3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year

	TITLE OF PAPER	NAME OF THE AUTHOR/S	DEPARTMENT OF THE TEACHER	NAME OF JOURNAL	YEAR OF PUBLICATION	ISSN NUMBER	WEBSITE	UGC LISTED
01	Sulfated tungstate/Dioxygen:A new catalytics system for oxysulfondylation of styrenes to form beta-keto sulfones	Ganesh D Wagh,snehalata a,Raghavendra V.Kulkarni, K G Akamanchi	Dept of Pharmaceutics	New journal of chemistry	2020	1144-0546	https://doi.org/10.1039/DONJ01763A	web of science, scopus
02	Toxicological evalution of ethyl AC etate extract of syzygium Kanarense raizada leaves in wistar rats	Divakar M.S,Chalannavar R.K,H.Shivkumnari,Hegde K	Department Of Quality Assurance	Biomedical and Pharmacology Journal	2020	0974-6242,2456-2610	https://dx.doi.org/10.13005/bpj/1911	https://www.scopus.com/sourceid/19700174924
03	Screening of antistess activity of ficus benghalenisis fruit extract	Abdul Qayyum ,H,Shivkumar,,VP Patil, Anot Khot,H.M.Nanjapaiah	Dept of Pharamcology	Research Journal Pharamcy and technology	2020	0974-3618,0974-360X	10.5958/0974-360X.2020.00039.6	https://www.scopus.com/sourceid/21100197160
04	Synthesis and characterization of an electro-sensitive poly(acrylamide)-grafted-pectin hydrogel for drug delivery application through skin	Raghavendra V, Sudha B. Patil, Syed Z. Inamdar, KakarlaRaghava Reddy, Anjanapura V. Raghu, ArunC.Inamadar, Kusal K. Das, Mallanagouda S. Biradar	Department of Pharmaceutics	Drug Delivery Letters	2020	2210-304X	10.2174/2210303110666200206114632	https://www.scopus.com/sourceid/21100903428
05	Effect Student Mindset on Teaching Learning Process	Santosh Karajgi, C.C.Patil, R.B.Kotnal and	Department Of Quality Assurance	Parishodh	2020	2347-6648	10.4230/Parishodh.2017.8.V11N4.PP.5-9089	https://ugccare.unipune.ac.in/Apps1/User/WebA/SearchLi

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
Vijayapura-586 103

		R.V.Kulkarni						st Discontinued from April 2020
06	Preparation and Evaluation of Sothaghnalepa Possessing Antimicrobial Activity	Nagathan Chanabasappa, Biradar Shridharkumar	Department of Pharmaceutics	Journal of Drug Delivery and Therapeutics	2020	2250-1177	https://doi.org/10.22270/jddt.v10i2.3989	https://ugccare.unipune.ac.in/Apps1/User/WebA/SearchList
07	Pemphigus vegetans: A rare case report	Inamdar, S.Z., Pradeep, R., Akhila, M	Department of Pharmaceutics	Current Trends in Biotechnology and Pharmacy,	2020	0973-8916	and 10.5530/ctbp.2020.1.5	https://www.scopus.com/authid/detail.uri?authorId=57211746887
08	Novel First-Order Derivative UV Spectrophotometric Method for the Determination of Acarbose in Solid Dosage Forms	Santosh Karajgi, Gaviraj E. N, Sunayana Mali, C. C. Patil, Shripad Potdar, Kotnal R. B	Department Of Quality Assurance	International Journal of Pharmaceutical Quality Assurance	Jun-20	0975-9506	10.25258/ijpqa.11.2.15	https://www.scopus.com/sourceid/21100204506
09	Bendamustine Linearity Profile for Hydrotropic Solubilization of Pazopanib	Santosh Karajgi,Shripad Potadar	Department Of Quality Assurance	International Journal of Current Pharmaceutical Research	Jul-20	0975-7066	10.22159/ijcpr.2020v12i4.39082	https://www.scopus.com/sourceid/21100853873
10	Rebamipide Linearity Profile for Hydrotropic Solubilization	Santosh Karajgi,Shripad Potadar	Department Of Quality Assurance	International Journal of Current Pharmaceutical Research	Jul-20	0975-7066	10.22159/ijcpr.2020v12i4.39082	https://www.scopus.com/sourceid/21100853873
11	Hydrotropic solubilzation and linearity profile of pazopanib	Santosh Karajgi,Shripad Potadar	Department Of Quality Assurance	International Journal of Current Pharmaceutical Research	Jul-20	0975-7066	doi.org/10.22159/ijcpr.2020v12i4.39082	https://www.scopus.com/sourceid/21100853873
	Spironolactone-Digoxin Synergizes Gynecomastia: A Case Report	S M. Biradar, B. Kohima, K Purnagopinath,	Dept of Pharmacy Practice	Journal of public health & diseases.	Aug-20	2705-2214	https://doi.org/10.31248/JPHD20	publoon,web of scinece

		Sanjeev N. Bentoor, L S. Patil, V Vijayakumar					19.056	
12	Functionally tailored electro-sensitive poly(Acrylamide)-g-pectin copolymer hydrogel for transdermal drug delivery application: Synthesis, characterization, in-vitro and ex-vivo evaluation	Sudha B. Patil, Syed Z. Inamdar, Kakarla R.Reddy, Anjanapur aV.Raghu, Krishna machariG.Akamanc hi, Arun C. Inamadar, Kusal K. Das, R.V.Kulkarni	Department of Pharmaceutics	Drug Delivery Letters,	2020	2210304X, 22103031	10.2174/22103031106662002061 14632	https://www.scopus.com/authid/detail.uri?authorId=57211746887
13	New Validated Method For The Estimation Of Capecitabine In Pharmaceutical Dosage Forms By Area Under Curve Processing Technique	Santosh Karajgi	Department Of Quality Assurance	International Journal of Pharmaceutical Research	Oct-20	0975-2366	0.31838/ijpr/2020.SP2.335	https://www.scopus.com/sourceid/19700174645#tabs=0?dgcid=sc_widget_citescore, embase
14	Experimentallly validated QSAR Model for surface pK a prediction of Heterolipids gaving potentails as delivery materials for nucleic acid therapeutics	Raghavendra kulkarni,Dhumal dinesh,Panaj D Patil,K G Akamanchi	Dept of Phamaceutics	ACS Omega	Nov-20	2470-1343	10.1021/acsomega.0c04931	10.1021/acsomega.0c04931
15	Low oxygen microenvironment and cardiovascular remodeling :Role of dual L/Ntype Ca2+channel blocker	Raghavendra kulkarni,shrilaxmi Bagali,Savitri Nerune,Akram Naikawdi,kusal K Das	Dept of Phamaceutics	Indian Journalof Pharmacology	Dec-20	PMC8025765, 33283770	10.4103/ijp_IJP_136_20	10.4103/ijp_IJP_136_20
16	Hydrotropic Aqueous Solubility for Quantitative Determination of Vortioxetine Hydrochloride in its Pharmaceutical dosage forms	Santosh K,Mahajan Swati,R.B.Kotnal	Department Of Quality Assurance	International journal for innovative engineering and management research	Jan-21	2456-5083	DOI:10.48047/IJIEMR/V10/I01/36	DOI:10.48047/IJIEMR/V10/I01/36

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103

17	2D-Qsar Study Of Synthesized Novel Derivatives Of 1,3,4-Oxadiazoles as anti-inflammatory activity	santosh Karajgi,Somashekar Metri R.B.Kotnal	Department Of Quality Assurance	Interntaional Journal of Pharmaceutical research	Jan-21	0975-2366	DOI:10.31838/ijpr/2021.13.01.324	https://www.scopus.com/sourceid/19700174645#tabs=0?dgcid=sc_widget_citescore
18	Development of Validated Analytical Area under Curve UV Spectrophotometric Method for Assay of Cetrizine Dihydrochloride	santosh Karajgi,Somashekar Metri Akhatar Khan ,Rashidur Islam	Department Of Quality Assurance	Research journal of Pharmacy and technology	Jan-21	0974-3618.	DOI:10.5958/0974-360X.2021.00037.8	https://www.scopus.com/sourceid/21100197160?dgcid=sc_widget_citescore
19	Effect of Hydrotropic Solubilisation on Quantitative Determination of Ulipristal Acetate in Pharmaceutical Formulations	Santosh Karajgi,R.B.Kotnal,Vinayak Ragi	Department Of Quality Assurance	International Journal of Drug Delivery Technology	Mar-21	0975-4415	10.25258/ijddt.11.1.42	https://www.scopus.com/sourceid/20500195212
20	Bioassay-guided isolation and identification of compound from Sargassum ilicifolium and investigation of antimicrobial activity.	C.C.Simpee,Asti K,S.R.Karajgi,C.V.Nagthan	Dept of Pharmacognosy	Journal of Pharmaceutical Sciences & Research.	Mar-21	0975-1459	https://www.jpsr.pharmainfo.in/scopus.php	https://www.jpsr.pharmainfo.in/scopus.php
21	Screening, development of transglutaminase-2 inhibitors and its derivative as anti-lung cancer agent by insilico and invitro approach	Prachi parvatikar,sumangala patil,joy hoskeri,sandeep swargam,raghavendra kulkarni,kusal das	Dept of Phamaceutics	current computer-aioded drug design	Mar-21	1573-4099,1875-6697	10.2174/1573099176662112035 0	https://www.scopus.com/sourceid/4700152609
22	Formulation and invitra evaluation of matrix tablets containing repaglinide	C C Patil,Venkatesh J,Karajgi SR,Vittal Vijayapure et al	Dept of Pharmaceutics	research journal pharmacy and technology	Aug-21	0974-3618	10.52711/0974-360X.2021.00769	https://www.scopus.com/sourceid/21100197160?dgcid=sc_widget_citescore
23	Assessment of knowledge, attitude and practice towards covid-19 among pharmacy	Krishna D	Dept of Pharmacy Practice	Journal of Xi'an Shiyou University,	Aug-21	1673-064x	https://www.scopus.com/sourceid/145055	https://www.scopus.com/sourceid/145055

