESTIMATION OF GRAZOPREVIR AND ELBASVIR BY USING RP-HPLC

Vankudoth Kavitha[1], Usha Kondla[2], P.V Pavan Kumar[3], Gopi Swapna[4]

[1,2,3,4] *Avanthi Institute of Pharmaceutical Sciences, Approved by AICTE, PCI, NAAC, JNTUH, Gunthapally, Hayathnagar, Hyderabad-501512*

ABSTRACT

The current investigation described a sensitive, selective, precise and accurate RP-HPLC method with photodiode array detector for the simultaneous estimation of antiviral drugs, grazoprevir and elbasvir. The separation and analysis were done on Sunsil C18 analytical column (250 mm x 4.6 mm, 5 µ particle size). 0.1M NaH_2PO_4: methanol [60:40 v/v] in isocratic elution mode was used as mobile phase. The pH of the mobile was adjusted to 4.0 with orthophosphoric acid. The elution of grazoprevir and elbasvir was accomplished with a flow rate of 1.2 ml/min. Detection was performed with photodiode array detector set at a wavelength of 260 nm. The detector response was linear in the concentration of 25-75 µg/ml for elbasvir and 50-150 µg/ml for grazoprevir. The limit of detection and limit of quantitation values were found to be 0.137 µg/ml and 0. 574 µg/ml for elbasvir and 0.290 µg/ml and 0.968 µg/ml for grazoprevir, respectively. The method was validated following international conference on harmonization guidelines. The percentage recovery for grazoprevir and elbasvir were found to be in the range of 100.08%-100.45% and 99.60%-100.06%, respectively. The %RSD values are 0.130% and 0.161% for grazoprevir and elbasvir, respectively. The results of validation parameters were found in the acceptance range. The present investigation concluded that the RP-HPLC method with photodiode array detector method was selective for simultaneous estimation of elbasvir and grazoprevir in combined dosage form.

KEYWORD: *Elbasvir , Grazoprevir , Method Development,RP-HPLC.*

INTRODUCTION

Grazoprevir is a NS3/4A protease inhibitor used against different hepatitis C virus genotype variants [1]. Grazoprevir belongs to second generation hepatitis C virus protease inhibitor [2]. By inhibiting NS3/4A protease enzyme, grazoprevir stops the conversion of viral polyprotein into its functional proteins. Elbasvir is a NS5A protein inhibitor used in the treatment of hepatitis C viral infection [3]. NS5A is a protein important for replication of virus and assembly of virion. The combination of elbasvir with grazoprevir was approved by FDA in 2016 in the treatment of chronic Hepatitis C virus genotypes 1 and 4 [4].

The combination of elbasvir with grazoprevir is not listed official in any pharmacopoeia. Only few methods are found in the literature for the quantification of elbasvir and grazoprevir either individually or in combination. Haiyan et al., [5] established an ultra performance liquid chromatography with tandem mass spectrometry method for the quantification of elbasvir in rat plasma using deuterated elbasvir as internal standard. The separation and analysis was achieved with an UPLC BEH C18 column. The mobile phase consisted of acetonitrile–water (containing 5 mM ammonium acetate with 0.01% acetic acid, pH 4.5) at a flow rate of 0.3 ml/min for 3 min in gradient elution mode. This method was applied to the pharmacokinetics study of elbasvir in rats. Haritha et al., [6] described a liquid chromatography with tandem mass spectrometry method for estimation of grazoprevir and elbasvir simultaneously in human plasma. Agilent TC-C18 (4.6 x 75 mm, 3.5 µm, 80 Å) column as stationary phase and acetonitrile: 5 mM ammonium acetate (80:20 *v/v*) as mobile phase was used for the analysis. Akram [7] determinate elbasvir and grazoprevir in bulk and in its pharmaceutical dosage forms using an RP-HPLC method. The separation and analysis are performed using Ineertsil ODS column (4.6 ×2 50 mm, 5 µm). Acetonitrile and phosphate buffer (pH 3) in the ratio of 40:60 (*v/v*) with a flow rate of 1 ml\min was used.

The methods of Haiyan et al., [5] and Haritha et al., [6] were not applied to the quantification of elbasvir and grazoprevir in bulk and pharmaceutical dosage forms. Though the RP-HPLC method of Akram [7] was applied to pharmaceutical dosage forms, this method has disadvantages such as less sensitive, less precise increased retention time of drugs. The present study was aimed to develop a cost effective, sensitive and fully validated RP-HPLC method with photodiode array detection method for the simultaneous determination of elbasvir and grazoprevir in bulk and pharmaceutical dosage forms.

WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Synthesis, Characterization of New 3-Chloro- Azetidine-2-One and 1, 3-Thiazinan-4-One Derivatives from Di Imines

[1]Gopi Swapna, [2]Thejovathi. B, [3]Usha Kondla, [4]Vankudoth Kavitha

Avanthi Institute of Pharmaceutical Sciences

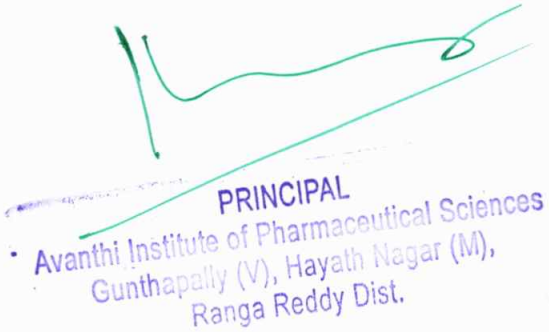
ABSTRACT

The study Included synthesis of some new Derivatives of (benzylideneamino)-3-chloro-4-phenylazetidin-2-one and 3-(3-chloro- 2-oxo-4-phenylazetidin-1-yl)-2-phenyl-1,3-thiazinan-4-one by tow steps; The first include amino group of the di amino was condensed with different aromatic aldehydes in the presence of absolute ethanol to give new Schiff bases derivatives [1– 3] respectively. The second step , the resulting imines derivatives [1 – 3] were reacted with chloro acetyl chloride in presence of triethylamine in dry benzene by per cyclic reaction to give novel 3-(3-chloro-2-oxo-4-phenylazetidin-1-yl) derivatives (A_1-A_3) and reacted with 3-mercapto propanoic acid with (Schiff-base) in dry benzene to give1,3-thiazinan-4-one derivative's(Z_1- Z_9) The composites prepared were described by melting point .Most of these derivatives were confirmed by "FT-IR, 1HNMR spectra.

Keywords---Schiff's bases, (benzylideneamino)-3-chloro-4- phenylazetidin-2-one, 3-(3-chloro-2-oxo-4-phenylazetidin-1-yl)-2- phenyl-1,3-thiazinan-4-one

Introduction

Azetidine, a four-member heterocyclic ring system with (N) as a heteroatom, is the parent heterocyclic ring of azetidinone. The second position of 2-azetidinone has a carbonyl group, which is one of the most prevalent heterocyclic rings found in many antibiotics [1].Although the ring of azetidinone was known since (1907) but the realization of their chemistry began from (1947) only. These are presently used for chemotherapy of bacterial infections [2-4]. Realization of their chemistry began from (1947) only. These are presently used for chemotherapy of bacterial infections [2-4].] cycloaddition, also known as the Staudinger reaction, is a reaction between imine and ketene that is one of the most important and versatile techniques for the synthesis of structurally diverse 2-azetidinone derivatives[5]. The Staudinger reaction is thermally or photochemically enhanced by utilizing acid chlorides in the presence of (Et3N) triethylamine or a-diazoketones as ketene precursors[6]. Azetidinone is a four-membered cyclic that has been used as a useful building block for the preparation of a variety of chemical compounds by utilizing the strain energy associated with it[7] . Sulfadiazine is a sulfonamide antibiotic that is listed on the WHO's "List of Essential Medicines." It kills bacteria that cause infections by preventing the bacterial cell from producing folic acid, and it's commonly used to treat "urinary tract infections" (UTIs) and burns[8,9]. The four-membered cyclic amide azetidinone, often known as "-lactam," is produced from 3-amino-propanoic acid [10,11]. Azetidine is the parent heterocyclic ring of azetidinone, which is a four-membered heterocyclic ring system with (N) as the heteroatom. The second position of 2-azetidinone has a carbonyl group, which is one of the most prevalent heterocyclic rings found in many antibiotics[10]. Although the ring of azetidinone has been known since 1907, its chemistry has only recently been discovered (1947) Azetidine, a four- member heterocyclic ring system with (N) as a heteroatom, is the parent heterocyclic ring of azetidinone. The second position of 2-azetidinone has a carbonyl group, which is one of the most prevalent heterocyclic rings found in many antibiotics[12]. Although the ring of azetidinone has been known since 1907, the chemistry of the compound was finally discovered in 1947. These are currently being utilized to treat bacterial infections [13-15]. Thiazinanones (six- membered heterocyclic) have not been extensively studied in the past, but they have important biological properties such as immunopotentiating [16], anti- inflammatory [17], antimalarial [18], and antibacterial [19]. The current study additionally looked at how thiazolidinones have been synthesized in recent years [19, 20]. The methods utilized in nonconventional sonochemistry were of great interest to the researchers [21, 22]. The research is the first to look at the thiazinanone ring's chemistry. Thus, using 2-picolylamine, aldehydes, and MercaptoPropanoic acid, the current work produced 15 novel thiazinanones. The goal of this research is to look at the antioxidant properties of thiazolidinones [23] and novel thiazinanones that have been synthesized in the past. N-bromo compounds are antibacterial, antifungal, and anti-HIV chemicals that have a bromine atom linked to nitrogen [22-27]. The antibacterial activity of 2-(4-((1-aryl- 1H-1, 2, 3-triazol-4-yl)methoxy)phenyl)2-(2-oxoazetidin-1-yl) acetamide against different G-positive (Staphylococcus aureus and Bacillus subtilis) acetates was investigated.The 2-(4-((1-aryl-1H-1, 2, 3-triazol-4-yl)methoxy)phenyl)2-(2-oxoazetidin-1-yl) acetamide product was characterized and their antibacterial activities were evaluated against various G-positive (Staphylococcus aureus and Bacillus subtilis) and G-negative (Pseudomonas aeruginosa and Escherichia coli) bacteria, using minimal inhibition concentration.[28].



