SOUVENIR

One day

NATIONAL SYMPOSIUM ON

ADVANCES IN PHARMACEUTICAL RESEARCH

15TH NOVEMBER 2014

Venue

RAGHAVENDRA

INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH (RIPER)

K.R. Palli Cross, Near S.K. University, Ananthapuramu,
Andhra Pradesh- 515721.

www.riper.ac.in

RAGHAVENDRA

INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH (RIPER)

(Granted 2(f) & 12(B) status by UGC & NBA Accredited Institution (UG))

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About us

Raghavendra Institute of Pharmaceutical Education & Research, familiar as **RIPER**, is the premier and renowned Pharmacy institute promoted by Raghavendra educational and rural development society was established in the year 2002 by a team of Pharmacy professionals. **The Institute is accredited by NBA for UG programme** and exclusively dedicated to Pharmacy education offering Diploma, Graduate, Post Graduate, Doctor of Pharmacy and Full-time PhD programmes as per norms of AICTE, PCI, New Delhi, affiliated to JNTUA Anantapur and SBTET Andhra Pradesh.

Pharm D course is supported by RDT Hospital, Bathalapalli, Ananthapuramu, which a Spain based trust Hospital with 500 bed capacity.

VISION

"To create professionally competent and socially sensitive pharmacists, capable of working in multifaceted environment with newer evolving technology"

MISSION

"To enable our students to develop into outstanding professionals and aware of the immense responsibilities to make the world better in the field of pharmacy"

Quality Policy

Dedicated to impart quality pharmacy education and training leading to "Degree in Pharmacy" and aims at being a global education and research institution through continual improvement and effectiveness of the quality system.

Location:

The institute is located at 11 Km Stone from Anantapur on Chennai high - way and is very nearer to Sri Krishnadevaraya University. The campus extends to 12 acres and is well connected by road, rail from Bangalore, Chennai& Hyderabad.

Building:

The total built up area of the institute is about 10,000 sq.mt with 16 class rooms, 8 Tutorial Rooms, 28 Laboratories, A/C Seminar hall, Conference hall, and Central library as per the norms. The laboratories are well equipped with all the instruments.

ROYAL SOCIETY OF CHEMISTRY (LONDON) – DECCAN SECTION

Royal Society of Chemistry London is a not-for-profit organization with a heritage that spans 170 years; it has an ambitious international vision for the future. Around the world, the Royal Society of Chemistry (London), invest in educating future generation scientists.

Since 1841 the Royal Society of Chemistry (London) has been leading society and professional body for chemical scientists and being committed in fostering a passionate, novel and prosperous scientific community. With over 49,000members and a knowledge business that spans the globe, the RSC is involved in the spheres of education, qualification and professional conduct.

RSC runs conferences and workshops for college students, scientists, industrialists and policy makers at both national and international level. In the UK, RSC has its office in London and Cambridge. RSC offices are also in India, China, Japan & USA.

Dr. Y. Padmanabha Reddy,
M. Pharm., Ph.D., F.I.C.
Professor & Principal
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu, Andhra Pradesh
E-mail: ypreddyatp@rediffmail.com

Message

It is a moment of pride, happiness and overwhelming enthusiasm to informing you about the One day "National Symposium on Advances in Pharmaceutical Research" organized by our institution, Raghavendra Institute of Pharmaceutical Education and Research (RIPER) in association with Royal Society of Chemistry (London) – Deccan Section on 15th November 2014.

I am sure that this symposium would be wonderful platform for Pharmaceutical professionals to share, interact and explore the upgrade technological advancement in Pharmaceutical sciences.

It's a great opportunity to thank the representatives of RSC, delegates, participants, presidents and secretaries of statutory bodies, committees, volunteers and all the people who are directly or indirectly involved in making this preliminary idea a real one.

Dr. Y. Padmanabha Reddy

Dr. J. Ravindra Reddy,
M. Pharm., Ph.D.
Correspondent
Raghavendra Institute of Pharmaceutical Education & Research (RIPER),
Ananthapuramu, Andhra Pradesh
Email ID: riperravi1969@gmail.com

Message

I take great interest in informing you about the one day "National Symposium on Advances in Pharmaceutical Research" organized by our institution Raghavendra Institute of Pharmaceutical Education and Research (RIPER) in association with Royal Society of Chemistry (London) – Deccan Section on 15th November 2014.

The Symposium is divided into three phases; the first phase includes two lectures, one pertaining to HPLC and other on NDDS. The second phase is about Quiz competition by members of RSC. Third phase is about an expert's talk on Process validation followed by poster presentation and evaluation.

I wish all the best and thank all the people who are directly or indirectly involved in making this symposium a great success.

Dr. J. Ravindra Reddy

Dr. M. Vijaya Jyothi,
M. Pharm., Ph.D.
Professor,
Head, Department of Pharmaceutical Chemistry
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
Email ID: drmvjyothiriper@gmail.com

Message

I am glad to inform you about the one day "National Symposium on Advances in Pharmaceutical Research" organized by our institution Raghavendra Institute of Pharmaceutical Education and Research (RIPER) in association with Royal Society of Chemistry (London) – Deccan Section on 15th November 2014.

I hope this symposium will enrich the minds of different personnel who are actively engaged in different areas of pharmaceutical research. I ensure that expert's talk; Quiz and Poster presentations will ignite your minds which may help you to think innovatively.

I pay sincere thanks to Prof. V. Peesapati, Hon. Secretary, RSC-Deccan section and other representatives of RSC for giving their consent for conducting this symposium in our institution. I gratefully acknowledge to Raghavendra Institute of Pharmaceutical Education and Research (RIPER) for conducting this symposium.

Dr. M. Vijaya Jyothi

Prof. Venkateswarlu Peesapati
B. Sc. (Spl), M.Sc., Ph.D; CChem FRSC (London)

Hon. Secretary, RSC-Deccan Section,

Hyderabad, India

Message

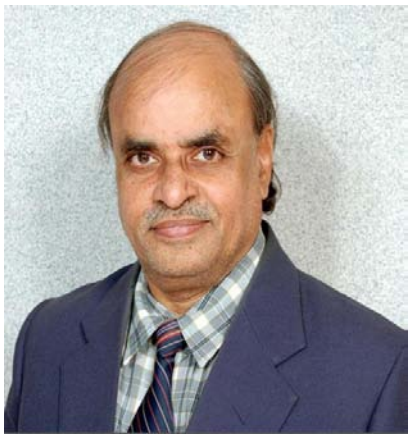
On behalf of Royal Society of Chemistry, London- Deccan Section, Hyderabad, India, I am extremely delighted to welcome all the speakers and delegates participating in the one day "National Symposium on Advances in Pharmaceutical Research" on 15th November, 2014.

An approach has been made by RIPER and RSC together by inviting eminent speakers who can disseminate their expertise to the researchers and all the other personnel actively engaged in research pertaining to their area of specialization in Pharmaceutical Sciences.

I am sure that this one day symposium will help the professionals, scientists and students to update their knowledge and render fruitful results to the healthcare system of our country.

Prof. Venkateswarlu Peesapati

Prof. K. Lal Kishore
M. Tech., Ph.D., SMIEEE, FIETE, FIE, MISHE
Hon. Vice-Chancellor,
Jawaharlal Nehru Technological University Anantapur,
Ananthapuramu-515 002, A.P., India



Message

I came to know that Raghavendra Institute of Pharmaceutical Education & Research conducting a one day "National Symposium on Advances in Pharmaceutical Research" in association with Royal Society of Chemistry of Deccan Section on 15th November 2014.

I hope this symposium will help you to share the knowledge on different research areas of pharmaceutical sciences.

My best wishes to the principal, faculty members of the Raghavendra Institute of Pharmaceutical Education & Research (RIPER) and Royal Society of Chemistry – Deccan section for grand success of this one day symposium.

Prof. K. Lal Kishore

Prof. S. Krishnaiah
M. E., Ph.D.
Registrar
Jawaharlal Nehru Technological University Anantapur,
Ananthapuramu-515 002

Message

I gratefully acknowledge Raghavendra Institute of Pharmaceutical Education & Research for conducting a one day "National Symposium on Advances in Pharmaceutical Research" in association with Royal Society of Chemistry of Deccan Section on 15th November 2014.

I am sure that the scientific sessions would be high profile with Royal Society of Chemistry speakers and this approach by the RIPER institution made to fill the gap between Industries and Institution by inviting eminent speakers who can disseminate their expertise to the educational community.

My hearty greetings to the delegates, RIPER institution, RSC members for organized a symposium on an important topic of Advances in Pharmaceutical Research.

Prof. S. Krishnaiah

Prof. K. Hemachandra Reddy
M. Tech, Ph.D., FIE, MISTE
Ex-Registrar & Professor
Jawaharlal Nehru Technological University Anantapur,
Ananthapuramu - 515 002, A.P., India

Message

It's my immense pleasure to be a part of this one day "National Symposium on Advances in Pharmaceutical Research" organized by Raghavendra Institute of Pharmaceutical Education & Research (RIPER) in association with Royal Society of Chemistry (London) - Deccan Section on 15th November 2014.

I hope that this symposium may be a good platform to share knowledge of advances in pharmaceutical research by the research organization CSIR-Indian Institute of Chemical Technology, industry - Biocon and also from the academic people.

My heartful congratulations and best wishes to RIPER, RSC members and to the delegates who are enthusiastically participating in the symposium.

Prof. K. Hemachandra Reddy

Prof. K. B. Chandra Sekhar
M.Sc., M. Phil., Ph.D., MISTE, MISCA, MICC
Director
Research & Development
Jawaharlal Nehru Technological University Anantapur,
Ananthapuramu - 515 002, A.P., India

Message

It is a moment of pride and happiness that Raghavendra Institute of Pharmaceutical Education & Research (RIPER) organized a one day "National Symposium on Advances in Pharmaceutical Research" in association with Royal Society of Chemistry (London) - Deccan Section on 15th November 2014.

I hope that this platform will serve you better to have ignition in minds which are actively engaged in research of different areas of pharmaceutical sciences. The talks by expertise resource persons and the poster presentations will give you a chance to think innovatively by active participation and discussions.

I Congratulate RIPER institution and RSC members for coming forward to make available such a platform of symposium which is essential for today's researches.

Prof. K. B. Chandra Sekhar

Royal Society of Chemistry (London) – Deccan Section Members

Dr. R. Nageswara Rao,

M. Sc., Ph.D.

Chief Scientist

CSIR-Indian Institute of Chemical Technology
(Council of Scientific and Industrial Research)
Ministry of Science & Technology, Government of India, Tarnaka, Hyderabad-500007, Telangana, India

Dr. Sistla Ramakrishna,

M. Pharm., Ph.D.

Principal Scientist

Medicinal Chemistry and Pharmacology Division
CSIR-Indian Institute of Chemical Technology
Hyderabad, India.

Dr. K. J. Satyanarayana,

M. Sc., Ph.D.

Scientific Manager,
API R&D Lab,
Biocon, Bangalore

Dr. Sree Lakshmi Ponnuru

M.Sc., Ph.D.

Guest faculty
Member Royal Society of Chemistry, London – Deccan Section

Dr. M.V. Narendra Kumar

M. Pharm., Ph.D.

Asst. Professor and In Charge LC-MS
NIPER,
Hyderabad.

Mr. P. Venkatesh

M.S. (Pharm)

Scientist, R&D,
Biocon, Bangalore

Profile

Dr. R. Nageswara Rao,

M.Sc., Ph.D.

