YOUNG ENGINEER'S EDUCATION SOCIETY'S
MAHARASHTRA INSTITUTE OF PHARMACY
(B. PHARM.)
Chougan Phata, Armori road (Betala) Po. Kinhi Ta. Bramhapuri Distt. Chandrapdur (M. S.) 441 206
Approved By :- PCI New Delhi, DTE, Govt. of Maharashtra
& Affiliated to Gondwana Unidversity, Gadchiroli & MSBTE, Mumbai
Email:- principal4643@gmail.com Mob. No. :- 9158983913, 9423383913

Ref: NAAC 2023/ MLD/Cr-3.3.2 Date-02/05/2023

Criteria 3.3.2	Number of research papers per teachers in the Journals notified on UGC website during the last five years 3.3.2.1. Number of research papers in the Journals notified on UGC website during the last five years.
Findings of DVV	HEI to pl note; The paper published in UGC care listed journal to be counted under this metrics. Pl check
Response/ Clarification	**As asked, the research papers added in data template are verified and published in UGC CARE listed journals. Please find attached first page of the research paper showing ISSN number and name of the journals year wise (Appendix I)**

Maharashtra Instt. of Pharmacy (B. Pharm) Institute Code - 4643 University College Code - 414 Betala, BRAMHAPURI

Principal
Maharashtra Institute of Pharmacy
(B. Pharm) Betala-Bramhapuri
Dist. Chandrapur-441206.

Appendix I

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years (10)

Title of paper	Name of the author/s	Department of the teacher	Name of journal
Fabrication and Characterization of Edible Jelly Formulation of Stevioside: A Nutraceutical or OTC Aid for the Diabetic Patients	Priya Khode	Pharmaceutics	Inventi Journals
FORMULATION AND EVALUATION OF ANTI-ACNEHERBAL FACE WASH	Sachin B. Dudhe	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF ANTI-ACNEHERBAL FACE WASH	Nitin V. Watgure	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF ANTI-ACNEHERBAL FACE WASH	Adesh Meshram	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
Phytochemical and pharmacological evaluation of organic andnon-organic cultivated nutritional Centella asiatica collected afterdifferent time intervals of harvesting	Rupa D. Bhattacharya	Pharmacognosy	South African Journal of Botany
A Research on Formulation and Evaluation of Herbal Soap	U.D. Lanjewar	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
A Research on Formulation and Evaluation of Herbal Soap	A.P.Ambatkar	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ANTIMICROBIAL ACTIVITY OF CLEOME VISCOSA(SEED)	P.C.Meshram	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
ANTIMICROBIAL ACTIVITY OF CLEOME VISCOSA(SEED)	P.K.Khobragade	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
A Direct Access to Halogenated Fused Imidazo[1,5-a]N-heteroaromatics via Copper Promoted Double Oxidative C - H Amination and Halogenation	Swati Patil	Pharmaceutical Chemistry	European Journal of Organic Chemistry
DEVELOPMENT OF UV SPECTROPHOTOMETRIC METHODS FORTHE ESTIMATION OF SAROGLITAZAR	Rucha Pancham	Pharmaceutics	World Journal of Pharmacy and Pharmaceutical sciences
ISOLATION AND CHARACTERIZATION OF LACTIC ACIDBACTERIA FROM MILK PRODUCT	P.D.Khode	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ISOLATION AND CHARACTERIZATION OF LACTIC ACIDBACTERIA FROM MILK PRODUCT	B.R.Dhakate	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS

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
2017	0976-3872	www.inventi.in	https://www.inventi.in/journal/article/142/21840/Inventi%20Rapid:%20Nutraceuticals/Pharmaceutical
2017	2394-5125	https://www.jcreview.com	https://www.jcreview.com/search.php#
2017	2394-5125	https://www.jcreview.com	https://www.jcreview.com/search.php#
2017	2394-5125	https://www.jcreview.com	https://www.jcreview.com/search.php#
2017	0254-6299	https://www.sciencedirect.com/journal/south-african-journal-of-botany	https://www.sciencedirect.com/science/article/pii/S0254629917304775
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/search.php
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/search.php
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422b8c1eef890.50289986.pdf
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422b8c1eef890.50289986.pdf
2018	10.1002	https://chemistry-europe.onlinelibrary.wiley.com	https://chemistry-europe.onlinelibrary.wiley.com/doi/abs/10.1002/ejoc.201800628
2018	2278 – 4357	https://www.wjpps.com	https://www.wjpps.com/wjpps_controller/abstract_id/9251
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422bc413f3ce2.77561334.pdf
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422bc413f3ce2.77561334.pdf

ISOLATION AND CHARACTERIZATION OF LACTIC ACIDBACTERIA FROM MILK PRODUCT	P.A.Shankhawar	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ROLE OF CAMEL'S URINE IN GROWTH RATE OFCHROOCOCCUS SP.	R.R.Singanjude	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
ROLE OF CAMEL'S URINE IN GROWTH RATE OFCHROOCOCCUS SP.	C.R.Doijad R.D	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
ROLE OF CAMEL'S URINE IN GROWTH RATE OFCHROOCOCCUS SP.	R.D.Bhattacharya	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
Anthelmintic Shankhpushpi Pellets: Taste Masking	Sachin Dudhe	Pharmaceutics	International Research Journal of Pharmacy
A Validated Stability Indicating High Performance Thin Layered Chromatographic Method for the Analysis of Dapagliflozin in Bulk Drug and Marketed Tablet Formulation	Snehal R Karmankar	Pharmaceutical Chemistry	Asian Journal Of Chemistry
Formulation and evaluation of floating tablets of liquoriceextract to improve bioavailability of Liquorice drug.	Mr. Prithviraj Meshram	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Formulation and evaluation of floating tablets of liquoriceextract to improve bioavailability of Liquorice drug.	Mr.Shrikant Mahajan	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Formulation and evaluation of floating tablets of liquoriceextract to improve bioavailability of Liquorice drug.	Dr .Sachin Dudhe.	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Glucosamine HCl-based solid dispersions to enhance thebiopharmaceutical properties of acyclovir.	Snehal B. Bhagat	Pharmaceutical Chemistry	The Journal of International Pharmaceutical Exipients council
Review of Micrencapsulation: A Review A Novel Approach in Drug Delivery	Priya Khode	Pharmaceutics	Research Journal of Pharmaceutical Dosage Forms and Technology.
Formulation and Evaluation of Herbal Face Cream	Arati P.Ambatkar	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Formulation and Evaluation of Herbal Face Cream	Snehal B. Bhagat	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Formulation and Evaluation of Herbal Face Cream	Sachin Dudhe.	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
In situ gel: A Review of Pharmaceutical and Biological Evaluation and Approaches	Pragati Dongare	Pharmacology	Research Journal of Pharmaceutical Dosage Forms and Technology.
FORMULATION AND EVALUATION OF HAIR GEL	Mr. Chhagan R. Doijad	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS

2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422bc413f3ce2.77561334.pdf
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422ba9a66eb25.58113534.pdf
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422ba9a66eb25.58113534.pdf
2018	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422ba9a66eb25.58113534.pdf
2018	2230-8407	www.irjponline.com	
2019	0970-7077	htpps://doi.org/10.14233/ajchem.2019.21824	https://scholar.googleusercontent.com/scholar?q=cache:MWGeSV6zCLgJ:scholar.google.com/&hl=en&as_sdt=0.5&scioq=karmankar
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c006e331e3.93348482.pdf
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c006e331e3.93348482.pdf
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c006e331e3.93348482.pdf
2019		https://jefc.scholasticahq.com	https://jefc.scholasticahq.com/article/10551.pdf
2019	0975-234	https://rjpdft.com	https://rjpdft.com/AbstractView.aspx?PID=2019-11-3-10
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c4af6a45c8.02268071.pdf
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c4af6a45c8.02268071.pdf
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c4af6a45c8.02268071.pdf
2019	0975-234	https://rjpdft.com	https://rjpdft.com/HTML_Papers/Research%20Journal%20of%20Pharmaceutical%20Dosage%20Forms%20and%20Technology__PID__2019-11-3-13.html
2019	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422c14c75cac2.94603542.pdf

FORMULATION AND EVALUATION OF HAIR GEL	Miss.Rupa D. Bhattachrya	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HAIR GEL	Miss.Savitha Vasake	Pharmaceutics & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
Current Review on Herbal Pharmaceutical Binders	Rupa D. Bhattacharya,	Pharmacognosy	Research Journal of Pharmaceutical Dosage Forms and Technology.
FORMULATION AND EVALUATION OF HERBAL COUGH SYRUP	Miss.Priya D.Khode	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HERBAL COUGH SYRUP	Rupali R. Singanjude	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HERBAL COUGH SYRUP	Urwashi D. Lanjewar	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
In situ gel: A Review of Pharmaceutical and Biological Evaluation and Approaches	Priya Khode	Pharmaceutics	Research Journal of Pharmaceutical Dosage Forms and Technology.
Devolopment of Valideted Stability Indicating HPTLC Method For the estimation of Teriflunomide in Bulk and Tablet Dosage form	Snehak R Karmankar	Pharmaceutical Chemistry	Current Pharmaceutical Analysis
Formulation and evaluation of Herbal toothpowder	Sachin B. Dudhe	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Formulation and evaluation of Herbal toothpowder	Chagan R. Doijad,	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
STUDY OF PIPERINE CONTAINING JELLYS FOR ITSANTIOXIDANT PROPERTIES, FORMULATION AND EVALUATION PARAMETERS	Miss. Rupa D. Bhattacharya	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
STUDY OF PIPERINE CONTAINING JELLYS FOR ITSANTIOXIDANT PROPERTIES, FORMULATION AND EVALUATION PARAMETERS	Miss. Priya D. Khode	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
STUDY OF PIPERINE CONTAINING JELLYS FOR ITSANTIOXIDANT PROPERTIES, FORMULATION AND EVALUATION PARAMETERS	Mr. Swapnil R.Dhanvij	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HERBAL LIP BALMINFUSED WITH PAPAYA AND TURMERIC	Urwashi Lanjewar	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HERBAL LIP BALMINFUSED WITH PAPAYA AND TURMERIC	Akshay Meshram	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
FORMULATION AND EVALUATION OF HERBAL LIP BALMINFUSED WITH PAPAYA AND TURMERIC	Rucha Pancham	Pharmaceutics & Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS

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2019	0975-234	https://rjpdft.com	https://rjpdft.com/HTML_Papers/Research%20Journal%20of%20Pharmaceutical%20Dosage%20Forms%20and%20Technology__PID__2019-11-3-13.html
2020	1573-4129	www.eurekaselect.com	https://www.eurekaselect.com/article/97462
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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422d2941ce0e5.46368121.pdf
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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cced340f41.88531094.pdf

Formulation and evaluation of Herbal Sanitizer by usingCurcumine, Neem and Tulsi leaves.	Miss. Snehal B Bhagat	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
Formulation and evaluation of Herbal Sanitizer by usingCurcumine, Neem and Tulsi leaves.	Miss.Arati Ambatkar	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
Formulation and evaluation of Herbal Sanitizer by usingCurcumine, Neem and Tulsi leaves.	Miss.Savitha Wasake	Pharmacology & Pharmacognosy	JOURNAL OF CRITICAL REVIEWS
Research : In Vitro Antiarthritic Activity of synthesized Silver Nano particlesfrom Extract of Merrmia dissecta	Rucha Pancham	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Research : In Vitro Antiarthritic Activity of synthesized Silver Nano particlesfrom Extract of Merrmia dissecta	Urwashi Lanjewar	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Research : In Vitro Antiarthritic Activity of synthesized Silver Nano particlesfrom Extract of Merrmia dissecta	Swapnil Dhanvij	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Development of stability indicating HPLC method forsimultaneous estimation of flupentixol (FLUP) and melitracen(MELI) in pharmaceutical preparations	Anup Barsagade	Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
Development of stability indicating HPLC method forsimultaneous estimation of flupentixol (FLUP) and melitracen(MELI) in pharmaceutical preparations	Snehal Karmankar	Pharmaceutical Chemistry	JOURNAL OF CRITICAL REVIEWS
Development and Preparation of Pain Balm from Ehretia Leavis and it'sPhysiochemical Evaluation	Chagan Doijad	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Development and Preparation of Pain Balm from Ehretia Leavis and it'sPhysiochemical Evaluation	Snehal Bhagat	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Development and Preparation of Pain Balm from Ehretia Leavis and it'sPhysiochemical Evaluation	Shrikant Mahajan	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ISOLATION OF TARTARIC ACID FROM NATURAL FRUITS	Mr. S. D. Mahajan	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ISOLATION OF TARTARIC ACID FROM NATURAL FRUITS	Miss.R.R.Singanjude	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
ISOLATION OF TARTARIC ACID FROM NATURAL FRUITS	Mr. Pruthviraj C. Meshram	Pharmaceutics	JOURNAL OF CRITICAL REVIEWS
Research : Formulation and Evaluation of Albendazole Jelly using Heating Method for Anthelmintic Activity	Snehal Bhagat	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Research : Formulation and Evaluation of Albendazole Jelly using Heating Method for Anthelmintic Activity	Rucha Pancham	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Research : Formulation and Evaluation of Albendazole Jelly using Heating Method for Anthelmintic Activity	Urwashi Lanjewar	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS

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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cda6785816.21620707.pdf
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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cad4cfb2d0.28077672.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cad4cfb2d0.28077672.pdf
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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/642570d251f0c7.99012992.pdf
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2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422ca0f5530e5.04015372.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422ca0f5530e5.04015372.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cfd9c8eeb5.16797614.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cfd9c8eeb5.16797614.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6422cfd9c8eeb5.16797614.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6426708eac5978.01713214.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6426708eac5978.01713214.pdf
2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6426708eac5978.01713214.pdf

Research : Formulation and Evaluation of Albendazole Jelly using Heating Method for Anthelmintic Activity	Savitha Wasake	Pharmaceutics & Pharmacology	JOURNAL OF CRITICAL REVIEWS
Stability Indicating HPLC Method for Simultaneous Estimation of Lansoprazole and Domperidone in Pharmaceutical Preparations	Anup Barsagade	Pharmaceutical Chemistry	Elementry Education Online
Stability Indicating HPLC Method for Simultaneous Estimation of Lansoprazole and Domperidone in Pharmaceutical Preparations	Pruthviraj Meshram	Pharmaceutical Chemistry	Elementry Education Online
Stability Indicating HPLC Method for Simultaneous Estimation of Lansoprazole and Domperidone in Pharmaceutical Preparations	Pragati Dongare	Pharmaceutical Chemistry	Elementry Education Online
Synthesis and Assessment of Sub-acute Toxicity of Novel Rosin Esters ofPolyethylene Glycol 200 in Swiss Albino Mice	Dinesh M. Sakarkar	Pharmaceutics	Research Journal of Pharmacy and Technology.
Formulation and evaluation of multipurpose herbal cream containing hibiscus rosa-sinensis.	Pooja S. Ghutke	Pharmaceutics	Elementry Education Online
Formulation and evaluation of multipurpose herbal cream containing hibiscus rosa-sinensis.	Snehal B. Bhagat	Pharmaceutics	Elementry Education Online
Formulation and evaluation of multipurpose herbal cream containing hibiscus rosa-sinensis.	Sachin B. Dudhe.	Pharmaceutics	Elementry Education Online
Formulation and Evaluation of Herbal Mouthwash containing Piper Betel	S.D.Mahajan	Pharmaceutics & Pharmacology	Elementry Education Online
Formulation and Evaluation of Herbal Mouthwash containing Piper Betel	C.R. Doijad	Pharmaceutics & Pharmacology	Elementry Education Online
Formulation and Evaluation of Herbal Mouthwash containing Piper Betel	S.R.Dhanvij	Pharmaceutics & Pharmacology	Elementry Education Online
Review On Anti Diabetic Herbal Drugs Inayurveda	C.R.Doijad	Pharmaceutics	International Journal of Pharmaceutical Research and Applications
Development and Validation of a Stability Indicating Reverse Phase HPLC-PDA Method for Determination of Apixaban in Bulk and Pharmaceutical Dosage Form	Snehal Karmankar	Pharmaceutical Chemistry	Elementry Education Online
Development and Validation of a Stability Indicating Reverse Phase HPLC-PDA Method for Determination of Apixaban in Bulk and Pharmaceutical Dosage Form	Madhukar Tajne	Pharmaceutical Chemistry	Elementry Education Online
Development and Validation of a Stability Indicating Reverse Phase HPLC-PDA Method for Determination of Apixaban in Bulk and Pharmaceutical Dosage Form	Swati Patil	Pharmaceutical Chemistry	Elementry Education Online
Microspheres For Colonic Delivery Of Betamethasone InInflammatory Bowel Disease	Dinesh M. Sakarkar	Pharmaceutics	Natural Volatiles and Essentials Oil
Preparation and Evaluation of Aspirin Granules Prepared By Wet Granulation Technique, By Using Different Types of Binders.	Sachin Dudhe, P.C. Meshram	Pharmaceutics	Elementry Education Online