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103

	students in south india during lockdown: a cross sectional study			Natural Science Edition			d/145055	
24	Synthesis, Characterization of 2-Methylquinozolinyl Thiazolidines for Antimicrobial acitivity	Santosh Karajg,Shivanand a Kolageri,Bshivku mar,S.M.Biradar	Department Of Quality Assurance	European journal of pharmaceutical and medical research	Sep-21	2394-3211	https://ww w.ejpmr.co m/home/ab stract_id/88 11	https://www.scopus .com/sourceid/2133 1
25	In-vivo, In-vitro Analysis of Formulated Colon Targeted Ornidazole Matrix Tablet	Chandrashekar C. Patil, Akram Naikwadi, Prashant Jorapur,Sayed Samiullah, Santosh Karajgi	Dept of Pharmaceutics	International Journal of Drug Delivery Technology	Sep-21	0975-4415	10.25258/ij ddt.11.3.20	https://www.scopus .com/sourceid/2050 0195212
26	Novel Validated Method for the Estimation of Capecitabine in Pharmaceutical Dosage forms by First Order Derivative Spectrophotometry	Karajgi SR, Somashekhar M, Pooja C, laxmi SD, Mhetre B, Prabhavati M, Kulkarni RV	Department Of Quality Assurance	Research Journal of Pharmacy and technology	Sep-21	0975-3618,0974-360X	DOI:10.31 838/ijpr/20 20.SP2.335	https://www.scopus .com/sourceid/2110 0197160?dgcid=sc_widget_citescore
27	Evaluation of neuroprotective property of citrus pulp in scopolamine induced zebrafish model amnesia	Sandeep chandakavate,Hsh ivukumar,V.P Ptail,Akram Naikwadi and Nanjappaiah H	Dept of Pharmacology	Journal of Xi'an Shiyou University ,Natural Science	Nov-21	1673-064x	https://ww w.xisdxjxs u.asia/view article.php?aid=540	https://www.scopus .com/sourceid/1450 55
28	New validated method for the estimation of cepectyabine in pharmaceutical dosage forms	Shripad potadar,S.M.Mtrei ,RV Kulkarni	Department Of Quality Assurance	International Journal of Pharmaceutica l Research	Dec-21	0975-2366	DOI:10.31 838/ijpr/20 20.SP2.335	ehttps://www.scop us.com/sourceid/19 700174645#tabs=0 ?dgcid=sc_widget_citescore
29	A Study on Good Laboratory Practice in Hospitals with reference to Specimen Collection	Santosh Karajgi,Vidhyaran i H,Shahapur P.R	Department Of Quality Assurance	Research Journal of Pharmaceutica	Dec-21	2249-2208	https://rjps. journalgrid. com/view/a	https://rjps.journalg rid.com/view/articl e/rjps/518

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103

and Handling for Microbiological Studies	,Kotnal R.B		l Sciences			rticle/rjps/5 18	

Scheduled maintenance work on **Wednesday 7th April 2021 from 07:00 to Friday 9th April 23:59 (BST)**.

During this time our website performance may be temporarily affected. If this happens please try refreshing your web browser.

We apologise for any inconvenience this might cause and thank you for your patience.

(Feb 25, 2020) Previous Next

New Journal of Chemistry

Sulfated tungstate/dioxygen: a new catalytic system for oxysulfonylation of styrenes to form β-keto sulfones

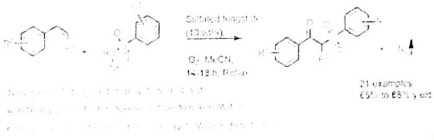
Check for updates

Ganesh D. Wagh,[a] Snehalata B. Autade,[a] Raghavendra V. Kulkarni[b] and Krishnacharya G. Akamanchi[a]

Author affiliations

Abstract

A new system for synthesis of a wide range of β-keto sulfones using sulfated tungstate as a heterogeneous catalyst and oxygen as an environmentally benign oxidant with aryl hydrazides and styrenes as reacting counterparts has been developed. The preliminary experimental results support the involvement of free radical species. Thus, aryl sulfonyl free radicals, generated by oxidation of aryl sulfonyl hydrazides, subsequently undergo a tandem addition to styrenes to form intermediate benzyl free radicals, and oxygen capture and oxidation to furnish β-keto sulfones. The method is mild and efficient with easy workup procedures. The catalyst is recyclable.



Principal,
BLDEA's, S.S.M. College of
Pharmacy & Research Centre
VIJAYAPUR-586103.

Biomedical & Pharmacology Journal, March 2020 Vol. 13(1), p. 497-509

Toxicological Evaluation of Ethyl AC Etate Extract of *Syzygium kanarense* (Talbot) Raizada Leaves in Wistar Rats

M.S. Divakar[1], Raju Krishna Chalannavar[2*]
Shivakumar Hugar[3] and Karunakar Hegde[4]

[1]Biotechnology Unit, Department of Biosciences, Mangalore University, Mangalagangothri, Karnataka 574 199, India.
[2]Department of Applied Botany, Mangalore University, Mangalgangothri, Karnataka 574 199, India.
[3]PG Department of Pharmacology, BLDEA's SSM College of Pharmacy and Research Center, Vijayapur, Karnataka 586103, India.
[4]Department of Pharmacology, Srinivas College of Pharmacy, Valachill, Post- Farangepete, Mangalore, Karnataka 574143, India.
[*]Corresponding Author E-mail: drrajkc@gmail.com

http://dx.doi.org/10.13005/bpj/1911

(Received: 19 December 2019; accepted: 25 March 2020)

This study was designed to evaluate the oral acute toxicity of the ethyl acetate extract of *Syzygium kanarense* leaves. Medicinal plants play an important role in ethnomedicine for the treatment of multiple diseases. *Syzygium* is a common fruit tree with different species under Myrtaceae family; *Syzygium cumini* and *Syzygium calophyllifolium* are known medicinal plant for the treatment of diabetes mellitus and various diseases. *Syzygium kanarense* one of the unexplored plants tested for toxicity for the purpose of therapeutic value. The ethyl acetate extract of *Syzygium kanarense* (Talbot) Raizada (Family: Myrtaceae) leaves was investigated for the study of cytotoxicity and oral acute toxicity in female Wistar albino rats according to OECD guideline 425. The preliminary phytochemical screening was carried out and confirmed the cytotoxicity by MTT assay using NIH/3T3 mouse embryonic fibroblast cell line with 5 concentrations (100 to 500μg/ml) of the extract. For oral acute toxicity study female rats were divided into two equal groups. One group served as vehicle control (VC) while the other group received an orally single dose at the 2g/kg body weight (B.W) of *Syzygium kanarense* leaves extract from ethyl acetate (SKLEE). Then both groups were observed carefully for 14 days. After blood samples were collected carefully by cardiac puncture, under anesthesia and were subjected to haematological and biochemical analyses. The vital organs of rats were preserved in 10% formalin for histopathological examination. The extract contains phenolics, terpenoids, tannins, saponins steroids, volatile oil, glycosides, carbohydrates, and proteins. The result of cytotoxicity on NIH/3T3 cell line with IC_{50}=425.07μg/ml and the percentage of viable cells was calculated. In the acute toxicity study found no mortality, no significant changes in B.W, blood parameters and also with the study of histopathology. The data revealed that LD_{50} of the leaves extract was more than 2g/kg B.W. The study concluded that the extract presence of phytochemicals is useful for traditional medicine for various diseases because they were non-toxic when administered orally at the dose of 2g/kg B.W to rats. To the best of our knowledge, this is the first report of the extract from *Syzygium kanarense* leaves.

Keywords: *Syzygium kanarense* (Talbot), Raizada Leaves, Wistar Rats.

This is an Open Access article licensed under a Creative Commons License: Attribution 4.0 International (CC-BY).
Published by Oriental Scientific Publishing Company © 2020

Principal,
BLDEA's, S.S.M. College of
Pharmacy & Research Centre
VIJAYAPUR-586103.

Screening of Antistress activity of *Ficus benghalensis* Fruit extract

Md. Abdul Qayyum F Jahagirdar, Shivakumar Hugar, Patil VP, Anant Khot, Nanjappaiah HM*

P.G. Dept of Pharmacology, BLDEA's SSM College of Pharmacy & Research Centre, Vijayapur, Karnataka, India.
Dept. of Pharmacology, Sri B M Patil Medical College, Hospital and Research Centre, Vijayapur. Karnataka.
*Corresponding Author E-mail: **nanjupharma143@gmail.com**

ABSTRACT:
Ficus benghalensis fruit (Moraceae) is a medicinal plant used in the treatment of many clinical conditions in India. Its anti-stress activity has been investigated in this study using albino mice and rats. The methanolic extract of *Ficus benghalensis* fruit was prepared and subjected to preliminary qualitative phytochemical screening. Flavanouds, Tannins and Alkaloids were found to be present. Acute toxicity studies were carried out in albino mice. The methanolic extract did not show the lethal effect at a dose of 2000mg/kg body weight with no signs of abnormalities or any mortality observed for 14 days period. Anoxia stress tolerance test, Swimmingendurance test, Immobilisation stress models were used to investigate the anti-stress potential of title plant. The results indicate that pretreatment with methanolic extract of fruit of *Ficus benghalensis* exhibited significant anti-stress activity at the tested doses of 125mg/ kg and 250 mg/ kg 500 mg/kg. On the basis of results, it was concluded that *Ficus benghalensis* fruit possess anti-stress activity.

KEYWORDS: *Ficus benghalensis* fruit, anoxia stress tolerance test, swimming endurance test model, Immobilization stress.

INTRODUCTION:

Stress is a common phenomenon that is experienced by all individual. When stress becomes extreme, it is harmful for the body and hence needs to be treated. Stress plays an major role in the pathogenesis of a variety of diseases including hypertension, peptic ulcer, immunodepression, reproductive dysfunction and behavior disorder[1]. Evidence related that stress impairs learning and memory and encounter several disorders including anxiety and depression[2]. Stress mapping or screening of biologically active constituents of natural origin, mainly from plant kingdom[3]. Drugs having Antistress properties induce a state of non-specific resistance against stressful conditions.

Empirical use of medicinal herbs has been widely disseminated since ancient times to treat a wide range of diseases. In current days, the interest in alternative therapies has raised markedly across the globe[4].

Drugs derived from plant source are emerging as alternative therapies in the treatment of many diseases including psychiatric disorders[5]. Medicinal plants playing significant role in the search of novel pharmacotherapy to treat psychiatric illnesses[6]. Plants have always been an exemplary source of drugs and many of the available drugs have been derived directly or indirectly from them[7].