Chief Scientist

CSIR-Indian Institute of Chemical Technology
(Council of Scientific and Industrial Research)
Ministry of Science & Technology, Government of India
Tarnaka, Hyderabad-500007, Telangana, India

Topic: HPLC and its applications in Pharmaceutical Research

Dr. R. Nageswara Rao born on 15th January, 1955, received his Master's and Doctorate degrees in Chemistry in 1983 & 1990 respectively from Osmania University, Hyderabad. He joined Indian Institute of Chemical Technology (IICT) then Regional Research Laboratory (RRL), Hyderabad in 1978 and currently working as a Chief Scientist/Scientist G after various promotions in capacities with in the same institute. He has more than 36 years of research experience and association with various R&D projects of the laboratory in development of chromatographic and spectroscopic techniques.

Dr. R. Nageswara Rao research areas include Analytical & Bio analytical Method Development & Validation, Liquid-Liquid & Solid Phase Micro Extractions: Fate and Distribution of Antibiotics, Pesticides, Aromatic Sulphonates, Fluorescent Whitening Agents and Synthetic Pyrethroids in aqueous media, Environmental pollution analysis, Certified Reference Materials (CRMs), Advanced Oxidation Processes (AOPs).

Dr. R. Nageswara Rao has 01 patent, 159 publications in national and international journals, invited talks and awards from various organizations across the globe.

Profile

Dr. Sistla Ramakrishna,
M. Pharm., Ph.D.
Principal Scientist
Medicinal Chemistry and Pharmacology Division
CSIR-Indian Institute of Chemical Technology
Hyderabad, India.

Topic: Recent Trends in Novel Drug Delivery System

Dr. Sistla Ramakrishna was born in Tenali, A.P and did his B. Pharm and M. Pharm degrees from Andhra University, Visakhapatnam. In 1990, he joined in M/s Anglo French Drug & Co, Bangalore as production chemist and worked for a period of two years. Later, he did his doctoral research at Pharmacology Division, Indian Institute of Chemical Technology, Hyderabad, India, under the guidance of Dr Prakash V Diwan. He was awarded Ph.D degree in Chemical Technology from Osmania University, Hyderabad, in 1999. After working for a period of two years in academics he joined in Pharmacology Division of IICT as Research Associate. From 2001 he is working as Scientist and currently he is holding the position of Principal Scientist in the same division.

His areas of interest include Novel Drug Delivery Systems, Pharmacological Screening, Pharmacological interventions targeted against nephro and cardio toxicities, Pharmacokinetics and Regulatory Toxicology. He has been working in the *in vitro* and in *vivo* screening of NCEs for arthritis, diabetes and cancer. In Novel Drug Delivery Systems, he is working in the area of ligand coupled nanostructures for various drug targeting applications including brain.

He has 65 projects, 105 research papers to his credit. He is a member of Board of Studies in Pharmacy, Pharm D in Osmania University and Andhra University. He is member in expert committees in JNTU, Osmania University, Hyderabad, Kakatiya University, Warangal and JNTU, Hyderabad.

Profile

Dr. K. J. Satyanarayana,
M. Sc., Ph.D.

Scientific Manager,
API R&D Lab,
Biocon, Bangalore

Topic: Process Development

A notable professional with a13 years of rich experience including post doc in synthetic organic chemistry, R&D, Process Development, New Drug Development, API- project management with well known Pharma industries. Presently he associated with Biocon, Bangalore, as a R&D Lab manager- API.

Dr. Satyanarayana completed Postdoctoral Fellow (Organic Chemistry), School of Chemistry and Chemical Biology, University College, Dublin, Ireland, Nov 2008-July 2011, PhD (Organic Chemistry), School of Chemistry and Chemical Biology, University College Dublin, Ireland, Dec 2005-2008, Certificate course on Drug Design, Royal College of Surgeons Ireland, 2006, M. Sc. (Tech.) Pharmaceutical Chemistry with 8.5 CGPA, BITS PILANI, 2001-2004, B.Sc. (Chemistry) with 80% Andhra University, 1996-1999.

Dr. Satyanarayana has 13 publications in referred journals, 04 patents and 05 awards from various organizations. He attended several conferences and workshops.

National Symposium on Advances in Pharmaceutical Research – Royal Society of Chemistry (London) – Deccan Section

15th November 2014

ORGANISING COMMITTEES

1. **Chairman:**

Dr. Y. Padmanabha Reddy, *M. Pharm., Ph.D. F.I.C,*
Professor& Principal
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

2. **Co-Chairman:**

Dr. J. Ravindra Reddy, *M. Pharm., Ph.D.*
Correspondent
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

3. **Secretary:**

Prof. V. Peesapati, M.Sc., Ph.D.
CChem FRSC, Hon. Secretary,
RSC – Deccan Section
Hyderabad, India.

4. **Convenor:**

Dr. M. Vijaya Jyothi, *M.Pharm., Ph.D.*
Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

5. **Brochure Committee:**

Mr. C. Suryaprakash Reddy, *M.Pharm., (Ph.D)*
Associate Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Dr. R. Mohanraj, *Pharm.D*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Mrs. M. Parvathi, *M.Pharm.,(Ph.D)*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Mr. C. Naresh Babu, *M.Pharm.,*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

6. **Registration & Budget Committee:**

Mr. K. Vinod Kumar, *M. Pharm., (Ph.D)*
Associate Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Mr. S. Nagarjuna, *M. Pharm., (Ph.D)*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

7. **Reception Committee:**

Dr. Y. Samhitha Reddy, *Pharm.D,*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Dr. B. Rajarejeswari, *Pharm.D*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

8. **Scientific Committee:**

Mr. C. Suryaprakash Reddy, *M. Pharm., (Ph.D)*
Associate Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

Mr. A. Sanjeeva Kumar, *M. Pharm., (Ph.D)*
Assistant Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

9. **Hospitality:**

Dr. M. Jaffar Sadiq, *M. Pharm., Ph.D*
Associate Professor,
Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

	Mr. G. Narayana, *M. Pharm.,* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
	Mr. K. Arshad Ahmed Khan, *M. Pharm., (Ph.D)* Assistant Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
10. **Purchase Committee:**	**Mr. C. Haranath**, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
	Mr. K. Somasekhar, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
11. **Catering:**	**Mr. A. Sudheer**, *M. Pharm.,* Assistant Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
	Mr. B. Pradeep Kumar, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
12. **Stage Committee:**	**Mrs. M. Geethavani,** *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
	Mr. B. Srinath, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
	Mrs. U. Usha Rani, *M. Pharm., (Ph.D)* Assistant Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

13. **Feedback form:**	**Mr. S. Manjoor Ahmad** , *M. Pharm.*, Assistant Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
14. **Discipline committee:**	**Mr. K. Omkareswar,** M.P.Ed. Physical Director, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu. **Mr. K.V. Veerabhadrappa**, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu. **Mr. K. Somasekhar**, *M. Pharm., (Ph.D)* Associate Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.
15. **Overall in-charge:**	**Dr. Ramakrishna Reddy**, M.Sc., Ph.D. Coordinator of Academic & Planning Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu. **Dr. M. Vijaya Jyothi**, *M. Pharm., Ph.D* Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu. **Dr. C. Sowmya**, *M. Pharm., Ph.D* Professor, Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapuramu.

RAGHAVENDRA

INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH (RIPER)

(Granted 2(f) & 12(B) status by UGC & NBA Accredited Institution (UG))

National Symposium on Advances in Pharmaceutical Research – Royal Society of Chemistry (London) – Deccan Section

PROGRAM – 15th November 2014

09.30 – 10.00 AM	: Inaugural Function
10.00 – 11.00 AM	: HPLC and its applications in Pharmaceutical Research (Dr. R. Nageswara Rao)
11.00 – 12.00 PM	: Recent trends in Novel Drug Delivery System (Dr. Sistla Ramakrishna)
12.00 – 12.15 PM	: High Tea
12.15 – 01.15 PM	: Quiz
01.15 – 02.15 PM	: Lunch Break
02.15 – 02.45 PM	: Process Development (Dr. K.J. Satyanarayana)
03.00 – 04.00 PM	: Poster Session
04.00 – 04.30 PM	: Certificate distribution & Vote of thanks

List of abstracts accepted for the symposium

S. No.	Poster code	Title	Presenting author
01.	RIPER/PP/001	Prevalence of childhood illness in draught prone villages of south India	Balasubramanyam. D
02.	RIPER/PP/002	impact of pharmacist mediated patient counselling on medication adherence and KAP in tuberculosis	G. Sunanda
03.	RIPER/PP/003	Comparative study on Safety and Efficacy of two drugs Cisplatin and Gemcitabine in concurrent Chemo radiotherapy used in the treatment of squamous cell carcinoma of cervix	P. Anitha
04.	RIPER/PP/004	Impact of Pharmacist mediated Patient Counselling on Knowledge, Attitude & Practice & Medication Adherence upon usage of Specialized Pharmaceutical Formulations	J. Sucharitha
05.	RIPER/PP/005	Impact Of Clinical Pharmacy Based Patient Education On Type 2 Diabetes Mellitus	M Gowthami
06.	RIPER/PP/006	Pattern Of Drug Use In The Management Of Epilepsy In Children At A Secondary Care Rural Development trust Hospital	M. Siva Lakshmi
07.	RIPER/PP/007	Vitamin B12 Deficiency In Pregnant Women Leading To Type-2 Diabetes Mellitus In Infants	K.S.V. Nikitha
08.	RIPER/PC/001	Synthesis, Characterisation And Anti-Tubercular Activity Of Novel Stilbene Derivatives	S.Aparnadevi
09.	RIPER/PC/002	Evaluation Of Protective Effect Of Isatin Against Cisplatin Induced Nephrotoxicity	K Bhargavi Latha
10.	RIPER/PC/003	Formulation & Evaluation Of *Acalypha indica* Anti-Fungal Gel	M Sruthi
11.	RIPER/PC/004	*Insilico* Prediction Of Biological Activity And Toxic Properties Of The Synthesized Indazoles From Chalcones	N. Ayesha
12.	RIPER/PC/005	Evaluation Of Anticancer Activity For Some Newly Synthesized Methanone Derivatives	O. Pallavi
13.	RIPER/PC/006	*In Vitro* Anti-Cancer, Anthelminthic Activity Evaluation And Nutritional Value Assessment Of Methanolic Extract Of *Caralluma attenuata*	P. Mounika
14.	RIPER/PC/007	Synthesis And *In silico* Evaluation Of Novel N-(Carboxy Methyl) 2-Cyano-3-Phenyl-Prop-	K. Samyuktha