ISSN 2349-7203

IJPPR
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals

HUMAN

Human Journals
Research Article
November 2022 Vol.:25, Issue:4

Development and *In-Vitro* Evaluation of a Novel Bilayered Floating Tablets of Capecitabine and Ondansetron

IJPPR
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
HUMAN

Soumya Senigarapu[1], Santhosh A*[2], Madhuri T[3], Lavanya P[4], Jyothi B[5], Sareesh K[6]

1,2,5,6Assistant Professor, St. Pauls College of Pharmacy, Hyderabad, Telangana, India 501510

3,4 Assistant Professor, Avanthi Institute of Pharmaceutical Sciences, Hyderabad, Telangana, India 501510

Submitted: 30 October 2022
Accepted: 5 November 2022
Published: 30 November 2022

Keywords: Floating tablet, Capecitabine, ondansetron, floating time, swelling index

ABSTRACT

The prepared blend for IR layer tablets and SR layer tablets also maintained the physiochemical properties of tablets such as thickness, hardness, weight variation, and friability. The optimized formulation F8 in IR formulations contains an average thickness of 2.4mm, an average hardness of 3.4 kg/cm^2, an average weight of 149mg, friability of 0.43%. The optimized formulation F7 in SR formulations contains an average thickness of 2.3mm, average hardness of 7.3 kg/cm^2, and friability of 0.41%. The F7 formulation which releases the capecitabine in a sustained manner in 1st hour releases 25.5% but the remaining drug release was sustained up to 12 hours and the ondansetron immediate release F7 formulation showed 96 % drug release within 30 min. With the data of kinetic analysis, the F7 formulation showed the best linearity in Higuchi's Equation plot indicating that the release of the drug from the matrix tablet follows Non-Fickian diffusion.

HUMAN JOURNALS
www.ijppr.humanjournals.com

ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 13, Issue, 02, pp. 61870-61874, February, 2023
https://doi.org/10.37118/ijdr.26423.02.2023

RESEARCH ARTICLE OPEN ACCESS

PREPARATION AND EVALUATION OF CONTROLLED RELEASE TABLETS CONTAINING IBUPROFEN

Krishnaveni, R.[1*], Dr. M. Rama Krisha[1], Dr. K. Balaji[2] and Dr. S. Ramya Sri[2]

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Jawarharlal Nehru Technological University, Hyderabad, Telangana, India
[2]Department of Pharmaceutics, Sura Pharma Labs, Hyderabad, Telangana, India

ARTICLE INFO

Article History:
Received 03rd January, 2023
Received in revised form
27th January, 2023
Accepted 11th February, 2023
Published online 28th February, 2023

KeyWords:
Ibuprofen, HPMC K 15M, HEC 2M, HPC 2M and Controlled release tablets.

**Corresponding author: Krishnaveni, R.*

ABSTRACT

Introdução: The article discusses the general provisions of the feasibility study for the use of dual completion operation on the example of the experience of Turkmenistan, where an experimental test was conducted on four wells of the Northern Goturdepe field located in the coastal zones of the coastal waters of the Caspian Sea. Geological materials and materials of previously drilled wells were used for the design, as well as analysis of hydrodiamic and thermodynamic indicators from the existing well stock. Oil samples were also taken from wells in order to conduct laboratory analyses to fully determine their characteristics. The calculation of the economic efficiency of these four wells was carried out, according to the results of which the economic effect was determined by reducing capital expenditures for drilling and development of a multi-layer field. This work can be used and useful to fulfill the tasks set for the accelerated development of multi-layer deposits, which will eventually lead to a significant reduction in the volume of drilling wells, respectively, and funds.

Citation: ***Krishnaveni, R., Dr. M. Rama Krisha, Dr. K. Balaji and Dr. S. Ramya Sri. 2023.*** "Preparation and evaluation of controlled release tablets containing ibuprofen", *International Journal of Development Research*, 13, (02), 61870-61874.

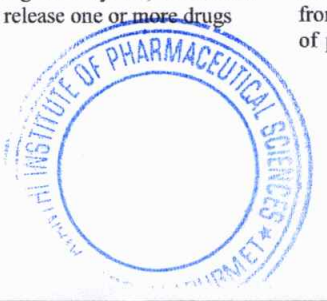
INTRODUCTION

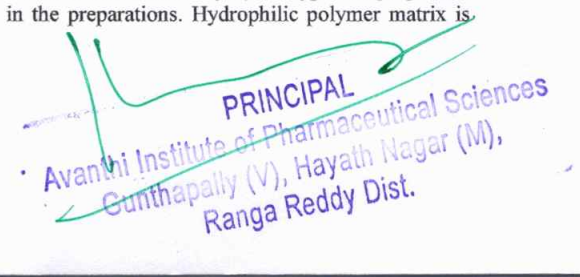
Controlled release tablets are commonly taken only once or twice daily, compared with counterpart conventional forms that may have to take three or four times daily to achieve the same therapeutic effect. The advantage of administering a single dose of a drug that is released over an extended period of time to maintain a near-constant or uniform blood levelof a drug often translates into better patient compliance, as well as enhanced clinical efficacyof the drug for its intended use. The first Controlled release tablets were made by Howard Press in New Jersy in the early 1950's. The first tablets released under his process patent were called 'Nitroglyn' and made under license by Key Corp. in Florida. Controlled release, prolonged release, modified release, extended release or depot formulations are terms used to identify drug delivery systems that are designed to achieve or extend therapeutic effect by continuously releasing medication over an extended period of time after administration of a single dose. The goal in designing Controlled or Controlled delivery systems is to reduce the frequency of the dosing or to increase effectiveness of the drug by localization at the site of action, reducing the dose required or providing uniform drug delivery. So, Controlled release dosage form is a dosage form that release one or more drugs continuously in predetermined pattern for a fixed period of time, either systemically or to a specified target organ.

Controlled release dosage forms provide a better control of plasma drug levels, less dosage frequency, less side effect, increased efficacy and constant delivery. There are certain considerations for the preparation of extended release formulations:

- If the active compound has a long half-life, it is Controlled on its own,
- If the pharmacological activity of the active is not directly related to its blood levels,
- If the absorption of the drug involves an active transport and
- If the active compound has very short half-life then it would require a large amount of drug to maintain a prolonged effective dose.

The above factors need serious review prior to design. Introduction of matrix tablet as Controlled release (SR) has given a new breakthrough for novel drug delivery system in the field of Pharmaceutical technology. It excludes complex production procedures such as coating and Pelletization during manufacturing and drug release rate from the dosage form is controlled mainly by the type and proportion of polymer used in the preparations. Hydrophilic polymer matrix is





CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187
https://doi.org/10.5281/zenodo.7319874

Available online at: http://www.iajps.com *Research Article*

STABILITY INDICATING RP HPLC METHOD DEVELOPMENT AND VALIDATION FOR ESTIMATION OF DALFAMPRIDINE IN ITS BULK AND FORMULATION

[1]B. Bharath Kumar, [2]Dr. Balaji

Department of Pharmaceutical Analysis, Avanthi Institute of Pharmaceutical Sciences, Gunthapally, Abdullapurmet, Telangana, India.

Article Received: August 2022 **Accepted:** September 2022 **Published:** October 2022

Abstract:

A simple and selective LC method is described for the determination of DALFAMPRIDINE tablet dosage forms. Chromatographic separation was achieved on a c18 column using mobile phase consisting of a mixture of MixedPhosphate buffer (KH2PO4+K2HPO4) pH:3.5 Acetonitrile (30:70v/v/v), with detection of 244 nm. Linearity was observed in the range 35-105 µg /ml for DALFAMPRIDINE (r2 =0.998) for drugs estimated by the proposed methods was in good agreement with the label claim. Several analytical procedures have been proposed for the quantitative estimation of DALFAMPRIDINE separately and in combination with other drugs. To my knowledge simple, rapid analytical method for determination of DALFAMPRIDINE has not been reported so far. So attempt was taken to develop and validate a reversed-phase high performance liquid chromatographic method for the quality control of DALFAMPRIDINE in pharmaceutical preparations with lower solvent consumption along with the short analytical run time that leads to an environmentally friendly chromatographic procedure and will allow the analysis of a large number of samples in a short period of time.

Keywords: *Dalfampridine, RP-HPLC, Method development, Validation*

Corresponding author:

Dr. Balaji

M.pharm, Ph.d., Professor, Department of Pharmaceutical Analysis,
Avanthi Institute of Pharmaceutical Sciences,
Gunthapally, Abdullapurmet, Telangana, India.
E-mail: a1buddulabharathkumar@gmail.com

QR code

Please cite this article in press Balaji et al, ***Stability Indicating RP HPLC Method Development And Validation For Estimation Of Dalfampridine In Its Bulk And Formulation.,*** *Indo Am. J. P. Sci, 2022; 09(10).*

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * ABDULLAPURMET *

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187
https://doi.org/10.5281/zenodo.7319868

Available online at: http://www.iajps.com *Research Article*

ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF CABOTEGRAVIR & RILPIVIRINE BY RP HPLC METHOD

[1]Pindi Shravani, [2]Dr. Nihar Ranjan Das

Pharmaceutical Chemistry, Avanthi Institute of Pharmaceutical Sciences, Gunthapally, Abdullapurmet, RR Dist

Article Received: August 2022 **Accepted:** September 2022 **Published:** October 2022

Abstract:

A new method was established for simultaneous estimation of and cabotegravir and rilpivirine by RP-HPLC method. The Phosphate buffer was pH 3.2 and the mobile phase was optimized which consists of Acetonitrile: Phosphate buffer mixed in the ratio of 40:60 % v/ v. A Inertsil ODS C18 (4.6 x 250mm, 5 µm, Make Waters) column used as stationary phase. The detection was carried out using UV detector at 231 nm. The solutions were obtained at a constant flow rate of 1.0 ml/min. The linearity range of cabotegravir and rilpivirine were found to be from 20-60□g/ml and 30-90□g/ml respectively. linear regression coefficient was not more than 0. 999.The values of % RSD are less than 2% indicating accuracy and precision of the method. The percentage recovery varies from 98-102% of Cabotegravir and Rilpivirine LOD and LOQ was found to be within limit.