2020	2394-5125	https://www.jcreview.com	https://www.jcreview.com/admin/Uploads/Files/6426708eac5978.01713214.pdf
2021	4452-4463	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147767&fulltxtj=218&fulltxtp=218-1680023446.pdf
2021	4452-4463	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147767&fulltxtj=218&fulltxtp=218-1680023446.pdf
2021	4452-4463	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147767&fulltxtj=218&fulltxtp=218-1680023446.pdf
2021	0974-3618	https://rjptonline.org	https://rjptonline.org/AbstractView.aspx?PID=2021-14-4-5
2021	3774-3787	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147766&fulltxtj=218&fulltxtp=218-1680023192.pdf
2021	3774-3787	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147766&fulltxtj=218&fulltxtp=218-1680023192.pdf
2021	3774-3787	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147766&fulltxtj=218&fulltxtp=218-1680023192.pdf
2021	4652-4659	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147778&fulltxtj=218&fulltxtp=218-1680025326.pdf
2021	4652-4659	http://ilkogretim-online.org	https://www.ilkogretim-online.org/index.php?fulltxt=147778&fulltxtj=218&fulltxtp=218-1680025326.pdf
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PARKINSON DISEASE AND ITS PHARMACOLOGICAL EVALUATION BY IN-VIVO METHODES	Pragati A. Dongare	Pharmaceutics	Elementry Education Online
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RESEARCH ARTICLE

inventi | Spreading Knowledge

Fabrication and Characterization of Edible Jelly Formulation of Stevioside: A Nutraceutical or OTC Aid for the Diabetic Patients

Mangesh D Godbole[1*], Debarshi Kar Mahapatra[1], Priya D Khode[1]

Abstract: Based on the fact that stevioside, a glycoside obtained from *Stevia rebaudiana Bert* has the chief characteristic of regulating hyperglycemic episodes. The present nutraceutical research describes an innovation that stevia product containing jelly based formulations have not yet designed as hypoglycemic aids for over-the-counter (OTC) prospective. The main objectives of this study involved the development of edible jelly formulations containing stevioside which will impart glucose lowering as well as artificial sweetening characteristics, just like edible jelly brand products such as Juzt Jelly®, Jelly Belly®, Boleto®, Jolly Candy®, FrutBite® in India. Therefore, the diabetic patients will get a better hypoglycemic control, non-calorific product, will also enjoy the sweetness, patient-friendly, convenient, without specific dose and frequency and will be much cheaper than existing market products. The formulation was prepared by the heating method which comprises of stevioside, HPMC K100, HPMC K15, sodium metabisulphite, ascorbic acid, glycerine, propylene glycol, triethanolamine along with essence and colors. The organoleptic properties and physicochemical parameters (like stickiness, texture, grittiness, viscosity, drug content and pH) of the formulations were determined. Techniques like FT-IR analysis, differential scanning calorimetry analysis, X-Ray diffraction, etc were studied exhaustively to determine the characteristics of the optimized formulation (F9). *In-vitro* dissolution study was carried out in simulated gastric fluid without enzyme. The hypoglycemic potential of the optimized formulation (F9) was studied on Swiss albino rat and the results were compared with standard drug metformin. This research opened new doors for nutraceutical research that have perspectives of commercialization as OTC products in near future.

INTRODUCTION

Diabetes Mellitus Type-II (DM-II) is a chronic metabolic disorder of carbohydrate characterized by high blood sugar because the cells do not properly use insulin. [1] It has severely affected a large section of the population having a strong hereditary tendency (387 million people worldwide have diabetes at present). By the survey of World Health Organization (WHO) in 2010, more than 4 million people of age groups 20 to 79 have died due to (DM-II). WHO has also projected that diabetes death will double between by the end of 2030. [2] More than 80% of diabetes deaths occur in low and middle-income countries. [3] Despite enormous efforts in developing newer leads and novel strategies for the management of diabetes, it remained the key concern across the globe. The search for alternative or unexplored classes of substances for managing hyperglycemia attracted the attention of scientists globally.

India is one of the largest consumers of sugar in the world, owing to cultural and food habits. [4] In the country, the diabetic population of the age group of 25-45 is about 15% and is quite increasing at an alarming pace. [5] Along with the complications of DM-II, poverty remained the chief problem among the masses which impairs the regular management of hyperglycemia by pharmacological approach. Due to non-availability of the anti-diabetic drugs in rural areas, compromise in purchasing power, greediness towards sweet confectionaries and precipitation of secondary symptoms, cumulatively leads to decreased quality of life among DM-II patients. In most of cases, an artificial sweetening agent is incorporated. However, in the majority of the cases, the safety of the chemical sweetener such as aspartame, cyclamate, saccharin, sucralose etc. is a big challenge. [6]

Natural products are the most promising therapeutic candidates in management or treatment of various ailments. [7-9] The anti-hyperglycemic effect of these formulation are for their ability to restore the function of pancreatic tissues by increasing insulin output or inhibit the intestinal absorption of glucose or to the facilitation of metabolites in insulin-dependent processes. [10] Stevioside, a glycoside obtained from *Stevia rebaudiana Bert* has the chief characteristic of regulating hyperglycemic episodes. Natural glycoside like stevia does induce hypoglycemic response when ingested, making them attractive natural zero calories or low calorie sweeteners to diabetic and miscellaneous carbohydrate-controlled diets. [11] Many therapeutic agents or artificial sweeteners have the tendency to absorb in oral, buccal cavity and the acidic media. [12] Medicated jellies are such examples that would permit more rapid therapeutic action by the patient of any age. Therefore, the identification of natural products based jelly formulation to manage hyperglycemic episodes represents an attractive strategy to develop potential anti-diabetic formulations.

Even though several nutraceutical like SteviaLife® and nanomedicine formulations have been developed by several companies over the years which do have both commercial value and applications as pharmaceutical aids. [13-15] Based on the fact that stevia product containing jelly based formulation have not yet designed as hypoglycemic aids for over-the-counter (OTC) prospective. The main objective of this study was to develop a jelly based product containing stevioside which will impart glucose lowering as well as artificial sweetening characteristics, thereby will act as a drug system. The work is quite similar to the development of edible jelly brands like Juzt Jelly®, Jelly Belly®, Boleto®, Jolly Candy®, FrutBite®, etc (Figure 1). It was achieved by selection and characterization of drug candidate (stevioside) and their formulation components for systematic release of drug from jelly. It is convenient to administer anywhere, anytime and does not require water.

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FORMULATION AND EVALUATION OF ANTI-ACNE HERBAL FACE WASH

Sachin B. Dudhe[1], Nitin V. Watgure[2], Adesh Meshram[3] ,

1,2,3,Assistant Professor, Maharashtra Institute of Pharmacy Betala ,Bramhpuri MH 441206

I.INTRODUCTION

Face skin is the major part of the body, which indicates the health of an individual. It is a consist of materials such as amino acids, lipids and carbohydrates etc, so that a balanced nutrition is required for the skin to keep it clear glossy and healthy.In ancient times women are very conscious about their beauty and started to dress themselves because they wanted to increase their own beauty.Even today, people especially in rural areas,and hilly region select the natural remedies like plants extracts for cosmetics perposous like- neem,aleovera, tulsi,orange rose. Herbal cosmetics are products which are used to purify and beautify the skin.

The main advantage for using an herbal cosmetic is that it is pure and does not have any side effects on the human body men have rough skin and when they don't take sufficient care then the skin turns dark due to over exposure of the sun[1].

Acne vulgaris is an extremely common disorder of skin Lpilocebaceous unit] that affects virtually all individuals at least once during life. The incidence of acne p[eaks] at teenage, but substantial numbers of men and women between 20-30 years of age are also affected by the disorder.

Acne may be classified as comedonal, popular, pustular, cystic & nodular. Comedonal acne is noninflammatory & divided into two types: whiteheads & blackheads. White heads (closed comedo) present as fresh or white coloured, raised bumps whereas blackhead (open comedo) present as open pores containing dark coloured skin roughage consisting of melanin, sebum & follicular cells. Papules appear as red, solid, elevated lesions often less than 5mm in diameter. Puastules are circumscribed skin elevations containing purulent material. Cysts & nodules are solid, elevated lesions involving deeper dermal & subcutaneous tissue. Cysts are less than 5 mm in diameter whereas nodules exceed 5mm[2].

Types of herbal face wash:

There are many types of herbal face washz

1) Neem and Tulsi Face Wash
2) Sandalwood and Honey Face Wash
3) Neem and Tea tree Face Wash
4) Orange and Lemongrass Face Wash
5) Alloevera Fash Wash ETC.

Advantages of herbal face wash:- The main advantage for using an herbal cosmetic is that it is pure and does not have any side effects on the human body men have rough skin and when

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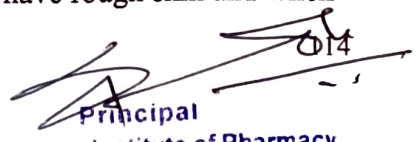

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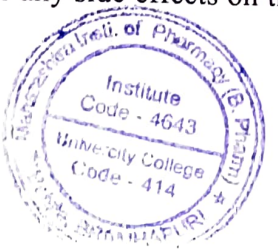

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Phytochemical and pharmacological evaluation of organic and non-organic cultivated nutritional *Centella asiatica* collected after different time intervals of harvesting

Rupa D. Bhattacharya, Komal M. Parmar, Prakash R. Itankar, Satyendra K. Prasad *

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ABSTRACT

The aim of the present study was to perform a comparative phytochemical and pharmacological evaluation of organically and non-organically cultivated nutritional *Centella asiatica* collected at different time intervals of harvesting. The fertilizers and pesticides applied in case of organic cultivation included combination of medicinal plants along with other natural products and the harvesting was carried out after 1st, 2nd and 3rd month of cultivation. From all the physicochemical parameters evaluated, the leaves collected after third month of harvesting showed higher ash values suggesting higher contents of sand or earthy matter along with higher moister content. The results from the phytochemical evaluations revealed that, the samples collected from first harvesting showed higher quantities of phytoconstituents. This was also confirmed through chromatographic studies using HPTLC showing higher content of Asiatic acid in samples collected after first month of harvesting, which was more pronounced in case of organic cultivation. The pharmacological evaluation included comparative nootropic activity of different samples of organic and nonorganic *C. asiatica*. The results depicted a significant ($p < 0.05$) reduction in escape latency of mice treated with 100 mg/kg, p.o. of organic and nonorganic cultivated *C. asiatica* collected after first month of harvesting and also showed a significant increase in the spatial working memory, which included acquisition and retrieval trials. Further, the two samples also revealed significant inhibition in AChE activity as observed in different brain region i.e. hippocampus, prefrontal cortex and amygdale, where organically cultivated *C. asiatica* was found to be more effective. Thus, from the overall observation, it may be concluded that, the organically cultivated *C. asiatica*, if collected after first month of cultivation shows the best memory enhancing activity as compared to other time interval of harvesting.

1. Introduction

Over two millennia ago, the father of medicine, Hippocrates, mentioned about 400 medicinal plants and advocated "Let food be your medicine and medicine be your food". Medicinal usage may constitute the most common human use of biodiversity (Anonymous, 2002).

Nowadays, many consumers prefer organic to non-organic foods because they are perceived healthier lifestyle (Lohr, 2001). In general, organic practices are thought to reduce the risk of plant infection by pathogens. However, there is some evidence that the reduced use of fungicides may lead to a greater contamination by mycotoxins in organic food (Juan et al., 2007). Organic agriculture means a farming system which produces a healthier and quality products, improvement of the quality of life, preservation of the organic diversity, improvement of the soil structure and the balance of soil inhabiting microorganisms; without any application of synthetic product. Due to the Biodiversity Act 2002, the demand of organically cultivated medicinally plant is raised. Therefore, presently there is a huge turn around in organic cultivation of medicinal plants. Various studies have revealed that organically cultivated medicinal plant such as *Oryza sativa* (Singh et al., 1996) has shown to possess a higher bioactive secondary metabolite as compared to conventionally cultivated medicinal plant.

There has been a substantial increase in the global and national demand of medicinal plants, since last two decades. As consequences, the safety and quality of herbal medicines have become increasingly

Abbreviations: AChE, acetyl cholinesterase; AMY, amygdale; CCA, Control *C. asiatica* collected from wild habitat; CMC, Carboxymethyl cellulose; HIP, Hippocampus; HPTLC, High Performance Thin Layer Chromatography; MWM, Morris Water-Maze; NOCA1, Non-organic *C. asiatica* collected after 1st month of harvesting; NOCA2, Non-organic *C. asiatica* collected after 2nd month of harvesting; NOCA3, Non-organic *C. asiatica* collected after 3rd month of harvesting; OCA1, Organic *C. asiatica* collected after 1st month of harvesting; OCA2, Organic *C. asiatica* collected after 2nd month of harvesting; OCA3, Organic *C. asiatica* collected after 3rd month of harvesting; OECD, Organization for Economic Co-operation and Development; PFC, prefrontal cortex; R_f, Retention factor; SRM, spatial reference memory; SWM, spatial working memory; TBA, tertiary-butyl alcohol.

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A Research on Formulation and Evaluation of Herbal Soap

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Abstract

Soap is a salt of fatty acidsused in a variety of cleansing and lubricating products. In a domestic setting, soaps are usually used for washing, bathing and other types of housekeeping. In industry soaps are used as thickeners, components of some lubricants and precursors to catalysts. When used for cleaning, soap solubilizes particles and grime which can then be separated from the article being cleaned. Where soaps act as surfactants or emulsifyingoilsenable them to be carried away by water. Soap is created by mixing fats and oils with a base as opposed to detergent which is created by combining chemical compounds in a mixer. Humans have used soap for cleaning for millennia. Evidence exists of the production of soap like materials in around 2800 BC in ancient Babylon.

Keywords : Rebatching, Papaya, soap

1. INTRODUCTION

Soap is a salt of fatty acids [1] used in a variety of cleansing and lubricating products. In a domestic setting, soaps are usually used for washing, bathing and other types of housekeeping. In industry soaps are used as thickeners, components of some lubricants and precursors to catalysts. When used for cleaning, soap solubilizes particles and grime which can then be separated from the article being cleaned. Where soaps act as surfactants or emulsifying [2] oilsenable them to be carried away bywater.

Soap is created by mixing fats and oils with a base as opposed to detergent which is created by combining chemical compounds in a mixer. Humans have used soap for cleaning for millennia. Evidence exists of the production of soap like materials in around 2800 BC in ancient Babylon.