		2-Enamidederivatives For Anti Inflammatory Activity	
15.	RIPER/PT/001	Development And Evaluation Of Buccoadhesive Tablets Of Omeprazole	G. Prathibha bharathi
16.	RIPER/PT/002	Formulation And Evaluation Of Fast Dissolving Tablets For Insomnia Treatment	J.Preethi
17.	RIPER/PT/003	Dissolution Enhancement Of Aceclofenac By Solid Dispersion Technique Using Starch Phosphate As Polymer	Ashwini. V
18.	RIPER/PT/004	Emulsion Based Gel System of Bi-phenyl quinoxaline for Topical Delivery	M.B. Amulya
19.	RIPER/PT/005	Design and Development of Multiuse Lornoxicam Fast Dissolving Tablets by Novel Drug – Drug Solid Dispersion Technique with Ranitidine	Abhijeet Singh.R.Bais
20.	RIPER/PT/006	Formulation And Evaluation Of Aceclofenac Extended Release Matrix Tablets By Using Gum Kondagogu	D. Rushi Kumar Reddy
21.	RIPER/PT/007	Formulation And Evaluation Of In Situ Gelling System For Ocular Delivery Of Timolol Maleate	K. Pallavi
22.	RIPER/PT/008	Formulation Development And Characterization Of Selegiline Buccal Films	Saravanakumar K
23.	RIPER/PT/009	Formulation And Evaluation Of Sustained Release Bilayer Tablets Of Ramipril-7.5mg	Kotta Kranthi Kumar
24.	RIPER/PT/010	Preparation And Evaluation Of Quetiapine Fumarate Microemulsions: A Novel Delivery System	A.Sandhya
25.	RIPER/PT/011	Enhancement Of Solubility Of Piroxicam By Surface Solid Dispersions Technique	P. Aparna
26.	RIPER/PT/012	Formulation And Evaluation Of Prulifloxacin Sustained Release Matrics Tablets	P. Sravani
27.	RIPER/PE/001	Pharmacology Basis For Use Of *Momordica cherantia And Tribulus terrestris* In Gouty Arthritis: Antihyperuricemia Of Its Extract	T. Kousarbanu
28.	RIPER/PE/002	Protective effect of Euphorbia hirta Linn against ischemic reperfusion cerebral injury: possible neurobehavioural and biochemical alteration in rat brain	K.V. Namrathaa
29.	RIPER/PE/003	Effect of Cilnidipine (calcium channel blocker) on lipid profiles of hypertensive rats fed with high fat diet	G.Sravanthi

30.	RIPER/PE/004	Evaluation Of Anti Ulcer Effect Of *Polyalthia longifolia* In Albino Rats	C.P. Bhavya Madhuri
31.	RIPER/PE/005	Anti-Hyperlipidemic Activity Of Menosan On Ovarectamised Female Rats	Swetha.B
32.	RIPER/PE/006	Effect Of *Termenalia catappa* Leaf Extract On Cafeteria Induced Obesity In Rats	N. Rajitha
33.	RIPER/PE/007	Nephroprotecitve Activity Of *Cardiospermum helicacabum* On $K_2cr_2o_7$ Induced Nephrotoxicity On Male Wistar Rats	T. Sushma Shobitha
34.	RIPER/PE/008	Prevention Of Liver Fibrosis Induced By Carbon-Tetrachloride By *Trigonella Foenum Graecum Linn*	S. Sai Sruthi
35.	RIPER/PE/009	Microbiological Assays Of Newer Antibiotics	Susheela.F
36.	RIPER/PE/010	Study on Effect of *Euphorbia hirta* Gel Treatment in Experimental Periodontitis	B. Veena
37.	RIPER/PE/011	Evaluation Of Anti-Hyperlipidaemic Activity Of Methanolic Extract Of Leaves Of *Feronia limonia L* In Wistar Rats	Y. Balakrishna
38.	RIPER/PA/001	A new validated uv spectrophotometric method for the simultaneous estimation of metformin hydrochloride and gliclazide in combined tablet dosage form by dual wavelength method	*Moosasalam.B*
39.	RIPER/PA/002	Validated High Performance Liquid Chromatographic Method Development For Simultaneous Estimation Of Irinotecan.Hcl And Capecitabine In Bulk Form	Kamanuru Manogna
40.	RIPER/PA/003	A New Validated Uv Spectrophotometric Method For The Simultaneous Estimation Of Paracetamol And Tramadol In Combined Tablet Dosage Form By Dual Wavelength Method	*Yerriswamy.K*
41.	RIPER/PA/004	Development And Validation Of Spectrophotometric Method For Simultaneous Estimation Of Oxaliplatin And Capecitabine In Bulk Form By Simultaneous Equation Method	Nalini.A
42.	RIPER/PA/005	A New Method Development And Validation Of Dual Wavelength Uv Spectro Photometric Method For Simultaneous Estimation Of Atenolol And Amlodipine Besylate In Combined Dosage Form	Rajesh.K
43.	RIPER/PA/006	Development And Validation Of Simultaneous Estimation Of Telmisartan, Amlodipine Besylate And Hydrochlorthiazide By UV Spectroscopy	Y.C. Roja

44.	RIPER/PA/007	Reverse Phase Hplc Methods For The Estimation Of Duloxitine In Tablet Dosage Form	Prasad M
45.	RIPER/PG/001	Screening Of Analgesic Activity of *Momordica dioica* Root Bark	Kalimisetty Geethika
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RIPER/PC/001

SYNTHESIS, CHARACTERISATION AND ANTI-TUBERCULAR ACTIVITY OF NOVEL STILBENE DERIVATIVES

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Abstract

The main reasons for synthesising these compounds are minimum side effects. Multi drug resistance is observed in synthetic existing anti tubercular drugs. Keeping this in view stilbene derivatives were prepared to confirm the structure of the synthesized stilbene derivatives by spectral and elemental analysis, to evaluate the proposed derivatives for their anti tuberculor activity. Stilbene was prepared by condensation of benzoin with Zinc and mercuric chloride. Stilbene on Friedel craft's acylation gave acetyl derivative of stilbene . Different derivatives were prepared by Claisen Schmidt condensation to get α, β unsaturated derivatives. Among the derivatives screened, the following observations were made in comparison with the standard pyrazinamide (3.125 µg/ml), ciprofloxacin (3.12 µg/ml) and streptomycin (6.25 µg/ml). Among Stilbene derivativesVHM, CP,CBZ have shown better activity. TD, TBE,VH,VHB,C,CM,CMH are showing moderate activity. In the present study terpenoid derivatives were synthesised and investigated for its anti tubercular activity by alamar blue assay method. At the end of this study a strong conclusion can be drawn that CA,PCB, posesses anti tubercular activity depending on the dose levels . The benifical effects of these drugs reveals that results thus hold a great promise for the use of stilbene deserves to be anti tubercular drugs. Further synthetic work is extended on semi synthetic derivatives of stilbene.

RIPER/PC/002

EVALUATION OF PROTECTIVE EFFECT OF ISATIN AGAINST CISPLATIN INDUCED NEPHROTOXICITY

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Abstract

The objective of the study was to investigate the effect of isatin against cisplatin-induced nephrotoxicity in male albino rats. Nephrotoxicity is induced by intra peritoneal administration of cisplatin(6mg/kg body wt,i.p).Isatinn was administered by gastric intubation. Animals were divided into 5 groups, each group containing 6 animals, group I animals received vehicle(1%CMC), group II animals received cisplatin on day 1, group III received 400mg /kg body weight isatin for 10 days, group IV & V received 200mg/kg & 400mg/kg body weight isatin respectively from day 1 to day 10 & on day 5 these groups received cisplatin. On day 9 urine was collected & urinary functional parameters were estimated.0n day 10 blood was collected BUN, Sc were estimated. Cisplatin caused acute renal damage characterised by elevation of BUN, SC. Animals received isatin reversed all the effects induced by cisplatin in dose dependent manner. Present study reveals that isatin attenuated the nephrotoxicity of cisplatin in rats.

Key words: Isatin, Cisplatin, Nephroprotective activity

RIPER/PC/003

FORMULATION & EVALUATION OF *ACALYPHA INDICA* ANTI-FUNGAL GEL

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ABSTRACT

Acalypha indica plant having the anti-microbial and anti-bacterial activities as per the literature survey conducted. So going to the anti-fungal activity to treat skin diseases to improve patient compliance, in the present work the crude leaf extract of *Acalypha indica* was isolated by soxhlet apparatus by using solvent methanol, after extraction the solvent is removed, typically by means of a rotary evaporator, yielding the extracted compound. These extracted leaf material formulated as a gel by using polymers HPMC & SCMC in 0.5 and 1% concentrations. The gel evaluated for Spreadability, Homogenicity, P^H measurements, Extrudability and *in vitro* drug release studies. Then the gel was evaluated for its anti-fungal activity and compared with other formulations such as *phyllanthus niruri*, *cassia alata*, gel formulated and standard candida gel by observing the zone of inhibition. The optimized gel formulation of *Acalypha indica* shows better anti-fungal activity compared with that of other formulations.

Key words: *Acalypha indica*, Soxhlation, Rotary evaporator, Anti-fungal activity.

RIPER/PC/004

INSILICO PREDICTION OF BIOLOGICAL ACTIVITY AND TOXIC PROPERTIES OF THE SYNTHESIZED INDAZOLES FROM CHALCONES

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Abstract

An *Insilico* method mainly helps to reduce the number of experimental studies required for compound selection, development and for improving the success rate and also helps to select the best candidates for development as well as to reject those with a low probability of success. Now in the present work includes the prediction of biological activities and toxic properties of the synthesized 7-(Substituted benzylidene)-3-aryl-2,3,4,5,6,7-hexahydroindazol-1-yl(pyridine-4-yl)methanones (Indazoles) from substituted chalcones by using *Insilico* methods. In this the chalcones were prepared by Claisen-Schmidt reaction by the condensation of cyclohexanone and various substituted aromatic aldehydes. Then these chalcones were refluxed with isoniazid in the presence of pyridine by nucleophilic attack to get final indazole derivatives. The synthesized compounds were predicted for their toxic properties by the *Insilico* method – OSIRIS and biological activities by the *Insilico* method – PASS online software's. Based on those predictions, the synthesized compounds were screened for colorectal anti-cancer activity (MTT assay) by using cell line HT-29 human colorectal adenocarcinoma using cisplatin as standard drug.

Key words: Chalcones, Indazoles, OSIRIS, PASS & Colorectal cancer.

RIPER/PC/005

EVALUATION OF ANTICANCER ACTIVITY FOR SOME NEWLY SYNTHESIZED METHANONE DERIVATIVES

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ABSTRACT

The incidence of colorectal cancer is still increasing in large parts of the world due to the development of resistance to the available drugs. Colorectal cancer (CRC) is the third most frequently occurring cancer in both male and females, but it ranks second in developed countries. Thus, there is a need to develop novel colorectal anti cancer agents. The present work includes the synthesis of a series of new 7-(Substituted benzylidene)-3-aryl-2,3,4,5,6,7-hexahydroindazol-1-yl(pyridine-4-yl)methanones from substituted chalcones. These chalcones were prepared by Claisen-Schmidt reaction by the condensation of cyclohexanone and various substituted aromatic aldehydes. Then the chalcones treated with isoniazid in the presence of pyridine to get the titled compounds. The synthesized compounds were confirmed by IR, ^{1}H NMR, MASS spectra. The synthesized chalcones & methanones screened for colorectal anti cancer activity (MTT assay) by using cell line HT-29 human colorectal adenocarcinoma using cisplatin as standard drug. The compounds 2a, 2c, 2f, 3a, 3c and 3f exhibited maximum activity at a concentration <10 µg, 2b, 2e, 3b and 3e exhibited moderate activity at a concentration <20 µg. Remaining compounds 2d and 3d exhibited no activity at concentration >30 µg. The synthesized compounds having the electron releasing groups such as hydroxyl and dimethyl amino group in phenyl ring exhibited maximum activity. Hence it clearly indicates the importance of electron releasing groups on aromatic rings for anticancer activity.

Key words: Chalcones, Indazoles, Colorectal cancer, HT-29 cell line.