Key words: *Cabotegravir and Rilpivirine, RP-HPLC, Acetonitrile.*

Corresponding author:

Dr. Nihar Ranjan Das

Professor, Pharmaceutical Chemistry,
Avanthi Institute of Pharmaceutical Sciences,
Gunthapally, Abdullapurmet, RR Dist
Telangana., E-mail: nrdas18@gmail.com

QR code

Please cite this article in press Nihar Ranjan Das et al, ***Analytical Method Development And Validation For The Simultaneous Estimation Of Cabotegravir & Rilpivirine By RP HPLC Method.,*** *Indo Am. J. P. Sci, 2022; 09(10).*

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * ABDULLAPURMET *

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

FORMULATION AND EVALUATION OF CONTROLLED RELEASE TABLETS OF MONTELUKAST

Komal Yadav[1*], Rama Krishna Mungi[1], Ramya Sri.S[2]

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Hyd, Telangana, India

[2]Department of Pharmaceutics, University College of Technology, Osmania University, Hyderabad, Telangana, India

***Corresponding Author**

Komal Yadav
Department of Pharmaceutics,
Avanthi Institute of Pharmaceutical Sciences,
Hyd, Telangana, India.
Email Id- surapharmalabs@gmail.com

ABSTARCT

A controlled drug delivery system is usually designed to deliver the drug at the particular rate. The performance of a drug presented as a controlled release system depends upon its release from the formulation. Montelukast controlled release tablets were prepared by Direct compression method by using three different polymers Eudragit S 100, HPMC K4 M and HPMC K15 M as rate controlling polymer in three different ratios like 1:1, 1:2 and 1:3 to achieve desired release in later case. Physical characterization of tablet and powder blends used to form the matrix tablet was under taken using a range of experimental techniques. Granules were evaluated for Bulk density, Tapped density, Compressibility index and Hausner's ratio. Tablets were tested for weight variation, hardness, thickness and friability as per official procedure. The tablets were evaluated for *in-vitro* drug release profile. Dissolution studies of Montelukast controlled release tablets in media with different dissolution media 0.1N HCl, Phosphate buffer pH (6.8) as per US Pharmacopoeia. The dissolution data revealed that the ratio of polymers is very important to achieve an optimum formulation. The formulation of Montelukast CR tablets shown that formulation F5 with HPMC K4 M (10mg) shown good drug release profile.

KEYWORDS: Montelukast, Eudragit S 100, HPMC K4 M and HPMC K15 M, Controlled release tablets.

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * GANDIPET *

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

FORMULATION AND EVALUATION OF MUCOADHESIVE BUCCAL TABLETS OF GLIPIZIDE

N. Sreeja [1*], Rama Krishna Mungi[1], Ramya Sri.S[2]

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Hyd, Telangana, India

[2]Department of Pharmaceutics, University College of Technology, Osmania University, Hyderabad, Telangana, India

***Corresponding Author**

N. Sreeja
Department of Pharmaceutics,
Avanthi Institute of Pharmaceutical Sciences,
Hyd, Telangana, India.
Email Id- surapharmalabs@gmail.com

ABSTRACT

Mucoadhesive tablets of Glipizide were prepared by using Tragacanth, Xanthan gum and Tamarind Gum as mucoadhesive polymers. Nine formulations were developed with varying concentrations of polymers. G1 to G9 formulations were composed of Tragacanth, Xanthan gum and Tamarind Gum in ratios of 1:1, 1:2 and 1:3. The formulated mucoadhesive buccal tablets were assessed for quality attributes like weight variation, hardness, thickness, friability, drug content, moisture absorption, surface pH and *in vitro* drug release studies. Optimized formulation G4 showed maximum release of the drug (99.61%). The FTIR results showed no evidence of interaction between the drug and polymers. All the evaluation parameters given the positive result and comply with the standards. The results indicated that the mucoadhesive buccal tablets of Glipizide may be good choice to bypass the extensive hepatic first pass metabolism with an improvement in bioavailability of Glipizide through buccal mucosa.

Key words: Glipizide, Tragacanth, Xanthan gum, Tamarind Gum and Buccal tablets.

CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187
https://doi.org/10.5281/zenodo.7320050

Available online at: http://www.iajps.com *Research Article*

METHOD DEVELOPMENT AND VALIDATION OF SITAGLIPTIN AND SIMVASTATINE IN TABLET DOSAGE FORM BY RP-HPLC

[1]Kuya Mani Kumar, [2]Dr. Sai Kiran

Department of Pharmaceutical Analysis, Avanthi Institute of Pharmaceutical Sciences, Gunthapally, Abdullapurmet, Telangana, India.

Article Received: August 2022 **Accepted:** September 2022 **Published:** October 2022

Abstract:

A simple and selective LC method is described for the determination of Sitagliptin and Simvastatin in tablet dosage forms. Chromatographic separation was achieved on a c_{18} column using mobile phase consisting of a mixture of 80 volumes of methanol and 20 volumes of water with detection of 241 nm. Linearity was observed in the range 60-140µg /ml for Sitagliptin (r^2 =0.997) and 61-155µg /ml for Simvastatin (r^2 =0.997) for the amount of drugs estimated by the proposed methods was in good agreement with the label claim. From the above experimental results and parameters, it was concluded that, this newly developed method for the simultaneous estimation Sitagliptin and Simvastatin was found to be simple, precise, accurate and high resolution and shorter retention time makes this method more acceptable and cost effective and it can be effectively applied for routine analysis in research institutions, quality control department in meant in industries, approved testing laboratories studies in near future.

Keywords: *Sitagliptin, Simvastatin, RP-HPLC, Simultaneous estimation.*

Corresponding author:

Dr. Sai Kiran

M.pharm, Ph.d., Assistant professor,
Department of Pharmaceutical Analysis,
Avanthi Institute of Pharmaceutical Sciences,
Gunthapally, Abdullapurmet, Telangana, India.
E-mail: manikumar50987@gmail.com

QR code

Please cite this article in press Sai Kiran et al, ***Method Development And Validation Of Sitagliptin And Simvastatine In Tablet Dosage Form By Rp-Hplc.,*** *Indo Am. J. P. Sci, 2022; 09(10).*

ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 13, Issue, 02, pp. 61863-61869, February, 2023
https://doi.org/10.37118/ijdr.26422.02.2023

RESEARCH ARTICLE OPEN ACCESS

EFFECT OF POLYMER CONCENTRATIONON DRUG RELEASE IN THE FORMULATION CONTROLLED RELEASE TABLETS OF GLIPIZIDEUSING VARIOUS POLYMERS

N. Lavanya*[1], Dr. B. Majula[1], Dr. K. Balaji[2] and Dr. S. Ramya Sri[2]

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Jawarharlal Nehru Technological University, Hyderabad, Telangana, India
[2]Department of Pharmaceutics, Sura Pharma Labs, Hyderabad, Telangana, India

ARTICLE INFO

Article History:
Received 11th January, 2023
Received in revised form
26th January, 2023
Accepted 08th February, 2023
Published online 28th February, 2023

KeyWords:
Glipizide, Eudragit RSPO, Sodium alginate, Sodium CMC and Controlled release tablets.

**Corresponding author: R. Lavanya,*

ABSTRACT

The objective of the present study was to develop Controlled release tablets of Glipizide using different polymers. The tablets were prepared with different ratios of Eudragit RSPO, Sodium alginate and Sodium CMC by direct compression technique. The solubility study of the Glipizide was conducted to select a suitable dissolution media for in vitro drug release studies. FTIR study revealed no considerable changes in IR peak of Glipizide and Hence no interaction between drug and the excipients. In vitro release from the formulation F5 was found to be 99.31 %. From all the results of dissolution data fitted to various drug release Kinetic equations. It was observed that highest correlation was found for Higuchi release kinetics mechanism.

Citation: *R. Lavanya, Dr. B. Majula, Dr. K. Balaji and Dr. S. Ramya Sri. 2023.* "Effect of polymer concentrationon drug release in the formulation controlled release tablets of glipizideusing various polymers", *International Journal of Development Research*, 13, (02), 61863-61869.

INTRODUCTION

Oral drug delivery is the most widely utilized route of administration among all the routes that have been explored for systemic delivery of drugs via pharmaceutical products of different dosage form. Oral route is considered most natural, convenient and safe due to its ease of administration, patient acceptance, and cost effective manufacturing process. Pharmaceutical products designed for oral delivery are mainly immediate release type or conventional drug delivery systems, which are designed for immediate release of drug for rapid absorption.[1,2,3] Controlled release dosage form is a dosage form that release one or more drugs continuously in predetermined pattern for a fixed period of time, either systemically or locally to specified target organ. Greater attention is paid on development of oral controlled release drug delivery systems due to flexibility in designing of dosage form. The main challenges to oral drug delivery systems are to deliver a drug at therapeutically effective rate to desirable site, modulation of GI transit time and minimization of first pass elimination. Control release dosage form provides better maintenance of optimal and effective drug level for prolonged duration with less dosing frequency and side effects.[4,5]

Historically, oral drug administration has been the predominant route for drug delivery. It is known to be the most popular route of drug administration due to the fact the gastrointestinal physiology offers more flexibility in dosage form design than most other routes A major challenge for the pharmaceutical industry in drug development is to produce safe and efficient drugs, therefore properties of drugs and the way in which they are delivered must be optimised. A controlled release drug delivery system delivers the drug locally or systemically at a predetermined rate for a specified period of time. The goal of such systems is to provide desirable delivery profiles that can achieve therapeutic plasma levels. Drug release is dependent on polymer properties, thus the application of these properties can produce well characterised and reproducible dosage forms.[6] The basic rationale of a controlled release drug delivery system is to optimize the biopharmaceutics, pharmacokinetics, and pharmacodynamics properties of a drug in such a way that its utility is maximized through reduction in side effects and cure or control of disease condition in the shortest possible time by using smallest quantity of drug, administered by most suitable route. The immediate release drug delivery system lacks some features like dose maintenance, controlled release rate and site targeting. An ideal drug delivery system should deliver the drug at a rate dictated by the need of body over a specified period of treatment.

CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187

Available online at: http://www.iajps.com Research Article

DEVELOPMENT AND VALIDATION OF A RP - HPLC METHOD FOR THE SIMULTANEOUS DETERMINATION OF NETUPITANT AND PALONOSETRON IN PURE AND PHARMACEUTICAL DOSAGE FORM

Angadi Nagesh, Dr k. Balaji

Department of pharmaceutical Analysis, Avanthi Institute of Pharmaceutical Sciences, Gunthapally, Abdullapurmet, Telangana, India.