Drugs like benzodiazepines, certain CNS stimulants such as amphetamines and caffeine as well as some anabolic steroids are routinely used by people to combat stress. The incidence of toxicity and dependence has limited the therapeutic usefulness of these drugs[8]. Alternative are clearly needed because of the inability of the current therapies to manage condition of disease[9]. The first drugs used to treat pathologic condition of the CNS were based on natural resources[10]. People from different area of world using herbal medicine to alleviate affective disorders[11]. The herbal formulations claimed to enhance physical endurance, mental functions and non-specific resistance of the body have been termed as adaptogen[8].

Various plants are being used in complementary and alternative medicines for management of stress[12]. The potential utility of safer and cheaper herbal medicines as Antistress agents have been reported as they can withstand stress without altering the physiological functions of the body.

Ficus benghalensis (FB) commonly known as Alada mara in Kannada is a rich source of medicinal value having multidimensional curative properties. Different parts of the tree have been found to possess medicinal properties; leaves are used for treating ulcers, aerial roots for gonorrhea whereas seeds and fruits are cooling and tonic. In India, milky juice (latex) of stem bark of *F. benghalensis* is used for the treatment of rheumatism and other inflammatory diseases[13].

Page 09 of 28

Photochemical investigation of *Ficusbenghalensis* explored wide variety of constituents which are responsible for its wide range of pharmacological activities. They include ketones, flavonoids, flavonols, sterols, pentacyclic triterpenes and triterpenoids, furocoumarin, tiglic acid ester and some other esters[14]. Flavanoids have been acknowledged for their interesting medicinal properties[15]. Different parts of *Ficus benghalensis* reported to possess anthelmentic, analgesic, immunomodulator, hypolipidemic, antidiabetic and antiallergic activities[16]. Flavonoids isolated from leaves of *Ficus benghalensis* has been reported for Antistress activity[17]. However, Antistress (adaptogenic) activity of fruit of title plant has not been scientifically validated till date. Hence the present study was undertaken to evaluate antistress activity.

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103,

Taylor & Francis Online

International Journal of Polymeric Materials and Polymeric Biomaterials ›
Volume 69, 2020 - Issue 3

222 2 0
Views

Synthesis and characterization of electrically responsive poly(acrylamide)-grafted-chondroitin sulfate hydrogel for transdermal drug delivery application

Ravindra P. Birajdar, Sudha B. Patil, Vijaykumar V. Alange & Raghavendra V. Kulkarni

Pages 148-157 | Received 15 Jun 2018, Accepted 23 Nov 2018, Published online: 24 Jan 2019

Download citation https://doi.org/10.1080/00914037.2018.1552859

Select Language ▼
Translator disclaimer

Sample our Physical Science journals

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

Full Article Figures & data References Citations Metrics Reprints & Permissions

Get access

Abstract

Electrically-responsive transdermal delivery systems (ETDS) were developed utilizing poly(acrylamide)-grafted-chondroitin sulfate (PAAm-g-CS) copolymer. A nitrogen environment based free radical polymerization was used to synthesize electrically responsive PAAm-g-CS copolymer. This PAAm-g-CS hydrogel was used as drug reservoir and cross-linked blend films of CS and poly(vinyl alcohol) as rate controlling membranes (RCM). The drug permeation decreased with increase in the concentration of

Available online on 15.03.2020 at http://jddtonline.info

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

© 2011-18, publisher and licensee JDDT. This is an Open Access article which permits unrestricted non-commercial use, provided the original work is properly cited

Open Access Research Article

Preparation and Evaluation of Sothaghnalepa Possessing Antimicrobial Activity

Nagathan Chanabasappa*, Biradar Shridharkumar

BLDEA's SSM College of Pharmacy Vijayapur Karnataka India

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

ABSTRACT

The majority of the population in developing countries uses plants or plant preparations in their basic health care. Many plant species have been proved to have antimicrobial activity. Lots of the antibiotics had been at the beginning derived from micro-organisms even as the chemotherapeutic agents are from vegetation. Together with other dosage varieties, natural drugs are additionally formulated within the type of ointment. An ointment is a viscous semisolid preparation used topically on a variety of body surfaces. Thus, the main objective of the present study is to formulate and evaluate a polyherbal ointment with antimicrobial activity. Ointments were formulated using ethanolic extracts (by continuous hot soxhlation) of Punarnava, Devadaru, Sunthi, Siddartha & Sigru, were evaluated for its physicochemical properties. The ethanolic extracts of the chosen plants were taken in specific ratio randomly and the antimicrobial tests of the combinations had been applied. Ointments were all set making use of special concentrations of the extracts with the aid of fusion procedure utilizing Aloe vera gel as a base. Formulations had been then tested for its physicochemical properties like, pH, spread ability, viscosity and visualisation gave satisfactory results. Probably the most powerful mixture used to be then determined via evaluating the results of the zone of inhibition given through distinct extract ratios on *Escherichia coli*, *Staphylococcus aureus* of antimicrobial undertaking against gram positive and gram negative organisms. The entire formulations confirmed predominant recreation against selected species. The formulations are found to be very efficacious in all the parameters which has conducted and also found enhance antimicrobial property. Overall result of this study reveals that this is an effective antimicrobial ointment.

Keywords: Sothaghnalepa, antimicrobial activity, Punarnava, Devadaru, Sunthi, Siddartha & Sigru

Article Info: Received 08 Jan 2020; Review Completed 14 Feb 2020; Accepted 26 Feb 2020; Available online 15 March 2020

Cite this article as:

Nagathan C, Biradar S, Preparation and Evaluation of Sothaghnalepa Possessing Antimicrobial Activity, Journal of Drug Delivery and Therapeutics. 2020; 10(2):140-142 http://dx.doi.org/10.22270/jddt.v10i2.3989

***Address for Correspondence:**

Nagathan Chanabasappa, BLDEA's SSM College of Pharmacy Vijayapur Karnataka India

INTRODUCTION:

Herbal medication, also called botanical treatment or phytomedicine, refers to the use of any plant's seeds, berries, roots, leaves, bark, or flowers for medicinal purposes. Herbal drug treatments are in general used to furnish first-line and common health one cheap relief. Even in areas where cutting- swiftly in up to date years. Medicinal vegetation is principal sources for pharmaceutical manufacturing. Medicinal plants and herbal drugs account for a giant percent of the pharmaceutical market edge treatment is to be had, the curiosity on herbal drug treatments and their utilization had been growing [1]

1. PUNARNAVA:-

Boerhavia diffusa is a species of flowering plant in the four o'clock family which is commonly known as Punarnava (meaning that which rejuvenates or renews the body in Ayurveda), red spider ling, spreading hogweed, or tarvine. It is taken in herbal medicine for pain relief and other uses. The leaves of *Boerhavia diffusa* are often used as a green vegetable in many parts of India.

Boerhavia diffusa is widely dispersed, occurring throughout India, the Pacific, and southern United States. This wide range is explained by its small fruit, which are very sticky and grow a few inches off the ground, ideally placed to latch on to small migratory birds as they walk[2].

DEVADARU

EdrusDeodara is a high mountain tree that occurs in many locations from 1000 to 3000 m in the Himalaya. Its natural range spans parts of Afghanistan; Tibet, India (Himachal Pradesh, Jammu- Kashmir, Uttar Pradesh); Nepal; and Pakistan. It usually grows on silicate mother rocks. The best trees are found on deep, well-drained soils[3].

The use of *C. Deodaru* in Ayurvedic medicines is well known. The plant yields a medicinal essential oil by distillation of the wood which is used [illegible] wide range of ailments from fevers and dysentery, to bronchitis, and snake

Current Trends in Biotechnology and Pharmacy
Vol. 14 (1) 48-50, January 2020, ISSN 0973-8916 (Print), 2230-7303 (Online)
DOI: 10.5530/ctbp.2020.1.5

Pemphigus vegetans: a rare case report

Inamdar SZ*[1], Pradeep R[1], Akhila M[1], Jangond A[2], Pradeepthi K[1], Kulkarni RV[1]
[1]Department of Pharmacy Practice, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur – 586103
[2]Department of Dermatology, Shri B.M.Patil Medical College, Hospital & Research Centre, BLDE (Deemed to be university), Vijayapur-586103
For Correspondence Author : syedzia.inamdar@gmail.com

Abstract

Pemphigus vegetans is a rare vesiculo-bullous autoimmune disease which is a rare variant of pemphigus vulgaris characterized by vegetating plaques in the flexures and lesions in the oral cavity. It is a less common disease and involves the mucosa and skin due to disintegration of cellular adherence (acantholysis) resulting in intradermal split. The lesions are usually painful and if untreated it may be fatal. A 68 years old male patient was admitted with complaints of fluid filled skin lesions over trunk since 3 months. The lesions later ruptured spontaneously and healed with crusting. The lesions gradually progressed to involve axilla, scalp and extremities with no itching. Successful implementation of dexamethasone –cyclophosphamide –pulse (DCP) therapy along with other adjuvant drugs has induced disease remission.

Key words: Pemphigus vegetans, Autoimmune disease, Acantholysis.

Introduction

Pemphigus vegetans (Pveg) is a rare vesiculobullous autoimmune disease which is a less common variant of pemphigus vulgaris characterized by heaped up, cauliflower like vegetating plaques in the flexures and rarely in oral cavity. This disorder affects chiefly middle aged adults(1,2).It is caused by auto antibodies directed against desmogleins 1 and 3, which are transmembrane glycoprotein's and results in loss of intercellular adhesion between intact keratinocytes which results in acantholysis. The incidence of the disease is 0.09 to 1.8%. In a study conducted in India majority of pemphigus patients have been diagnosed to have pemphigus vulgaris followed by pemphigus foliaceus, pemphigus erythematosus and pemphigus vegetans. This disease occurs mainly on interiginous areas, scalp and face but may occur anywhere on the skin surface. The oropharynx, oesophagus, stomach, duodenum, anus, nasal vulvovaginal, laryngeal and conjunctival mucosa can also be affected (3). Oral involvement is reported in 60-80% of pemphigus cases and cerebriform tongue, characterized by a pattern of sulci and gyri of the dorsum of tongue has been reported in 50% cases of Neumann type vegetans (4). In Pemphigus vegetans blisters are fragile that usually rupture and leave an area of erosion and have a tendency to develop excessive granulation tissue and crusting in some patients. A positive Nikolsky sign (positive when gentle shearing pressure to pink or normal looking skin results in the formation of an erosion or extension of bulla) often can be elicited. Possible complications of pemphigus include infection of skin, sepsis, rarely death. Pemphigus isn't contagious and there is no way to predict who will get it.