RIPER/PC/006

IN VITRO ANTI-CANCER, ANTHELMINTHIC ACTIVITY EVALUATION AND NUTRITIONAL VALUE ASSESSMENT OF METHANOLIC EXTRACT OF *CARALLUMA ATTENUATA*

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Caralluma attenuata is a succulent plant from India belongs to the family Apocynaceae. Traditionally, Indian tribes chewed chunks of *Caralluma* to quench thirst, as anorexiant for weight loss, to increase endurance and to cure diabeties. The literature survey is stated that *Caralluma attenuata* contains Saponin glycoside – luteolin-4-0-neohesperidoside, caratubersides A&B and various boucerosides. In present study qualitative chemical tests were carried out to identify the different classes of constituents of *Caralluma attenuata* like alkaloids, cardiac glycosides, saponin glycosides, flavonoids etc. As flavonoids usually exhibit anticancer activity, however no scientific investigation was so far been conducted on the anti-cancer activity of this plant and the prevalence of colorectal cancer and liver cancer are being increased in recent era; the present research was aimed to evaluate anti-cancer activity using HT/29 and HEP/G2 liver cells by MTT method. Less than 30 µg/ml extract showed 100% cell lysis compared with cisplatin as the standard drug. Chemical tests were also carried out for elemental ions like sulfates, phosphates, iron, calcium, magnesium and zinc and positive reults were obtained for the above.. The various concentrations of extract was screened for the anthelmintic activity and compared with the standard drug albendazole. 100mg/ml solution showed the anthelmintic activity within 10 minutes. The present study suggests evaluating the exact mechanism and components responsible for pharmacological actions.

Key words: *Caralluma attenuata*, anti-cancer activity, MTT colorimetry method, anthelmintic activity.

RIPER/PC/007

SYNTHESIS AND INSILICO EVALUATION OF NOVEL N-(CARBOXY METHYL) 2-CYANO-3-PHENYL-PROP-2-ENAMIDEDERIVATIVES FOR ANTI INFLAMMATORY ACTIVITY

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ABSTRACT

A series of Novel N-(Carboxy Methyl) 2-Cyano-3-Phenyl-Prop-2-Enamide Derivatives have been synthesized and screened for their anti-inflammatory and antioxidant activities. The synthesis of the title compound involves two steps. In the first step, various ring substituted ethyl 2-cyano-3-phenylacrylate derivatives were synthesized by knoevenagel condensation reaction of the aldehydes with ethyl cyanoacetate in presence of few drops of piperidine, rectified spirit, the compounds were obtained in good yield ranging from 62-86%. In the second step, the intermediate compounds obtained were condensed with glycine in presence of sodium hydroxide and acetone to yield N-(carboxy methyl) 2-cyano-3-phenyl-prop-2-enamide derivatives. Among the compounds synthesized, vanillinyl and 3, 5 dimethoxy–4-hydroxy derivatives showed highest anti-inflammatory activity. 4-hydroxy, 4-methoxy and 4-isopropyl derivatives also showed good antioxidant activity.

Key words:- 4-hydroxy, 4-methoxy and 4-isopropyl derivatives.

RIPER/PP/001

PREVALENCE OF CHILDHOOD ILLNESS IN DRAUGHT PRONE VILLAGES OF SOUTH INDIA

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ABSTRACT

Malnutrition contributes to 60% of the 10 million deaths globally that occur every year among children less than five years of age. The Anganwadi (AW) is literally a courtyard play centre. It is a childcare centre, located within the village areas. It is the focal point for the delivery of services at the community level. The retrospective cross-sectional survey study; was conducted to estimate the prevalence of childhood illnesses to assess the distribution of nutritional deficiency disorders and breast feeding status. The data had collected at single point of time in August 2014. The data collected was from 24 villages belong to 6 tensile of Anantapur district which had affected by drought. The sample includes only the children with illness. Total numbers of children born from 2010 to 2014 were 1500. A total of 914 children (up to 5 years) were reported to have clinical signs of nutritional deficiency. Illness observed were pneumonia, diarrhea, malaria, measles, HIV and other (include nutritional deficiency disorders) diseases. The children mortality rate per year was 3%. This study concludes for the development of nutritional programs, breast milk feeding and educational programs regarding the infectious diseases where there will be higher prevalent infection areas. Conducting the health care programs in the rural areas having higher illness prevalence will have the positive impact on child health.

Key Words: Prevalence, childhood illness, epidemiological study, malnutrition.

RIPER/PP/002

IMPACT OF PHARMACIST MEDIATED PATIENT COUNSELLING ON KAP AND MEDICATION ADHERENCE IN TUBERCULOSIS

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Abstract

TB is one of the major public health problem in most of the developing countries. Non adherence to the treatment is the major obstacle in the control of tuberculosis. If patient take their medications irregularly, leads to drug resistant TB. Non-adherence is due to lack of knowledge and awareness towards tuberculosis. The objective of this study was to assess and improve medication adherence and knowledge, attitude and practices of patients towards tuberculosis and its management. This is a prospective interventional study carried out in Governmental hospital, Anantapuramu. Firstly, patient's knowledge was assessed using pretested questionnaire and medication adherence was assessed collecting urine samples and Morisky questionnaire. Patients were given with counselling by the pharmacist using PILs and assessed the improvement in their knowledge and medication adherence regarding TB. KAP questionnaire administered and urine samples were collected from 58 patients. Knowledge was increased from baseline (3.22+2.37) to second follow up (10.43+2.59) and medication adherence rate also increased from58.6% to 84.4% after pharmacist mediated patient counselling. The results showed significant improvement in the adherence and KAP. This study concludes clinical pharmacist mediated patient counselling showed a great positive impact on medication adherence in tuberculosis patients. Urine analysis is effective method to detect medication adherence. Knowledge and awareness are important to be adherent to the treatment. Pharmacist provided patient education found to have significant influence on patient compliance and health care outcomes.

Keywords: Medication adherence, KAP, Patient counselling

RIPER/PP/003

COMPARATIVE STUDY ON SAFETY AND EFFICACY OF TWO DRUGS CISPLATIN AND GEMCITABINE IN CONCURRENT CHEMO RADIOTHERAPY USED IN THE TREATMENT OF SQUAMOUS CELL CARCINOMA OF CERVIX

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Abstract

A randomized trial was conducted to compare Gemcitabine with Cisplatin in concurrent Chemo radiotherapy in the treatment of patients with squamous cell carcinoma of cervix. Response rate was chosen as the primary end point for efficacy. Hematological, nonhematological and biochemical toxicity was taken to monitor safety profile. A total of 50 patients with squamous cell carcinoma were randomized to receive Radiotherapy for 5 days and Gemcitabine on day 6 or Cisplatin on day 6 and day 7 was free. The response study was conducted on 30 patients. The toxicity studies were conducted on 50 patients. Complete response was shown by 6 (40%) patients out of 15 patients in arm-A (Gemcitabine-Radiotherapy) in comparison of 4 (26.7%) patients out of 15 patients in arm-B (Cisplatin-Radiotherapy).During the analysis, no patient was shown stable disease in both the arms. The progression of the disease was more in arm-B, 3 (20%) patients in comparison to arm-A; 1 (6.7%) patient. Hematological toxicity was more in arm B comparing to Arm A. The Nausea/vomiting (**p=0.015**) toxicity was more pronounced in Arm-B, 9 (39.13%) patients in comparison to Arm-A, In case of creatinine toxicity, 7 (30.43%) patients of Arm-B were shown toxicity (**p=0.05**) in comparison to Arm-A, 2 (6.25%), which was significant. Gemcitabine- Radiotherapy provides a significantly higher response rate and a delay in disease progression in comparison of Cisplatin-Radiotherapy. The hematological, non hematological and biochemical toxicity was less in Gemcitabine-radiotherapy regimen.

Keywords: cervical cancer, toxicity, efficacy, radiotherapy

RIPER/PP/004

IMPACT OF PHARMACIST MEDIATED PATIENT COUNSELLING ON KNOWLEDGE, ATTITUDE & PRACTICE & MEDICATION ADHERENCE UPON USAGE OF SPECIALIZED PHARMACEUTICAL FORMULATIONS

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ABSTRACT

Patient counselling is defined as providing information orally or in written form to the patients or their representatives on disease & medications use, advice on side effects, precautions, storage, diet and life style modifications. The study was conducted to assess the KAP and medication adherence of specialized formulations using Insulin, Inhalers, Spacers, Nasal sprays and Eye drops. The study was a prospective interventional study conducted in RDT Hospital, Bathalapalli with period of 6 months in Dispensing pharmacy. Out of 196 patients who are using specialized formulations, KAP questionnaire is administered to Patients in the test group (96) and given patient counselling again collected after 1st and 2nd month, where as the control group (100) patients received the counselling only at the end of the study. The paired t-test in Graph Pad InStat was used for statistical calculation. The overall KAP scores for specialized formulations between test of baseline and final follow up was statistically significant (P< 0.001). The medication adherence was done by using Morisky scale, test group has shown increased medication adherence than control which shows the importance of patient counselling. A clinical pharmacist can play a major role in patient counselling by providing pharmaceutical care services. The study concluded that pharmacist mediated patient counselling and medication adherence on specialized formulations will improve the knowledge, attitude and practice towards medication usage.

Key words: Patient counselling, Formulations, KAP and Adherence.

RIPER/PP/005

IMPACT OF CLINICAL PHARMACY BASED PATIENT EDUCATION ON TYPE 2 DIABETES MELLITUS

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Abstract

Patient counselling deals with providing information to the patients regarding the disease, medications and lifestyle modifications. This study aims to provide clinical pharmacy based patient education on quality of life in type 2 diabetes mellitus. This study was conducted at Sabitha diabetic Hospital located at Sainagar, Anantapur. This is a prospective intervention study carried out to determine the impact pharmacist mediated patient counselling on quality of life, fasting blood glucose levels, blood pressure and management of complications in diabetes affected patients. All patients were counselled regarding disease, medication, nutrition, exercise, insulin, foot care, eye care, personal hygiene, self monitoring of glucose and self care. The patients were counselled in the presence of concerned physician hospital. The patients were asked to come back for follow up every 3 months for a period of 9 months. The fasting blood glucose of the patients is non significant (P value > 0.05) at the baseline. At the end of the visits the test group showed significant ($p>0.05$) reduction in FBS from baseline to the final follow up. Significant improvement ($p<0.05$) in the overall QOL and subscales like health and functional, social and economic, physiological or spiritual and family was observed in the test group compared to the baseline. The study concluded that chronic diseases like diabetes affect the quality of life of patients and the education has a major role in improving the health care outcomes like glycaemic control and quality of life.

Key words: quality of life, patient counselling, KAP, fasting blood glucose

RIPER/PP/006

PATTERN OF DRUG USE IN THE MANAGEMENT OF EPILEPSY IN CHILDREN AT A SECONDARY CARE RURAL DEVELOPMENTTRUST HOSPITAL

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Abstract

The main objective of study was to assess the pattern of antiepileptic drugs (AEDS) use in paediatrics clinical practice, RDT children hospital, Bathalapalli. We also assessed other parameters like contribution of risk factors and reported the adverse effects of anti epileptic drugs. Over a six months period, all paediatric epilepsy patients from both out patients and in patients of age 6month to 12year from a secondary care hospital who were diagnosed with epilepsy were followed up prospectively. Statistical analysis was done using Microsoft access 2010.In this six month prospective study, 203 patients data were collected which included 153 out-patients and 50 in-patient. In this study idiopathic seizure was the most common type epilepsy in out-patients(32.68%). Generalized tonic clonic seizures comprised the second most common category of seizure(31.4%), followed by partial seizure(30%). Carbamazepine was the most frequently prescribed monotherapy (72%) followed by sodium valproate (10.8%) followed by phenytoin (9.9%). Fibrile seizure was the most common type of epilepsy in in-patients (70%). Diazepam was mostly prescribed mono therapy (75%) the overall incidents of adverse drug reactions(ADRS) was 3.94%, rashes were the common ADR reported by 5 patients and carbamazepine caused majority of ARDS.Idiopathic seizure was commonest type of epilepsy in out-patients. Monotherapy was preferred in most cases Carabamazepine was the most frequently prescribed AED monotherapy followed by sodium valproate, phenytoin. Fibrile seizures occur in in-patients, diazepam was the most frequently prescribed AED monotherapy for in-patients the overall incidence of ADR was not high in our study, rashes were the commonest ADR reported.