1.1 Types of Soap:

Since they are salts of fatty acids, soaps have the general formula $(RCO^-)\ M^{n+}_n$ (where R is an alkyl, M is a metal and n is the charge of the cation). The major classification of soaps is determined by the identity of M^{n+} when M is Na or K, the soaps are called toilet soaps, used for handwashing. Many metal di-cations (Mg^{2+}, Ca^{2+} and others) give metallic soap. When M is Li, the result is lithiumsoap(e.g., lithium stearate), which is used in high-performance greases.[3]

1.1.1 - Non-toilet soaps

Soaps are key components of most lubricating greases and thickeners. Greases are usually emulsions of calcium soaporlithium soap and mineral oil[4]. Many other metallic soaps are also useful, including those of aluminium,sodium and mixtures thereof. Such soaps are also used as thickeners to increase the viscosity of oils. In ancient times, lubricating greases were made by the addition of lime to olive oil. [5] Metal soaps are also included in modern artist oil paints formulations as a rheology modifier. [6]

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Since they are salts of fatty acids, soaps have the general formula $(RCO^-)\ M^{n+}_n$ (where R is an alkyl, M is a metal and n is the charge of the cation). The major classification of soaps is determined by the identity of M^{n+} when M is Na or K, the soaps are called toilet soaps, used for handwashing. Many metal di-cations (Mg^{2+}, Ca^{2+} and others) give metallic soap. When M is Li, the result is lithiumsoap(e.g., lithium stearate), which is used in high-performance greases.[3]

1.1.1 - Non-toilet soaps

Soaps are key components of most lubricating greases and thickeners. Greases are usually emulsions of calcium soaporlithium soap and mineral oil[4]. Many other metallic soaps are also useful, including those of aluminium,sodium and mixtures thereof. Such soaps are also used as thickeners to increase the viscosity of oils. In ancient times, lubricating greases were made by the addition of lime to olive oil. [5] Metal Soaps are also included in modern artist oil paints formulations as a rheology modifier. [6]

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A Research on Formulation and Evaluation of Herbal Soap

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Abstract

Soap is a salt of fatty acidsused in a variety of cleansing and lubricating products. In a domestic setting, soaps are usually used for washing, bathing and other types of housekeeping. In industry soaps are used as thickeners, components of some lubricants and precursors to catalysts. When used for cleaning, soap solubilizes particles and grime which can then be separated from the article being cleaned. Where soaps act as surfactants or emulsifyingoilsenable them to be carried away by water. Soap is created by mixing fats and oils with a base as opposed to detergent which is created by combining chemical compounds in a mixer. Humans have used soap for cleaning for millennia. Evidence exists of the production of soap like materials in around 2800 BC in ancient Babylon.

Keywords : Rebatching, Papaya, soap

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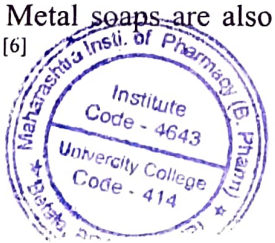

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ANTIMICROBIAL ACTIVITY OF CLEOME VISCOSA(SEED)

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ABSTRACT

The present study was aimed at detecting and evaluating antimicrobial activities of *Cleome viscosa* known for their medicinal properties in folk medicine. Methanol and acetone extracts of seeds shows good activity against some bacterial strains such as Proteus vulgaris, bacillus cereus, pseudomonas aeruginosa, klebsella pneumonia. Methanol extracts showed maximum antibacterial activity in comparison to other extracts. Methanol extract also shows good antifungal activity against Aspergillus niger Methanol extracts showed maximum antifungal activity in comparison to other extracts.

KEYWORDS: Cleome viscosa, Antimicrobial activity, Studies.

INTRODUCTION

Cleome viscosa is a plant belonging to family Capparaceae. It is a weed distributed throughout the tropics of the world and the plains of india. The plant is an annual; sticky herb with a strong penetrating odour, seed. It is known as Hurhur (Hindi), hurhuria (Bengali), Nayikkadugu (Tamil) in indian traditional medicin.[1-2] Leaves are digitately compound, with 3-5 leaflets. Fruit 30-75 mm long, 3-5 mm broad, linear-oblong, erect, obliquely striated, tapering at both ends, glandular-pubescent, slender; style 2-5 mm long; seeds many, 1-1.4 mm in diam., glabrous with longitudinal striations and transverse ridges, dark brown.Cleome viscosa is highly effective in widely spectrum of disease and reported to posses antidiarrhoeal, analgesic, pharmacological, antimicrobial properties including in vitro Helicobacter pylori and wound healing activity.[3]

MATERIALS AND METHODS

Collection of seed of *Cleome viscosa*

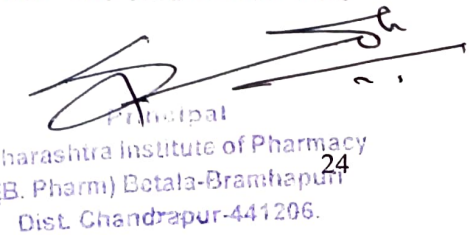
Leaves of Cleome viscosa were collected from area around Tilak nagar, Delhi during the month of Oct to Dec.The collected plant material was washed with water to remove mud and other undesirable material and dried under shade.

Extraction of seed of *Cleome viscosa*

The collected plant Material was washed with water to removed other undesirable material and dried under shade. The air-dried seed (300 gm) of Cleome viscosa were crushed. The crushed seed extracted with methanol at room temperature. The extract was evaporated till dryness to obtain residue. These extracts were concentrated under reduced pressure. The extract was used for used for antimicrobial activity.

Anti-microbial activity

The anti-microbial activity of seed of *Cleome viscose* was carried out. The seed extract were screened for anti bacterial and anti fungal activities.



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A Direct Access to Halogenated Fused Imidazo[1,5-*a*]*N*-heteroaromatics *via* Copper Promoted Double Oxidative C–H Amination and Halogenation

Mummadi Sandeep,[a,b] Patil Swati Dushyant, Boda Sravani and Kallu Rajender Reddy.*[a,b]

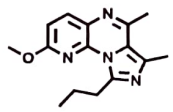
Dedication ((optional))

Abstract: An aerobic copper promoted double oxidative C–H amination and halogenation tandem reaction of 2- methylazarenes with aliphatic amines or amino acids have been developed, by employing copper salts as catalysts as well as halogen sources and molecular oxygen as a sole oxidant. This protocol is operationally simple and enables the direct access to functionalized fused imidazoles in one pot operation with good functional group tolerance. The synthetic utility of the method has been tested for Suzuki cross coupling reaction and the product obtained in good yield.

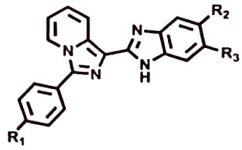
Introduction

Fused imidazo[1,5-*a*]*N*-heteroaromatics are important structural motifs in many biologically active compounds such as NK1 receptor ligands,[1] phosphodiesterase10A (PDE10A) inhibitors,[2] tubulin polymerization inhibitors[3] and thromboxane A_2 synthesis inhibitors (Figure 1).[4] Moreover, imidazo[1,5-*a*]isoquinolinedione is a unique example of a naturally occurring tricyclic cribrostatin 6, a highly active antimicrobial and antineoplasic agent.[5] In addition, they have potential applications in organic light-emitting diodes (OLED)[6] and thin-layer field effect transistors (FET).[7] Therefore, method development for accessing these important structural motifs is of highly interest in synthetic organic chemistry. Traditionally, imidazo[1,5-*a*]*N*-heteroaromatics were prepared through Vilsmeier-type cyclization,[8] which involved the use of *N*-2-pyridylmethylamides as substrates. Recent efforts on C-H amination strategy also provided a complementary way to access imidazo[1,5-*a*]*N*-heteroaromatics. Zeng[9a] and Xu[9b] have independently developed copper catalyzed oxidative cyclizations of *N*-heteroaryl aldehydes or ketones with alkylamines to afford imidazo[1,5-*a*]*N*-heteroaromatics (Scheme 1a). Interestingly, Wang has reported a new method to obtain the imidazo[1,5-*a*]*N*-pyridines *via* sequential dual oxidative amination of C(sp3)–H bonds by using stoichiometric amount of *N*-iodobutanimide[9c] (Scheme 1b). A slightly modified version using catalytic amount of CuI was reported later by Adimurthy and co-workers.[9d] Further, Li *et al* has developed a copper promoted cascade reaction of 2-methylquinolines with benzylamines to get the imidazo[1,5-*a*]*N*-quinolines *via* double -oxidative C–H amination strategy (Scheme 1c).[9e] Recently, Zhang has reported an aerobic copper-catalyzed halocyclization reaction of methyl *N*-heteroaromatics with aliphatic amines to obtain imidazo[1,5-*a*]*N*-heteroaryl halides in the presence of excess lithium halides as halogen source (Scheme 1d).[9f]

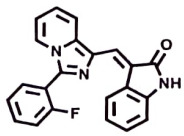
Aerobic copper catalyzed/mediated C-H bond functionalization is one of the most powerful strategy for carbon-carbon and carbon-heteroatom bond formations.[9e,10] Among which, direct aryl C-H halogenation is of particular importance in organic chemistry. For example, in majority of classical cross-coupling reactions such as Heck, Suzuki and Buchwald–Hartwig reactions aryl halides are used as starting materials.[11] Conventionally, halogenation reactions are done by using various halogen sources such as bromine, hypobromites and iodine, etc.[12] Aerobic copper catalyzed/mediated halogenations of arenes and heteroarenes have also been elegantly demonstrated to obtain green and efficient halogenations.[9f,13] However, direct access to heteroaryl halides from readily available starting materials, *in situ* introduction of halogens to the newly constructed heteroaryl ring in one operation, have not been well explored. In continuation of our efforts on copper catalyzed or mediated oxidative cross coupling reactions,[14] herein we report an aerobic copper mediated double oxidative C-H amination and halogenation reaction for the synthesis of imidazo [1,5-*a*]*N*-heteroarylhalides from 2-methylazarenes and aliphatic amines or amino acid.



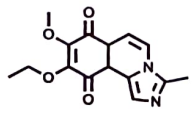
Potent and selective Inhibitors of PDE10A



Tubulin Polymerization Inhibitor



Anti-Cancer agent



Cribrostatin 6

Figure 1: Representative examples of biologically active imidazo[1,5-*a*]*N*-heteroaromatics.

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Supporting information for this article is given via a link at the end of the document.((Please delete this text if not appropriate))

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DEVELOPMENT OF UV SPECTROPHOTOMETRIC METHODS FOR THE ESTIMATION OF SAROGLITAZAR

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ABSTRACT

A new, simple, precise, accurate, reproducible and economical and sensitive UV - Spectrophotometric method has been developed for the estimation of Saroglitazar in bulk and pharmaceutical dosage form. The determination was made at 295 nm for Saroglitazar over the concentration range of 4-24 µg/ml with mean recovery of 99.95%.Methanol was used as solvent.0.1NHCL was also used as a cheaper solvent over methanol and method was developed over the concentration range as same as that of methanol. The drug follows Beer's Law in the concentration range of 4-24ug/ml. The validation of method was carried out as per ICH Guidelines.

KEYWORDS: Saroglitazar, UV Spectrophotometric method, validation, Lipaglyn Marketed formulation.

INTRODUCTION

Analysis of pharmaceutical product is very important as it concerned with quality of life. Saroglitazar (trade name Lipaglyn) is a drug for the treatment of type 2 diabetes mellitus and dyslipidemia. Saroglitazar is indicated for the treatment of diabetic dyslipidemia and hypertriglyceridemia with type 2 diabetes mellitus not controlled by statin therapy. Saroglitazar is novel first in class drug which acts as a dual PPAR agonist at the subtypes α (alpha) and γ (gamma) of the peroxisome proliferator-activated receptor (PPAR).saroglitazar has demonstrated reduction of triglycerides (TG), LDL cholesterol, VLDL cholesterol, non-HDL cholesterol and an increase in HDL cholesterol a characteristic hallmark of atherogenic diabetic dyslipidemia (ADD). It has also shown favorable Anti-diabetic medication property

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ISOLATION AND CHARACTERIZATION OF LACTIC ACID BACTERIA FROM MILK PRODUCT

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ABSTRACT

Lactic acid bacteria are the most important and commonly used bacteria in food industrials. Specially selected starter cultures are required for the industrial production of cheese. These starter cultures are mainly composed of lactic acid bacteria (LAB). Starters LAB have many functions in cheese production. They produce lactic acid during the fermentation process and provide formation of the curd.

Furthermore, they show proteolytic activity and also they play a role inthe production of aroma compounds and antimicrobial substances. In order to prevent loss of LAB biodiversity and loss of traditional cheese diversity, it is important to identify novel LAB from traditional cheese.

KEY WORDS: Lactic acid bacteria, starter culture, fermentation and isolation of LBA.

1. INTRODUCTION

Production of cheese is essentially achieved by bringing four ingredients together: milk, rennet, microorganisms, and salt. The process includes the following steps: gel formation, acid production, whey expulsion, salt addition, and finally ripening period. The main biochemical changes that occur in cheese manufacture is the production of lactic acid from lactose. This is achieved by different species of lactic acid bacteria (LAB). The responsible flora that form acid development during cheese production are starter cultures that cause decrease in the pH, formation of curd, expulsion of whey[2].

For the identification of novel starter strains, working with fresh cheese is very important because fermentation occurs at the beginning. Strains participate in fermentation process diminish immediately after fermentation. It is reported that at the fermentation step, starter strain amount may reach up approximately 10^9 colony forming units (cfu) per g of cheese. During ripening, however, the number of starter cells decreases about two orders of magnitude [2]. There have been many reports about the isolation of starter LAB from traditional

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ROLE OF CAMEL'S URINE IN GROWTH RATE OF CHROOCOCCUS SP.

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INTRODUCTION

Cyanobacteria are common and natural aquatic organisms present in many surface water. Cyanobacteria are single-celled microscopic bacteria and can be found in fresh, salt or brackish. Like plants, they use sunlight to make food and energy (Mundt and Teuscher, 1988). Under eutrophic conditions these organisms are able to form intense blooms. The bloom-forming process can be caused by increase levels of nutrients like phosphorus and nitrogen, and thus lead to water pollution in large quantities of phosphates and nitrates as well as other organic materials are therefore more aggregates of Cyanobacteria algae presence in contaminated areas containing organic waste (Reference.). The presence of algae in water sources damaged many of them drinking water contamination, leading to damage the lives of millions of the world's population in addition to algal toxins secreted into working on the death of aquatic organisms such as fish, invertebrates and other organisms (Palmer, 1977).

The medicine properties of the camel were known to Arab physicians. In days of old, Arabs have been used the camel's urine in therapy and they also treated the patients by camel's urine after boiling (Al-Nusaymi, 1984). Camel's urine has in general several chemicalcharacteristics, its having high levels of potassium and proteins, its effectiveness as fibrinolytic factor and as a drug of useful antimicrobial activity and efficiency (Ba' Smaeel, 2004). Also camel's urine used as a disinfectant to wash wounds and sores and hair growth and strengthen hair loss and treatment As well for the treatment of baldness, dandruff disease and in the treatment of abdominal pains of and eye afflictions (Ohaj, 1993).

The current study aimed to determine the possibility of getting rid of algae contaminated ecosystem using different concentrations of camel's urine.

MATERIALS AND METHODS

Isolation and purification of algae

Chroococcus sp. isolated and scrubbed according to (Stien,1973), then purified for the purpose of obtaining axenic cultures depending on the method of (Al-Arajy, 1996) and then diagnosed based on) Desikachary, 1959; Prescott, 1975).

Development and propagation of algae

Chroococcus sp. was grown using a the middle Chu-10 axis by (Al-Arajy, 1996) and after obtaining sufficient amounts transferred to the 100 ml bottles filled with 70 ml of the former the middle and incubated at atemperature (25 ±3)°C.

Measuring the rate of growth

The growth rate of algae counted directly by Chamber Shidu (Coombs *et al.*, 1985).

Camel's urine

Urine samples were collected from camel farm in the Al-Nassiriya city, Thi-Qar province, Iraq. The samples were collected in sterile screw bottles and kept in cool boxes until transported to the laboratory.

experimental groups

Different concentrations of camel's urine and added to the algal farms which were divided into five groups as following:

Group I: the control group, contained 100 ml from *Chroococcus sp.* only.
Group II: contained 100 ml of *Chroococcus sp.* with 1ml of camel's urine (1%).
Group III: contained 100 ml of *Chroococcus sp.* with 2ml of camel's urine (2%).
Group IV: contained 100 ml of *Chroococcus sp.* with 3ml of camel's urine (3%).
Group V: contained 100 ml of *Chroococcus sp.* with 5ml of camel's urine (5%).

RESULTS

The results of the present study shown in table (1), the results indicated the camel's urine caused a significant decrease ($p< 0.05$) in the growth of algae *Chroococcus sp.* for all duration of the experiment with different concentrations of

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The medicine properties of the camel were known to Arab physicians. In days of old, Arabs have been used the camel's urine in therapy and they also treated the patients by camel's urine after boiling (Al-Nusaymi, 1984). Camel's urine has in general several chemicalcharacteristics, its having high levels of potassium and proteins, its effectiveness as fibrinolytic factor and as a drug of useful antimicrobial activity and efficiency (Ba' Smaeel, 2004). Also camel's urine used as a disinfectant to wash wounds and sores and hair growth and strengthen hair loss and treatment As well for the treatment of baldness, dandruff disease and in the treatment of abdominal pains of and eye afflictions (Ohaj, 1993).