Case report

A 68 years old male patient was admitted in dermatology ward with complaints of fluid filled skin lesions over trunk since 3 months. The lesions later ruptured spontaneously to leave

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

integrity Research Journals

Journal of Public Health and Diseases
Volume 3(4), pages 82-84, August 2020
Article Number: E57E205E1
ISSN: 2705-2214
https://doi.org/10.31248/JPHD2019.056
https://integrityresjournals.org/journal/JPHD

Case Report

Spironolactone-digoxin synergizes gynecomastia: A case report

S. M. Biradar[1]*, B. Kohima[1], K. Purnagopinath[1], Sanjeev N. Bentoor[2], L. S. Patil[2] and V. Vijayakumari[1]

[1]Department of Clinical Pharmacy Practice, SSM College of Pharmacy and Research Centre, Vijaypur-586103.
[2]Department of Medicine, Shri B M. Patil Medical College Hospital and Research Centre, Vijaypur-586103.

*Corresponding author. Email: smbiradar@rediffmail.com

Copyright © 2020 Biradar et al. This article remains permanently open access under the terms of the Creative Commons Attribution License 4.0, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received 27th January, 2020; Accepted 27th February, 2020

ABSTRACT: Gynecomastia refers to a proliferation of breast tissue in the males that causes imbalances in estrogen and androgen levels, resulting in increased or unopposed estrogen action on breast tissue, where underlying aetiology might be physiological or pathological. Approximately 10 to 25% cases of gynecomastia are in associated with drugs. There are many drugs (Spironolactone, Furosemide, Digoxin etc.) capable to induce gynecomastia on individual basis, but practically it is not seen often. Simultaneously, when two or more similar drugs (capable to induce gynacomastia) are administered concomitantly, it is seen often for its synergistic side effect as a drug induced gynecomastia. In the present case study, a 65 years old male patient who had been taking Digoxin and Spironolactone for Ischemic Heart Disease (IHD) with Left Ventricular Failure (LVEF) in the past one year. On his regular follow up, it has been observed/noticed that the patient has developed a gynecomastia. Hence, it is presumed that the drug induced gynecomastia may be due to synergistic side effect of Spironolactone and Digoxin *per se*.

Keywords: Breast enlargement, drug- induced, male patients.

INTRODUCTION

Gynecomastia is enlargement of breast tissues differentiated from excess adipose tissue in the males due to elevated estrogen action which results in imbalanced estrogen/androgen ratio with proliferation of glandular component with deposition of fat (Fauci et al., 2018). Breast enlargement may originate from the breast, chest wall or even representing a secondary metastasis (Saboori and Behzadnia, 2019). The effects of gynecomastia can be either physiological or pathological conditions which includes drug induced, endocrine disorders (hyperthyroidism, testicular or pituitary tumours) and non-endocrine (cirrhosis, starvation, stress and renal failure) (Fauci et al., 2018; Almah, 2011). Due to overlapping morphological characteristics of malignant and benign male breast masses, any recognizable breast enlargement should be differentiated, interpreted and approached cautiously (Saboori and Behzadnia, 2019). Approximately 10 to 25% gynecomastia cases are associated with drugs such as, potassium sparing diuretic (spironolactone), mineralocorticoid receptor antagonists (eplerenone), antibiotics (metronidazole, isoniazid), tricyclic antidepressants (amitriptyline), cardiac glycosides (digoxin), calcium channel blockers (verapamil, amlodipine, nifedipine), ACE inhibitors (captopril, enalapril), centrally acting agents (methyldopa, clonidine), anti-arrhythmic (amiodarone), anti-androgens (flutamide, nilutamide, bicalutamide), and gonadotropin releasing tropin hormone agonist (Leuprolide) (Almah et al., 2009; Başaran et al., 2009; Kauser et al., 2014; Veeregowda et al., 2018).

CASE REPORT

Past medical and medication history

A 65 years old male patient visited medical OPD with the complaints of breathlessness, swelling of lower limbs,

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103.

Functionally Tailored Electro-Sensitive Poly(Acrylamide)-g-Pectin Copolymer Hydrogel for Transdermal Drug Delivery Application: Synthesis, Characterization, In-vitro and Ex-vivo Evaluation

AKakarla R. Reddy, Anjanapura V. Raghu, Krishnamachari G. Akamanchi, Arun C. Inamadar, Kusal K. Das and Raghavendra V. Kulkarni*

Volume 10 , Issue 3 , 2020
Page: [185 - 196]**Pages:** 12
DOI: uthor(s): Sudha B. Patil, Syed Z. Inamdar,
10.2174/2210303110666200206114632

Background: To develop electro-sensitive transdermal drug delivery systems (ETDDS) using polyacrylamide-grafted-pectin (PAAm-g-PCT) copolymer hydrogel for rivastigmine delivery.

Methods: Free radical polymerization and alkaline hydrolysis technique was employed to synthesize PAAm-g-PCT copolymer hydrogel. The PAAm-g-PCT copolymeric hydrogel was used as a reservoir and cross-linked blend films of PCT and poly(vinyl alcohol) as rate-controlling membranes (RCMs) to prepare ETDDS.

Results: The pH of the hydrogel reservoir was found to be in the range of 6.81 to 6.93 and drug content was 89.05 to 96.29%. The thickness of RCMs was in the range of 51 to 99 μ and RCMs showed permeability behavior against water vapors. There was a reduction in the water vapor transmission rate as the glutaraldehyde (GA) concentration was increased. The drug permeation rate from the ETDDS was enhanced under the influence of electric stimulus against the absence of an electric stimulus. The increase in flux by 1.5 fold was recorded with applied electric stimulus. The reduction in drug permeability observed when the concentration of GA was increased. Whereas, the permeability of the drug was augmented as an electric current was changed from 2 to 8 mA. The pulsatile drug release under "on– off" cycle of electric stimulus witnessed a faster drug release under 'on' condition and it was slow under 'off' condition. The alteration in skin composition after electrical stimulation was confirmed through histopathology studies.

Conclusion: The PAAm-g-PCT copolymer hydrogel is a useful carrier for transdermal drug delivery activated by an electric signal to provide on-demand release of rivastigmine.

Keywords: Electro-sensitive, hydrogel, grafting, transdermal drug delivery, Alzheimer`s disease, rivastigmine.

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103 .

15

RJPT
Research Journal of Pharmacy and Technology

Research Journal of Pharmacy and Technology
(Home.aspx)

ISSN
0974-360X (Online)
0974-3618 (Print)

Novel Validated Method for the Estimation of Capecitabine in Pharmaceutical Dosage forms by First Order Derivative Spectrophotometry (AbstractView.aspx?PID=2021-14-10-30) (https://scholar.google.co.in/scholar?q=Novel Validated Method for the Estimation of Capecitabine in Pharmaceutical Dosage forms by First Order Derivative Spectrophotometry)

Author(s): Karajgi S. R (search.aspx?key=Karajgi S. R), Somashekhar M (search.aspx?key=Somashekhar M), Pooja Chincholi (search.aspx?key=Pooja Chincholi), Laxmi S. Deginal. (search.aspx?key=Laxmi S. Deginal.), Mhetre Bhouramma (search.aspx?key=Mhetre Bhouramma), Prabhavati Mirji (search.aspx?key=Prabhavati Mirji), Kulkarni R.V (search.aspx?key=Kulkarni R.V)

Email(s): santosh.karajgi@gmail.com (mailto:santosh.karajgi@gmail.com)

DOI: 10.52711/0974-360X.2021.00912 (https://doi.org/10.52711/0974-360X.2021.00912) (https://scholar.google.co.in/scholar?q=10.52711/0974-360X.2021.00912)

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103.

This is an open access article published under a Creative Commons Non-Commercial No Derivative Works (CC BY-NC-ND) Attribution License, which permits copying and redistribution of the article, and creation of adaptations, all for non-commercial purposes.

ACS AUTHORCHOICE

16.

http://pubs.acs.org/journal/acsomega

Article

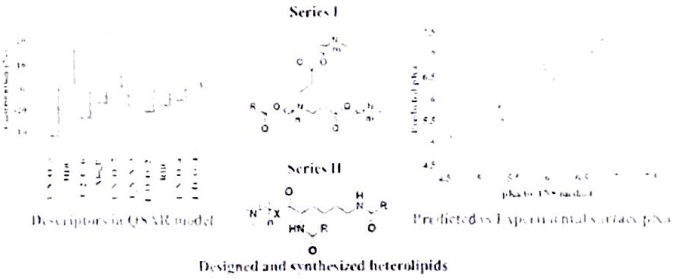
Experimentally Validated QSAR Model for Surface pK_a Prediction of Heterolipids Having Potential as Delivery Materials for Nucleic Acid Therapeutics

Dinesh M. Dhumal, Pankaj D. Patil, Raghavendra V. Kulkarni, and Krishnacharya G. Akamanchi

Cite This: ACS Omega 2020, 5, 32023−32031

Read Online

ACCESS | Metrics & More | Article Recommendations | Supporting Information



ABSTRACT: The application of lipid-based drug delivery technologies for bioavailability enhancement of drugs has led to many successful products in the market for clinical use. Recent studies on amine-containing heterolipid-based synthetic vectors for delivery of siRNA have witnessed the United States Food and Drug Administration (USFDA) approval of the first siRNA drug in the year 2018. The studies on various synthetic lipids investigated for delivery of such nucleic acid therapeutics have revealed that the surface pK_a of the constructed nanoparticles plays an important role. The nanoparticles showing pK_a values within the range of 6−7 have performed very well. The development of high-performing lipid vectors with structural diversity and falling within the desired surface pK_a is by no means trivial and requires tedious trial and error efforts; therefore, a practical solution is called for. Herein, an attempt to is made provide a solution by predicting the statistically significant pK_a through a predictive quantitative structure−activity relationship (QSAR) model. The QSAR model has been constructed using a series of 56 amine-containing heterolipids having measured pK_a values as a data set and employing a partial least-squares regression coupled with stepwise (SW-PLSR) forward algorithm technique. The model was tested using statistical parameters such as r^2, q^2, and pred_r^2, and the model equation explains 97.2% (r^2 = 0.972) of the total variance in the training set and it has an internal (q^2) and an external (pred_r^2) predictive ability of ~83 and ~63%, respectively. The model was validated by synthesizing a series of designed heterolipids and comparing measured surface pK_a values of their nanoparticle assembly using a 2-(*p*-toluidino)-6-napthalenesulfonic acid (TNS) assay. Predicted and measured surface pK_a values of the synthesized heterolipids were in good agreement with a correlation coefficient of 93.3%, demonstrating the effectiveness of this QSAR model. Therefore, we foresee that our developed model would be useful as a tool to cut short tedious trial and error processes in designing new amine-containing heterolipid vectors for delivery of nucleic acid therapeutics, especially siRNA.