Keywords: Epilepsy, Monotherapy, Polytherapy.

RIPER/PP/007

PROBABILITY OF TYPE-2 DIABETES MELLITUS IN INFANTS-KEY ROLE OF VITAMIN B12

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ABSTRACT

Cyanocobalamin is likely to play a key role in occurrence of type-2 diabetes mellitus in neonates. Pregnant women who have vitamin B12 deficiency may give birth to vitamin B12 deficient babies. In a community based survey done in Guntur district, birth of low weight babies has occurred on a larger scale. On a case analysis we found out that there is a deficiency of vitamin B12 in pregnant women in high level than that of folic acid deficiency. The low weight babies are prone to a risk of obesity that may lead to diabetes in the near future (as 80-90% of diabetics are obese). At the same time, a team of scientists in Hyderabad have discovered that genetic variants that increase homocysteine levels (due to vitamin B12 deficiency) in pregnant women can help predict low birth weight and future risk of obesity, diabetes and cardiac diseases in children. The scientists found that kids born to mothers with high homocysteine levels during pregnancy are obese and insulin resistant and have inferred that such children at high risk to develop diabetes in future. We have scrutinized the same in our case analysis. Therefore we recommend the doctors to prescribe vitamin B12 capsules along with folic acid medicaments.

Keywords: Vitamin B12, pregnant, genetic variation, homocysteine, diabetes.

RIPER/PT/001

DEVELOPMENT AND EVALUATION OF BUCCOADHESIVE TABLETS OF OMEPRAZOLE

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Abstract

The present study was aimed to formulate and evaluate the buccoadhesive tablet containing omeprazole to prolong its release and improve bioavailability by avoidance of hepatic first pass metabolism. It may be attached to the human cheek without collapse and it enhanced the stability of omeprazole in human saliva for at least 4 h, giving a fast release of omeprazole. These tablets were composed of carbopol 934P, sodium carboxy methyl cellulose, HPMC K14M and Croscarmellose sodium. FTIR studies showed no evidence of interaction between drug and polymers. Total six formulations were developed with varying concentration of polymers. Tablets were prepared by direct compression method and evaluated for drug content, hardness, thickness, friability, weight variation, *in-vitro* dissolution study and *ex-vivo* bioadhesive strength. Selected best formulation containing carbopol 934 P and sodium carboxy methyl cellulose in the ratio of 1:1 showed surface pH values in the range of 6.4 and 99.96% cumulative release of drug in 6 hrs. The *ex-vivo* bioadhesion studies of formulations on sheep buccal mucosa showed better bioadhesion strength. The results indicate the suitable buccoadhesive tablet of Omeprazole with desired property can be prepared.

Key words: Buccal tablet, bioadhesion strength, *in-vitro* release, Omeprazole.

RIPER/PT/002

FORMULATION AND EVALUATION OF FAST DISSOLVING TABLETS FOR INSOMNIA TREATMENT

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ABSTRACT

The present work is an attempt to prepare fast dissolving tablet of zolpidem tartarte with a view to enhance the patient compliance, provide a quick onset of action for effective treatment of insomnia. Tablets were prepared by direct compression using different super disintegrants like Lycoat, Crospovidone (Polyplasdone XL-10) and Sodium starch glycolate in different concentrations such as 5, 7.5 and 10%. Aspartame and microcrystalline cellulose were used as sweetener and lubricant respectively. FTIR and DSC studies showed that the drug and carriers were compatible. The Pre-compression studies indicated the excellent flow properties of bulk powder and results are within an acceptable range of pharmacopoeia specifications. The prepared tablets were evaluated for hardness, friability, content uniformity, water absorption ratio, *in-vitro* dispersion time, *in-vitro* disintegration time and *in-vitro* dissolution studies. The results of post compression evaluations were found to be satisfactory. The drug release from FDT increased with increasing the concentration of super disintegrants. The best formulation F3 containing 10% crospovidone disintegrated with in 14 sec and released up to 99.64% of drug in 10 min. Thus results conclusively demonstrated rapid disintegration of the formulated tablet in oral cavity with good mouth feel.

Key words: Zolpidem tartarte, Fast dissolving tablet, Superdisintegrants, and direct compression.

RIPER/PT/003

DISSOLUTION ENHANCEMENT OF ACECLOFENAC BY SOLID DISPERSION TECHNIQUE USING STARCH PHOSPHATE AS POLYMER

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Abstract

The main aim of this study was to enhance the dissolution rate of Aceclofenac by solid dispersion technique. Aceclofenac is a BCS class II drug having low solubility and high permeability. Solid dispersions of Aceclofenac were prepared using dichloromethane, soluble starch phosphate as polymer by solvent evaporation method. Prepared solid dispersions were evaluated for angle of repose, Carr's compressibility index, Hausner ratio, and *in vitro* dissolution studies. Dissolution was performed using USP type II apparatus at a temperature of 37±0.5ºc, 75 RPM, 900 ml distilled water with 0.1% Sodium lauryl sulphate (SLS). Dissolution was remarkably improved in compared to pure Aceclofenac and incorporation of Starch phosphate showed further improvement in the dissolution rate. The in vitro dissolution studies had shown that complexes containing Aceclofenac:Starch phosphate in the ratio of 1:3 had shown better enhancement in dissolution rate when compared with other formulations. Physicochemical characterization of solid dispersions is done by Fourier transform infrared spectroscopy (FT-IR).

Key words: Solid dispersions, Aceclofenac, BCS and FTIR.

RIPER/PT/004

Emulsion Based Gel System of Bi-phenyl quinoxaline for Topical Delivery

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Abstract

Topical delivery of drugs is most effective route of administration to treat dermatological complications. Several topical formulations like creams, ointments, powders and gels are available in the market owing to their some demerits like greasiness, staining to the skin, difficulty to remove from the skin and in-stability problems; hence the market sustainity and patient compliance are reduced. To overcome these limitations a hybrid formulation called Emulgel came to the picture. It is the formulation formed by the combination of emulsion and gel. The study involved in the formulation and evaluation of BPQ emulgel. BPQ is a quinoxaline derivative, hydrophobic drug. It has anti-bacterial and wound healing activity. Two formulation of 1% w/w BPQ emulgel were prepared by using Carbopol 934 and HPMC K4M as gelling agent. Mentha oil used as permeation enhancer. The formulations were examined for physical evaluation, pH, viscosity, *in vitro* diffusion and skin irritation. The percentage drug release for the formulations containing Carbopol 934 and HPMC K4M was found to be 72 and 58 % respectively at the end of 8^{th} hr. The drug release kinetics such as zero order, first order, higuchi and korsemeyer peppas plots were applied and results depicted that the drug release followed first order diffusion based release and the mechanism of release was found to be fickian diffusion. Hence, Carbopol 934 was concluded as best choice of polymer for BPQ emulgel.

Key words: Emulgel, BPQ, Carbopol 934, HPMC K4 and Mentha oil.

RIPER/PT/005

Design and Development of Multiuse Lornoxicam Fast Dissolving Tablets by Novel Drug – Drug Solid Dispersion Technique with Ranitidine

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ABSTRACT

In the present research investigation, the effect of a novel- drug-drug solid dispersion approach on the dissolution of insoluble Lornoxicam (LOR) with soluble Ranitidine (RAN) was studied. Solid dispersion of LOR with RAN (8:150) was prepared by solvent evaporation technique. Solid dispersions were characterized by FTIR study. Solid dispersions were then compressed into fast dissolving tablets (FDTs) and evaluated for quality control tests. Long-tern treatment with NSAIDs may produce gastrointestinal symptoms for which histamine H_2-receptor antagonists may be prescribed. Thus, there is a need for a formulation that is not only providing improvement in solubility but at the same time reduces GI adverse effects of Lor. The solubility of Lor was increased in solid dispersion as observed from phase solubility study. Pharmacological studies on LOR FDTs were carried out in rats for establishing its gastric tolerance relative to marketed tablet (MT) containing 8 mg lornoxicam. MT caused significant gastric damage, our novel Lor FDTs at equimolar dose did not cause any GI damage. This gastric-sparing effect could be attributed to the beneficial action of RAN present in the formulation.

Key words: Lornoxicam, Ranitidine, drug-drug solid dispersion.

RIPER/PT/006

FORMULATION AND EVALUATION OF ACECLOFENAC EXTENDED RELEASE MATRIX TABLETS BY USING GUM KONDAGOGU

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The main objective of the present study was to formulate and evaluate Aceclofenac matrix tablets by wet granulation technique using different concentrations of Gum kondagogu (20-40% w/w) and HPMC (2.5-7.5% w/w) as matrix formers alone and in combination. Compatibility studies were performed using FT-IR. Pre compression and post compression parameters were studied for all the formulations. *In vitro* drug release studies revealed that by increasing the concentration of the Gum Kondagogu the drug release was also retarded, but at high concentration (40%) the drug release was completely hindered, so in combination of HPMC (5%) and Gum Kondagogu (35%) the formulations showed better drug release (90.15 %) for 24 hr & the drug release profile is matched with the marketed dosage form. From the kinetic data it was concluded that the formulations showed first order release, higuchi's fickanian type of diffusion.

Keywords: Gum Kondagogu, Matrix tablets, Higuchi, Fickanian

RIPER/PT/007

FORMULATION AND EVALUATION OF IN SITU GELLING SYSTEM FOR OCULAR DELIVERY OF TIMOLOL MALEATE

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ABSTRACT

Poor bioavailability of ophthalmic solutions caused by dilution and drainage from the eye can be overcome by using in situ forming ophthalmic drug delivery system prepared from polymer that exhibit reversible liquid gel phase transition. This may result in better ocular availability of drug. The purpose of this work was to develop an ophthalmic drug delivery system on the concept of ion activated in situ gelation for timolol maleate, an anti glaucoma agent. Sodium alginate which gels in the presence of divalent cations present in lacrimal fluids was used as gelling agent HPMC, HEC, HPC Incorporated as the viscosity enhancing agent. The promising formulation F6 showed viscosity 44.2cps at 12rpm. 99.72% drug release at the end of 8hrs. The developed formulation was therapeutically efficacious, stable, non irritant and provides sustained release of drug over an 8hrs period. The system is thus a viable alternative to conventional eye drops

KEY WORDS: Timolol maleate; in situ gelation; ophthalmic drug delivery; sustained release

RIPER/PT/008

FORMULATION DEVELOPMENT AND CHARACTERIZATION OF SELEGILINE BUCCAL FILMS

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Abstract

The present work is an attempt to formulate the drug in the form of buccal films. Selegiline is an oral anti parkinsonian drug used in the management of central and nervous disorders, muscular rigidity. Formulation of Selegiline film is prepared by solvent casting method. The prepared films were evaluated for their physicochemical parameters like folding endurance, weight variation was observed in good range of 52 mg to 67 mg, disintegration time was found to be in the range of 24 to 36 seconds. The present study indicates an excellent mouth dissolving films containing Selegiline for buccal drug delivery with an added advantage of faster drug action by avoiding the first pass metabolism. The results of the study show that Selegiline is a suitable drug candidate for the better absorption of drug orally.