Abstract:

New method was established for simultaneous estimation of Netupitant and Palonosetron by RP-HPLC method.The chromatographic conditions were successfully developed for the separation of Netupitant and Palonosetron by using Inertsil C18 (4.6mm ×250mm, 5µm particle size), flow rate was 1.0 ml/min, mobile phase ratio was (55:45% v/v) Methanol: Phosphate buffer pH 4.8 (pH was adjusted with ortho phosphoricacid), detection wavelength was 282nm. The instrument used was WATERS Alliance 2695 separation module, Software: Empower 2, 996 PDA detector. The retention times were found to be 1.688mins and 3.282mins. The % purity of Netupitant and Palonosetron was found to be 99.86%. The system suitability parameters for Netupitant and Palonosetron such as theoretical plates and tailing factor were found to be 7586, 1.69 and 6235 and 1.58, the resolution was found to be 10.85. The analytical method was validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study of Netupitant and Palonosetron was found in concentration range of 100µg-500µg and 30µg-70µg and correlation coefficient (r2) was found to be 0.999 and 0.999, % recovery was found to be 100.112% and 100.16%, %RSD for repeatability was 0.1702 and 0.043 respectively. The precision study was precise, robust, and repeatable. The LOD value was found to be 2.1µg/ml and 1.28µg/ml, and LOQ value was 6.3µg/ml and 3.84µg/ml for Netupitant and Palonosetron respectively. The results of study showed that the proposed RP-HPLC method is a simple, accurate, precise, rugged, robust, fast and reproducible, which may be useful for the routine estimation of Netupitant and Palonosetron in pharmaceutical dosage form.

Keywords: *Netupitant, Palonosetron, RP-HPLC, Simultaneous estimation.*

Corresponding author:

Angadi Nagesh,

Department of pharmaceutical Analysis,
Avanthi Institute of Pharmaceutical Sciences,
Gunthapally, Abdullapurmet, Telangana, India.
E-mail: Nagesh.angadi94@gmail.com

QR code

Please cite this article in press ***Angadi Nagesh*** *et al,* ***Development And Validation Of A RP - HPLC Method For The Simultaneous Determination Of Netupitant And Palonosetron In Pure And Pharmaceutical Dosage Form.,*** *Indo Am. J. P. Sci, 2023; 10(03).*

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

EVALUATION OF ADR'S ASSOCIATED WITH ANTIEPILEPTICS IN EPILEPSY PATIENTS

Dr.V.Anudeep[1], Paruchuri Bhavana[2], Ravula Sruthi Yadav[3], Siraveni Anusha[4]

[1]Associate Professor, Dept of Pharmaceutics, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

[2345] Pharm.D 5th Year, Dept of Pharmacy Practice, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

Corresponding Author E-mail ID: dr.anudeep.kv@gmail.com

ABSTRACT

Background: Purpose of this study was to evaluate the ADR's associated with anti-epileptics in epilepsy patients

Objective: Its purpose is to rule out the ADR's associated with anti-epileptics and to find more effective the most effective drug of choice in epilepsy patients.

Methods: This was a 6-month observational, comparative, and prospective study that included 100 individuals with EPILEPSY including males and females, who are between the ages of 0 and 90. The prescription pattern, age, gender, habitat, personal family history, management route, length of AED use, seizure types, and therapy were all examined.

Results: A total of 100 people with eligible criteria were obtained for this study. Different age groups with a 10 year class interval were among them. In the 61-70 age range, there were 59 males and 41 females in the study population (18 percent). For (23 percent), phenytoin was prescribed, followed by levetiracetam (18 percent), Mono-therapy (85 percent). The majority have been using AEDs for a long time and have a history of type 2 diabetes mellitus. Many of them have epilepsy that is not inherited. The vast majority of them were smokers. Gum hyperplasia was the most prevalent ADR identified, followed by weight increase (obesity). A total of 182 ADRs were found in 100 patients taking anti-epileptic medicines. Males were shown to be more susceptible to ADR's than females in the study.

Conclusion: Finally, the study concluded that phenytoin had a larger number of adverse medication reactions than sodium valproate and others. also, to avoid or lower the risks AEDs from the second generation were commonly utilised

Keywords: ADR, AED, EPILEPSY , SEIZURES,ADVERSE DRUG REACTIONS, QOL.

INTRODUCTION

The history of epilepsy dates back to the ancient Babylonians and has been documented up to the present. Epilepsy is a common neurological condition that affects people of all ages, despite the fact that it is characterised by unpredictable frequency of seizures. Indeed, the beginning of epilepsy is bimodal, with the majority of cases occurring in older adults and children (Institute of Medicine 2012). It also encompasses a spectrum of illnesses with a wide range of levels, a large range of seizure types and causes, and a variety of effects on both the affected person and their family. Having access to high-quality healthcare, learning about and organising healthcare, medication, vocational, and other issues challenge millions of people living with epilepsy in addition to actually living with the disorder, its seizures, and coexisting health concerns.

One unprovoked or reflex seizure and a probability of further seizures similar to the general recurrence risk of at least 60% after two unprovoked seizures occurring over the next 10 years.

A diagnosis of an epilepsy syndrome.

As such, it is possible that someone can have the diagnosis of epilepsy after having one seizure depending on the etiology and the electroclinical syndrome. A single unprovoked or reflex seizure, with a likelihood of additional seizures equal to the overall recurrence risk of at least 60% after two unprovoked seizures occurring over the course of the following ten years.

an epilepsy syndrome's identification.

CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187

Available online at: http://www.iajps.com *Research Article*

DEVELOPMENT AND VALIDATION OF RP-HPLC METHOD FOR THE SIMULTANEOUS ESTIMATION OF BILASTINE AND MONTELUKAST IN TABLET DOSAGE FORM

[1]Bacha Nikhil, [2]Dr. Sai Kiran

Article Received: August 2022 **Accepted:** September 2022 **Published:** October 2022

Abstract:

A simple and selective LC method is described for the determination of Bilastine and Montelukast in tablet dosage forms. Chromatographic separation was achieved on a Waters AcquityC18(50mm x2.1 mm ID) 1.8µm using mobile phase consisting of a mixture of 55 volumes of mixed Phosphate Buffer pH 3.5: Acetonitrile (75:25) %v/v with detection of 265nm. Linearity was observed in the range 20-60 µg/ml for Bilastine (r^2 =0.9995) and 10-30 µg/ml for Montelukast (r^2 =0.9997) for the amount of drugs estimated by the proposed methods was in good agreement with the label claim. From the above experimental results and parameters, it was concluded that, this newly developed method for the simultaneous estimation Bilastine and montelukast was found to be simple, precise, accurate and high resolution and shorter retention time makes this method more acceptable and cost effective and it can be effectively applied for routine analysis in research institutions, quality control department in meant in industries, approved testing laboratories studies in near future.

Keywords: *Bilastine, Montelukast, RP-HPLC, Simultaneous estimation.*

Corresponding author:

Dr. Sai Kiran

M.pharm, Ph.d., Assistant Professor,
Department of Pharmaceutical Analysis,
Avanthi Institute of Pharmaceutical Sciences,
Gunthapally, Abdullapurmet, Telangana, India.
E-mail: nikhil123.bacha@gmail.com

QR code

Please cite this article in press Sai Kiran et al, ***Development And Validation Of Rp-Hplc Method For The Simultaneous Estimation Of Bilastine And Montelukast In Tablet Dosage Form.,*** *Indo Am. J. P. Sci, 2022; 09(10).*

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A RETROSPECTIVE OBSERVATIONAL STUDY OF DRUG UTILIZATION AND EVALUATION OF ANTI-DIABETIC AGENTS IN MULTIPLE COMORBIDTIES OF DIABETES MELLITUS PATIENTS

Dr. Nihar Ranjan das [1], Syed Shafa Raoof [2], A. Sai Suhitha [3], S.Kushal[4],

[1]Vice Principal, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

[234] PharmD 5th Year, Dept of Pharmacy Practice, Avanthi Inst of Pharmaceutical Sciences, JNTUH.

Abstract:

BACKGROUND:

Diabetes mellitus is a common metabolic disorder. Globally more than 460 million people wereestimated to be affected by diabetes

Hospitalization of diabetic patients compared to non-diabetic patients has 3 times greater chances. Type 1 DM is known as insulin-dependent DM as the cells of the pancreas stop producing insulin and the patient needs insulin from an external source it is less common compared to type 2 DM in which the body makes enough insulin but cells are resistant to the uptake of insulin, oral hypoglycemic agents are prescribed to control type 2 DM. Patients suffering from diabetes are at greater risk of developing comorbidities like CAD, CKD, and STROKE. CAD is coronary artery disease in which damage or disease to the heart or major blood vessel is seen which leads to a build-up of plaque and narrowing of blood flow to the heart. CKD is a chronic kidney disease in which the kidneys get damaged and will not be able to filterblood properly.

METHODOLOGY: A total of 100 case records of patients were included in a retrospective observational study which was conducted for 6 months. The prescription pattern was analyzed basedon Age, gender, type of DM, type of drug therapy of diabetes mellitus, and comorbidity present

RESULTS:

- In the study antidiabetic drugs were prescribed more for the patients in-betweenthe ages of 51-and 60 years.
- Majority of patients receiving antidiabetic agents were male (72%) compared tofemales (28%)
- Monotherapy of insulin is used majorly in type 1 diabetes mellitus andmonotherapy of metformin is used in type 2 diabetes mellitus
- Dual therapy of insulin and metformin is found to be more effective in the treatmentof patients with DM and CKD
- Dual therapy of insulin and glimepiride is found to be more effective in loweringHbA1C and FBS levels in patients with DM and CKD

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayathnagar (M),
Ranga Reddy Dist.

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

POST COVID COMPLICATIONS AND IMPACT OF DRUG THERAPY IN COVID PATIENTS

Dr. Nihar Ranjan Das [1], GK.Shivani [2], K.Rajavamshi Goud [3], M.Kiranmai[4], M.Harshini[5]

[1]Professor, Department of Pharmacy,Avanthi Institute of Pharmaceutical Sciences, JNTUH.

[2345] Pharm D 5th Year, Department of Pharmacy Practice, Avanthi Institute of Pharmaceutical Sciences, JNTUH.

ABSTRACT:

BACKGROUND:

SARS-CoV-2, the virus that produces COVID-19, affected patients, have symptoms and clinical findings for about 4 or more weeks. After the recovery of infection, post-COVID conditions can occur in patients who have high severity during acute infection which includes exaggeration of chronic diseases within a month.

Clinically covid-19 patients have elevated D-dimer levels which suggests a state of multisystem organ failure and hypercoagulability contributes Hypoxemia and vessel thrombosis. Recently Antivirals are recognized as promising therapy against SARS-CoV-2. Monoclonal antibody Cocktail therapy reduces the risk of covid patients.