1. INTRODUCTION

Drug delivery systems aim at improving biopharmaceutics features, such as stability, bioavailability, and targeting, and facilitate controlled delivery to maximize drug potency while minimizing side effects and toxicity. Among drug delivery systems, lipid-based drug delivery systems (LBDDS) are extensively studied for bioavailability enhancement and the technologies developed are utilized in a number of the United States Food and Drug Administration (USFDA) approved drugs.[1] Inspired by the success of LBDDS, similar efforts have been dedicated toward the development of lipid-based vectors particularly for siRNA delivery and gene therapy.[2] Among lipid-based vectors, cationic lipid-based vectors have proven to be the most successful candidates and have been widely implemented in clinical use. However, the cationic lipids being permanently charged entities suffer from toxicity.[3] Recent investigations on ionizable amine-containing heterolipids as drug carriers have successfully delivered siRNA in vivo. The surface pK_a, exhibited by the heterolipids in the nanoparticle

Received: October 9, 2020
Accepted: November 17, 2020
Published: November 30, 2020

Principal,

ACS Publications © 2020 American Chemical Society

BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

[Downloaded free from http://www.ijp-online.com on Wednesday, March 24, 2021, IP: 103.112.213.101]

Experimental Research Article

Access this article online
Quick Response Code:

Website:
www.ijp-online.com

DOI:
10.4103/ijp.IJP_136_20

17

Low oxygen microenvironment and cardiovascular remodeling: Role of dual L/N-type Ca^{2+} channel blocker

Shrilaxmi Bagali[1a], Savitri M. Nerune [1b], R Chandramouli Reddy[1c], Saeed M. Yendigeri[2], Bheemshetty S. Patil [1d], Akram A. Naikwadi[1e], Raghavendra V. Kulkarni[3], Kusal K. Das[1a]

[illegible] Research Centre, BLDE (Deemed to be University), Vijayapura, Department of Pathology, Al-Ameen Medical College, Vijayapura, Department of Pharmaceutics and Pharmaceutical Technology, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapura, Karnataka, India

Address for correspondence:
Prof. Kusal K. Das, Department of Physiology, Laboratory of Vascular Physiology and Medicine, Shri B. M. Patil Medical College, Hospital and Research Centre, BLDE (Deemed to be University), Vijayapura - 586 103, Karnataka, India
E-mail: kusaldas@bldeau.ac.in

Submitted: 26-Apr-2020
Revised: 24-May-2020
Accepted: 05-Oct-2020
Published: 05-Dec-2020

Abstract:

OBJECTIVE: Patients exposed to chronic sustained hypoxia frequently develop cardiovascular disease risk factors to ultimately succumb to adverse cardiovascular events. In this context, the present study intends to assess the role of cilnidipine (Cil), a unique calcium channel blocker that blocks both L-type and N-type calcium channels, on cardiovascular pathophysiology in face of chronic sustained hypoxia exposure.

MATERIALS AND METHODS: The study involved Wistar strain albino rats. The group-wise allocation of the experimental animals is as follows - Group 1, control (21% O_2); Group 2, chronic hypoxia (CH) (10% O_2, 90% N); Group 3, Cil + 21% O_2; and Group 4, CH (10% O_2, 90% N) + Cil (CH + Cil). Cardiovascular hemodynamics, heart rate variability, and endothelial functions (serum nitric oxide [NO], serum endothelial nitric oxide synthase [NOS3], and serum vascular endothelial growth factor [VEGF]) were assessed. Cardiovascular remodeling was studied by histopathological examination of the ventricular tissues, coronary artery (intramyocardial), and elastic and muscular arteries. Normalized wall index of the coronary artery was also calculated.

RESULTS AND CONCLUSION: The results demonstrated altered cardiovascular hemodynamics, disturbed cardiovascular autonomic balance, increased levels of VEGF and NOS3, and decreased bioavailability of NO on exposure to chronic sustained hypoxia. The histopathological examination further pointed toward cardiovascular remodeling. Treatment with Cil ameliorated the cardiovascular remodeling and endothelial dysfunction induced by CH exposure, which may be due to its blocking actions on L/N-type of calcium channels, indicating the possible therapeutic role of Cil against CH-induced cardiovascular pathophysiology.

Keywords:

Cardiovascular histopathology, cardiovascular remodeling, chronic hypoxia, cilnidipine, heart rate variability, normalized wall index

Introduction

Among a host of factors, hypoxia has been considered as one of the potential factors inducing cardiovascular remodeling.[1,2] Patients with cardiovascular remodeling demonstrate a progressive deterioration of cardiovascular functions to ultimately succumb to adverse cardiovascular events such as hypertension, ischemic heart disease, and cardiac arrhythmias.[3,4] The trigger for hypoxia-induced cardiovascular remodeling could be an alteration of cardiovascular autonomic balance on exposure to low oxygen microenvironment.[5] These observations lead us to seek for an adjunct therapeutic approach targeting the altered cardiovascular autonomic balance to prevent or postpone the occurrence of the adverse cardiovascular events in patients exposed to systemic hypoxia.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Bagali S, Nerune SM, Reddy RC, Yendigeri SM, Patil BS, Naikwadi AA, *et al.* Low oxygen microenvironment and cardiovascular remodeling: Role of dual L/N-type Ca^{2+} channel blocker. Indian J Pharmacol 2020;52:383-91.

© 2020 Indian Journal of Pharmacology Published by Wolters Kluwer - Medknow

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

Low oxygen microenvironment and cardiovascular remodeling: Role of dual L/N.type Ca^{2+} channel blocker

Shrilaxmi Bagali[1], Savitri M Nerune[2], R Chandramouli Reddy[3], Saeed M Yendigeri[4], Bheemshetty S Patil[5], Akram A Naikwadi[6], Raghavendra V Kulkarni[7], Kusal K Das[1]

[1] Laboratory of Vascular Physiology and Medicine, Department of Physiology, Shri B. M. Patil Medical College, Hospital and Research Centre, BLDE (Deemed to be University), Vijayapura, Karnataka, India

[2] Department of Pathology, Shri B. M. Patil Medical College, Hospital and Research Centre, BLDE (Deemed to be University), Vijayapura, Karnataka, India

[3] Department of Biochemistry, Shri B. M. Patil Medical College, Hospital and Research Centre, BLDE (Deemed to be University), Vijayapura, Karnataka, India

[4] , Hospital and Research Centre, BLDE (Deemed to be University), Vijayapura, Karnataka, India

[7] Department of Pharmaceutics and Pharmaceutical Technology, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapura, Karnataka, India

OBJECTIVE: Patients exposed to chronic sustained hypoxia frequently develop cardiovascular disease risk factors to ultimately succumb to adverse cardiovascular events. In this context, the present study intends to assess the role of cilnidipine (Cil), a unique calcium channel blocker that blocks both L-type and N-type calcium channels, on cardiovascular pathophysiology in face of chronic sustained hypoxia exposure.

MATERIALS AND METHODS: The study involved Wistar strain albino rats. The group-wise allocation of the experimental animals is as follows - Group 1, control (21% O_2); Group 2, chronic hypoxia (CH) (10% O_2, 90% N); Group 3, Cil + 21% O_2; and Group 4, CH (10% O_2, 90% N) + Cil (CH + Cil). Cardiovascular hemodynamics, heart rate variability, and endothelial functions (serum nitric oxide [NO], serum endothelial nitric oxide synthase [NOS3], and serum vascular endothelial growth factor [VEGF]) were assessed. Cardiovascular remodeling was studied by histopathological examination of the ventricular tissues, coronary artery (intramyocardial), and elastic and muscular arteries. Normalized wall index of the coronary artery was also calculated.

RESULTS AND CONCLUSION: The results demonstrated altered cardiovascular hemodynamics, disturbed cardiovascular autonomic balance, increased levels of VEGF and NOS3, and decreased bioavailability of NO on exposure to chronic sustained hypoxia. The histopathological examination further pointed toward cardiovascular remodeling. Treatment with Cil ameliorated the cardiovascular remodeling and endothelial dysfunction induced by CH exposure, which may be due to its blocking actions on L/N-type of calcium channels, indicating the possible therapeutic role of Cil against CH-induced cardiovascular pathophysiology.

Keywords: Cardiovascular histopathology, cardiovascular remodeling, chronic hypoxia, cilnidipine, heart rate variability, normalized wall index

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103.

INNOVARE ACADEMIC SCIENCES
Knowledge to Innovation

International Journal of Current Pharmaceutical Research

ISSN- 0975-7066

Vol 12, Issue 4, 2020

18

Original Article

HYDROTROPIC SOLUBILIZATION AND LINEARITY PROFILE OF PAZOPANIB

SANTOSH KARAJGI, SHRIPAD POTADAR

Department of Pharmaceutical Quality Assurance, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur 586103
Email: santosh.karajgi@gmail.com

Received: 15 Mar 2020, Revised and Accepted: 19 May 2020

ABSTRACT

Objective: A study on the hydrotropic solubility and linearity profile of Pazopanib was carried out by using Niacinamide as the solubilizing agent as Pazopanib is poorly soluble in water.