Key words: Super Disintegrators, Buccal films, Disintegration time, Mouth dissolving films

RIPER/PT/009

FORMULATION AND EVALUATION OF SUSTAINED RELEASE BILAYER TABLETS OF RAMIPRIL-7.5MG

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ABSTRACT

The objective of this study was to design Ramipril sustain release bi layer tablets containing immediate release layer and sustain release layer. Tablets were prepared by wet granulation technique using various polymers such as Hydroxy propyl methyl cellulose (HPMC K 100), Sod.CMC, Xanthum gum and Guar gum as release rate retardant and tablets were evaluated for hardness, friability, weight variation, thickness and drug content uniformity. In vitro release studies were performed using USP type II apparatus (paddle method) in 900 mL of pH 6.8 at 50 rpm for 8 hours and compared with USP specification. In vitro release studies revealed that the release rate decreased with increase of polymer loading. The maximum drug release was found to be 98.9% over a period of 8 hours in Xanthum gum based tablets (F11). Drug release was analyzed using zero-order, first order, Higuchi and Korsmeyer-Peppas equations to explore and explain the mechanism of drug release from the bi layer matrix tablets. Mathematical analysis of the release kinetics indicated that release from the matrix tablets followed diffusion. So the bi-layer tablets could be a potential dosage form for delivering Ramipril.

Keywords: Ramipril, Bilayer tablets, Hydrophilic polymers, Wet granulation.

RIPER/PT/010

PREPARATION AND EVALUATION OF QUETIAPINE FUMARATE MICROEMULSIONS: A NOVEL DELIVERY SYSTEM

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Abstract

In the present study, the main objective is to improve solubility and bioavailability of Quetiapine fumarate by formulation into micro emulsion. The Quetiapine fumarate micro emulsion was formulated by using mixture of Isopropyl myristate and oleic acid as oil phase, Tween-80 as surfactant, Isopropyl alcohol and Ethanol mixture as co-surfactant by phase titration method. The prepared formulations were evaluated for Limpidity (% transmittance), droplet size, Zeta potential, Electrical conductivity, Rheology, pH, percentage of drug (assay), emulsifying time, *in vitro* drug diffusion studies and *ex vivo* permeation studies. The Optimized micro emulsion (Micro emulsion 11) formulation containing Quetiapinefumarate (25mg), Surfactant mixture (50%w/w), Oil (12%w/w) and distilled water (38%w/w) has a droplet size of 26.70 nm with a zeta potential of -5.62 millivolts. The micro emulsion was characterized and compared with the pure drug suspension. Micro emulsion showed 31.25 fold increased solubility than that of pure drug suspension. *In vitro* drug release and *ex vivo* permeation study results were comparable and correlative. The Micro emulsion 11 formulation showed 1.4763 times more drug release than that of pure drug suspension. The formulation was found to be stable for three months.

Key words: Microemulsion, Phase titration method, Quetiapine Fumarate, Emulsifying time.

RIPER/PT/011

ENHANCEMENT OF SOLUBILITY OF PIROXICAM BY SURFACE SOLID DISPERSIONS TECHNIQUE

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ABSTRACT

The main objective of the study is to improve the solubility of Piroxicam, a poorly water soluble drug by surface solid dispersion technique using different carriers such as Cab-o-sil, Cross povidone, Cross carmellose sodium, Pregelatinised starch. Surface solid dispersions were prepared by solvent evaporation method. Resultant formulations were evaluated for FTIR to detect any incompatibility. Solubility studies were conducted along with *in vitro* dissolution studies. The *in vitro* dissolution study was performed according to the USP method. The samples were characterized by UV Spectrophotometry. The solubility and dissolution rate of the drug enhanced depending upon the nature the amount of the carrier. According to the results, cross povidone is the best carrier to improve the dissolution rate of the piroxicam by surface solid dispersion.

Key words

Piroxicam, cab-o sil, cross povidone, crosscarmellose sodium,pregelatinised starch.

RIPER/PT/012

FORMULATION AND EVALUATION OF PRULIFLOXACIN SUSTAINED RELEASE MATRICS TABLETS

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ABSTRACT

Prulifloxacin is a chemotherapeutic antibiotic of fluoroquinolone drug it is aprodrug of ulifloxacil that is used to treat a various urinary tract infections. It has short half-life, makes the sustained release (SR) forms extremely advantageous. Sustained release tablets results in increased bioavailability. The purpose of the present study was to develop a sustained release matrix drug delivery system (SR) containing Prulifloxacin as a model drug by using various proportions of polymers such as HPMC E15, HPMC K15. The sustained release formulations of Prulifloxacin were prepared direct compression method. Optimization f formulation was done by studying effect of drug to polymer ration on drug release. FT-IR studies indicated absence of any interactions between Prulifloxacin, polymers (HPMC E15 and HPMC K15) and excipients. Nine formulations were prepared and formulations F8 possess good drug release property. The tablets were also evaluated for its hardness, friability and other in- vitro evaluations tests. All parameters complied with IP limits. Drug release was diffusion controlled and followed Zero order kinetics. Non –fickian diffusion was the drug release mechanism from all the tablets formulated.

KEY WORDS: sustained drug delivery system, Prulifloxacin, HPMC E15, HPMC K15

RIPER/PE/001

PHARMACOLOGY BASIS FOR USE OF *Momordica cherantia and Tribulus terristris* IN GOUTY ARTHRITIS: ANTIHYPERURICEMIA OF ITS EXTRACT

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ABSTRACT

The main aim of work is to study the anti hyperuricemic activity of *Momordica cherantia* and *Tribulus terristris* in gouty arthritis. First the fruits were collected and dried, powdered them. Individually the powder was macerated with a mixture of 50% ethanol & 50% water for 3days at room temperature with occasional stirring. Then filtered by using muslin cloth and concentrated at reduced pressure, evaporated and stored. The extract was evaluated for all the tests for alkaloids, carbohydrates, tannins, flavonoids, saponins and phenolic compounds etc.. In order to access the hypouricemic activity the rats was divided into different groups and treated with amiloride and hydrochlorthiazide diuretics and other group with mercaptopurine which induce the hyperuricemia and then our extract (1mg/ml, 2mg/ml, 5mg/ml) was given the levels of uric acid in urine was estimated, the extracts both showed effect an drug induced uricemia but not much effect on mercaptopurine induced hyperuricemia. So plants have useful in treatment of gout depicted from the results.

Keywords: Goutyarthritis, *Momordica cherantia, Tribulus terristris*, Diuretics (amiloride,*hydrochlorthiazide), mercaptopurine*

RIPER/PE/002

PROTECTIVE EFFECT OF EUPHORBIA HIRTA L AGAINST ISCHEMIC REPERFUSION CEREBRAL INJURY: POSSIBLE NEUROBEHAVIORAL AND BIOCHEMICAL ALTERATION IN RAT BRAIN

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Abstract

The present study was designed to investigate the Neuroprotective effect of *Euphorbia hirta* against ischemic reperfusion cerebral injury in rat. The animals were subjected to bilateral carotid artery occlusion for 30 min followed by reperfusion for 24 h to induce reperfusion (I/R) cerebral injury. *Euphorbia hirta* (250 mg/kg P.O and 500mg/kg P.O.) was administered for 7 days continuously before animals were subjected to ischemia reperfusion injury. Various behavioral tests [locomotor activity, neurological score (inclined beam test), transfer latency, resistance to lateral push] and biochemical parameters (lipid peroxidation, reduced glutathione, superoxide dismutase and catalase activity) alterations were assessed subsequently. Seven days *Euphorbia hirta* (250 mg/kg P.O and 500mg/kg P.O.) treatment significantly improved neurobehavioral alterations (improved locomotor activity, inclined beam walking and reduced resistance to lateral push, transfer latency) as compared to control ischemia reperfusion in dose dependent manner. Euphorbia hirta (250 mg/kg P.O and 500mg/kg P.O.) treatment significantly attenuated oxidative damage as indicated by reduced lipid peroxidation, restored reduced glutathione, superoxide dismutase and catalase activity as compared to control (ischemia reperfusion) animals. Our results suggest that *Euphorbia hirta* affords neuroprotection against ischemic reperfusion injury. Further studies are requiring finding the suitable molecule responsible for neuroprotection.

Keywords: Neuroprotection, Euphorbia, Ischemic reperfusion cerebral injury

RIPER/PE/003

EFFECT OF CILNIDIPINE (CALCIUM CHANNEL BLOCKER) ON LIPID PROFILES OF HYPERTENSIVE RATS FED WITH HIGH FAT DIET

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ABSTRACT

Dyslipidemia and hypertension are the disorders that frequently coexist in the same patient and are both risk factors for cardiovascular morbidity and mortality. Antihypertensive agents with atheroprotective are demanding to prevent the cardiovascular damage. The present study was aimed that to study the effect of cilnidipineon lipid profiles of hypertensive rats feed with high fat diet for four weeks. Hypertensive rats feed with high fat diet showed significant increase in the plasma levels of LDL, VLDL, TG, CH and total lipids and decease in the levels of HDL whereas treatment with Cilnidipine for 4weeks along with high fat diet compared to Total serum cholesterol was increase significantly ($P<0.001$) after four weeks control. Cilnidipine treatment showed a significant ($P<0.001$) decreased in serum total cholesterol after four weeks compared to DOCA control .significantly reducesplasma levels of LDL, VLDL, TG, CH and total lipid and increase the plasma levels of HDL in hypertensive rats. These results indicate thatCilnidipine have lipid lowering effect along its core effect. Serum HDL-C, showed significant decrease ($P<0.01$) in DOCA group compared to control. Significant increase in HDL-C ($P<0.01$) was observe in Cilnidipine treated group after four week compared to DOCA group. Blood was withdrawn after four weeks of treatment from retro-orbital plexus and tissues were collected for estimation.

Key words: Clinidipine, Lipid profile, High fat diet

RIPER/PE/004

EVALUATION OF ANTI ULCER EFFECT OF *Polyalthia longifolia* IN ALBINO RATS

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Abstract

The anti ulcer activity of *Polyalthia longifolia* has been carried out in albino rats. Antiulcer activity of ethanolic extract of leaves was studied in rats, in which gastric ulcers were induced by oral administration of indomethacine (20 mg/kg). The extract was administered in the dose of 100 mg and 200 mg/kg intraperitoneally to the test group of animals for three consecutive days and fourth day pylorus part of their stomach was ligated. After four hours of ligation, the rats were subjected for ulcer index and gastric acid evaluation. The reduction of ulcer index as well as gastric acid output in extract treated animals was found to be statistically significant with respect to control animals. The extract exhibited ulcer protection activity in dose dependant manner.

Keyword: *Polyalthia longifolia*, anti ulcer, indomethacin induced ulcer, ulcer index.