METHOD:

A total number of 160 patients included in Retrospective observational cohort study of COVID (76 patients) and prospective observational cohort study of post-COVID (84 patients). It was conducted for duration of 6 months. The data is collected from doctor progress notes, Nurse notes, COVID and Post COVID medication charts Laboratory test reports, patient case sheets.

RESULTS:

1.Out of 160 patients enrolled in the study 76 Covid patients in which COVID male patients 47(62%), COVID female patients 29 (38%), whereas 84 Post covid patients in which male patients 39(46%), female patients 45(54%).

2. Patients with age group of 40-60 years, had high COVID positivity rate and have major long covid complications.

3.Infections were more frequent among Male patients accounting for 47(62%), Whereas Post covid complications were more frequent among Female patients accounting for 45 (54%).

4.Pulmonary complications (42.4%) & Neurological complications (16.4%) were mostly seen in post-Covid patients.

5. Antibody Cocktail is highly effective compared to other drugs.

CONCLUSION : In our project, in many patients post-covid complications were seen 86 patients. In which the frequently reported complications were Pulmonary complications (42.4%), Neurological complications (16.4%), Cardiovascular complications (8.30%).Antibody Cocktail is highly effective compared to other drugs, reduce hospitalization with a smaller number of doses, provide rapid relieSf from Covid symptoms.

KEYWORDS: COVID-19, Long covid syndrome, SARS-CoV-2.Monoclonal Antibody, Antivirals, Thrombosis.D-Dimer.

ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 13, Issue, 02, pp. 61875-61880, February, 2023
https://doi.org/10.37118/ijdr.26424.02.2023

RESEARCH ARTICLE OPEN ACCESS

FORMULATION AND EVALUATION OF ORAL DISINTEGRATING TABLETS OF FLURBIPROFEN

Divya, S.[1]*, Dr. B. Majula, Dr. K. Balaji, Dr. S. Ramya Sri[2]

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Jawarharlal Nehru Technological University, Hyderabad, Telangana, India.
[2]Department of Pharmaceutics, Sura Pharma Labs, Hyderabad, Telangana, India.

ARTICLE INFO

Article History:
Received 02nd January, 2023
Received in revised form
27th January, 2023
Accepted 20th February, 2023
Published online 28th February, 2023

KeyWords:
Rasagiline mesylate, Oral disintegrating Tablets, Primojel, PolyplasdoneXL10, Ac-di-Sol and Direct compression method.

Corresponding author: Divya, S.,

ABSTRACT

The aim of this research is to formulate and evaluate Flurbiprofen Oral disintegrating Tablets. Flurbiprofen Indicated for the treatment of nonsteroidal anti-inflammatory drugs (NSAIDs). It is primarily indicated as a pre-operative anti-miotic (in an ophthalmic solution) as well as orally for arthritis or dental pain. Hence in this investigation an attempt was made to develop oral disintegrating tablets of Flurbiprofen with super disintegrating agents likeKyron T-314, Poloxomer 188 and Ac-di-Sol. Oral disintegrate tablets were prepared by direct compression method. The tablets were evaluated for the precompression parameters such as bulk density, compressibility, angle of repose etc and post compression parameters like hardness, weight variation, friability, disintegration time, *in-vitro* dissolution studies.*In vitro* dissolution studies The formulation F6 consisting of Poloxomer 188was found be best among all the formulations it has exhibited faster disintegrating time (20 sec) when compared to other formulations and it showed 99.79 % drug release in 30min.

Citation: ***Divya, S., Dr. B. Majula, Dr. K. Balaji, Dr. S. Ramya Sri. 2023.*** "Formulation and evaluation of oral disintegrating tablets of flurbiprofen", *International Journal of Development Research*, 13, (02), 61875-61880.

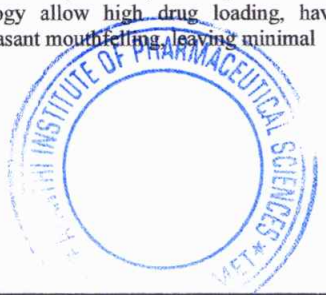
INTRODUCTION

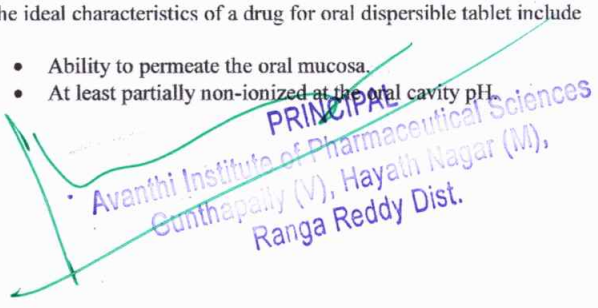
The oral route of administration isconsidered as the most widely accepted routebecause of its convenience of selfadministration, compactness and easy manufacturing. But the most evidentdrawback of the commonly used oral dosageforms like tablets and capsules is difficulty inswallowing, leading to patients incompliancepparticularly in case of pediatric and geriatric patients.[1] But it also applies to people whoare ill in bed and to those active workingpatients who are busy or traveling, especiallythose who have no access to water.[2]Over a decade, the demand for development of orally disintegrating tablets (ODTs) has enormously increased as it has significant impact on the patient compliance. Orally disintegrating tablets are appreciated by a significant segment of populations particularly who have difficulty inswallowing. It has been reported that Dysphagia.[3] (difficulty in swallowing) is common among all age groups and morespecific with pediatric, geriatric populationalong with institutionalized patients ,psychiatricpatients and patients with nausea, vomiting, andmotion sickness complications. ODTs withgood taste and flavor increase the acceptabilityof bitter drugs by various groups of population. This dosage form combines theadvantages of dry and liquid formulation. Somenovel ODT technology allow high drug loading, have an acceptable taste, offer a pleasant mouthfeeling, leaving minimal residue in the mouthafter oral administration. ODT have beeninvestigated for their potential in improvingbioavaibility of poorly soluble drug throughenhancing the dissolution profile of the drugand hepatic metabolism drugs. Orally disintegrating tablets are alsocalled as orodispersible tablets, quickdisintegrating tablets, mouth dissolving tablets, fast disintegrating tablets, fast dissolving tablets, rapid dissolving tablets,porous tablets, and rapimelts. However, of all the above terms, United Statespharmacopoeia (USP) approved these dosageforms as ODTs. Recently, European Pharmacopoeia has used the term orodispersible tablet for tablets that disperses readily and within 3 min in mouth before swallowing.[4] United States Food and Drug Administration (FDA) defined ODT as "A solid dosage form containing medicinal substance or active ingredient which disintegrates rapidly usually within a matter of seconds when placed upon the tongue." The disintegration time for ODTs generally ranges from several seconds to about a minute.[5]

Drug selection criteria

The ideal characteristics of a drug for oral dispersible tablet include

- Ability to permeate the oral mucosa.
- At least partially non-ionized at the oral cavity pH.





IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A PROSPECTIVE CASE STUDY ON COMPLICATIONSOF HYPERTENSION

K.Balaji[1], A.Venkatesh[2], A.Srujana[3], B. Nikitha[4], B.Sravani[5]

[1]Assistant Professor, Department of pharmaceutics,Avanthi Institute of Pharmaceutical Sciences, JNTUH University.

[2345]Pharm D 5th Year, Department of pharmacy practice , Avanthi Institute of Pharmaceutical Sciences, JNTUH University.

ABSTRACT

BACK GROUND: Hypertension is the most commonly caused long-term condition in which blood pressure rises, it causes damaging to the organs. It is a most common cause of the deaths in world, which affecting more than 1.3 billion people which leads to death of more than 28000 people in a day globally. Initially hypertension does not show any signs and symptoms but if it is not treated it may leadsto other complications like STROKE, CORONARY ARTERY DISEASE, TYPE 2 DIABETES, RENAL DISEASES, RETINITIS, along with other CNS disorders which effects majorly. Hypertension is a condition which mainly caused by the own risk factors of the patient like SOCIAL HISTORY , AGE , GENDER , LIFE STYLE MODIFICATION along with DIET.

Objective To assess the patient demographic details which includes age, gender, socialhistory, family history, along with diet . To assess the stages of blood pressure

Methods : A total of 110 case records of patients were included in a prospective case study. It was conducted for a duration of 6 months . The data collection is from Doctors progress note, Diet chart, Nurse notes, Laboratory test reports.

Result: Among the complications CAD is more in number than other complications. According to gender wise complications, males are high risk compared to female withage group of 61-80 Males are more prone to get CAD, because of smoking and alcohol consumption.

Conclusion: From the above mentioned case study, which had a sample size of 110 patients. As a result we can deduce that high blood pressure can leads to other major problems, including organ damage. To avoid this, maintain a blood pressure by a healthy diet, quitting smoke if you smoke and along with life style modifications with medication. This helps to prevent or reduce the severity complications and avoid end organ damage and increase the life span of the patient .

PRINCIPAL AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Gunthapally (V), Abdullapurmet (M), R.R. Dist. Telangana.

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

STUDY ON PRESCRIBING PATTERNS OF ANTIMICROBIALS AND ANTIBIOTIC RESISTANCE TO BACTERIAL INFECTIONS IN PATIENTS WITH LIVER AND NON-LIVER DISEASES

B.Manjula [1],G.Sai pragna[2], G.Mahathi [3], P.Mounika[4]

[1]Associate Professor,Dept of pharmacy,Avanthi institute of pharmaceutics,Avanthi Inst of Pharmaceutical Sciences,JNTUH.

[2345] Pharm.D 5th Year,Dept of Pharmacy Practice,Avanthi Inst of Pharmaceutical Sciences,JNTUH

ABSTRACT

BACKGROUND:

Purpose of the study was to identify the patterns of Antimicrobial agents and also the Antibiotic resistance. And also to find the Bacterial infections liver and Non liver Disease Patients

METHOD:

A retrospective observational study included a total of 140 patient case records. In that, 80 patients were non-liver , and the remaining 60 patients were liver diseased patients. It was conducted for a duration of 6 months. All the data collected in the data collection for and evaluated.

RESULTS:

Following the completion of appropriate statistical analysis, we could conclude that the most commonly prescribed antimicrobial pattern in non-liver disease patients is cefeperazone/sulbactum, and that in liver disease patients is piperacillin, most frequently identified organisms are gram-positive cocci and klebsiella pneumonia in liver disease patients. The E. coli organisms show high resistance to cephalosporins in non-liver disease patients, where as in liver diseased patients, klebsiella pneumonia shows high resistance to cephalosporins.