The current study aimed to determine the possibility of getting rid of algae contaminated ecosystem using different concentrations of camel's urine.

MATERIALS AND METHODS

Isolation and purification of algae

Chroococcus sp. isolated and scrubbed according to (Stien,1973), then purified for the purpose of obtaining axenic cultures depending on the method of (Al-Arajy, 1996) and then diagnosed based on) Desikachary, 1959; Prescott, 1975).

Development and propagation of algae

Chroococcus sp. was grown using a the middle Chu-10 axis by (Al-Arajy, 1996) and after obtaining sufficient amounts transferred to the 100 ml bottles filled with 70 ml of the former the middle and incubated at atemperature (25 ±3)°C.

Measuring the rate of growth

The growth rate of algae counted directly by Chamber Shidu (Coombs *et al.*, 1985).

Camel's urine

Urine samples were collected from camel farm in the Al-Nassiriya city, Thi-Qar province, Iraq. The samples were collected in sterile screw bottles and kept in cool boxes until transported to the laboratory.

experimental groups

Different concentrations of camel's urine and added to the algal farms which were divided into five groups as following:

Group I: the control group, contained 100 ml from *Chroococcus sp.* only.
Group II: contained 100 ml of *Chroococcus sp.* with 1ml of camel's urine (1%).
Group III: contained 100 ml of *Chroococcus sp.* with 2ml of camel's urine (2%).
Group IV: contained 100 ml of *Chroococcus sp.* with 3ml of camel's urine (3%).
Group V: contained 100 ml of *Chroococcus sp.* with 5ml of camel's urine (5%).

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RESULTS

The results of the present study shown in table (1). The results indicated the camel's urine caused a significant decrease ($p < 0.05$) in the growth of algae *Chroococcus sp.* for all duration of the experiment with different concentrations of

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ROLE OF CAMEL'S URINE IN GROWTH RATE OF CHROOCOCCUS SP.

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INTRODUCTION

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Group IV: contained 100 ml of *Chroococcus sp.* with 3ml of camel's urine (3%).
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Research Article

ANTHELMINTIC SHANKHPUSHPI PELLETS: TASTE MASKING

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ABSTRACT

Shankhpushpi is a highly potent anthelmintic drug having bitter taste. In the formulation for pediatric & geriatric patients the main challenge to the formulator is to mask the taste of obnoxious and bitter drugs without loss of optimal therapeutic activity of the formulation. The main objective of present study was the in vitro evaluation of the taste masking efficiency and anthelmintic activity of shankhpushpi formulation prepared by extrusion-spheronization. Pellets containing high shankhpushpi loadings in Eudragit L-100-55 were prepared by extruder and spheronizer. The taste masking of processed formulation was evaluated in vitro by dissolution method and chromatographic technique, while anthelmintic effect was evaluated by using six adult Indian earthworms and cattle worms. The result of present study indicated that Shankhpushpi for few minutes began the paralysis of earthworm followed by death at the end of 375.5 minutes. Thus, the present study demonstrated that formulated pellets of Shankhpushpi has potent anthelmintic activity and has commercial significance.

Keywords: Pellets, Anthelmintic, Taste masking, Extrusion-Spheronization.

INTRODUCTION

Nature has provided a complete store house of remedies to cure all ailments of mankind and its related diseases. The human being appears to be affected with more diseases than other animal species. There can be little doubt that is sought out to alleviate human suffering from injury and diseases by taking advantage of plants of the surroundings. In the past, almost all the medicines used were extracted from the plants and the plant being man's chemist for ages.[1]

In the recent years, the importance of herbal drugs in medicine has tremendously increased because of their fewer side effects. Consequently, the demand for the herbal formulation is increasing day by day. The phytochemical constituents and their standardization are accelerated with the development of instrumental analysis and this field becomes important and new for investigation.[2]

Infection with helminths are among the most widespread infections in humans and other domestic animals affecting a large number of world populations. The majority of these infections due to worms are generally restricted mainly to the tropical regions and the occurrence is accelerated due to unhygienic lifestyle and poverty also resulting in the development of symptoms like anaemia, eosinophilia and pneumonia.[2] These infections can affect most populations in endemic areas with major economic and social consequences. Because of limited availability and affordability of modern medicines most of the world's population depends to a greater extent on traditional medical remedies. The traditional medicines hold a great promise as source of easily available effective anthelmintic agents to the people, particularly in tropical developing countries, including India. Ideally an anthelmintic agent should have broad spectrum of action, high percentage of cure with a single dose, free from toxicity to the host and should cost effective. The origin of many effective drugs is found in the traditional medicine practices and in view of this several researchers have undertaken studies to evaluate medicinal plants for their proclaimed anthelmintic efficacy.[3] Natural anthelmintic includes- Moringaoleifera[4], Neem[5], Papaya seeds[6], Shankhpushpi[7], Wormwood[8], Clove[9], Garlic[1], Kalonji[10] and any others.

Shankhpushpi shows better anthelmintic activity. Shankhpushpi is a perennial herb that seems like morning glory. Its branches are spread on the ground and can be more than 30 cm long. The flowers are blue in colour (5mm) and the leaves, which are elliptic in shape (2mm), are located at alternate positions with branches or flowers. Known as Aloe weed in English, the herb is commonly found in India, especially in the state of Bihar. All the parts of the herb are known to possess therapeutic benefits. It is believed to be the only herb that is capable of enhancing all the aspects related to brain power, such as learning, memory and the ability to recall. However, its popularity stems from its ability to treat insomnia and helmenthis effectively.[11] But its bitter taste leads to poor patient compliance in pediatric and geriatric population. Thus taste masking of these bitter drugs is one of the challenging task in front of manufacturing companies.

The taste masking of bitter APIs is a major challenge especially for the development of oral formulations in pharmaceutical industry. Several approaches have been reported which involve fluidized-bed coating, supercritical fluids and coacervation approaches where effective taste masking is achieved by applying polymeric coating layer to create a physical barrier around the drug.[12] Other alternatives involve the use of complexing agents (cylcodextrins, ion exchange resins) through the formation of inclusion complexes or resonates.[13] Recently, taste masking approaches have employed taste suppressants molecules by blocking the gap junction channels and hemi channels and thus suppressing the drugs taste.[14,15] However, there is an enormous need for more robust, cost effective and easy to scale-up taste masking technologies. Extrusion spheronization is a continuous, one step process that can be used for the preparation of taste masked pellets.

Extrusion Spheronization has been employed as a novel technique for the formulation of oral solid dosage forms in pharmaceutical industries in the last decade. It was initially used in food and plastic industry but has attracted significant interest in pharmaceutical manufacturing for the development of robust formulations. Extrusion Spheronization can be used to develop various formulations such as sustained release Pellets.[16,17] It has been also introduced for taste

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A Validated Stability Indicating High Performance Thin Layered Chromatographic Method for the Analysis of Dapagliflozin in Bulk Drug and Marketed Tablet Formulation

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Present study reported the development of validated stability indicating high performance thin layer chromatography method for determination of dapagliflozin in bulk and tablet dosage form. Chromatography was performed on aluminium plates coated with silica gel $60F_{254}$ using methanol:toluene:ammonium acetate (6.9:3:0.1 v/v/v) as mobile phase. Densitometric analysis was performed at 250 nm. The method was validated with different parameters such as linearity, precision, accuracy, specificity, robustness, limit of detection (LOD) and limit of quantitation (LOQ). The R_f value of dapagliflozin was found to be 0.29 ± 0.05. The method is sensitive (limit of quantification 50.5 ng band^{-1}), precise (RSD ≤ 1.50 %), accurate (drug recovery 98.90-100.53 %) and linear over the range 100-1000 ng band^{-1} (r^2 0.9985). The developed method was satisfactorily applied for the analysis of pharmaceutical preparations and found to be specific and accurate for quality control of the dapagliflozin in tablet dosage form.

Keywords: HPTLC, Dapagliflozin, Stability indicating, Validation, Degradation products.

INTRODUCTION

Dapagliflozin (DAPA) belongs to a new class of oral anti-diabetic drugs, called sodium glucose co-transporter 2 (SLGT2) inhibitors. Inhibiting SGLT2, which have a key role in the reabsorption of glucose in the kidney, has been proposed as a novel therapeutic strategy for diabetes. Genetic mutations in the kidney-specific SGLT2 isoforms that results in benign renal glucoria. Hence it indicates that elevating renal glucose excretion by supressing SGLT2 can reduce plasma glucose level as well as weight [1,2]. Dapagliflozin was approved by the FDA on 2014, Jan 08. Dapagliflozin is not recommended for patients with diabetes mellitus type 1 or for the treatment of diabetes ketoacidosis. Dapagliflozin is used for the adjunct management of glycemic control in patients with type 2 diabetes mellitus, in combination with diet and exercise [3,4]. It is chemically known as, (2S,3R,4R,5S,6R)-2-{4-chloro-3-[(4-ethoxyphenyl)-methyl]-phenyl}-6-(hydroxylmethyl)oxane-3,4,5-triol (Fig. 1). The molecular formula is $C_{21}H_{25}O_6Cl$ and molecular weight is 408.873.

Dapagliflozin is stable under thermal, photo and neutral hydrolysis stress conditions but it is liable to undergo a degradation leading to formation of various degradants under the condition of stress like acid and alkali hydrolysis and oxidation. This necessitated test of the drug for stability, furthermore the development of stability indicating assay methods for dapagliflozin. The International Conference on Harmonization (ICH) guideline Q1A (R2) for parent drug stability-indicating test suggests that stress testing on the drug be performed to establish the stability characteristics and to support the suitability of the proposed analytical method [5-7]. Developing an ideal stability-indicating assay method (SIAM) means to design such a test that quantifies a drug and resolves its degradation products with high accuracy, moreover that allows the determination of the drug and its degradants in the presence of the excipients of the formulations.

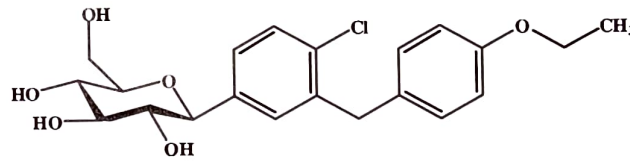

Fig. 1. Structure of dapagliflozin

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Formulation and evaluation of floating tablets of liquorice extract to improve bioavailability of Liquorice drug.

Mr. Prithviraj Meshram, Mr.Shrikant Mahajan,Dr .Sachin Dudhe.
Maharashtra institute of pharmacy Betada Bramhapuri ,Gondvana University, Bramhapuri-441206 , Chandrapur, India.

ABSTRACT

Background: Floating tablets prolong the gastric residence time of drugs, improve bioavailability, and facilitate local drug delivery to the stomach. With this objective, floating tablets containing aqueous extract of liquorice as drug was prepared for the treatment of *Helicobacter pylori* and gastric ulcers. **Methods:** The aqueous extract of liquorice was standardized by HPTLC. Tablets containing HPMC K100M (hydrophilic polymer), liquorice extract, sodium bicarbonate (gas generating agent), talc, and magnesium stearate were prepared using direct compression method. The formulations were evaluated for physical parameters like diameter, thickness, hardness, friability, uniformity of weight, drug content, buoyancy time, dissolution, and drug release mechanism. The formulations were optimized on the basis of buoyancy time and *in vitro* drug release.

Results: The diameter of all formulations was in the range 11.166–11.933 mm; thickness was in the range 4.02–4.086 mm. The hardness ranged from 3.1 to 3.5 kg/cm2. All formulations passed the USP requirements for friability and uniformity of weight. The buoyancy time of all tablet formulations was less than 5 min and tablet remained in floating condition throughout the study. All the tablet formulations followed zero-order kinetics and Korsemeyer–Peppas model in drug release.

Conclusion: The optimized formulation was found to be F6 which released 98.3% of drug in 8 h *in vitro*, while the buoyancy time was 3.5 min. Formulations containing psyllium husk, sodium bicarbonate and HPMC K100M in combination can be a promising for gastroretentive drug delivery systems.

Key words: Buoyancy time, floating tablets, korsemeyer, liquorice extract

INTRODUCTION

Oral controlled release dosage forms have been developed over the past three decades due to their considerable therapeutic advantages such as ease of administration, patient compliance, and flexibility in formulation. However, this approach has several physiological difficulties such as inability to restrain and locate the controlled drug delivery system within the desired region of the gastrointestinal tract (GIT) due to variable gastric emptying and motility. Gastroretentive dosage form can remain in the gastric region for several hours and hence significantly prolong the gastric residence time of drugs. Prolonged gastric retention improves bioavailability, reduces drug waste, and improves solubility of drugs that are less soluble in a high pH environment. The types of gastroretentive dosage forms are floating drug systems – effervescent and non

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Glucosamine HCl-based solid dispersions to enhance the biopharmaceutical properties of acyclovir.

Darshan R. Telange[a], Snehal B. Bhagat[a], Arun T. Patil[a], Milind J. Umekar[a], Anil M. Pethe[b], Nishikant A. Raut[c], Vivek S. Dave[d*]

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Original Article

ABSTRACT

The objective of the work presented here was to assess the feasibility of using glucosamine HCl as a solid-dispersion (SD) carrier to enhance the biopharmaceutical properties of a BCS class III/IV drug, acyclovir (ACV). The solid-dispersions of acyclovir and glucosamine HCl were prepared by an ethanol-based solvent evaporation method. The prepared formulations characterized by photomicroscopy, scanning electron microscopy (SEM), differential scanning calorimetry (DSC), Fourier transforms infrared spectrophotometry (FTIR), powder x-ray diffractometry (PXRD) and drug content analysis. The functional characterization of ACV-SD was performed by aqueous solubility evaluation, dissolution studies, fasted *versus* fed state dissolution comparison, ex vivo permeability, and stability studies. Photomicroscopy and SEM analysis showed different surface morphologies for pure ACV, glucosamine HCl and ACV-SD. The physical-chemical characterization studies supported the formation of ACV-SD. A 12-fold enhancement in the aqueous solubility of ACV was observed in the prepared solid dispersions, compared to pure ACV. Results from *in vitro* dissolution demonstrated a significant increase in the rate and extent of ACV dissolution from the prepared ACV-SD formulations, compared to pure ACV. The rate and extent of ACV permeability across everted rat intestinal membrane were also found to be significantly increased in the ACV-SD formulations. Under fed conditions, the rate and extent of the *in vitro* dissolution of ACV from the formulation was appreciably greater compared to fasted conditions. Overall, the results from the study suggest the feasibility of utilizing glucosamine HCl as a solid dispersion carrier/excipient for enhancement of biopharmaceutical properties of acyclovir, and similar drugs with low solubility/permeability characteristics.

KEY WORDS: Acyclovir, ACL, glucosamine HCl, solid dispersion, solubility, permeability, excipients

INTRODUCTION

Modern drug discovery techniques, which include high throughput screening and combinatorial chemistry, have generated new molecules with solubility characteristics that result in lower and inconsistent oral bioavailability (1). Over half of all newly discovered drugs appears to fall into biopharmaceutics classification system's (BCS) class II (↓ solubility, ↑ permeability), Class III (↑ solubility, ↓ permeability) or class IV (↓ solubility, ↓ permeability) (2). These drugs exhibit dissolution and/or permeation rate-limited absorption. For these drugs, enhancement of dissolution rate and/or permeability is vital to attain suitable blood concentration to achieve optimal bioavailability for therapeutic effect (3-5). Thus, for a formulation development team, there is a consistent and well-justified need to explore

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REVIEW ARTICLE

Review of Micrencapsulation: A Review A Novel Approach in Drug Delivery

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ABSTRACT:
Microencapsulation is the enveloping of liquid droplets or fine solid particles to form microcapsule, having an average diameter as small as 1 µm to several hundred micrometers. Microencapsulation technology is of interest to a wide range of industries, including pharmaceutical, food, agricultural, biotechnological, cosmetic and other industries with various significant advantages, including: (i) an effective protection of the encapsulated active ingredient against degradation, (ii) the possibility to control the release rate of the active ingredient. This review paper will address the historical background of microencapsulation technology, commonly used microencapsulation methods with its advantages and disadvantages and its applications in pharmaceutical, food, agricultural, biotechnological and cosmetic field. It also focuses on the influence of process parameters, residual solvent and cross linking agents as described in the scientific journal and patent literature. Microencapsulation methods are divided into two basic groups, namely chemical and physical. Each method has its own advantages as well as disadvantages. However most of the commonly used methods have several disadvantages such as unfavorable conditions for the core material, complexity in procedure and low encapsulation efficiency. The results indicate that the number of process variables that should be optimized during core material encapsulation. The dependence so many process variables may become a problem in terms of reproducibility and scale-up process. Based on the existing results and authors' reflection, this review gives rise to reasoning and suggested choices of process parameters and microencapsulation procedure.