Methods: Pazopanib was freely soluble in water when 2.8M Niacinamide was used as a solubilizing agent. Pazopanib shows an absorption maximum at 282 nm in First derivative mode of measurement using Shimazdu UV Spectrophotometer 1800 spectronic model.

Results: At the absorption maximum of 282 nm, Pazopanib shows a linear response in the range of 5µg/ml to 15µg/ml concentration.

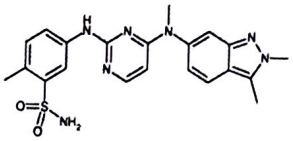
Conclusion: The present study is useful for the aqueous solubilization and quantitative determination of Pazopanib in bulk drug and in pharmaceutical formulations thus avoiding toxic solvents.

Keywords: Pazopanib, Hydrotropic, Solubilization, Solubility Profile, Linearity profile, Quantitative Determination

© 2020 The Authors. Published by Innovare Academic Sciences Pvt Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/)
DOI: http://dx.doi.org/10.22159/ijcpr.2020v12i4.39082. Journal homepage: https://innovareacademics.in/journals/index.php/ijcpr

INTRODUCTION

Pazopanib is a poorly water soluble drug used to treat kidney cancer. Water solubility is the greatest physicochemical parameter during drug development and research [1, 2]. Insolubility of any drug can hinder the improvement of parenteral products. Hydrotropic solubilization method development is the most convenient tool to enhance the aqueous solubility of such molecules to avoid harmful organic solvents like dimethyl sulphoxide, chloroform, carbon tetra chloride, methanol and ethanol etc [3-6]. In this present study, an effort is made to improve the aqueous solubility of the selected drug Pazopanib by using Niacinamide as the solubilizing agent, as there is no reported method is available so far to enhance water solubility and establish linearity of selected drug molecule by Hydrotropic Solubilization method.



MATERIALS AND METHODS

Materials

The study was carried out using Shimadzu UV Spectrophotometer Spectronic Model 1800 with 1 cm matched quartz sample cells. The reagents used were distilled water, Sodium Benzoate Sodium Salicylate, Sodium Ascorbate, Urea, Sodium Citrate and Niacinamide. The study was carried on Pazopanib API and Marketed formulation.

Methodology

Test system

The procedure for solubility test is based on effort to dissolve chemicals in water as a solvent with gradually more thorough mechanical methods. The solubilizing agents to be employed, in the preferential order, are Sodium Benzoate, Sodium Salicylate, Sodium Ascorbate, Sodium Citrate, Urea, Niacinamide, DENA and DMBA. Solubility shall be resolute in a step by step route that involves effort to dissolve a chemical under test in the selected solvents (in the order of preference) at reasonably high concentration using the series of mechanical procedures as cited in table 1. In the condition where the test chemical fails to dissolve, try to increase the volume of solubilizing agent so as to decrease the drug concentration by a factor of 10, and then the array of mechanical trials are repeatedly made in an effort to increase the solubility of the chemical at still lower concentrations. To determination if that chemical has been dissolved depends entirely on visual examination. The chemical is said to be dissolved if the solution is absolutely clear and there is no sign of precipitation or cloudiness is observed [7, 8].

Procedures

a) Tier 1 starts with solubility testing of the drug in 1M solution of the solubilizing agent in water as per order of preference. If complete solubility is accomplished, then further solubility trials are not required.

b) If the chemical under test is insoluble in either Medium of dilution or Medium of Treatment, then move on to Tier 2 by adding up a sufficient amount of medium, just about 2M to attempt for dissolving the drug. If the chemical under test get dissolved in medium at 2M concentration, further steps are not required. If the drug not dissolves in one medium or the other (if both agents are checked in this tier), stop the attempts to dissolve the chemical. If the drug is soluble in any of these solvents, no extra solubility measures are required.

c) If the drug is still insoluble in either of the media applied in Tier 2, then go on with Tier 3, 4 or 5 by increasing the concentration. If the drug is soluble, no further solubility trials are needed. The details are given in table 1. If the chemical under test is not dissolving, drop the solubilizing agent and try another solubilizing agent in the preferential order as referred in the flow chart.

Table 1: 5 Tier systems

Concentrations	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Drug	1 mg	1 mg	1 mg	1 mg	1 mg
Solubilizing agent	1M, 1.5 M	2M, 2.5M	3M, 3.5M	4M, 4.5M	5M

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103

16

*Five Years Citation

INTERNATIONAL JOURNAL OF PHARMACEUTICAL RESEARCH

A Step Towards Excellence

Published by Advanced Scientific Research

ISSN 0975-2366

CURRENT ISSUE

Volume 14 Issue 1, Jan - Mar, 2022

ARTICLE IN PRESS

No Data found

ARCHIVE READER

(Require Adobe Acrobat Reader to open. If you don't have Adobe Acrobat Reader)

Click here to Download

SPECIAL ISSUE

July - September 9[3] 2017

Click to download

Q Manuscript Status

Article Detail

2d-Qsar Study Of Synthesized Novel Derivatives Of 1,3,4-Oxadiazoles

Author: SOMASHEKHAR M, R B KOTNAL, S R KARAJAGI

Abstract: A series of 2,5 di-substituted 1,3,4-Oxadiazoles were identified as more potent anti-inflammatory activity. Novel derivatives of synthetic schemes of 2-({5-[4-(morpholin-4-yl) phenyl]-1,3,4-oxadiazol-2-yl}amino) acetohydrazide and 4-[4-(5-chloro-1,3,4-oxadiazol -2-yl)phenyl] morpholine were subjected for 2-Dimensional quantitative structural activity relationship by Multiple linear regression (MLR) method. A series of 28 molecules were used for training and test set. this 2D-QSAR study after comparison with experimental pIC50 value and Predicted pIC50 value shows synthesized novel molecules from two schemes were more effective anti-inflammatory molecules and they are SMRB4-7E, SMRB4-7J, SMRB5-6A, SMRB5-6F AND SMRB5-6M Hence, the 2D-QSAR model proposed in this work may be useful and can be employed to design above mentioned 1,3,4-Oxadiazole derivatives with targeted inhibitory activity.

Keyword: Morpholine, 1,3,4-oxadiazole, 2D-QSAR study, Anti-inflammatory activity.

DOI: https://doi.org/10.31838/ijpr/2021.13.01.324

Download: Request For Article

CAS A DIVISION OF THE AMERICAN CHEMICAL SOCIETY

ONLINE SUBMISSION

Click here for Online Submission

USER LOGIN

Author Reviewer

Editor Subscriber

Username

Password

Login | Register

NEWS & EVENTS

International Journal of Pharmaceutical Research

Not yet assigned quartile

SJR 2020

0

powered by scimagojr.com

Terms and Conditions

Disclaimer

Refund Policy

Instrucations for Subscribers

Privacy Policy

Copyrights Form

0.12 2018 CiteScore

8th percentile

Powered by Scopus

Google Scholar

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103.

IndianJournals.com (ijor.aspx)

(103.112.213.101)

Users online: (onlineusersinfo.aspx) 2819

(ijor.as

Home (ijor.aspx) About us (ijor.aspx?target=about_us) My Profile (ijor.aspx?target=users_zone) Registration (ijor.aspx?target=register) Products

Article Submission (ijor.aspx?target=manuscript_submission) Usage Statistics (https://c5live.mpainsight.com/ijc/login) Price List 2022 (../JournalsPriceList.aspx)

Contact Us (ijor.aspx?target=contact_us) Tutorial

Login/Register (ijor_homemenucontrol/#)

Email id

Research Journal of Pharmacy and Technology

Journal Home (?target=ijor:rjpt&type=home)
Current Issue (?target=ijor:rjpt&type=current_issue)
Archive / Issues (?target=ijor:rjpt&type=archive)
TOC (?target=ijor:rjpt&volume=14&issue=1&type=toc)
Registration (?target=register)
Subscribe (?target=ijor:rjpt&type=subscribe)
Editorial Board (?target=ijor:rjpt&volume=14&issue=1&type=eboard)
Aims & Scope (?target=ijor:rjpt&type=aimsnscope)
Author Guidelines (?target=ijor:rjpt&volume=14&issue=1&type=for_authors)
News & Events (?target=ijor:rjpt&type=newsnevents)
Subscribe TOC Alerts (?target=ijor:rjpt&type=toc_alerts)

Article Submission (?target=ijor:rjpt&type=onlinesubmission)

FREE

Sample Issue (?target=ijor:rjpt&type=sample_issue)

Trial Access (?target=ijor:rjpt&type=trialaccess_issue)

RESEARCH JOURNAL OF PHARMACY AND TECHNOLOGY
Year : 2021, Volume : 14, Issue : 1
First page : (214) Last page : (218)
Print ISSN : 0974-3618. Online ISSN : 0974-360X.
Article DOI : 10.5958/0974-360X.2021.00037.8 (http://dx.doi.org/10.5958/0974-360X.2021.00037.8)

Development of validated analytical area under curve UV spectrophotometric method for assay of cetrizine dihydrochloride

Karajgi S.R.*, Metri S.M., Khan Akhtar, Islam Rashidur, Preeti K., Potadar S.S.
Dept. of Quality Assurance, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapur586103, Karnataka, India.

*Corresponding Author E-mail: santosh.karajgi@gmail.com (mailto:santosh.karajgi@gmail.com?cc=gbehal@indianjournals.com)

Online published on 22 April, 2021.

Abstract

A simple and efficient method for the determination and estimation of area under curve of Cetirizine dihydrochloride has been developed using distilled water as solvent. Cetirizine dihydrochloride obeys Beer's Law in the concentration range of 10–30µg/ml at Area of 225nm to 235nm using UV-spectrophotometer SHIMADZU model UV 1800. The method was applied to the tablet formulations and found to be accurate, precise and economic for routine determination of Cetrizine in pharmaceutical dosage forms

Keywords

Cetrizine, Analytical method, Area under curve, UV spectrophotometric, Determination.

Buy Now (?target=ijor:rjpt&volume=14&issue=1&article=037&type=subscribearticle) PDF (?target=ijor:rjpt&volume=14&issue=1&article=037&type=pr

Site map (ijor.aspx?target=site_map) | Privacy Policy (ijor.aspx?target=privacy_policy) | Copyright (ijor.aspx?target=copyright_disclaimer) | Terms & Conditions | (ijor.aspx?target=terms) Page Rank

(http://www.prchecker.info/)

543,377,236 visitor(s) since 30th May, 2005.