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A PROSPECTIVE OBSERVATIONAL STUDY ON INCIDENCE OF CALCINEURIN INHIBITORS RELATED TOXICITY IN POST-TRANSPLANT PATIENTS

B. Manjula [1], P. Vamshi Krishna [2], P. Ravali [3], P. Simi [4], P. Bindhu[5]

[1]Assistant Professor, Department of pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, JNTUH University.

[2345] Pharm D 5th Year, Department of pharmacy practice, Avanthi Institute of Pharmaceutical Sciences, JNTUH University

ABSTRACT

Background: The purpose of this study is to reduce graft rejections of transplant and usage of immunosuppressants to reduce the immune response against grafted organ/tissue. On the course of treatment, body immune defense system was decreased, then patient will face issues of adverse drug effects, these may worsen the patient health.

Objective: To evaluate the incidence of ADR's and to evaluate the correlation between the therapeutic and toxic effects of the drug in respective transplanted individual.

Methods: this was a 9-month prospective observational study conducted in Aware Gleneagles Global Hospitals, Hyderabad that included 100 transplant patients enrolled in study and questionnaire forms were prepared to find the incidence of calcineurin inhibitors toxicity.

Result: As we conducted the study, the enrolled patients has been experiencing the adverse effects of calcineurin inhibitors, but the range of ADRs occurrence is differ among gender, BMI, dose. A total of 100 patients have enrolled in the study, out of which males are more prone to ADRs than that of females. As the dose increases the occurrence of ADRs increases. The age group of 51-60 displayed the greatest number of patients [25%] in post liver transplantations. The age group of 31-40 displayed the greatest number of patients [32%] in post renal transplantations. From the P value<0.01 it is concluded that the males are more prone to ADRs than that of females. From the P value <0.01 it is concluded that as the dose increases the risk of occurrence of ADR's also increases.

IJNRD.ORG ISSN : 2456-4184

INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG

An International Open Access, Peer-reviewed, Refereed Journal

PHARMACOGNOSTICAL, PHYTOCHEMICAL AND DIURETIC ACTIVITY OF TAMILNADIA ULIGNOSA (Retz.) Tirven&Sastre (RUBIACEAE)

[1]RODDA. NAGANJANEYULU,[2]KAMMARI.HARI KRISHNA,

[3]KURUVA.ANUSHA, [4] KONAPURAM. HARSHITHA

[1]M.PHARMACY,[2]B.PHARMACY,[3]B.PHARMACY,[4]B.PHARMACY

[1]DEPARTMENT OF PHARMACOGNOSY, [1]ASSOCIATE PROFESSOR

[1]DR.K.V.SUBBA REDDY INSTITUTE OF PHARMACY,KURNOOL,ANDHRAPRADESH

Abstract : Many of the synthetic drugs currently used for the treatment of diseases are not only expensive but also having several side effects. So, this situation has forced the scientists to seek alternative drugs.Many plant drugs have been traditionally used as Diuretic. The plant *TamilnadiaUlignosa*(Retz.) Tirven&Sastre belonging to the family Rubiaceae, medicinallay it is used as diuretic.But no evidence is available for the scientific research of the plant for the said activity. The plant will be studied for the same. A suitable plant extract and evaluated for the physico-chemical parameters and pharmacological activity.

IndexTerms - Indian System of Medicine,Research and Development,International Conference of Drug Regulatory Authorities,Dietary Supplement and Health and Education Act,Indian Pharmacopoeia,Ascending Loop of Henle,Distal Convuluted Tubules.

1.INTRODUCTION

Pharmacognosy is the objective study of crude drugs of animal, vegetable and mineral origin treated scientifically.

Indian System of Medicine (ISM) has been introduced from time immemorial in the traditional practice to treat various ailments and now it's becoming globally accepted with scientific evaluation due to their curative properties (Soumyaprakash etal.,2009)

Herbal medicines sometimes referred to as Herbalism or Botanical Medicine is the use of herbs for their therapeutic or medicinal value. An herb is a plant or plant part valued for its medicinal, aromatic or savory qualities (web 1). The world health organization defines 4 types of herbal medicines. They are as follows

- Raw herbs
- Herbal materials: plants juices, oils, resins, dry powders.
- Herbal preparations: herbal extracts and tinctures of herbal materials produced by biological/chemical methods such as extraction, fractionation, purification and concentration. It is the basis for finished herbal products.
- Finished herbal products: May contain inactive compounds that facilitate dilution or delivery of active ingredient in herbal preparation. May contain single or multiple ingredients. Some may include natural ingredients not of plant origin, such as animal products or minerals. (web 2)

Herbal medicines which formed the basis for health care throughout the world since the earliest days of mankind and it is still the main stay of about 75-80% of world's population mainly in developing countries, for primary health care because of better cultural

Original Article

Development and Validation of Stability-Indicating RP-HPLC method for the simultaneous estimation of Olanzapine and Samidorphan in pure API and tablet dosage form in accordance with ICH guidelines

Shaik Harun Rasheed[1], CH.Pavani[2*], P.Pranaya[3], Md.Abdul rafay[4], S.Praveena[5]

[1]Department of Pharmaceutics, Guru Nanak Institutions Technical Campus - School of Pharmacy, Khanapur, Ibrahimpatnam-501506, Telangana, India.

[2*,3,4,5]Department of Pharmaceutical Analysis, Guru Nanak Institutions Technical Campus - School of Pharmacy, Khanapur, Ibrahimpatnam-501506, Telangana, India.

Email: pavanich.pharma@gmail.com

DOI: 10.47750/pnr.2022.13.S06.114

Abstract

The objective of this study is to evaluate Olanzapine and Samidorphan in bulk and tablet dose forms simultaneously.

Materials and procedures: On an Xterra (4.6 x 150mm, 5 m) analytical column, the separation was conducted using a mobile phase of 40% buffer (Ortho phosphoric Acid): 60% methanol. The eluents were discovered using a UV detector at 220.0 nm.

Results: Olanzapine and Samidorphan were separated at 3.124 and 4.270 minutes, respectively, under ideal conditions. Samidorphan had a detection limit of 0.21 □g/mL while Olanzapine had a detection limit of 0.20 □g/mL. Olanzapine had a recovery rate of 100.34 percent compared to Samidorphan's percentage mean recovery of 100.01 percent.

Conclusion: In each stressful scenario, the proportion of degradation was found to be incredibly low. It was discovered that under optimum conditions, all of them could be determined simultaneously in bulk and marketing dose form.

Keywords: Olanzapine, Samidorphan, method development, validation, and RP-HPLC..

INTRODUCTION

Olanzapine and Samidorphan are combined to treat the signs and symptoms of schizophrenia in adults. It is also used to treat manic episodes in individuals with bipolar illness, either on its alone or in combination with other drugs. Olanzapine belongs to the group of drugs known as atypical antipsychotics. It functions by altering the activity of certain natural substances in the brain. An antagonist of opioids is samidorphan. It serves to lessen potential Olanzapine side effects, such as weight gain. (1) Olanzapine and Samidorphan are chemically described as 17-(Cyclopropylmethyl)-4, 14-dihydroxy-6-oxomorphinan-3-carboxamide and 2-Methyl-4-(4-methyl-1-piperazinyl)-10H-thieno [2, 3-b][1,5]benzodiazepine. Olanzapine and Samidorphan's structural diagrams are shown in Figures 1 and 2, respectively. (2-3)The current study seeks to develop a rapid, stability-indicating RP-HPLC method for the simultaneous quantification of Olanzapine and Samidorphan in bulk pharmaceuticals and commercial dosage forms. This is accomplished by improving sensitivity and reducing elution times. The validation study was also finished in compliance with ICH Guidelines Q2 (International Conference on Harmonization) (R1). (4-5)

THE DEVELOPMENT OF A NOVEL STABILITY-INDICATING RP-HPLC METHOD FOR THE SIMULTANEOUS EVALUATION OF RILPIVIRINE AND CABOTEGRAVIR IN PURE API FORM AND TABLET DOSAGE IN ACCORDANCE WITH ICH GUIDELINES

Challamalla Pavani[a], Dr.V. Jayashree[b]*

Article History: **Received**: 12.06.2022 **Revised**: 11.07.2022 **Accepted**: 08.08.2022

Abstract: This study's focus is on the simultaneous assessment of Rilpivirine and Cabotegravir using RP-HPLC in bulk and tablet dosage form. **Materials and methods:** The separation was carried out on a Zorbax SB C18 (4.6 x 150mm, 5 m) analytical column using a mobile phase of 40% Water (0.1 percent Formic Acid): 60% Acetonitrile. Using a UV detector, the eluents were found at 248.0 nm. **Results:** Under optimal circumstances, Rilpivirine and Cabotegravir were separated at 2.084 and 3.2mins, respectively. The detection limit for Rilpivirine was 1.02µg/mL, while the detection limit for Cabotegravir was 3.30µg/mL. Cabotegravir had a percentage mean recovery of 100.02 percent, but Rilpivirine had a recovery rate of 100.72 percent. **Conclusion:** The percentage of degradation was determined to be extremely low in each stressful environment. It was found that optimized conditions were incredibly ideal for simultaneously determining all of them in both marketing dose form and bulk form.

Keywords: Cabotegravir, Rilpivirine, method development, validation, and RP-HPLC.

[a]. Department of Pharmaceutical Analysis, School of pharmaceutical sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai- 600117, Tamilnadu, India.

[b]. Assistant Professor, Department of Pharmacology, School of pharmaceutical sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai- 600117, Tamilnadu, India.

***Corresponding Author**

Email: jeya.velsuniv@gmail.com

DOI: 10.31838/ecb/2022.11.05.010

INTRODUCTION

A subclass of non-nucleoside reverse transcriptase inhibitors includes Rilpivirine (NNRTIs). A group of HIV integrase inhibitors includes Cabotegravir. [1] The chemical formula for Rilpivirine is 4-[4-(4-[(E)-2-cyanovinyl] -2, 6-dimethylphenyl} amino) pyrimidine-2-yl]amino}benzonitrile. Chemically, Cabotegravir is N-[(2, 4-Difluorophenyl) methyl]. -6-hydroxy-3-methyl-5,7-dioxo-2,3,5,7,11,11a-hexahydro(1,3)oxazolo(3,2-a)pyrido(1,2-d)pyrazine-8-carboxamide. For the treatment of human immune deficiency virus type 1 (HIV-1) infection in some individuals, Rilpivirine and Cabotegravir injections are combined. [2–5]These drugs function by lowering the blood level of HIV. Although Rilpivirine and Cabotegravir do not treat HIV, they may lessen your risk of getting AIDS and other HIV-related conditions such serious infections or cancer. [6–8] Taking these medications, engaging in safer sexual behaviour, and changing other aspects of one's lifestyle may help reduce the risk of spreading the HIV virus to others. Figures 1 and 2 depict the structures of Rilpivirine and Cabotegravir, respectively. [9-11] By enhancing sensitivity and shortening elution periods, the current research aims to create an ultrafast, stability-indicating RP-HPLC method for the simultaneous quantification of Rilpivirine and Cabotegravir in bulk pharmaceuticals and commercial dosage forms. Additionally, the validation research was completed in accordance with ICH Guidelines Q2 (International Conference on Harmonization) (R1).