KEYWORDS: Microencapsule, Core Material, Coating Material, Release Mechanism, Polymers, Capsules Shell.

INTRODUCTION:
Microencapsulation is a process by which very tiny droplets or particles of liquid or solid material are surrounded or coated with a continuous film of polymeric material. Microencapsulation includes Bioencapsulation which is more restricted to the entrapment of a biologically active substance (from DNA to entire cell or group of cells for example) generally to improve its performance &/or enhance its shelf life.

Microencapsulation provides the means of converting liquids to solids, of altering colloidal and surface properties, of providing environmental protection and of controlling the release characteristics or availability of coated materials. Several of these properties can be attained by macropackaging techniques, however, the uniqueness of microencapsulation is the smallness of the coated particles and their subsequent use and adaptation to a wide variety of dosage forms and not has been technically feasible.[3] This term as a spherical partical with size varying from 50nm to 2nm containing a core substance.[5]

Microencapsulation of pharmaceuticals was first investigated in 1931 by preparing gelatin spheres using coacervation technique. Processes and materials used for

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Formulation and Evaluation of Herbal Face Cream

Arati P.Ambatkar*, Snehal B. Bhagat, Sachin Dudhe.
Assistant professor in Maharashtra institute of pharamacy betala, bramhpuri, Maharashtra.

ABSTRACT: -
Aloe vera. strawberry and cucumber peel are medicinal plant they are used as traditionally from ancient year in various herbal medicines such Ayurveda, siddha, and Homeopathic. Cosmetics and some medicinal products are made up from the
mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. Aloe vera gel contains no Antraquinone. Which are Responsible for the strong laxative affects of aloes. However, total leaf extract may contain Antraquinone. Aloe vera
contains 75 potentially active constituents likeVitamines, Enzymes, Minerals, Sugars, Saponis,Amino acids. Strawberry are high in vitamin c and vitamin c is known for its anti-inflammatory qualities. its possible that strawberries could help reduce some of the inflammation associated with acne. The silica is an essential component to keep your muscles, bones, and tendons healthy. It also hydrates our skin, improves complexion and vision.
Keyword: Aloe vera, Amla, Cucumber peels, face
cream, Evaluation.

I. INTRODUCTION

The Demand of herbal cosmetics due to the availability of new ingredients the financial rewards for developing successful products and maintained of quality standard. Cosmetics are the products applying on the body. Face cream are
used as cosmetic for softening and cleansing action.The Ayurvedic system of medicine was one of the most important systems that uses herbal plant and
extract of the treatment of management of various Diseases state. Aloe vera Synonyms-Aloe Barbadensis Belong To Family- Liliaceae, which having 300 specie, Aloe vera is cactus like plant that grow readily in hot, dry climates, and Aloe vera cultivated in very large Quantities. Cosmetics and some medicinal products are made up from the mucilaginous tissue in the centre of aloe vera leaf
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Vitamines, Enzymes, Minerals, Sugars, Saponis, Amino acids. The garden strawberry widely grown hybrid species of genus fragaria collectively known as strawberry. The fruit is widely appreaciated for its characteristics aroma, bright red color, juicy texture and sweetness. A rich source of vitamin c and also it contain 91% water, 8% carbohydrates , 1% protein and contain negligiable fat and belonging to family- rosasceae. Used in the treatment diabetes, high blood pressure and protect from UV light. It is also used antiagening.

Cucumber (Cucumis sativus L.) belongs to Cucurbitaceae family such as melon, watermelon, pumpkin and zucchini. It is widely consumed fresh in salads or fermented (pickles) or as a cooked vegetable. They are widely used for various skin problems including swelling under the eyes and sunburn. It is believed that they promote refreshing, cooling, healing, soothing, emollient and anti-itching effect to irritated skin . The nutrient profile of Cucumis sativus L. includes water (96.4%), protein (0.4%), fat (0.1%),carbohydrate (2.8%), mineral (0.3%),

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REVIEW ARTICLE

In situ gel: A Review of Pharmaceutical and Biological Evaluation and Approaches

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ABSTRACT:
The development of in situ gel system has received considerable attention over the past few years. This interest has been sparked by advantages shown by in situ forming delivery system such as ease of administration and reduced frequency of administration, improved patient compliance and comfort. The formation of gels depends on factors like temperature modulation, pH change, presence of ions and ultra violet irradiation from which the drug gets released in a sustained and controlled manner. Various biodegradable polymers that are used for the formation of in situ gels include pectin, guar gum, carbopol, Xyloglucan, gellan gum, alginic acid, Xanthum gum, Chitosan, HPMC, Poloxamer etc. Mainly in situ gel administered by oral ocular, rectal, vaginal, injectable and intaperitoneal routes. The poor bioavailability conventional ophthalmic formulation is due to rapid precorneal drug loss there some statics and dynamic barriers which also affect the bioavailability drug. The ocular drug delivery system is considered as crucial and challenging as the delivery of drug is quite difficult.

KEYWORDS: *In Situ* Gel, Biodegredable Polymer, Hydro Gels, Geling Mechanism, Ocular Mechanism, Ophthalmic Mechanism, Temperature.

INTRODUCTION:

In situ geletion is a process of gel formation at the side of action after the formulation has been applied at the site. In situ gel phenomenon based upon liquid solution off drug formulation and converted into semi solid mucoadhesive key depot. In situ derived latin which means "In its original place or in position". It is help for the sustained control release of the drug improve patient compliance & comfort by its special characteristic future of 'Sol to Gel' transition. *In situ* forming delivery system such as administration and reduced frequency of administration. In prove patient compliance and comfort. *In situ* geling systems are liquid room temperature but undergo gelation when it contact with body fluids or change in PH. In converts to very strong gels.

At the site of drug absorption they swell to form a strong gel that is capable of prolong the residence time of the active substance. Natural and synthetic polymers used for the production of *in situ* gels. Gel formation occurs on or combination of different stimuli like PH change, temperature modulation and ironic crosslinking. *In situ* gel administrated by oral, ocular, rectal, vaginal, injectable and intraperitoneal routes. Recent advance in *In Situ* Gel have made it possible to exploit the changes in physiological uniqueness. In different regions of the GI tract for the improve drug absorption as well as patient's convenience and compliance. *In situ* gel made an irreplaceable space because of their unique characteristics. It helps for the reduced frequency of drug administration of the drug in the body. Low doses of the drug is required & there will be no drug accumulation and no side effects. The bioavailability of the drug will be more. There will be increase residence time of the drug due to gel formation. The *in Situ* gel system decreases wastage of the drug. Liquid dosage form that can sustain drug release and remain in contact with cornea of eye for entended period of time is ideal.

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FORMULATION AND EVALUATION OF HAIR GEL

Mr. Chhagan R. Doijad, Miss.Rupa D. Bhattachrya, Miss.Savitha Vasake

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Maharashtra Institute Of Pharmacy , Betala , Bramhapuri (M.H) 441206

ABSTRACT

Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. Herbal gel containing Trigonellafoenum- gracum and MurrayaKoenigii extract was found to be stable. The Trigonellafoenum-gracum and Murrayakoeniggi extract herbal gel was pale yellowish in color, translucent in appearance, and smooth in application. pH also maintained constant throughout the study which was found to be 4.5-5.5. Murrayakoenigii revealed the fact that it is a common remedy among the various ethnic groups, ayurvedic practitioners for treatment of diversity of ailments. However, very little efforts have been put by the scientific community to discover the beneficial potential of this plant. It is thought-provoking to know that crude organic extracts of leaves of Murrayakoenigii have been evaluated for hair growth. The values of spreadability indicate that the gel is easily spreadable by small amount of shear. pH also maintained throughout the study which was found 4.5-5.5. The herbal hair gel using methi and curry leaves were prepared by using carbopol as gelling agent. The result obtained was satisfactory with all formulations.

KEYWORDS: Trigonella foenum-gracum, Murraya Koenigii, Hair, Hair growth initiation, Hair follicle, Herbalhair gel.

INTRODUCTION

Herbal formulations gains an important role in all over the world as it is completely made up of natural sources derived from the plants. Pre-mature hair loss is one of the common types of dermatological condition. The etiology of hair loss is still not completely understood and also its complete medical treatment is not satisfactorily developed. One of the major causes of hair loss is the deficiency of iron (anemia).[1]

As there is many more hair loss treatment available but no one of them is 100% effective. For the treatment of hair loss commonly plethora of herbs are used such as hibiscus, neem, amla, methi, tulsi, brahmi, lemon,shikakai, liquorice, nutmeg, henna, reetha, liquorice root,musk root, mahabhringraj, jantamasi, chitraka, marigold, parsley, rosemary, thyme. From the amongst plant amla is the major source of vitamin C and also contain phosphorus, calcium and iron which provides nutrition to normal hair growth and also use for the darkening of hair.[2] Hibiscus contains calcium, iron, vitamin B1, phosphorus, riboflavin, niacin and vitamin C, which prevents premature graying of hairs and also provide thicker hair. Brahmi consists of alkaloids that enhance activity of protein kinase. Methi having high protein fodder that works as protein supplement to supply nutrition for hair.

Leaves and seeds of T.foenum-graecum have been used extensively to prepare extracts and powders for medicinal uses. T. foenum-graecum is reported to have antidiabetic, anti-fertility,

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FORMULATION AND EVALUATION OF HERBAL COUGH SYRUP

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ABSTRACT :

An ancient time peoples use various plant, roots, and leaves for treatment various disease. Herbal cough syrup is an Ayurveda medicine which is useful in many chronic health problem such as cough, cold, fever, respiratory infection and disorders among human. As a combination of herbs, it is safe, can be made at home, has a low production cost, and can be easily available in any area. Herbal syrup including natural herbs, like tulsi, clove, fennel, turmeric and adulsa which have various action and effect on reducing acute or chronic cough and cold and act as cough suppressant having expectorant and anti-tussive property. In this research, I conclude about herbal cough syrup that, herbal cough syrups is a safest herbal medicine which is use for treatment of cough and cold.

KEYWORDS : Grinding, Extraction, Anti-microbial activity.

1. INTRODUCTION

Herbal medicine is also known as phyto-medicine or herbalism it is a medicine that use plants or their crude products for the treatment of diseases. It may include also animal fungi or bacteria product. Since ancient era, herbal or plant-based medicines has been used for the prevention, cure & mitigation of diseases and time to time more and more herbal constituents of these natural sources are get enhanced. Herbal medicine has its origins in ancient cultures. It involves the medicinal use of plants to treat disease and enhance general health and wellbeing. Some herbs have potent (powerful) ingredients and should be taken with the same level of caution as pharmaceutical medications.(1)

In fact, many pharmaceutical medications are based on man-made versions of naturally occurring compounds found in plants. For instance, the heart medicine digitalis was derived from the foxglove plant. Herbal medicine aims to return the body to a state of natural balance so that it can heal itself. Different herbs act on different systems of the body.(1)

Herbal medicine system beneficial over Allopathy system:

Although allopathy has been the most acceptable system of medicine over the years, people are now shifting back to the utilization of herbal medicine. This is due to the setbacks of allopathic medicine like it is very expensive, it has serious and frustrating side effects, its relief from ailments is only symptomatic and fear of toxicity to allopathy drugs.

Herbal medicine like Ayurveda and Homeopathy are preferred in the treatment of chronic diseases because of the characteristic features of Ayurveda like it is less costly and more sensible,

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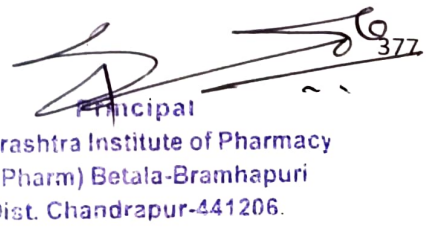

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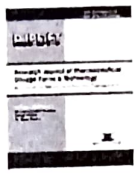

REVIEW ARTICLE

In situ gel: A Review of Pharmaceutical and Biological Evaluation and Approaches

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ABSTRACT:
The development of in situ gel system has received considerable attention over the past few years. This interest has been sparked by advantages shown by in situ forming delivery system such as ease of administration and reduced frequency of administration, improved patient compliance and comfort. The formation of gels depends on factors like temperature modulation, pH change, presence of ions and ultra violet irradiation from which the drug gets released in a sustained and controlled manner. Various biodegradable polymers that are used for the formation of in situ gels include pectin, guar gum, carbopol, Xyloglucan, gellan gum, alginic acid, Xanthum gum, Chitosan, HPMC, Poloxamer etc. Mainly in situ gel administered by oral ocular, rectal, vaginal, injectable and intaperitoneal routes. The poor bioavailability conventional ophthalmic formulation is due to rapid precorneal drug loss there some statics and dynamic barriers which also affect the bioavailability drug. The ocular drug delivery system is considered as crucial and challenging as the delivery of drug is quite difficult.

KEYWORDS: *In Situ* Gel, Biodegredable Polymer, Hydro Gels, Geling Mechanism, Ocular Mechanism, Ophthalmic Mechanism, Temperature.

INTRODUCTION:

In situ geletion is a process of gel formation at the side of action after the formulation has been applied at the site. In situ gel phenomenon based upon liquid solution off drug formulation and converted into semi solid mucoadhesive key depot. In situ derived latin which means "In its original place or in position". It is help for the sustained control release of the drug improve patient compliance & comfort by its special characteristic future of 'Sol to Gel' transition. *In situ* forming delivery system such as administration and reduced frequency of administration. In prove patient compliance and comfort. *In situ* geling systems are liquid room temperature but undergo gelation when it contact with body fluids or change in PH. In converts to very strong gels.

At the site of drug absorption they swell to form a strong gel that is capable of prolong the residence time of the active substance. Natural and synthetic polymers used for the production of *in situ* gels. Gel formation occurs on or combination of different stimuli like PH change, temperature modulation and ironic crosslinking. *In situ* gel administrated by oral, ocular, rectal, vaginal, injectable and intraperitoneal routes. Recent advance in *In Situ* Gel have made it possible to exploit the changes in physiological uniqueness. In different regions of the GI tract for the improve drug absorption as well as patient's convenience and compliance. *In situ* gel made an irreplaceable space because of their unique characteristics. It helps for the reduced frequency of drug administration of the drug in the body. Low doses of the drug is required & there will be no drug accumulation and no side effects. The bioavailability of the drug will be more. There will be increase residence time of the drug due to gel formation. The *in Situ* gel system decreases wastage of the drug. Liquid dosage form that can sustain drug release and remain in contact with cornea of eye for entended period of time is ideal.

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Research Article

Development of Validated Stability Indicating HPTLC Method for the Estimation of Teriflunomide in Bulk and Tablet Dosage Form

Author(s): Snehal Karmankar* and M. Tajne

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Abstract

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Formulation and evaluation of Herbal toothpowder

Sachin B. Dudhe, Chagan R. Doijad,

Abstract

Herbal tooth powder has been about for centuries and many believe it to be an essential part of any teeth cleaning regimen . The aim of the present research was to formulate the herbal tooth powder for prevention of oral diseases. Different herbal drugs; Azadirachta Indica (Neem powder), Piper longum (Trikuta powder), Acacia nilotica (Babul), Chebulic myrobalan (Harada), Curcuma longa (Turmeric), Ocimumsantum Linn. (Tulsi), Cinnamomum camphora (Camphor), Eugenia caryophyllus (Clove oil). The organoleptic property showed a yellowish green colour characteristics odour with a sweet taste. The moisture content of the powder shows 1.64%. The powder has 4gm/ml of bulk density. The angle of repose was determined to find out the flow property and it shows good flow property. The ingredients are used in the present work, was screened and selected to possess anti-microbial effect and to maintain oral hygiene as it claimed by its results as effective tooth Powder. It does not cause any harmful effects, instead, it imparts good freshness and away from bad Odour. Oral hygiene can be maintained in a reliable, safe, and inexpensive way by using herbal tooth powder.