RIPER/PE/005

ANTI-HYPERLIPIDEMIC ACTIVITY OF MENOSAN ON OVARECTAMISED FEMALE RATS

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ABSTRACT

Main aim of the work is to know the effect of menosan on hyperlipidemic ovarectimised female rats. Female rats weighing 200-300g were procured from the animal house, Bangalore. Rats were divided into following groups: Group-1(control): high fat diet, Group-2(standard):high fat diet +standard drug (estradiol), Group-3(test):high fat diet + menosan (500mg/kg b.wt), Group-4(normal): standard pellet diet. After 2 weeks serum blood samples were collected from retro- orbital plexus under light anaesthesia without any anticoagulant and allowed to clot for 10 min at room temperature. It was centrifuged at 300rpm for 15 min. Serum was kept at 4°c until used. The drug menosan proved to be beneficial for treating post menopausal symptoms. In addition our studies have proven that it has an anti-hyperlipidemic activity when given at a dose of 500mg/kg/wt. Menosan contains phytoestrogens which are having antioxidant property. But further studies have required confirming the usefulness in the human trails.

Key words: Menosan, Ovearectamy, oestradiol, anti hyperlipidemic activity

RIPER/PE/006

EFFECT OF *TERMENALIA CATAPPA* LEAF EXTRACT ON CAFETERIA INDUCED OBESITY IN RATS

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Abstract

The aim of the present study was to evaluate the anti-obesity activity of *Terminalia catappa* leaf extract on cafeteria diet induced obesity in rats. Thirty animals were randomly assigned to five groups. The rats were introduced to cafeteria diet except normal control rats for about 4weeks. Group-1 rats are treated with distilled water, Group-II rats were treated with saline orally, Group-III treated with orilistat, Group-IV rats treated with extract at dose of 200 mg per kg body weight.per.oral and group –V rat treated with extract at the dose of 400m/kg b.wt.p.o for period of 4weeks. Test rats are treated with variable concentration of extract and After4 weeks on a high-fat diet. Blood was withdrawn from retrorbital puncture and plasma was separated by centrifugation. Then separated plasma was stored at 40^0c until further use. Serum concentrations of total cholesterol, high-density lipoprotein cholesterol, triglyceride, low density lipoprotein (LDL) cholesterol, very low density lipoprotein were evaluated. Adipose tissue was isolated. We found that obese mice treated with *Terminalia captappa* leaf extract exhibited marked attenuation of weight gain, adiposity weight, and restoration of the serum levels of cholesterol, triglycerides, VLDL, LDL cholesterol to normal levels.

Keywords: Anti-obesity activity, *Terminalia catappa*.

RIPER/PE/007

NEPHROPROTECITVE ACTIVITY OF *CARDIOSPERMUM HELICACABUM* ON $K_2Cr_2O_7$ INDUCED NEPHROTOXICITY ON MALE WISTAR RATS

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Abstract

The objective of present study was to investigate the nephroprotective activity of *Cardiospermum helicacabum* on $K_2Cr_2O_7$ induced nephrotoxicity on male wistar rats. A total of 16 animals were equally divided into four groups (n=4 in each group).Group-1: normal control: received 5% CMC/kg body wt/ml for 5 days. Group-2: nephrotoxic control: received 20 mg/kg of $K_2Cr_2O_7$ by SC route on 4^{th} day. Remaining 4 days received the 5% CMC/kg body wt.Group-3: (nephrotoxic + 100mg/kg body wt test drug) received mixture of 20mg/kg body wt of $K_2Cr_2O_7$ +100mg/kg body wt met extract of *CHC* Group-4: (nephrotoxic +200mg/kg body wt test drug) received mixture of 20mg/kg body wt of $K_2Cr_2O_7$+200mg/kg body wt met extract of *CHC*. On 6^{th} day the animals were sacrificed under anaesthesia and both kidneys were collected. Right kidneys of all rats for homogenization for the estimation of total protein, urea and serum creatinine and left kidneys of all rats were kept in 10% formalin for histopathological study. Nephrotoxic control rats showed the decreased levels of total protein and increased levels of serum urea and serum creatinine significantly when compared with normal control rats. Treatment with met extract of *CHC* on variable doses 100mg/kg, 200mg/kg increased the total protein levels and decreased the serum urea and serum creatinine significantly when compared with nephrotoxic group. The present study concluded that the plant extract may be useful in the management of nephroprotective activity.

Key words: *Cardiospermum helicacabum*, nephroprotective activity, histopathology.

RIPER/PE/008

PREVENTION OF LIVER FIBROSIS INDUCED BY CARBON-TETRACHLORIDE BY *TRIGONELLA FOENUM GRAECUM LINN*

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Abstract

The aim of present work is to investigate the Prevention of Liver Fibrosis induced by Carbon tetra chloride by *Trigonella foenum graecum Linn*. Albino wistar rats were divided into 4 groups. Group 1: Normal control: Received normal saline daily, Group 2: Extract control: Received 100 mg of ethanolic extract of whole plant of *Trigonella foenum graecum* daily (Extract alone), Group 3: Fibrotic control: Received CCl_4 twice a week for 28 days. The other days the animals received saline. Group 4: Treatment group: Received CCl_4 twice a week for 28 days and 100 mg/kg of ethanolic extract of whole plant of *Trigonella foenum graecum* (CCl_4 + 100mg/kg of EETFG). After the experimental period, the animals were made to fast overnight. They were anaesthetized with chloroform and blood was collected by carotid artery for estimation of Aspartate transaminase, Alanine transaminase, alkaline phosphatase, Total bilirubin, hydroxy proline. After that animals were sacrificed and livers were excised quickly for histopathological observation. In fibrotic control rats Aspartate transaminase, Alanine transaminase, Alkaline phosphatase, Total bilirubin, Hydroxy proline were increased significantly when compared with normal control. After 28 days treatment with 100mg/kg of EETFG, rats showed significantly decreased levels when compared with fibrotic control. Histological observation of liver of fibrotic control rats exhibited the alteration of normal morphological changes. Liver isolated from rats treated with 100 mg/kg EETFG showed recoverable morphological changes. The results of our study reveal that *Trigonella foenum graecum* reduces the liver fibrosis.

Keywords: Liver fibrosis, *Trigonella foenum graecum*, Liver function tests, Histopathology

RIPER/PE/009

MICROBIOLOGICAL ASSAYS OF NEWER ANTIBIOTICS

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Abstract

The term Anti-microbiological agent is broader in meaning as it encompasses drugs synthesized in the laboratory as well as those obtained from fermentation of microorganisms. They may act as either Bacteriostatic or Bactericidal. Antibiotics are the substances produced by microorganisms, which selectively suppress the growth or kill the other microorganisms at very low concentrations. Many newer antibiotics are introduced nowadays. The different newer antibiotics from different classes were selected for evaluation studies. Microbiological Assays were performed by using UV scan, Antibiotic sensitivity tests & MIC values. Antibiotics used for are Prulifloxacin for UTI, Gemifloxacin for Pneumonia, Linezolid effective against gram positive & gram negative bacteria, Cefprozil for Influenza, Gonorrhoea. The drugs showed significant values of Zone of inhibition & MIC based on Cup plate technique. The evaluation carried for antibiotics showed that there is great variation in potency & efficacy compared to older type of antibiotics belonging to same class.

Keywords: Microbiological assay, Linezolid, Prulifloxacin, Gemifloxacin, Cup plate technique.

RIPER/PE/010

STUDY ON EFFECT OF *EUPHORBIA HIRTA* GEL TREATMENT IN EXPERIMENTAL PERIODONTITIS

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Abstract

Local drug delivery (LDD) system has been proposed for the treatment of periodontitis. Euphorbia hirta could be a suitable agent as LDD for the treatment of periodontitis. To assess the anti- inflammatory activity of *Euphorbia hirta* gel in the treatment of experimental periodontitis in wistar albino rat model Gel was prepared as per given procedure using *Euphorbia hirta* (API), carbopol, HPMC as gelling agents, sodium benzoate as preservative, triethanolamine as pH adjsutifier, propylene glycol as humectants, water as vehicle. The prepared gel was subjected to spreadibility, determination of drug content uniformity, drug release studies**.** Twenty –one wistar albino rats were randomly assigned to three groups. Group 1: control, Group 2: plain gel, Group 3: 2% *Euphorbia hirta* gel. About 2% *E. hirta* gel was prepared .the anti inflammatory activity and duration of action was assessed .using digital plethesmometer the anti inflammatory activity was studied. About 2% *E. hirta* gel was effective in the treatment of experimental periodontitis.

Key words: Anti-inflammatory activity, *E. hirta* gel, experimental periodontitis, local drug delivery system.

RIPER/PE/011

EVALUATION OF ANTI-HYPERLIPIDAEMIC ACTIVITY OF METHANOLIC EXTRACT OF LEAVES OF *FERONIA LIMONIA L* IN WISTAR RATS

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Abstract

Hyperlipidemia is a common disorder and is the major course of coronary heart disease. Hyperlipidemia means abnormally high levels of fats in the blood which include cholesterol and triglycerides. The consequence of hyperlipidaemia is that with time it can cause atherosclerosis and thus the risk of coronary heart disease and stroke is increased. *Feronia limonia* is commonly called as velagapandu. Extraction was carried out by maceration with ethanol and extract was subjected to preliminary phytochemical screening and TLC. The present study investigated the antihyperlipidaemic activity of methonolic extract of *Feronia limonia* by 3 models. Olive oil induced hyperlipdaemia, high fat diet induced hyperlipidaemia, Triton X-100 induced hyperlipidaemia. The animals treated alone with olive oil (5ml/kg), high fat diet and triton X-100 (400 mg/kg) showed marked decrease in HDL, total proteins, SOD, catalase and reduced glutathione. There was a marked increase in body weight, LDL, VLDL, triglycerides, total cholesterol, glucose, SGOT, SGPT and lipid peroxidation. The animals receiving MEFL (250mg/kg and 500mg/kg) inhibits the activities of olive oil; high fat diet and trititon X-100. This may be due to the presence of polyphenols, flavonoids, saponins which will inhibit hyperlipidamia by delaying intestinal lipid absorption or by lowering serum lipids by inhibiting the HMG-CoA reductase enzyme activity. The findings concluded that MEFL exhibit an antihyperlipidaemic activity and further work will emphasize the isolation and characterization of active principles responsible for antihyperlipidaemic activity and to establish the effectiveness and pharmacological rationale for the use of *Feronia limonia* as an antihyperlipidaemic drug.

Key words: *Feronia limonia*, olive oil induced Hyperlipidemia, biological parameters

RIPER/PA/001

A NEW VALIDATED UV SPECTROPHOTOMETRIC METHOD FOR THE SIMULTANEOUS ESTIMATION OF METFORMIN HYDROCHLORIDE AND GLICLAZIDE IN COMBINED TABLET DOSAGE FORM BY DUAL WAVELENGTH METHOD.

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ABSTRACT

A simple, accurate, and precise dual wavelength UV spectrophotometric method was developed for simultaneous determination of Metformin Hydrochloride and Gliclazide in combined pharmaceutical dosage forms. The literature review reveals that there is no dual wavelength method was developed for this combination of drugs, hence this method was developed. The wavelengths selected for determination of Metformin Hydrochloride were 222.35nm & 228.94nm, whereas, the wavelengths selected for determination of Gliclazide were 229.41nm and 234.82nm. Methanol and distilled water were used as the solvents. Regression analysis of Beer's plots showed good correlation in concentration range of 5-30µg/ml for Metformin Hydrochloride and 1-6 µg/ml for Gliclazide. Accuracy of method was found between 98.0-102.0%. The precision (intra-day, inter-day and analyst to analyst) of method was found within limits (%CV<2). LOD was found to be 0.162 µg and 0.0825 µg for Metformin hydrochloride and Gliclazide respectively and LOQ was found to be 0.492 µg and 0.25 µg for Metformin Hydrochloride and Gliclazide respectively. The proposed method was successfully applied to determination of these drugs in laboratory-prepared mixtures and commercial tablets.