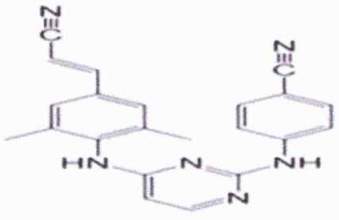


Figure 1. Chemical Structure of Rilpivirine

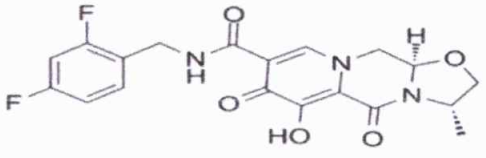


Figure 2. Chemical Structure of Cabotegravir

DEVELOPMENT AND VALIDATION OF A BIOANALYTICAL METHOD USING RP-HPLC FOR ESTIMATION OF GLECAPREVIR AND PIBRENTASVIR IN HUMAN PLASMA

Challamalla Pavani[1] and Dr.V. Jayashree[2*]

[1]Department of Pharmaceutical Analysis, School of pharmaceutical sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai- 600117, Tamilnadu, India.

[2*]Department of Pharmacology, School of pharmaceutical sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai- 600117, Tamilnadu, India.

***Address for correspondence**
Dr. V. Jayashree
Assistant Professor, Department of Pharmacology
Vels Institute of Science, Technology and Advance Studies (VISTAS), Pallavaram, Chennai
Email: jeya.velsuniv@gmail.com

ABSTRACT:

In order to measure Glecaprevir & Pibrentasvir in human plasma form, a reverse-phase high performance liquid chromatographic method is described and validated. A 0.1% octane sulphonic acid and acetonitrile mobile phase was optimized in a 25: 75 v/v proportion and showed maximum absorption at 226 nm. In the presence of other components, specificity refers to how well an analytical method differentiates and quantifies the analyte. As a result of a carry-over test, the analyte from the previous injection was confirmed to have not carried over. The Beer's Law range for this method is 25-150 µg/ml and 10-60 µg/ml of Glecaprevir & Pibrentasvir. 0.9999 and 0.9997 are obtained for the linear regression of method. Results obtained by the proposed methods are in good agreement with the human plasma assay forms when analyzed accurately, precisely, and consistently. The statistical validity of the results also confirms the accuracy, precision, and stability of the proposed methods.

Keywords: Glecaprevir & Pibrentasvir, RP-HPLC, statistical validation

DOI Number: 10.14704/nq.2022.20.6.NQ22717 **NeuroQuantology 2022; 20(6):7129-7145**

INTRODUCTION

Glecaprevir & Pibrentasvir is chemically known as (3aR,7S,10S, 12R,21E,24aR)-7-tert-Butyl-N-{(1R,2R)-2-(difluoromethyl)-1-[(1-methyl cyclopropane-1sulfonyl)carbamoyl]cyclop ropyl}-20,20-difluoro-5,8dioxo-2,3,3a,5,6, 7,8,11,12,20,23,24adodecahydro-1H,10H-9,12-methanocylopenta [18,19] [1,10,17,3,6]trioxadizacyclon on adecino [11,12-b] quuinoxaline-10-carboxamide and Methyl [(2S,3R)-1-[(2S)-2-{5-[(2R,5R)-1-{3,5-difluoro-4-[4-(4-fluorophenyl)-1-piperidinyl] phenyl}-5-(6-fluoro-2-{(2S)-1-[N-(methoxycarbonyl)-O-methyl-L-threomnyl]-2-pyrrolidinyl}-1H-benzimidazol-5-yl)-2-pyrrolidinyl]-6-fluoro-1H-benzimidazol-5yl}-1-pyrrolidinyl]-3-methoxy-1-oxo-2-butanyl}carbamate shown in fig.1 & fig.2. Glecaprevir is used for the treatment of chronic hepatitis C infection. The drug is used to treat HCV genotypes

IJNRD.ORG ISSN : 2456-4184

INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A REVIEW ON ANTIMICROBIAL ACTIVITY OF INDIAN TRADITIONAL MEDICINAL PLANTS

[1]Kammari.Hari Krishna, [2]R.Naganjaneylu.

[1]B.PHARMACY, [2]M.PHARMACY. Dept of pharmacognosy,

[1]DR.K.V.Subba Reddy Institute of Pharmacy, Kurnool, Andhra Pradesh.

ABSTRACT

This study was undertaken to identify anti-microbial activity of Indian traditional medicinal plants and their description, morphological characteristics, chemical constituents, and their uses such as antibacterial activity, antiviral activity, antifungal activity, antioxidant characteristics and that are effective against multiple human pathogens and to partially purifythe active component through thin layer chromatography.

Antibacterial activity of selected plant extracts were assayed by agar cup diffusion. Minimum inhibitory concentrations were determined against all the pathogens. Sensitivity of the pathogens was also checked with four standard antibiotics. In addition, the stabilities of the active compounds were checked at different temperature and pH conditions.

Extracts were separated using TLC and relative mobilities of bioactive components were determined by contact bioautography. Ethanolic extracts of Amla (Emblica officinalis) fruit, Neem (Azadirachta indica) leaves, Aloe (Aloevera) leaves, Assam Tea (Camellia sinensis assamica) leaves and Clove (Syzygium aromaticum) buds were found to inhibit the growth ofmethicillin resistant Staphylococcus aureus, Vibrio cholerae and Pseudomonas aeruginosa.Bioactive components were stable over a range of pH values and temperatures. (Mehrotra et al,.2010)

Key words:

- Azadirachta indica,
- Aloe vera,
- Camellia sinensis assamica,
- Syzygium aromaticum,
- Staphylococcus aureus,
- Vibrio cholerae,
- Pseudomonas aeruginosa

FORMULATION AND *IN VITRO* EVALUATION OF TRIFLUOPERAZINE HCL GASTRO RETENTIVE FLOATING TABLETS

Pogula Narsimha[1], Naga Raju Kandukoori[1*], Balaji Kaveti[1], Ramya Sri.S[2].

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Hyderabad, Telangana, India.

[2]Department of Pharmaceutics, University College of Technology, Osmania University, Hyderabad, Telangana, India.

***Corresponding Author**

Naga Raju Kandukoori[1*],
Department of Pharmaceutics,
Avanthi Institute of Pharmaceutical Sciences,
Hyderabad, India.

ABSTRACT

Oral route of administration gets the highest priority for the delivery of drug as well as better patient compliance. Floating tablet is selected for achieving a prolonged and predictable drug delivery profile in the gastrointestinal tract to control the gastric residence time using a gastro retentive dosage forms that will provide as with new and important therapeutic options. The primary aim of the present study is to design a sustained release gastro retentive oral dosage form using intra gastric floating as formulation strategy. Trifluoperazine HCL, an antipsychotic agent is used as the model drug. Oral gastro retentive floating tablets of Trifluoperazine HCL was formulated using gel-forming hydrophilic polymers, Fenugreek extract, Isapgol husk and Ginger extract along with sodium bicarbonate as gas generating agent. The formulations were evaluated for their physicochemical properties, buoyancy lag time, total floating time and *in-vitro* drug release. In this research work formulation T4 fulfills all the testing parameters in terms of pre and post compression. The optimized formulation (T4) exhibited 98.87% drug release in 12 hrs, while the buoyancy lag time was 19sec. *In-vitro* drug release kinetics was found to Zero order release kinetics mechanism.

A NEW ANALYTICAL RP-HPLC METHOD FOR THE ESTIMATION OF LETROZOLE IN PURE TABLET FORM

S. Harika[1*], Dr. Nihar Ranjan Das[1], Ramya sri[2].

[1]Department of Pharmaceutical Analysis, Avanthi Institute of Pharmaceutical Sciences, Hyderabad, Telangana, India.

[2]Department of Pharmaceutics, University College of Technology, Osmania University, Hyderabad, Telangana, India.

***Corresponding Author**

S. Harika[1*],

Department of Pharmaceutical Analysis,

Avanthi Institute of Pharmaceutical Sciences, Hyderabad,

Email Id- surapharmalabs@gmail.com.

ABSTRACT

A simple, rapid, specific and accurate reverse phase high performance liquid chromatographic method has been developed for the validated of Letrozole in bulk as well as in marketed pharmaceutical dosage form. This separation was performed on a Symmetry ODS C18 (4.6×250mm, 5µm) column with Methanol: Phosphate Buffer (35:65) V/V as mobile phase at a flow rate of 1.0 mL min−1 with UV detection at 240 nm; the constant column temperature was Ambient. The runtime under these chromatographic conditions was less than 8 min. The retention time of Letrozole was found to be 2.252. The calibration plot was linear over the concentration range of 6–14µg mL−1 with limits of detection and quantification values of 1.2 and 3.6ng mL−1 respectively. The mean % assay of marketed formulation was found to be 99.86%, and % recovery was observed in the range of 98-102%. Relative standard deviation for the precision study was found <2%.The developed method is simple, precise, specific, accurate and rapid, making it suitable for estimation of Letrozole in bulk and marketed pharmaceutical dosage formdosage form.

Keywords: Letrozole, RP-HPLC, Validation, ICH Guidelines.

- PRINCIPAL
Avanthi's Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

FORMULATION DEVELOPMENT AND *INVITRO* EVALUATION OF RITONAVIR FLOATING TABLETS

K. Ramakrishna Reddy[1], B. Manjula[1*], Ramya Sri.S[2].

[1]Department of Pharmaceutics, Avanthi Institute of Pharmaceutical Sciences, Hyderabad, Telangana, India.

[2]Department of Pharmaceutics, University College of Technology, Osmania University, Hyderabad, Telangana, India.