Key words: Toothpowder, Pippali, Ant -microbial, Ash value

INTRODUCTION

Oral hygiene is an important key to maintain good appearance, impression of an individual and gives confidence. Herbal tooth powders consisting of various ingredients that are available in the market in a wide range. Hence modern methods focusing on these aspects are useful for the standardization of herbs and their formulations. Consumers believed by using herbal-based diseases like toothpowders are safe, effective, and less toxic. Tooth powder promotes oral hygiene, serves as an abrasive that aids in removing the dental plaque and food from the teeth and also helps to prevents tooth and gum Gingivitis, cavity and stained teeth. Market value of herbal products in increasing day by day. Due to variability of phytoconstituents, substituent and adulterants in crude drugs it is essential to standardize these formulations for their quality and purity. Herbal tooth powder is available in market in a wide range, consisting various ingredients. Several pharmacopoeia monographs on plant materials are lacking in identification and quantification of active compounds. Hence modern methods focusing these aspects are useful for the standardization of herbs and their formulations.[3]

Tooth powders are using in combination with tooth brush to maintains the oral hygiene such as freshness of mouth and to avoid tooth decay. This work was carried out to prepare tooth powders which can be used as a tool for proper oral hygiene and to overcome the side effects of the conventional tooth powder prepared by synthesis ingredients. The tooth powders were prepared by using various herbal ingredients which posses the anti-bacterial,

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STUDY OF PIPERINE CONTAINING JELLYS FOR ITS ANTIOXIDANT PROPERTIES, FORMULATION AND EVALUATION PARAMETERS

Miss. Rupa D. Bhattacharya,Miss. Priya D. Khode ,Mr. Swapnil R.Dhanvij

Maharashtra Institute Of Pharmacy (B.Pharm) , Betala Bramhapuri

Abstract: Piperine is the main compound present in black pepper, and is the carrier of its specific pungent taste, which is responsible for centuries of human dietary utilization and worldwide popularity as a food ingredient. so by using piperine making the jellies because it having a various pharmacological activity like an antioxidant, antiinflammatory ,antihypertensive, anticancer, neuroprotective, anticonvulsant, antidepressants etc., Oral medicated jellies are palatable solid dosage forms administered in the oral cavity, meant to be dissolved in mouth or pharynx for its local or systemic effect. Oral medicated jellies provide several advantages as pharmaceutical formulations however with some disadvantages. Oral medicated jellies as a dosage form can be adopted for drug delivery across buccal route, labial route, gingival route and sublingual route. Multiple drugs can also be incorporated in them for chronic illness treatments.

Keyword: Introduction of piperine and jelly , Preformulation studies of piperine , methods of preparation , evaluation of jelly.

INTRODUCTION OF PIPERINE [1]

Black pepper (Piper nigrum), an Indian native spice, has been widely used in human diet for several thousands of years. It is valued for its characteristic sharp and stinging qualities attributed to the alkaloid piperine. While it is used primarily as a food adjunct, black pepper is also used as a food preservative and as an essential component in tradi-tional medicines in India and China. Since the discovery of black pepper's active ingredient, piperine, the use of black pepper has caught the interest of modern medical researchers. Many physiological effects of black pepper, its extracts or its bioactive compound, piperine, have been reported in recent decades. By stimulating the digestive enzymes of the pancreas, piperine enhances digestive capacity and significantly reduces gastrointestinal food transit time.

- Black pepper (Piper nigrum) is one of the most widely used among spices valued for its characteristic sharp and stinging qualities.
  - It belongs to the family Piperaceae.
  - cultivated for its fruit (berries) that are usually dried and used as a spice and seasoning.
  - Black pepper is native to southern india and is extensively cultivated in this tropical region.
  - The word "pepper" is derived from the Sanskrit "Pippali", meaning long pepper.
  - Black pepper ("Maricha" in Sanskrit) is known by other names in the local dialect as "Milagu" (Tamil), "Kuru Mulagu (Malayalam)"Miriyam" (Telugu), "Miriya Konu" (Konkani), and "Kari Menasu''(Kannada).
  - The fruit, also known as peppercorn, is dark red when fully mature, and a small black wrinkled drupe 5 mm in diameter when dried.

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FORMULATION AND EVALUATION OF HERBAL LIP BALM INFUSED WITH PAPAYA AND TURMERIC

Urwashi Lanjewar,Akshay Meshram,Rucha Pancham
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Maharashtra Institute of Pharmacy, Betala, Bramhapuri(M.H) 441206

ABSTRACT

Backgrond:- The study was to formulate and evaluate herbal lip balm infused with papaya and turmeric, so that an occlusive layer on the lip surface to seal moisturize in the lips and protect them from external exposure. Method:- The lip balm was prepared by direct method by extracting papaya powder(Carica Papaya) and turmeric powder(Curcuma Longa) also adding the ingredients like beewax, lemongrass oil, methylparaben, and vanillin.

Results:- Then evaluated with some parameters like physical appearance, melting point, spreadability test, stability test, skin irritation test, pH test, consistency, washability test. The result was concluded among the three formulations where the second formulation of 10g was selected as the best outcome. As it provides physical character light orange color with pleasant odor and good taste with melting point 69.89oC, with good stability and spreadability, contains 7.2pH near to neutral, no irritation to skin, provides a smooth and non granulated consistency and easily washable. **Conclusion:-** The result suggested that the prepared herbal lipbalm containing papaya and turmeric extract can effectively deliver the product in the market.

KEYWORDS: Carica papaya, Curcuma longa, Lip balm, Evaluated, Herbal lipbalm, Formulation.

INTRODUCTION

Due to increasing public concern, on the presence of hazardous synthetic excipients in cosmetics, new technique are gained to produce products using organic source. Chapped, dry or cracked lips are very common beauty dilemma, particularly in harsh weather. Lips have no oil glands, so theyreally need that extra moisture and protection throughout the day. Many people deal with dried out lips during the winters, but the problem continue in summer seasons, too. Conventional lip balms often contain petroleum, synthetic wax, alumina, paraben, hydrogenated oils and artificial fragrance and colours which are toxic. Lip balm are often eaten away by the users and hence it is imperative that health regulators have a microscopic look at the ingredients that goes in to the lip balm. The dyes that contribute to the colour of the lip balm are dangerous to human on consumption.[1] The human lips could be infected or face disorder of different kinds depending on what may be causative agent this includes swelling, sun damage, inflammation, discoloration and sores. Lip inflammation chalets occurs when the corners of mouth becomes broken, chapped and painful. The cracked or broken points could be entry points

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Formulation and evaluation of Herbal Sanitizer by using Curcumine, Neem and Tulsi leaves.

Miss. Snehal B Bhagat, Miss.Arati Ambatkar,Miss.Savitha Wasake
Maharashtra institute of pharmacy Betada Bramhapuri ,Gondvana University, Bramhapuri-441206 , Chandrapur, India.

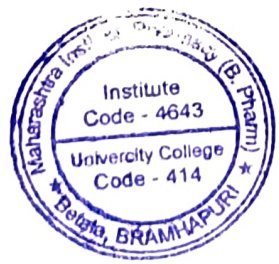
Abstract

Objective: the main intention of this research is to prepare curcumin and Neem based herbal gel sanitizer by minimizing the alcoholic usage and to evaluate the anti-bacterial activity of this herbal sanitizer. **Methods:** curcumin and Neem gel sanitizer was prepared from the ethanolic extract of *Curcuma longa and Azadirachta indica* (along with addition of gel base prepared from HPMC-E15. **Results**: The curcuminand Nee gel sanitizer was formulated and evaluated for its phytochemical constituents present in curcuminand neem, organoleptic properties, irritancy test and the efficiency of anti-bacterial activity of curcumin was also evaluated and it is safe and effective against pathogens. **Conclusion:** As a natural herb, curcumin and neem which was a household ingredient could also be effectively formulated as a sanitizer that reduces the side effects of alcoholic sanitizer products and is a best source that acts effectively against a numerous pathogens.

Keywords: curcumin, HPMC-E15 (hydroxypropyl methylcellulose),Pathogens,

INTRODUCTION

Corona virus is a single-stranded RNA virus with a diameter of about 80–120 nm. It belongs to different genus like α-corona virus, β-corona virus, δ-corona virus and γ – corona virus. SARS-CoV-2 comes under the genus β-corona virus. 4 The emergence of the pandemic COVID-19 has lead to health concern in the public and rapid usage of hand sanitizers is being observed. As it can be effective tool of controlling the infection. Recent studies revealed that the transmission of COVID is possible through the mist and the virus can sustain and may become contagious on surfaces about 9 days Hence, it is very important to breakout this conveyance of virus through isolation and by the usage of infection control tools 3. Effective usage of hand sanitizers and face masks could minimize the spread of the virus. According to the analysis of CDC about 2 million people are getting affected by certain infections acquired through the hospitals per year (12). Due to danger imposed by this disease, the CDC of the United States has encouraged and promoted the hand sanitizers usage for the sake of maintenance of hand hygiene. The availability of Hand disinfectants are in such forms like Non-alcohol based, alcohol-based, herbal sanitizers(15).



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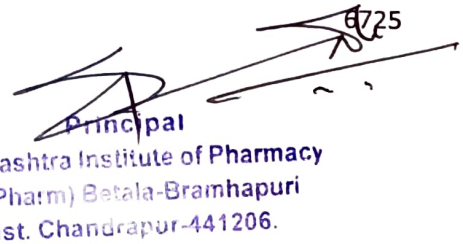

JOURNAL OF CRITICAL REVIEWS

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Formulation and evaluation of Herbal Sanitizer by using Curcumine, Neem and Tulsi leaves.

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Abstract
Objective: the main intention of this research is to prepare curcumin and Neem based herbal gel sanitizer by minimizing the alcoholic usage and to evaluate the anti-bacterial activity of this herbal sanitizer. **Methods:** curcumin and Neem gel sanitizer was prepared from the ethanolic extract of *Curcuma longa and Azadirachta indica* (along with addition of gel base prepared from HPMC-E15. **Results**: The curcuminand Nee gel sanitizer was formulated and evaluated for its phytochemical constituents present in curcuminand neem, organoleptic properties, irritancy test and the efficiency of anti-bacterial activity of curcumin was also evaluated and it is safe and effective against pathogens. **Conclusion:** As a natural herb, curcumin and neem which was a household ingredient could also be effectively formulated as a sanitizer that reduces the side effects of alcoholic sanitizer products and is a best source that acts effectively against a numerous pathogens.

Keywords: curcumin, HPMC-E15 (hydroxypropyl methylcellulose),Pathogens,

INTRODUCTION

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Research : In Vitro Antiarthritic Activity of synthesized Silver Nano particles from Extract of Merrmia dissecta

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ABSTRACT:

Objective: The present investigation deals with the study of in vitro anti-arthritic activity by inhibition of protein denaturation method by bovine serum albumin method and egg albumin method. Merremia dissecta Linn plant is a used in parts of leaf. It is used in the treatment of gout, Antipathogenic ,antimicrobial ,anti diuretics, alzheimer,and piles in Ayurvedic medicine, and traditionally used for the bone fracture.

Method: The air-dried powder of M. dissecta Linn (leaves parts) was extracted using a Soxhlet apparatus with methanol as solvent. And preparation of silver nanoparticles .The extracts and its silver nanoparticles were concentrated under reduced pressure. The activities were carried out using the following concentration (100, 250 and 500 µg/ml) and compared with diclofenac as standard drug. It has significant in vitro anti-arthritic in both the methods.

Result: The Methanolic extract of M. dissecta possessed significant anti-arthritic property in ME of Merremia dissecta extract than compared to MEMD its silver nanoparticles.

Conclusion: Activity may be due to the presence of the chemical profile such as phenolic acid, flavonoid (leuteotin), Germacrene and β-sitosterol. The results of the study have suggested in the use of M.dissecta Linn and its silver nanoparticles as a potent anti-arthritic in several applications.

Keywords: M.dissecta Linn, Silver Nanoparticles, Anti-arthritic, Bovine serum albumin, Methanol, Diclofenac.

INTRODUCTION

In the very last few decades, there is a tremendous growth in the region of herbal medicine. It is coming popularized in both developing and developed countries due to its natural origin because of its lesser side effects. Herbal remedies provide a lot of drugs for the treatment of internal diseases which are considered to be stubborn and incurable by other system of medicines [1].

Arthritis is an autoimmune disorder characterized by pain, swelling, and inflexibility [2]. Rheumatoid joint inflammation influences more or less 1% of the populace around the world. Its etiology is still obscure [3]. However, advances in understanding the pathogenesis of the disease have raised the development of new therapeutics, with improved outcomes. Rheumatoid arthritis may quickly progress into a multisystem inflammation with irreversible joint destruction and increase the risk of humanity . However there are no effective treatment for arthritis Disease. Merremia dissecta also known as almovine is an ayurvedic herb used to reduction of joint pain

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Development of stability indicating HPLC method for simultaneous estimation of flupentixol (FLUP) and melitracen (MELI) in pharmaceutical preparations

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Summary

A simple, precise, and accurate stability-indicating normal-phase HPLC method has been established for simultaneous estimation of flupentixol (FLUP) and melitracen (MELI) in the bulk drug and dosage form. A Phenomenex C-18, 5 µm column having. 250 x 4.6 mm i.d. in isocratic mode with mobile phase containing 20 mM potassium dihydrogen phosphate: methanol(15:85, v/v) was used. The flow rate was 1.0 mL/min and quantitation was achieved with UV detection at 230 nm. Retention time of FLUP and MELI were 6.38 ± 0.5 min and 9.39 ± 0.5 min respectively. Validation of the method in accordance with ICH guidelines yielded good results for range, linearity, precision, accuracy, specificity, robustness and ruggedness. Response were a linear function of concentration of FLUP over the range 1–4 µg mL^{-1} by peak area with correlation coefficient 0.999 and MELI over the range 20-80 µg mL^{-1} by peak area with correlation coefficient 0.998. The limit of detection of FLUP was 0.006 µg mL^{-1} for peak area and the limit of detection of MELI was 0.098 µg mL^{-1} for peak area. Results from analysis of a commercial tablet formulation were 100.71 ± 0.8395 % and 100.51 ± 0.9861 % by peak area for FLUP and MELI respectively. Recoveries were 101.15 ± 0.8489 % and 99.82 ± 1.0140 % by peak area for FLUP and MELI respectively. The conditions used also enabled separation and detection of degradation products from acidic, basic, oxidation stress. No degradation products of FLUP and MELI were obtained after neutral, photo and heat stress conditions applied on both drugs individually or in combination

Key Words: HPLC Flupentixol Melitracen Degradant Validation

1 Introduction

Flupentixol (FLUP) (EZ)-2-[4-[3-[2-(trifluoromethyl)thioxanthen-9-ylidene] propyl]piperazin-1-yl]ethanol [Figure 1] is antipsychotic drug used in the treatment of schizophrenia and in low doses use as antidipressent. Melitracen (MELI3-(10, 10-dimethylanthracen-9(10*H*)-ylidene)-N, N-dimethylpropan-1-amine [Figure 2] is a tricyclic anti-depressant used in the treatment of anxiety and depression. Literature

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Development and Preparation of Pain Balm from Ehretia Leavis and it's Physiochemical Evaluation

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INTRODUCTION

Ehretia laevis is a rapidly growing medium sized tree of the Boraginaceae. The genus Ehretia contains more than 150 species. The plant is primarily distributed throughout Tropical and subtropical regions of Asia Africa and Australia. E laevis is the most popular member of its genus and is commonly known by more than 120 names in diverselanguages. In India the plant is mainly found in the northens parts of thecountry (e.g. in Bengal, Maharashtra and Rajasthan) The plant has also been documented in the traditional system of medicine (e.g Ayurveda and Siddha)

The invention and mass production of chemically synthesized medicines has revolutionized health care in most parts of the world over the last 100 years. Orthodox practitioners and herbal medicines are also used by significant segments of the population in developing countries for primary care Herbal medicine is one of the most important branches of herbal medicine worldwide.