All rights reserved. Site designed and maintained by DIVA ENTERPRISES PVT. LTD. (http://www.divan.in).

Note: Please use Internet Explorer (6.0 or above). Some functionalities may not work in other browsers.

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103.

Simpi Chandraraj C. et al /J. Pharm. Sci. & Res. Vol. 13(3), 2021, 193-199

ISSN:0975-1459
Journal of Pharmaceutical Sciences and Research
www.jpsr.pharmainfo.in

Bioassay-guided isolation and identification of compound from *Sargassum ilicifolium* and investigation of antimicrobial activity.

Simpi Chandraraj C.[1*], Nagathan Channabasappa V.[2], Karajgi Santosh R.[3], Kenia Hasti.[4]

[1,2] Dept of Pharmacognosy, [3]Dept of Quality Assurance, [4]Dept of Pharmaceutical Chemistry
BLDEA SSM College of Pharmacy and Research Center Vijayapur 586101

Abstract

In many countries, seaweeds are used as traditional food which contains unusual types of secondary metabolites. The aim of this study was to perform bioassay-guided isolation of antibacterial metabolites from an Indian Ocean seaweed *Sargassum ilicifolium*. The seaweed *S. ilicifolium* was collected from the western sea cost of India. The plant was extracted by maceration with hexane saturated with methanol. The extract was partitioned by the Kupchan method to yield petroleum ether 80-120, petroleum ether 40-60, chloroform, ethyl acetate and methanol partitions. The most active partition found in the antibacterial assay i.e. methanol extract was further fractionated using medium pressure liquid chromatography methods to yield pure compound. The structures of the isolated compounds were elucidated using various spectroscopic methods. The antibacterial activities of all fractions were also tested. Methanol and petroleum ether 80-120 partitions exhibited higher and significant antibacterial activity against the *B. subtilis* with 45.92 mL/g and 44.8 mL/g respectively. The antibacterial effects of three fractions of the methanol extract against *Bacillus subtilis* were also ranging from 2.8 to 15.4 mL/g. From the spectral characteristics, the isolated compound from the extract was confirmed to be Di (2-ethylhexyl) phthalate, DEPH with moderate antibacterial activity.

Keywords: Antimicrobial, DEPH, *Sargassum ilicifolium*, Seaweed.

1. Introduction

Infectious diseases remain the major causes of morbidity and mortality in many developing countries.[1] In recent years, those pathogens bacterial turn out to be organisms resistant to multiple antibiotics, or also called the Multi Drug Resistant (MDR). There are much increasing numbers of victims have been reported.[2] Besides, these problems led to higher maintenance costs and the emergence of discovery of the newer antibiotics was needed for combating MDR strains.[3] Many studies have been reported that the natural resources from the sea have abundant potential bioactive compounds against human pathogens.[4] Marine algae, are considered as good source of novel pharmaceuticals and potent bioactive substances and are most unusually rich in sulfated polysaccharides.[5] Marine algae due to their abundance in bioactive compounds that may exhibit antitumor, cytotoxic antioxidant, anthelmintic, anticoagulant, antibacterial, antifungal, hepatoprotective effects and inhibits DNA polymerase and xanthine oxidase.[6] But the main problems were the limitations of the availability marine organisms. Exploration of bioactive compounds from marine organisms requires a lot of biomaterial that might cause over-exploitation and low levels of conservation.[7] Several bioactive metabolite studies have been reported that from *Sargassum spp.*[8] However, no attempt has ever been made to identify and isolate active principles responsible for unleashing *S. ilicifolium* for antibacterial activity. Identification and isolation of active principles from *S. ilicifolium* might prove promising antibacterial agents through foreseeable future endeavors. Therefore, current study aims at exploration to isolate bioactive potential metabolites for an antibacterial activity.

2. Materials And Methods

2.1 General procedures:

NMR spectra were obtained on BrukerDRX-300 using TMS as internal standard. The IR analysis was obtained on Shimadzu FT-IR 8400S. Chromatographic separations were carried out using CombiFlash® Companion® with RediSep® silica cartridge. TLC studies were performed with Merck Millipore TLC Silica gel 60 and Alumina F_{365} TLC plate and spots were analyzed under UV light at 254 and 366 nm.

2.2 Algal material

The algae *Sargassum ilicifolium* Sargassaceae of the class Phaeophyceae was collected manually at the Devgad Island, near Karwar (14°49'12"N 74°7'12"E) of the Arabian Sea during May 2017. After carefully removing the associated algae, the material was washed with fresh water, dried in shade, and weighed (1.9 Kg). The herbarium specimen were carefully prepared and deposited in Department of Pharmacognosy, BLDEA College of Pharmacy, Vijayapur under the code No BLDE-2006-001. The taxonomy study was performed at the Department of Botany, Poona University Pune.

2.3 Preparation of hexane extract and liquid- liquid partition

According to Siddiqui et al., [9] some groups of antimicrobial compounds can be extracted by a single solvent. Therefore, Kupchan method of sequential fractional extraction was used to extract 1.8 Kg of powdered marine organisms. The dried *S. ilicifolium* algal material was powdered in a Wiley mill and the powdered was extracted three times with 5 L of hexane (saturated with methanol) at room temperature by maceration. The

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103

24

RJPT Research Journal of Pharmacy and Technology

(Home.aspx)

Research Journal of Pharmacy and Technology

(Home.aspx)

ISSN

0974-360X (Online)

0974-3618 (Print)

Formulation and in vitro Evaluation of Matrix tablets containing Repaglinide (AbstractView.aspx?PID=2021-14-8-75) (https://scholar.google.co.in/scholar?q=Formulation and in vitro Evaluation of Matrix tablets containing Repaglinide)

Author(s): C.C. Patil (search.aspx?key=C.C. Patil), J. Vekatesh (search.aspx?key=J. Vekatesh), Karajgi S. R (search.aspx?key=Karajgi S. R), Vijapure Vitthal (search.aspx?key=Vijapure Vitthal), Ashwini G. (search.aspx?key=Ashwini G.), Jorapur P. N. (search.aspx?key=Jorapur P. N.), Chetan M. (search.aspx?key=Chetan M.)

Email(s): Email ID Not Available

DOI: 10.52711/0974-360X.2021.00769 (https://doi.org/10.52711/0974-360X.2021.00769) (https://scholar.google.co.in/scholar?q=10.52711/0974-360X.2021.00769)

Address: C.C. Patil*, J. Vekatesh, Karajgi S. R, Vijapure Vitthal, Ashwini G., Jorapur P. N., Chetan M.
B.L.D.E.A's SSM College of Pharmacy and Research Centre, BLDE University Campus, Vijaypur - 586103, Karnataka, India.
*Corresponding Author

Published In: Volume - 14, Issue - 8, Year - 2021 (Issues.aspx?VID=14&IID=8)

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103.

IJCPA

Available Online at

http://www.ijcpa.in

July-September 2021

DOI: http://dx.doi.org/10.21276/ijcpa

26

International Journal of
CHEMICAL AND PHARMACEUTICAL
ANALYSIS

eISSN: 2348-0726; pISSN: 2395-2466

Research Article Volume-8 Issue-4 Article ID: 0064

SYNTHESIS, CHARACTERIZATION OF 2-METHYLQUINOZOLINYL THIAZOLIDINES FOR ANTI-MICROBIAL ACTIVITY

Shivanand Kolageri[1*], Shiva Kumar B[2], Santosh Karajagi[1], Gaviraj E.N[1], Kotnal R.B.[1]

[1]Department of Pharmaceutical Chemistry, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapura, Karnataka, India

[2]Department of Pharmacognosy, BLDEA's SSM College of Pharmacy and Research Centre, Vijayapura, Karnataka, India

***Corresponding Author:** *E-mail:* **shivanandkolageri1996@gmail.com**

Received date: 06 August 2021; ***Accepted date:*** 20 August 2021; ***Published date:*** 27 August 2021

ABSTRACT

Six new derivatives of 3-(4-oxo-2-arylthiazolidin-3-yl)-2-methylquinazolin-4(3H)-one were synthesized by condensation between amino-2-methylquinozolin-4(3H)-one and substituted aromatic aldehydes using thioglycolic acid, N, N'-dicylohexylcarbodiimide a N, N-dimethyl formamide as solvent. The required 3-amino-2-methylquinozolin-4(3H)-one was obtained from the reaction between amino benzoic acid and acetic anhydride/acetyl chloride. The synthesized compounds containing quinazoline nucleus coupled w thiazolidinone could yield effective biologically active derivatives. Hence the objectives of the research work are as synthesize new heterocyclic derivatives of Quinazolinones with thiazolidinone, characterize the synthesized compounds using physical data like M. TLC and spectroscopic analysed FT-IR, ^{1}H-NMR Spectral and these synthesized compounds were biological evaluated for th antimicrobial screening.

The prepared compounds were confirmed for antibacterial activity against E. coli (gram negative) and Staphylococcus aureus (gr positive) by using cup-plate method. The results of antibacterial activity revealed that, among all derivatives 3-[2-(2-chloroquinolin-yl)-4-oxo-1,3-thiazolidin-3-yl]-2-methylquinazolin-4(3H)-one showed moderate to goodactivity and others showed moderate to we activity at the concentration of 250 µ/mL, 500 µ/mL and 750 µ/mL compared to Chloramphenicol drug.

***Keywords**-Antibacterial activity, Quinazolinones, Thiazolidinone derivatives, Cup-plate method*

INTRODUCTION

The term 'drug' possibly originated Arabic source and may be first mentioned in ancient German term as drug, means to a kind powder. Nature has provided plenty of plants, fungi, insects, and reptiles which are rich sources of pharmacologically active chemi substances against various co-morbidities[1].

Even though nature has been providing many drugs for multiple diseases or disorders that mostly fall under broad spectrum cla researchers are more determined towards synthetic medications, due to their potency in narrow spectrum class (specific drug specific disease or disorder). Most of the pharmaceutical industries synthesize drugs from heterocyclic compounds. For instance, t 200 trademarked drugs of pharmaceutical industries have 75% of heterocyclic fragments in their structure. One of the popular a interested molecules among heterocyclic compounds was a derivative of quinazoline-4(3H)-one[2].