***Corresponding Author**

B. Manjula[1*],
Department of Pharmaceutics,
Avanthi Institute of Pharmaceutical Sciences,
Hyderabad, India.

ABSTRACT

The purpose of the present study was to develop an optimized gastric floating drug delivery system (GFDDS) containing Ritonavir drug by using various proportions of polymers such as HPMC K4M, Sodium CMC, and Carbopol p934m. This was employed to enhance the bioavailability and therapeutic efficacy of the drug. Optimization of formulation was done by studying effect of drug to polymer ratio on drug release. FT-IR studies indicated absence of any interaction between Ritonavir, polymer (HPMC K4M, Sodium CMC, Carbopol p934m) and excipients. Nine formulations were prepared and formulation F7 possessed good floating property with total floating time between 6-12 hours. The tablets were also evaluated for its hardness, friability, and *in vitro* evaluation test. All parameters complied with IP limits. Results of this study indicated that the combinations of polymers are suitable to optimize sustained release formulation of Ritonavir.

Keywords: Ritonavir, HPMC K4M, Sodium CMC, Carbopol p934m, Floating Tablets.

Ashdin Publishing
Journal of Drug and Alcohol Research
Vol. 11 (2022), Article ID 236188, 7 pages

Research Article

Development of a Novel Stability quoting RP-Ultra Performance Liquid Chromatography approach for Synchronous Assessment of Doravirine, Lamivudine, and Tenofovir Disproxil fumarate in Pure API Form and Tablet Dosage Based on ICH Guidelines

Challamalla Pavani and V. Jayashree*

Department of Pharmacology, School of pharmaceutical sciences, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai, Tamilnadu, India

**Address Correspondence to V. Jayashree, E-mail: jeya.velsuniv@gmail.com*

Received: 04-July-2022, Manuscript No. jdar-22-70166; **Editor assigned:** 06-July-2022, Pre QC No.jdar-22-70166(PQ); **Reviewed:** 20-July-2022, QC No. jdar-22-70166; **Revised:** 25-July-2022, Manuscript No. jdar-22-70166 (R); **Published:** 01-August-2022, **DOI:** 10.4303/jdar/236188

Abstract

The concomitant measurement of Tenofovir DF, Lamivudine, and Doravirine in bulk and tablet dose form with UPLC is the subject of this study. The separation was performed using acetonitrile and 0.1% TEA buffer at pH-3 as the mobile phase on an Endoversil, C18, ODS (2.1 50 mm 1.7 m) analytical column. The eluents were identified at 260.0 nm using a PDA detector. Doravirine, Lamivudine, and Tenofovir DF were separated at 0.805, 0.326, and 0.481min, correspondingly, under ideal conditions. Lamivudine had a 0.09µg/mL of detection limit, Tenofovir DF had a detection limit of 0.04 µg/mL, and Doravirine had a detection limit of 0.09 µg/mL. Lamivudine had a percentage mean recovery of 99.68 percent, Tenofovir DF had a percentage mean recovery of 99.55 percent, and Doravirine had a percentage mean recovery of 100.17%. In all of the stressful settings, the percentage of deterioration was found at a very low extent. Optimized conditions were discovered to be exceptionally suitable for determining all of them concurrently in both marketed dose form and bulk form.

Keywords: UPLC; Method development; Validation; Lamivudine; Tenofovir DF; Doravirine

Introduction

Lamivudine is an antiretroviral drug that is used to cure hepatitis B and HIV-1 infections. It operates by interfering with the synthesis of viral DNA. Chemical name of Lamivudine is 4-aminolamivudine. "-1-[(2R, 5S)-2-(hydroxymethyl) -1, 3-oxathiolan-5-yl] pyrimidin-2-one dihydropyrimidin-2-one dihydropyrimidin-2-one dihydropyr" (1, 2-dihydropyrimidin-2-one) [1]. Gilead Sciences sells the tenofovir prodrug disoproxil fumarate under the trade name Viread. It belongs to the nucleotide analog reverse transcriptase inhibitors family of antiretroviral medicines. Hepatitis B and HIV may be treated with this drug in combination with other medicines [2]. Doravirine is a non-nucleoside reverse transcriptase inhibitor therapeutic option for HIV-1 ("Human immunodeficiency virus type 1") virus in adult individuals who have never undergone antiretroviral treatment, increasing the treatment choices for HIV-1 [3,4]. DELSTRIGO, a Doravirine, Lamivudine, and Tenofovir Disoproxil Fumarate combination, was approved by the FDA in August 2018. It's designed to be used as a total treatment for HIV-1 infection in individuals who have never had antiretroviral medication before [5]. A thorough review of the literature finds that no UV spectrophotometric methods have been described; however, LC-MS/MS bioanalytical methods are available. There was no mention of the combination of these three antivirals in any pharmacopeia. In the literature, there were only a few HPLC and a single UPLC method that could simultaneously estimate the current combination [6–9]. All of the mentioned HPLC methods had longer retention times and had additional sensitivity issues, such as Kokkirela et al., Tenofovir DF was eluted in less than four minutes using acetonitrile/phosphate buffer as the mobile phase. According to the ICH criteria, Gowri et al. found up to 33.8 percent degradation using n-hexane as a mobile phase. To elute Doravirine, an HPLC procedure described by Tiruveedhi et al. took as much as 8.16 minutes to complete. Even though all of the analytes' quantitation limits were high, there were some sensitivity concerns. The only method disclosed was Addanki et al. UPLC method, the mobile phase was potassium

पेटेंट कार्यालय
शासकीय जर्नल

OFFICIAL JOURNAL
OF
THE PATENT OFFICE

निर्गमन सं. 40/2022	शुक्रवार	दिनांक: 07/10/2022
ISSUE NO. 40/2022	FRIDAY	DATE: 07/10/2022

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

CONTENTS

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :22/09/2022

(21) Application No.202241054380 A

(43) Publication Date : 07/10/2022

(54) Title of the invention : SYSTEMATIC APPROACH TO STUDY THE VARIOUS NANOPARTICLE FORMULATIONS THAT CAN BE DELIVERED DIRECTLY TO TREAT THE CANCEROUS NODES

(51) International classification :A61K0031704000, A61K0009510000, A61K0009060000, A61K0047640000, A61K0009127000

(86) International Application No :PCT//
Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)Dr NIHAR RANJAN DAS
Address of Applicant :VICE-PRINCIPAL & PROFESSOR , AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES, GUNTHAPALLY, ABDULLAPURMET, RANGA TEDDY , 501512 HYDERABAD ---------- ----------
2)Dr RAJESH KUMAR
3)Mr. GAJENDRA SINGH THAKUR
4)Mr. KAILASH KUMAR SAHOO
5)Dr.SANJAY KUMAR UPADHYAY
6)SHAHEEN ANSARI
7)AHTESHAM AHMAD
8)Dr. NIRAJ GUPTA
9)Dr. PUTTA RAJESH KUMAR
10)Dr.KUMARA SWAMY JELLA
11)Dr. NIRANJAN PANDA
12)SATYABRATA JENA
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr NIHAR RANJAN DAS
Address of Applicant :VICE-PRINCIPAL & PROFESSOR , AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES, GUNTHAPALLY, ABDULLAPURMET, RANGA TEDDY , 501512 HYDERABAD ---------- ----------
2)Dr RAJESH KUMAR
Address of Applicant :DEPARTMENT OF PHARMACOLOGY, SCHOOL OF PHARMACY, MAHARAJA AGRASEN UNIVERSITY, SOLAN, HIMACHAL PRADESH. SOLAN ---------- ----------
3)Mr. GAJENDRA SINGH THAKUR
Address of Applicant :PHD. RESEARCH SCHOLAR, DEPARTMENT OF PHARMACEUTICAL SCIENCE, GURU GHASIDAS CENTRAL UNIVERSITY, KONI, BILASPUR - 495009, CHHATTISGARH, INDIA BILASPUR ---------- ----------
4)Mr. KAILASH KUMAR SAHOO
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF PHARMACEUTICS, DR. C.V. RAMAN UNIVERSITY KARGI ROAD KOTA, BILASPUR - 495113, CHHATTISGARH, INDIA BILASPUR ---------- ----------
5)Dr.SANJAY KUMAR UPADHYAY
Address of Applicant :ASSITANT PROFESSOR/APPLIED SCIENCES (CHEMISTRY), RBS ENGINEERING TECHNICAL CAMPUS,BICHPURI,AGRA-283105 AGRA ---------- ----------
6)SHAHEEN ANSARI
Address of Applicant :ASSISTANT PROFESSOR PHARMACY JIT COLLEGE OF PHARMACY BARABANKI 225203 BARABANKI ---------- ----------
7)AHTESHAM AHMAD
Address of Applicant :ASSISTANT PROFESSOR, BABU SUNDER SINGH COLLEGE OF PHARMACY, LUCKNOW LUCKNOW ---------- ----------
8)Dr. NIRAJ GUPTA
Address of Applicant :ASSOCIATE PROFESSOR, COLLEGE OF PHARMACY AGRA, U.P., 282001, DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW, UTTAR PRADESH AGRA ---------- ----------
9)Dr. PUTTA RAJESH KUMAR
Address of Applicant :PROFESSOR AND HEAD, 0DEPARTMENT OF PHARMACEUTICS, BHASKAR PHARMACY COLLEGE, HYDERABAD, DEPARTMENT OF PHARMACEUTICS, MOINABAD, HYDERABAD, 500075 HYDERABAD ---------- ----------
10)Dr.KUMARA SWAMY JELLA
Address of Applicant :ASSOCIATE PROFESSOR, CHAITANYA (DEEMED TO BE UNIVERSITY), HANAMKONDA HANAMKONDA ---------- ----------
11)Dr. NIRANJAN PANDA
Address of Applicant :PROFESSOR AND HEAD, DEPARTMENT OF PHARMACEUTICS, ANWARUL ULOOM COLLEGE OF PHARMACY, NEWMALLEPALLY, HYDERABAD-500001 HYDERABAD ---------- ----------
12)SATYABRATA JENA
Address of Applicant :ASSOCIATE PROFESSOR, BHASKAR PHARMACY COLLEGE, HYDERABAD, DEPARTMENT OF PHARMACEUTICS, MOINABAD, HYDERABAD, 500075 HYDERABAD ---------- ----------

(57) Abstract :
Systematic approach to study the various Nanoparticle Formulations that can be delivered directly to Treat the Cancerous Nodes is the proposed invention. The invention aims at understanding the various nano particles that are used in formulating topical drug molecules. The proposed invention focuses on treating the cancerous nodes by directly delivering the topical drugs to those cancer cells and understanding the efficacy of nano particles.

No. of Pages : 13 No. of Claims : 6