Key Words: Ehretia Leavis Pain Balm Evaluatio

In developing countries like India, the bulk of the world's population also relies on herbal Medicines to fulfil their health needs [1] According to the World Health Organizations, 30 Percent of people use natural medicines for any aspect of their primary health care, exposing Those to lesser-known side effects and dangers associated with chemically synthesized Pharmacological drugs. As a result, bioactive extracts of medicinal plants, as well as their herbal medicine formulations are a viable alternative to chemically synthesized medicines. [2]

For the herb to be used more widely in medicinal practice, scientific confirmation of these claims is needed. Long term, seemingly unproblematic use of an herbal remedy will attest to its protection and efficacy, Herbal medicines with recorded experience from a long period of use should be distinguished from herbs whose conventional use has not been defined by research methods [4]

Folk medicine lacks a theoretical foundation Modern scientific studies on these medicinal plants are critical for the plants to be used as medicines more realistically and scientifically. Folklore medicines are the mainstay of conventional medical systems, having been used in medical practice for thousands of years and contributing significantly to human health. The widespread

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ISOLATION OF TARTARIC ACID FROM NATURAL FRUITS

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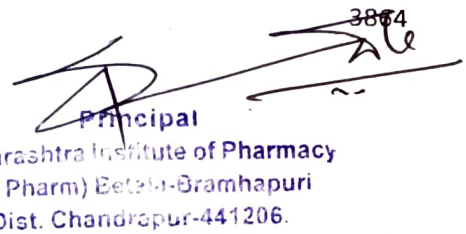
ABSTRACT :- In the present work I have pick two phytochemicals i.e. Potassium bitartrate and tarataric acid extracted from tamarind, grapes, and mango.
First raw materials were collected and dried. This dried raw materials were used for isolation of potassium bitartrate and tarataric acid. On dried extracts various confirmatory tests were performed.
From the present performed work it was found that tamarind gave more quantities of potassium bitartrate and tarataric acid as compare to mango and grapes.
This research can implement further to get more amount of acid with this modified large scale instead of using expensive chemicals and rare equipments.
KEYWORDS :- Tartaric acid, Extraction, Neutralization, Synthesis.

INTRODUCTION :-

Tartaric acid was first isolated from potassium tartrate, known to the ancients as tartar, during 800 AD by the alchemist Jabir ibn Hayyan .The modern process was developed in 1769 by the Swedish chemist Carl Wilhelm Scheele.
Tartaric acid is an organic di-carboxylic compound. Its molecular formula is $C_4H_4O_6$. It is also known as racemic acid. It contains two stereocentres. Its IUPAC name is 2,3-dihydroxybutanedioic acid. It is acidic in nature. Tartaric acid found in many fruits like grapes, tamarinds, banana, and citrus fruits.
Tartaric acid, also called dihydroxybutanedioic acid, a dicarboxylic acid, one of the most widely distributed of plant acids, with a number of food and industrial uses. Along with several of its salts, cream of tartar (potassium hydrogen tartrate) and Rochelle salt (potassium sodium tartrate), it is obtained from by-products of wine fermentation. In a partially purified form, tartar was known to the ancient Greeks and Romans; the free acid was first isolated in 1769 by Swedish chemist Carl Wilhelm Scheele. The lees, or sediments, and other waste products from fermentation are heated and neutralized with calcium hydroxide; the precipitated calcium tartrate is then treated with sulfuric acid to produce free tartaric acid. Rochelle salt is prepared from the crude crystalline potassium acid salt, called argol, by neutralization with sodium carbonate. Purified cream of tartar comes chiefly from the filtrates from production of the acid and Rochelle salt. A third salt, tartar emetic (antimony potassium tartrate), is made from the potassium acid salt and antimony oxide[1].



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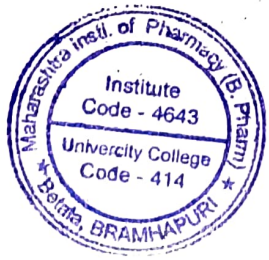

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ISOLATION OF TARTARIC ACID FROM NATURAL FRUITS

Mr. S. D. Mahajan, Miss.R.R.Singanjude,Mr. Pruthviraj C. Meshram
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Maharashtra Institute of Phaarmacy, Betala, Bramhapur MH (441206)
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ABSTRACT :- In the present work I have pick two phytochemicals i.e. Potassium bitartrate and tarataric acid extracted from tamarind, grapes, and mango.
First raw materials were collected and dried. This dried raw materials were used for isolation of potassium bitartrate and tarataric acid. On dried extracts various confirmatory tests were performed.
From the present performed work it was found that tamarind gave more quantities of potassium bitartrate and tarataric acid as compare to mango and grapes.
This research can implement further to get more amount of acid with this modified large scale instead of using expensive chemicals and rare equipments.
KEYWORDS :- Tartaric acid, Extraction, Neutralization, Synthesis.

INTRODUCTION :-

Tartaric acid was first isolated from potassium tartrate, known to the ancients as tartar, during 800 AD by the alchemist Jabir ibn Hayyan .The modern process was developed in 1769 by the Swedish chemist Carl Wilhelm Scheele.
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Research : Formulation and Evaluation of Albendazole Jelly using Heating Method for Anthelmintic Activity

Snehal Bhagat, Dr Sachin B. Dudhe,Urwashi Lanjewar,Savitha Wasake
Maharastra institute of pharmacy Betala (Bramhapuri) - 441206

Abstract : Albendazole was found to be considerably more active than other benzimidazoles. This was because it was metabolized to albendazole sulphoxide which was also an active anthelminthic, while almost all other benzimidazoles were metabolized to inactive compounds. Preliminary batches of albendazole jelly were prepared using physical appearance, stickiness and grittiness using gum acacia, Tragacanth, sodium alginate and gelatin as viscosity agent, glycerin as a humectant protector, propyl paraben and methyl paraben as a preservatives, sucrose as a sweetening agent and citric acid as a antioxidant. From the evaluation study, it was observed that, as the concentration of polymer was increased, stickiness of jelly was decreased and as the concentration of polymer was decreased, stickiness and grittiness of jelly was increased.

Keyword : Anthelmintic Activity, Albendazole Jelly.

INTRODUCTION

Albendazole is a benzimidazole carbamate (methyl-5-propyl thio-1H-benzimidazole-2-yl carbamate). It is a broad spectrum anthelmintic used. The drug was synthesized by Gyurik and Theodorides in 1975. And its anthelmintic activity was reported by Theodorides(1976).the first benzimidazole carbamate to make it into humans was mebendazole, followed by flubendazole. Smith kline & French animal health were working on albendazole, which was first marketed as valbazen, an animal an animal anthelminth, in the UK in November of 1977. Albendazole was found to be considerably more active than other benzimidazoles. This was because it was metabolized to albendazole sulphoxide which was also an active anthelminthic, while almost all other benzimidazoles were metabolized to inactive compounds. Albendazole was eventually approved for human use and marketing in 1987 (Horton J)[1] .

Helminth infestation mainly caused due to soil transmitted helminths, hookworms, tapeworms, roundworms, ascaris. These helminth infections have serious economic consequences to the affected populations. According to World Health Organization (WHO) Intestinal and extra-Intestinal worm infestations affect more than two billion people in the world. Hemithiasis is prevalent globally, but it is more common in developing countries with poorer personal and environmental hygiene. In human body GIT is the adobe of many helminths, but some also live in tissues, or their larvae migrate into tissue. They harm the host by depriving him of food, causing blood loss, injury to organs, intestinal or lymphatic obstruction and by secreting toxins. helminthiasis is rarely fatal, but is a major cause of ill health. development of resistance has not been a problem in the clinical use of anthelmintics. They affect people mostly pediatric, geriatric, bedridden, disabled and mentally ill people. Extra-intestinal worm infestation has particularly affects on tissues and organs such as liver, muscles, brain, blood vessels and lymphatic system. There are several types of worms which cause helmiths infection. These are as follows.

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Stability Indicating Hplc Method For Simultaneous Estimation Of Lansoprazole And Domperidone In Pharmaceutical Preparations

Anup Barsagade*, Pruthviraj Meshram and Pragati Dongare

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Assistant Professor Maharashtra Institute of Pharmacy, Gondwana University, Gadchiroli Armori Road, Bramhapuri – 441206, Maharashtra, INDIA. E-Mail: agbarsagade@gmail.com

Summary

A simple, precise, and accurate stability-indicating normal-phase HPLC method has been established for simultaneous estimation of Lansoprazole (LANS) and Domperidone (DOMP) in the bulk drug and dosage form. A Phenomenex C-18, 5 µm column having. 250 x 4.6 mm i.d. in isocratic mode with mobile phase containing 20 mM potassium dihydrogen phosphate: acetonitrile (60:40, v/v; pH 6.0) was used. The flow rate was 1.0 mL/min and quantitation was achieved with UV detection at 280 nm. Retention time of LANS and DOMP were 9.98 ± 0.5 min and 5.87 ± 0.5 min respectively. Validation of the method in accordance with ICH guidelines yielded good results for range, linearity, precision, accuracy, specificity, robustness and ruggedness. Response were a linear function of concentration of LANS over the range 3–90 µg mL^{-1} by peak area with correlation coefficient 0.999 and DOMP over the range 2-60 µg mL^{-1} by peak area with correlation coefficient 0.998. The limit of detection of LANS was 0.04 µg mL^{-1} for peak area and the limit of detection of DOMP was 0.19 µg mL^{-1} for peak area. Results from analysis of a commercial tablet formulation were 99.99 ± 0.1249 % and 99.36 ± 0.0196 % by peak area for LANS and DOMP respectively. Recoveries were 99.87 ± 0.8513 % and 100.17 ± 0.9762 % by peak area for LANS and DOMP respectively. The conditions used also enabled separation and detection of degradation products from acidic, basic, neutral, oxidation stress. No degradation products were obtained after photo and dry heat stress condition.

Key Words: HPLC Lansoprazole Domperidone Degradant Validation

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Lansoprazole (LANS) 2-({[3-methyl-4-(2, 2, 2-trifluoroethoxy)pyridin-2-yl]methane}sulfinyl)-1H-1,3-benzodiazole [Figure 1] is a proton pump inhibitor

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RESEARCH ARTICLE

Synthesis and Assessment of Sub-acute Toxicity of Novel Rosin Esters of Polyethylene Glycol 200 in Swiss Albino Mice

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ABSTRACT:

The objective of present investigation was to synthesize and assess sub-acute toxicity of novel rosin esters using Swiss Albino mice. Assessment of the safety and toxicity of rosin esters is very important step before its use in pharmaceuticals. The solutions of rosin esters were prepared in corn oil to perform acute (28d) oral toxicity study in Swiss Albino mice as animal model of both sexes. The oral administration of rosin esters at the dose of 25 mg/kg of body weight and constant volume was administered to the mice. One group of mice was kept as a control group. Toxicity of the rosin esters was assessed by using various tests like behavioral changes, clinical signs, mortality and morbidity, biochemical tests, haematological tests, relative organ weights and histopathology tests. The body weights and food-water consumption by mice were recorded on weekly basis. The study results revealed that, there were no signs and incidences of toxicity or mortality in mice during the study period. No significant difference between treated (rosin ester administered) and control group of mice were recorded in the observations of different tests, body weights and food-water consumption. The histopathological examination of organs from the mice treated with rosin esters for 28d does not show any signs of toxic effects when compared with the control group. Therefore, the present investigation confirmed the non-toxic nature of novel rosin ester at 25mg/kg daily dose of body weight after oral administration in both the sexes.

KEYWORDS: Rosin ester, Corn oil, Swiss Albino mice, Toxicity, Histopathology.

INTRODUCTION:

The advancement of the sustainable material is very important topic of concern for today and future. The production of energy and plastic from fossil fuel has several limitations. It will nearly exhaust soon. For the ecology concerns, as oil resources are depleting, the interest in the development of eco-friendly materials from renewable natural resources is increased.[1] Rosin is the one of most important renewable substance. Rosin or colophony is a natural and abundantly available polymeric material derived from pine tree. It was widely used in the paper, coating, printing ink, polymer, food industries etc. It acts as a precursor for flux in soldering.[2] The rosin contains about 90% of monocarboxylic acid (of alkylated hydrophenanthrene), rosin acid (molecular formula $C_{20}H_{30}O_2$).

The major rosin acids include abietic acid which contains tertiary carboxylic acid (-COOH) and conjugated double bonds and pimaric acid with non-conjugated double bonds. The rosin acid is containing two chemically reactive centers namely -COOH group and double bond. They are considered as safe, biodegradable and biocompatible.[3,4] These are soluble in alcohol, benzene, chloroform and ether. It is insoluble in water. Polyethylene glycol (PEG) or poly (ethylene oxide) is a petroleum base polymer represents water-soluble monohydroxy alcohols. These are used as a base in ointments and suppositories, as a plasticizer in film coating, as a auxiliary emulsifier, as flux vehicle in WSFs for electronic industrial etc.[4-6] But the natural polymers remains a choice of matter because of their low cost, quick availability, capacity of undergoing several chemical transformations and biological safety.

The rosin and its derivatives were employed for microencapsulating model drug.[7-9] They were used as an anhydrous binder and matrix former in conventional and sustained release formulations respectively.[10-12] They were exploited as a pharmaceutical aid in chewing gum

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Formulation And Evaluation Of Multipurpose Herbal Cream Containing Hibiscus Rosa-Sinensis

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Assistant professor deparment of pharmacognosy at Maharashtra Institute of Pharmacy Betala, Bramhpuri, Maharashtra, India.

ABSTRACT

Herbal cosmetics are the preparation used to enhance the human appearance. The aim of the present research was to formulate the herbal cream for the purpose of moistening,nourishing ,lighting,protecting and treatment of various diseases of the skin. Different crude drug hibiscus rosa sinesis (jaswand flower),aloe barbadensis(aloe vera leaves), ocimum sanctum(tulsi leaves), azadiracta indica (neem leaves), curcuma longan(turmeric rhizomes), santum album(sandal wood), curcuma amada(amba halad), cedro oil (lemon peel), carica papaya (papaya), olium rosae (rose oil), orange oil, prunus dulcis(almond oil) were taken. accelerated stability testing oftwo final samplehas been conducted in the environmental chamber with temperature 25± 10^0c and humidity 60± 10%RH.Formulation F3 and F2 were found to be stable with no sign of phase separation and no change in the color. Thepatch testfor sensitivity testing has also been done and no evidence ofskin irritation and allergic sign. This work mainly focuses on the assessment of the microbial quality of formulated cosmetic preparation. Both formulation were found to comply with the microbial limit test as per the international specifications. Thus herbal cosmetics formulation is safe to use was proved and it can as the provision of a barrier to protect skin.

Keywords: herbal cream, protecting, cosmaceutical, microbial stability.

Introduction

The cosmetics are the utility product used extensively thought the world for the maintaining and improving general appereance of face and other part of body e.g. skin, eye, hair, hand , etc. herbal cosmetics are the preparation which represent cosmetics associated with active bio-ingredient, neutraceutical and pharmaceuticals. Cosmetics product that are used to cleanse and beautify the skin. The first recorded use of cosmetics is attributed to Egyptians in 4000 B.C. pharmaceutical are the essentially drug products and are defined as products that prevent, migrates, treat or cure diseases and affect the structures or function of the body.

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Formulation And Evaluation Of Multipurpose Herbal Cream Containing Hibiscus Rosa-Sinensis

Pooja S. Ghutke*, Snehal B. Bhagat, Sachin B. Dudhe.

Assistant professor deparment of pharmacognosy at Maharashtra Institute of Pharmacy Betala, Bramhpuri, Maharashtra, India.