The quinazoline-4(3H)-one, previously named as benzo-1,3-diazine and its derivatives were establish in more than 200 natura occurring alkaloids. Weddige was first proposed the name of quinazoline (German: Chinazolin).From 1903 still quinazoli synthesized by 3, 4–dihydroquinazoline and alkaline potassium ferricyanide through oxidation. About 50 years later scientists gained

Principal,
BLDEA's S.S.M. College of
Pharmacy & Research Centre,
VIJAYAPUR-586103

27

In-vivo, In-vitro Analysis of Formulated Colon Targeted Ornidazole Matrix Tablet

Chandrashekar C. Patil,[1*] Akram Naikwadi,[2] Prashant Jorapur,[1] Sayed Samiullah,[1] Santosh Karajgi[1]

[1]Department of Pharmaceutics, B.L.D.E. A's SSM College of Pharmacy & Research Centre, Vijayapura-586103, Karnataka, India.
[2]Department of Pharmacology, BLDE(DU), Shri. B.M Patil Medical College & Research Centre Vijayapur, Karnataka, India

Received: 4th January, 2021; Revised: 20th June, 2021; Accepted: 2nd July, 2021; Available Online: 25th September, 2021

ABSTRACT

In the existing study, using multiple natural and unnatural polymers an endeavor was made to manufacture and analyze the matrix tablet of Xanthan Gum and certain other polymers for colon-directed drug delivery systems. "The dry granulation technique was used to prepare matrix tablets, and further were coated with Eudragit S100". When weighed and analyzed for drug content, the Standard Deviation values were considerably low and negligible. As per the stipulated norms the compressive strength and friability wherein proper range. The consideration from Fourier Transforms Infrared (FTIR) and differential scanning calorimetry (DSC) determined that drug formulation is well built, and the formulated drug was homogenously diffused in the polymer matrix, which was analyzed by XRD studies. The F5 was one of the optimized tablets used to carry out *in-vitro* drug release studies in replicated gastric and intestinal fluids. F5 showed a good response to the stomach and small intestine environment and thus released the maximum amount of drug in the large intestine in 5 hours. While other formulations showed a large amount of release in the stomach and small intestine, they are not considered optimum for colon targeting. The F5 tablets were then used to carry out a Roentgenography study in Rabbit, which showed that the manufactured tablet had achieved the transit time and was well conserved for 11 hours straight. All the drugs followed non-Fickian transport. All these properties of F5 was found to be good for Colon targeting.

Keywords: Ornidazole, Colon Targeted, Eudragit S 100, Coating, Roentgenography.

International Journal of Drug Delivery Technology (2021); DOI: 10.25258/ijddt.11.3.20

How to cite this article: Patil CC, Naikwadi A, Jorapur P, Samiullah S, Karajg S. *In-vivo, In-vitro* Analysis of Formulated Colon Targeted Ornidazole Matrix Tablet. International Journal of Drug Delivery Technology. 2021;11(3):777-781.

Source of support: Nil.

Conflict of interest: None

INTRODUCTION

Drug delivery from the oral route has been considered as a widely employed route of drug administration over other routes of administration that have been probed for systemic delivery of medicine in case of various dosage bureaucracies. The oral route of medication is considered to be most opportune for the management of medicine to convalescents. Dissolution and absorption of drugs from oral route of administration generally happens in belly fluid and small intestine, respectively, depending on the tablet's physiochemical attributes.

Many natural polysaccharides like xanthan gum, chitosan, locust bean gum etc: are notably liable for the advancement

Before formulating the perfect drug entity, we need to know the Human body framework for successful formulation (Table 1). Below are few aspects of being considered:

- Attributes of medications like Physiochemical, Pharmacokinetic, and Pharmaco-dynamics.
- Anatomy and physiologic traits of the gastrointestinal tract.
- Physiochemical traits and drug delivery mode of the dosage shape to be designed."[1,2]

To improve the bioavailability of the colon drug the objectives which are needed are:- drug is precisely made available at the colon, the lower dose can be administrated by control release rate, the adverse effect can be minimized and the efficacy of the colon drug is prolonged.[3] Compared to the stomach and small intestine, the vicinity of the colon is said to have less unfavorable circumstances with less diversification and strength.[4] Intestinal diseases such as ulcerative colitis, Crohn's disease, amebiosis, colonic cancer are provincially treated by targeted drug delivery through the colon and is highly desirable in such condition.[5,6] The easiest and quick mode for targeting of API to the large intestine is to inherit slower release rates or longer releases.[7,8]

Amoebiasis has affected about 10% of the earth's population and is convicted to cause invasive illness in about 50 million individuals and a casualty of about 100,000 among infected each year. Amoebiasis is usually found in the states where there is poor hygiene. Two species of Entamoeba have been found out from infected persons, which can cause amoebiasis. However, the percentage of people affected may differ worldwide, *Entamoeba dispar* is cause for approx 90% of infections with *E. histolytica* responsible for only 10%.[9]

MATERIAL AND METHOD:

Ornidazole, HPMC K4 M, Eudragit S100, Xanthan gum, PVP K-30,Mg.stearate, Talc and MCC.

*Author for Correspondence: drccpatil@gmail.com

Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103

The PMC website is updating on 03/21/2022. Try out this update now on PMC Labs or Learn more.

29

An official Publication of the Indian Pharmacological Society
Indian Journal of Pharmacology

Indian J Pharmacol. 2017 Jan-Feb; 49(1): 60–64.
doi: 10.4103/0253-7613.201016

PMCID: PMC5351240
PMID: 28458424

Evaluation of neuroprotective effect of quercetin with donepezil in scopolamine-induced amnesia in rats

Laxmi Adiveppa Pattanashetti, Ashok D. Taranalli, Vinay Parvatrao, Rohit H. Malabade, and Dushyant Kumar[1]

Abstract

Objective:

The objective of this study was to evaluate the neuroprotective effect of quercetin with donepezil in scopolamine-induced amnesia in rats.

Materials and Methods:

Five groups of adult male Wistar rats (12 months old) weighing 180–200 g ($n = 6$) were used. The normal control group received normal saline and test group animals were pretreated orally with quercetin (25 mg/kg), donepezil (3 mg/kg), and a combination of quercetin (25 mg/kg) with donepezil (3 mg/kg), respectively, dosed at every 24 h interval for 14 consecutive days, afterward amnesia was induced by scopolamine (3 mg/kg) on the 14th day through intraperitoneal route. Cognitive performance was assessed by the Morris water maze, elevated plus maze, and passive avoidance paradigm. Acetylcholinesterase enzyme (AchE) level, biochemical markers such as lipid peroxidase (LPO), glutathione (GSH), β amyloid$_{1-42}$level, and histopathological study of rat brain were estimated. Statistical analysis was done by one-way analysis of variance, followed by Dunnett's *post hoc* test. $P \geq 0.05$ was considered statistically significant.

Results:

Pretreatment with quercetin, donepezil, and their combination showed a significant increase in escape latency, step-through latency, and decreased transfer latency in respective cognitive models of the Morris water maze, passive avoidance test, and elevated plus maze. Further coadministration significantly decreased AchE level, β amyloid$_{1-42}$level as compared to individual therapy. Biochemical markers such as elevated GSH, decreased LPO were observed, and histopathological studies revealed the reversal of neuronal damage in the treatment group ($P < 0.05$) as compared to scopolamine-treated control group.

Conclusion:

Pretreatment with quercetin potentiates the action of donepezil in scopolamine-induced amnesia in rats. The improved cognitive memory could be due to the synergistic effect of the drugs by decreasing AchE level, β amyloid$_{1-42}$level, and antioxidant action in rat brain.

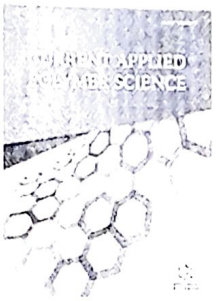
Principal,
BLDEA's S.S.M. College of Pharmacy & Research Centre,
VIJAYAPUR-586103

BENTHAM SCIENCE (/)

Search for...

Search

Search in: All Article Chapter Book



Purchase PDF

Research Article

Electrically Triggered Transdermal Drug Delivery Utilizing Poly(Acrylamide)-graft-Guar Gum: Synthesis, Characterization and Formulation Development

Author(s): Ravindra P. Birajdar, Sudha S. Patil, Vijaykumar V. Alange, Raghavendra V. Kulkarni*

Journal Name: Current Applied Polymer Science

Volume 3 , Issue 1 , 2019

DOI : 10.2174/2452271602666181031093243 (https://doi.org/10.2174/2452271602666181031093243)

Journal Home (/node/145722)

Become An Editorial Board Member

Register Here

(https://www.eurekaselect.com/node/145722/current-applied-polymer-science/become-ebm-form/eabm)

Become a Reviewer

Register Here

(https://www.eurekaselect.com/node/145722/current-applied-polymer-science/become-ebm-form/reviewer)

Call for Editors

Register Here

(https://www.eurekaselect.com/node/145722/current-applied-polymer-science/become-ebm-form/editorcall)

Graphical Abstract:

Abstract:

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

Taylor & Francis Online

Journal of Macromolecular Science, Part A
Pure and Applied Chemistry
Volume 56, 2019, Issue 4
86 | 10

Electro-responsive polyacrylamide-grafted-gum ghatti copolymer for transdermal drug delivery application

Ravindra P. Birajdar, Sudha B. Patil, Vijaykumar V. Alange & Raghavendra V. Kulkarni

Published online: [illegible]

Select Language
Translator disclaimer

Sample Our Physical Science Journals

Your research. Your choice.
Get the How-To Guide for Authors

Principal,
BLDEA's, S.S.M. College of Pharmacy & Research Centre
VIJAYAPUR-586103.

Full Article | Figures & data | References | Citations | Metrics | Reprints & Permissions

Get access

Abstract

An application of polyacrylamide-grafted-gum ghatti (PAAm-g-GGH) copolymer for transdermal delivery of an anti-psychotic drug, quetiapine fumerate triggered by electric stimulus was explored. The electro-responsive PAAm-g-GGH was prepared by free radical polymerization under neath nitrogen atmosphere subsequent to alkaline hydrolysis. The PAAm-g-GGH was used as [illegible] reservoir gel and cross linked