ABSTRACT

Herbal cosmetics are the preparation used to enhance the human appearance. The aim of the present research was to formulate the herbal cream for the purpose of moistening,nourishing ,lighting,protecting and treatment of various diseases of the skin. Different crude drug hibiscus rosa sinesis (jaswand flower),aloe barbadensis(aloe vera leaves), ocimum sanctum(tulsi leaves), azadiracta indica (neem leaves), curcuma longan(turmeric rhizomes), santum album(sandal wood), curcuma amada(amba halad), cedro oil (lemon peel), carica papaya (papaya), olium rosae (rose oil), orange oil, prunus dulcis(almond oil) were taken. accelerated stability testing oftwo final samplehas been conducted in the environmental chamber with temperature 25± 10^0c and humidity 60± 10%RH.Formulation F3 and F2 were found to be stable with no sign of phase separation and no change in the color. Thepatch testfor sensitivity testing has also been done and no evidence ofskin irritation and allergic sign. This work mainly focuses on the assessment of the microbial quality of formulated cosmetic preparation. Both formulation were found to comply with the microbial limit test as per the international specifications. Thus herbal cosmetics formulation is safe to use was proved and it can as the provision of a barrier to protect skin.

Keywords: herbal cream, protecting, cosmaceutical, microbial stability.

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Formulation And Evaluation Of Herbal Mouthwash Containing Piper Betel

S.D.Mahajan , C.R. Doijad , S.R.Dhanvij

Maharashtra Institute of Pharmacy, Betala, Bramhapuri, Chandrapur.

Absract:-

Medicinal plants, plays a predominant role in curing and preventing diseases due to their antiviral and antimicrobial activity against human microorganism. Herbal Mouthwash are in high demand as compare to chemical mouthwash, because they act on mouth pathogen and microbes and reduce the pain instantly and are also has a no more side effects. The most commonly infectious diseases cause by a many pathogens and microbes are Dental carries and periodontal diseases at different stages of their life time. The aim of present work is to formulate and to evaluate its effectiveness against microbes present in oral cavity. The five herb Piper Betel (Paan), Azadirecta indica (neem), Mentha longifolia (mint), Syzgium aromaticum (clove) and Ocimum sanctum (tulsi) were selected for mouth wash and Prepared formulation was further evaluated for physical properties like pH, color and stability.

The present mouthwash possesses a good antibacterial property. This preparation is stable in different temperature condition Present mouthwash is a liquid preparation which normally contains antibacterial and antiseptic agents. These solutions can be used to reduce the microbial growth and it reduces infection in the oral cavity.

Keywords: Piper Betel, Neem, Tulsi, Clove oil, Mint, Mouth Wash, Herbal, Antimicrobial

INTRODUCTION:-

Herbal mouthwashes are in excessive demand, because they act on oral pathogens and relieve the pain instantly and are also less side-effective. Chemical mouthwashes have hydrogen peroxide a chlorine dioxide, and cetylpyridinium chloride, as an immediate whitener, sterilizer and pain reliever of teeth, but they tend to produce discoloration of teeth and may produce side effect, meanwhile they are cost effective.1,2,3

One of the most common infectious diseases encountered by many individuals is dental carries and periodontal diseases Periodontitis as a major oral infection may affect the Dental caries contain the cavity formation, eruption of enamel, swelling of gums,

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KEYWORDS: Diabetes mellitus,Ayurveda, Herbal,

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Recently the search for appropriate ant hyperglycemic agents has been focused on plants because there are a number of advantages associated with using herbal medicines as opposed to pharmaceutical products, such as, reduced risk of side effects, effectives in chronic conditions, lower cost and widespread availability [1].

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ANTIDIABETIC PLANTS IN TRADITIONAL MEDICINES

The aim of this review is to collect the data available on medicinal plants showing hypoglycemic activity either via increasing secretion of insulin from pancreas or by acting similarly. According to research, various Traditional Medicines are used as antidiabetics, and some 50% of these traditional remedies have been studied experimentally, such as kalmegh, kadujire, chirata, Picrorhiza, Punarnava. [1, 5]

Ayurvedic Formulations in Antidiabetic

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Development And Validation Of A Stability Indicating Reverse Phase Hplc-Pda Method For Determination Of Apixaban In Bulk And Pharmaceutical Dosage Form

Snehal Karmankar* Madhukar Tajne and Swati Patil

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Abstract

A simple, authentic and stability indicating high performance liquid chromatographic method for determination of Apixaban in bulk and pharmaceutical formulations is develop and validate as per ICH Q2 R1 Guidelines. The separation was performed on Agilent Eclipse Plus C18 column with Acetonitrile and water as mobile phase in gradient mode. A flow rate of 0.7 mL/min with an injection volume of 20 µL was selected for this study and the proposed method was validated with different parameters such as Linearity, Precision, Accuracy, Robustness, Limit of Detection (LOD) and Limit of Quantification (LOQ). The separation was achieved at a temperature of 30ºC and the eluents were observed by photo diode array detector set at 279 nm. A linear range of 1-12 µg/mL with a correlation coefficient of 0.999 unfolds good linear relationship between area and concentration in calibration curve. The retention time obtained was at 3.9 ± 0.05 min. The LOD and LOQ were found to be 0.09 µg/mL and 0.27 µg/mL respectively. A recovery of Apixaban in tablet formulation was observed as 98.89 % ± 0.34. Percentage assay of Apixaban tablets (Eliquis®) was found to be 99.97 % ± 0.63. Stability studies indicate that the drug was stable to oxidation, thermal and photo degradation. The drug gives 3 different degradation products on exposure to acidic condition and 3 degradation products on alkaline condition. The method was applied without any interference from excipients, for determination of drug in coated tablets. It is suggested that the proposed HPLC methods could be used routine quality control and dosage form assay of Apixaban.

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Microspheres For Colonic Delivery Of Betamethasone In Inflammatory Bowel Disease

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ABSTRACT

For treating colonic diseases, conventional oral drug delivery systems are not effective, as they fail to reach the appropriate site of action. Thus, there is a need to develop effective and safe therapy for the treatment of colonic disorders. The aim of the present study was to design a colon-specific delivery system for an anti-inflammatory synthetic glucorticoid, Betamethasone, with minimal degradation and optimum delivery of the drug with relatively higher local concentration, which may provide more effective therapy for inflammatory bowel disease including Crohn disease and ulcerative colitis. A multiparticulate system having pH sensitive property and specific enzyme biodegradability for colon targeted delivery of Betamethasone was developed. Tamarind gum microspheres were prepared by emulsion dehydration technique using different ratio of polymer. These microspheres were coated with Eudragit S-100 by oil in oil solvent evaporation method using core : coat ration (5:1) . Tamarind gum microspheres and Eudragit coated tamarind gum microspheres were evaluated for surface morphology, particle size and size distribution, percentage drug entrapment, surface accumulation studies, in vitro drug release in simulated gastrointestinal fluids. The prepared microspheres were spherical in shape in the size range of 53 µm to 190 µm, the encapsulation efficiency was in range of 64-80 % depending upon the concentration of gum. The drug release was about 10-12% in first four hours of study gradually rises in 5th hour and 80% drug release occurs in 8-10 hr thus showing desirable drug release in the colonic simulated environment.

KEYWORDS : Inflammatory bowel disease, Betamethasone, Colon, Microspheres.

INTRODUCTION

Inflammatory bowel disease (IBD) is a relapsing, debilitating, chronic, inflammatory disorder

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Preparation And Evaluation Of Aspirin Granules Prepared By Wet Granulation Technique, By Using Different Types Of Binders

Sachin Dudhe , P.C. Meshram

ABSTRACT:

Aspirin tablet is prepared by wet granulation method. Aspirin belonging to the class of NSAID having analgesic, antipyretic, anti-inflammatory and antiplatelet activity at systematic standard doses. In this Lubricants in combination leads to better drug release kinetic. The Prepared Tablet is Evaluated In terms of bulk density, tapped density, the angle of repose, Carr's Index and, hardness test, weight variation test, friability test and in vitro study. The result associated with optimized batch is good satisfactory and having better drug release kinetic. The in-vitro dissolution studies we got result our formulation follow Zero Order Kinetics with the effect of lubricants using in combination for better kinetic drug release.

Introduction:

Granules are produced to enhance the uniformity of the API in the final product, to the density of the blend so that it occupies less volume per unit weight for better storage and shipment, to facilitate metering or volumetric dispensing , to reduce dust during granulation process to reduce toxic exposure and process-related hazards, and to improve the appearance of the product. Consequently, the ideal characteristics of granules includes spherical shape for important flow, marrow particle size distribution for content informatiyand volumetric dispensing, sufficient fines to fill void spaces between granules for better compaction and compression characteristics, and adequate moisture and hardness to prevent breaking and dust formulation during process.

Granulation is an exemplary of particle design and the properties of the particles acquired after graduation depend on particle size of the drug and excipients, the type, concentration, and volume of Binders and / or solvents, granulation time, type of granulatior, drying rate etc . The primary method by which the agglomerated granules are formed include solid bridges, sintering, chemical reation, crystallization and deposition of colloidal particles. Besides, binding can also be accomplished through adhesive and cohesive forces by utilising high viscous binders. The series of mechanisms by which granules are formed from the powder particles encompass wetting and nucleation, coalescence or grwth, consolidation and attrition or breakage.

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Forced Degradation Study Of Lansoprazole And Domperidone By Hptlc

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Summary

A simple, precise, and accurate stability-indicating normal-phase HPTLC method has been established for simultaneous estimation of Lansoprazole (LAN) and Domperidone (DOM) in the bulk drug and dosage form. Chromatography was performed on silica gel $60F_{254}$ with toluene: methanol 8:2 (v/v) as mobile phase. Densitometric quantification was performed at 295 nm by reflectance scanning. The R_F value of DOM and LAN were 0.34 ± 0.03 and 0.50 ± 0.03 respectively. Validation of the method in accordance with ICH guidelines yielded good results for range, linearity, precision, accuracy, specificity, robustness and ruggedness. Response were a linear function of concentration of LAN over the range 375–3000 ng/band by peak area with correlation coefficient 0.99693 and DOM over the range 250–2000 ng/band by peak area with correlation coefficient 0.99372. The limit of detection of LAN was 1.70 ng per band for peak area and the limit of detection of DOM was 4.06 ng per band for peak area. Results from analysis of a commercial tablet formulation were 100.62 ± 0.0357 % and 100.00 ± 0.0388 % by peak area for LAN and DOM respectively. Recoveries were 100.06 ± 0.4690 % and 99.66 ± 0.2482 % by peak area for LAN and DOM respectively. The conditions used also enabled separation and detection of degradation products from acidic, basic, neutral, oxidation stress. No degradation products were obtained after photo and dry heat stress condition.

Key Words: HPTLC, Lansoprazole, Domperidone, Degradant, Validation

Introduction

Lansoprazole (LAN) 2-({[3-methyl-4-(2, 2, 2-trifluoroethoxy)pyridin-2-yl]methane}sulfinyl)-1H-1,3-benzodiazole [Fig. 1] is a proton pump inhibitor which inhibits stomach acid production. Domperidone (DOM) 5-chloro-1-{1-[3-(2-oxo-2,3-dihydro-1H-1,3-benzodiazol-1-yl)propyl]piperidin-4-yl}-2,3-dihydro-1H-1,3-benzodiazol-2-one [Fig. 2] is a specific blocker of dopamine receptors. Domperidone is given in order to relieve nausea and vomiting. [1-3]

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Phytochemical Screening, Antibacterial Activity And Leaves Extract Of Phyllanthus Niruri

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ABSTRACT :
The present study showed the antioxidant and antimicrobial activity of plant extract of Phyllanthus niruri. The antioxidant and antimicrobial activity of the plant extract may be due to the presence of different phytochemicals such as phenol, flavonoid, terpenoid, and saponin. The study supports the use of P. niruri in Ayurveda and traditional medicine throughout the world. It can be used as a potential source of antioxidant which can be used to cure various ailments and an antibacterial drug that can be used to inhibit the growth of various pathogenic and antibiotic resistant bacterial strains.

KEYWORDS : Antioxidant, Antimicrobial Activity, Phytochemicals

1. INTRODUCTION

Phyllanthus niruri (Linn), member of family Euphorbiaceae is a winter weed occurs across the hotter place in India. The Phyllanthus genus contains over 600 species of shrubs, trees and annual or biennial herbs distributed throughout the tropical and subtropical areas.[1] This plant grows up to 30 to 60 cm in height considered as an herbaceous weed found near to the cultivated lands, waste places and roadsides. The plant is native to the rain forests in the Amazon and tropical areas including India, China, Pakistan and Bahamas,[2] P. niruri has several benefits as a herbal medicine. The plant has been found to have hepatoprotective, antilithic, pain-relieving, antifungal, diuretic, antispasmodic, hypoglycemic, antiviral and anti-bacterial actions[1] The therapeutic action has been investigated with respond to following diseases: diarrhea, dysentery, dropsy, mouth and throat infection, veneral diseases, pimples, eczemas, gangrene, malaria, syphilis, ulcer, urethral secretion, hepatic diseases and gastro-intestinal disorders.[3]

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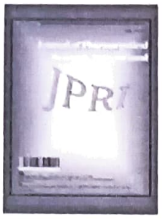

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Prednisolone Loaded Tamarind Gum Microspheres for Colonic Delivery

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The aim of this work was to formulate a novel multiparticulate system having pH sensitive property and specific enzyme biodegradability for colon specific drug delivery of Prednisolone (PD). Natural polysaccharide, Tamarind gum is used for microsphere preparation and Eudratit S- 100 for coating to provide pH controlled drug release. The formulation aims at minimal degradation and optimum delivery of the drug with relatively higher local concentration, which may provide more effective therapy for inflammatory bowel disease including Crohn disease and ulcerative colitis. Tamarind gum microspheres were prepared by emulsion dehydration technique using polymer in ratio of 1:1 to 1: 9. These microspheres were coated with Eudragit S-100 by oil in oil solvent evaporation method using core: coat ration (5:1). Tamarind gum microspheres and Eudragit coated tamarind gum microspheres were evaluated for surface morphology, particle size and size distribution, percentage drug entrapment, surface accumulation studies, in vitro drug release in simulated gastrointestinal fluids. The effect of various formulation variables were studied the prepared microspheres were spherical in shape in the size range of 64 µm to 113 µm, the encapsulation efficiency was in range of 30-72% depending upon the concentration of gum. The drug release was about 14-20% in first four hours of study gradually rises in 5th hour and 85% drug release occurs in 10-12% hr thus showing desirable drug release in the colonic simulated environment. PD tamarind gum microspheres are thought to have the potential to maintain drug concentration within target ranges for a long time, decreasing the side effects caused by concentration fluctuation, ensuring

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Parkinson Disease And Its Pharmacological Evaluation By In-Vivo Methodes

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Abstract :-

Parkinson's Diseases (PD) , which is the second most common neurodegenerative disorder characterized by the progressive degeneration of the structure and function of the central nervous system. Parkinson Disease characterized by progressive death of dopaminergic neurons is substantia nigra. Parkinson's Diseases (PD) is commonly known to be a complex motor and non-motor multifocal neurodegenerative disorder. Parkinson's Diseases shows the various symptoms like rigidity ,tremor, bradykinesia. Parkinson's Diseases is the second most common illness, affecting 1% of those over the age of 55. Parkinson's Diseases shows the imbalance between Inhibitory Dopamine and Excitatory Acetylcholine.

INTRODUCTION

Parkinson's disease is the second most common progressive neurodegenerative disorder.The incidence of PD is more frequent in industrialized countries and was found to increase with aging. PD is common. It affects about 500,000- one million Americans, or about 1% of people over the age of 60. It typically develops between the ages of 55 to 65 years and above. Resulting from a pathophysiologic loss or degeneration of dopaminergic neurons in the substantia nigra of the midbrain and the development of neuronal Lewy Bodies. Other neurodegenerative disorders can mimic idiopathic PD. These include Dementia with Lewy Bodies (DLB), Corticobasal Degeneration (CBD), Multiple System Atrophy (MSA) and Progressive Supranuclear Palsy (PSP).

Treatments of PD have focused until recently only the movements,but now we see the disorder in a more realistic, holistic way. When we talk about treating PD we currently only mean treating the symptoms. The actual disease is attack on the nerve cells in the brain, and to lesser extent outside the brain.

PD is associated with risk factors including aging, family history, pesticide exposure and environmental chemical use e.g. like synthetic heroin use. It is characterised by both both motor and non motor symptoms, PD patient classically display rest tremor, rigidity, bradykinesia and stooping posture.

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