Key Words: Metformin Hydrochloride, Gliclazide, Methanol, UV spectrophotometric method, Dual wavelength method.

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VALIDATED HIGH PERFORMANCE LIQUID CHROMATOGRAPHIC METHOD DEVELOPMENT FOR SIMULTANEOUS ESTIMATION OF IRINOTECAN.HCL AND CAPECITABINE IN BULK FORM

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Abstract

A simple, specific, accurate and precise Reversed-Phase High-Performance liquid chromatographic method was developed and validated for the estimation of anticancer drugs viz Irinotecan Hydrochloride and Capecitabine in bulk form. Qualisil gold Octa Decyl Silane C-18, 5µ particle size, column having 250 × 4.6mm internal diameter in isocratic mode was selected. The mobile phase ratio was 60: 40 (v/v) containing Methanol:Water in which pH was adjusted to 3 with orthophosphoric acid. The flow rate was 1.0ml/min and effluents were monitored at 340nm. The retention time for Irinotecan Hydrochloride and Capecitabine were observed to be 4.08 min and 7.87 min respectively with resolution of 7.6. The detector response for Irinotecan Hydrochloride and Capecitabine were linear in the range of 4-24 µg/ml and 40-240 µg/ml respectively. Limit of detection and limit of quantification of Irinotecan Hydrochloride were found to be 0.12 µg/ml and 0.373 µg/ml respectively and limit of detection and limit of quantification of Capecitabine were found to be 0.254 µg/ml and 0.771 µg/ml respectively. The recovery of Irinotecan Hydrochloride and Capecitabine were found to be 100.58% and 100.03% respectively. The recovery of Irinotecan Hydrochloride and Capecitabine are 98-102% as per Indian Pharmacopoeia. The method was validated as per ICH Guidelines and is suitable for the quality control determination of Irinotecan Hydrochloride and Capecitabine in dosage forms.

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A NEW VALIDATED UV SPECTROPHOTOMETRIC METHOD FOR THE SIMULTANEOUS ESTIMATION OF PARACETAMOL AND TRAMADOL IN COMBINED TABLET DOSAGE FORM BY DUAL WAVELENGTH METHOD

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ABSTRACT

A simple, accurate, and precise dual wavelength UV spectrophotometric method was developed for simultaneous determination of Paracetamol and Tramadol in combined pharmaceutical dosage forms. The literature review reveals that there is no dual wavelength method was developed for this combination of drugs, hence this method was developed. The wavelengths selected for determination of Paracetamol were 230.59nm & 252.94nm, whereas, the wavelengths selected for determination of Tramadol were 255nm and 282nm. Methanol and distilled water were used as the solvents. Regression analysis of Beer's plots showed good correlation in concentration range of 10-35µg/ml for Paracetamol and 5-30 µg/ml for Tramadol. Accuracy of method was found between 98.2-98.7%. The precision (intra-day, inter-day and analyst to analyst) of method was found within limits (%CV<2). LOD was found to be 0.10 µg and 0.63 µg for Paracetamol and Tramadol respectively and LOQ was found to be 0.30 µg and 1.92 µg for Paracetamol and Tramadol respectively. The proposed method was successfully applied to determination of these drugs in laboratory-prepared mixtures and commercial tablets.

Key Words: Paracetamol, Tramadol, Methanol, UV spectrophotometric method, Dual wavelength method

RIPER/PA/004

DEVELOPMENT AND VALIDATION OF SPECTROPHOTOMETRIC METHOD FOR SIMULTANEOUS ESTIMATION OF OXALIPLATIN AND CAPECITABINE IN BULK FORM BY SIMULTANEOUS EQUATION METHOD

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ABSTRACT

A simple, rapid, accurate, precise, specific and economical spectrophotometric method for simultaneous estimation of Oxaliplatin and Capecitabine in bulk form has been developed. Spectroscopic studies were carried out using double beam U.V.Spectrophotometer model LABINDIA. It employs formation and solving of simultaneous equation using two wavelengths 236.0 nm and 306.0 nm. Additionaly one isoisoprtive point was observed at 268nm this wavelength was selected for simultaneous estimation of Oxaliplatin and Capecitabine. Standard Calibration curves for Oxaliplatin and Capecitabine were linear with correlation coefficient 0.9990 and 0.9991 for both the drugs resepectively. This method obeys Beer's law in the employed concentration ranges of 2-14 µg/ml and 16-112 µg/ml for Oxaliplatin and Capecitabine, respectively. Results of analysis were validated statistically and by recovery studies. This method can be used as alternative for rapid and routine determination of bulk sample.

Keywords: Oxaliplatin and Capecitabine, UV Spectrophotometry; Simultaneous equation method (Vierodt's method).

RIPER/PA/005

A NEW METHOD DEVELOPMENT AND VALIDATION OF DUAL WAVELENGTH UV SPECTRO PHOTOMETRIC METHOD FOR SIMULTANEOUS ESTIMATION OF ATENOLOL AND AMLODIPINE BESYLATE IN COMBINED DOSAGE FORM

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ABSTRACT

A simple, accurate, and precise dual wavelength UV spectrophotometric method was developed for simultaneous determination of Atenolol and Amlodipine bessylate in combined pharmaceutical dosage forms. The absorbance difference between two points on the mixture spectra is directly proportional to the concentration of the component of interest". During selection of two wavelengths the interfering component shows same absorbance while the component of interest shows significant difference in absorbance with concentration. The literature review reveals that there is no dual wavelength method was developed for this combination of drugs, hence this method was developed. The wavelengths selected for determination of atenolol were 230nm& 242nm, whereas, the wavelengths selected for determination of amlodipine besylate were 263nm and 277nm. Methanol and distilled water were taken as the solvents. The Beer's law was obeyed in the concentration range of 5–30 µg/mL for atenolol and 1-6 µg/mL for amlodipine besylate. Correlation coefficient was found to be 0.9983 and 0.9987 for atenolol and amlodipine besylate, respectively for dual wavelength method.Accuracy of method was found between 98.0-102.0%. The precision (intra-day, inter-day and analyst to analyst) of method was found within limits (%CV<2). LOD was found to be 0.162 µg and 0.0825 µg for Atenolol and Amlodipine besylate respectively and LOQ was found to be 0.492 µg and 0.25 µg for Atenolol and Amlodipine besylate respectively. The proposed method was successfully applied to determination of these drugs in laboratory-prepared mixtures and commercial tablets.

Keywords: Atenolol, Amlodipine besylate, Dual wavelength method, UV spectrophotometric method.

RIPER/PA/006

DEVELOPMENT AND VALIDATION OF SIMULTANEOUS ESTIMATION OF TELMISARTAN, AMLODIPINE BESYLATE AND HYDROCHLORTHIAZIDE BY UV SPECTROSCOPY

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Abstract

Two simple, rapid, precise and accurate spectrophotometric methods have been developed for determination of Telmisartan (TEL), Amlodipine Besylate (AMB) and Hydrochlorthiazide by first order derivative method in combined dosage form. The first order derivativemethod was based on the measurement of absorbance at 292.0 nm and 239.0 nm and 271.0 nm as three wavelength selected as for quantification of (TEL), Amlodipine Besylate (AMB) and Hydrochlorthiazide (HCTZ). This method obeyed Beer's law in the concentration range of 20-100 µg/ml for AMB and 5-30 µg/ml for TEL. The proposed methods were validated and can be used for analysis of combined dosage tablet formulation containing TEL, AMB and HCTZ.

Key Words: Amlodipine Besylate (AMB) and Telmisartan (TEL), Simultaneous equation method, first order derivative.

RIPER/PA/007

REVERSE PHASE HPLC METHODS FOR THE ESTIMATION OF DULOXITINE IN TABLET DOSAGE FORM

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Abstract

A simple, rapid and precise reversed phase – High performance liquid chromatographic (RP-HPLC) method has been developed for the estimation of Duloxetine in tablets. The method was validated according to ICH and FDA guidelines. Analysis of the drug was performed on Hypersil BDS,C-18 (150×4.6 mm,5µ) column. The separation was carried out by using a mobile phase consisting of buffers and diluents in the ratio of 30:70. Mobile phase was pumped at a flow rate of 1ml/min. UV-Visible detector at 240nm was found to be suitable for detection. The % RSD values for system precision and method precision are 0.42 and 0.2 respectively. Retention time of Duloxetine peaks was found to be 5.84min. The linearity was observed in the range of 0.999µg/ml.

Keywords: Duloxetine, RP-HPLC, Flow rate, Linearity.

RIPER/PG/001

SCREENING OF ANALGESIC ACTIVITY OF *Momordica dioica* ROOT BARK

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Abstract

Present study was aimed at evaluating the analgesic activity of root bark from *Momordica dioica* by using tail immersion and acetic acid induced writhing model in rats and mice respectively. Plant was procured from local areas of Anantapur, botanically identified and authenticated. The root bark was separated carefully, shade dried and made into powder. Extraction was carried out by using cold maceration and the extract was subjected to preliminary phytochemical screening. Analgesic activity was evaluated by two methods stated earlier at dose level of 200 and 400 mg/kg body weight. In tail immersion method, plant extract showed significant ($p<0.001$) increase in mean reaction time at its higher test dose level where as in acetic acid induced writhing model, plant extract showed 38% inhibition in comparison with the standard drug used. From the present study, it can be concluded that root bark of *Momordica dioica* possesses significant analgesic activity.

Keywords: *Momordica dioica*, tail immersion, acetic acid and folklore

RIPER/PG/002

SYNERGISTIC ANTIDIABETIC ACTIVITY OF LIQUORICE AND JATAMANSI IN ALLOXAN INDUCED DIABETIC RATS

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ABSTRACT

Diabetes mellitus is a metabolic disorder that is rapidly becoming a major threat to population all over the globe. Diabetes is due to either the pancreas not producing enough insulin or because cells of the body do not respond properly to the insulin that is produced. Anti diabetics from natural source plays a key role in treatment of diabetes. Herbal plants are power house of sources for antidiabetic principles. The present study aimed at the antidiabetic activity of herbal extract. Liquorice & Jatamansi were previously proven for antidiabetic activity. In our study going for Synergistic action in Alloxan induced diabetic rats. The overnight fasted non diabetic rats are treated with alloxan monohydrate 50mg|kg body weight among them rats with plasma glucose level >150mg|dl were selected for diabetic study. The liquorice & jatamansi extract which is prepared in solvents ether is administered for test group along with glibenclamide for standard group which is sulfonyl ureas for about 7days. This showed significant decrease in blood glucose level of diabetic rats at the dose 200mg|kg body wt. compared to diabetic controlled rats. Glibenclamide also showed decrease in blood glucose level at the dose 5mg|kg body wt. Hence our present study revealed the synergistic action of liquorice & jatamansi near to the standard and minimal side effects and less cost with easy available of herbal products.

KEYWORDS: Diabetes Mellitus, Alloxan, Liquorice, Jatamansi, glibenclamide,

RIPER/PG/003

EVALUATION OF ANTI INFLAMMATORY ACTIVITY OF *Momordica dioica* ROOT BARK

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Abstract

Present study deals with anti inflammatory activity of Momordica dioica root bark in rats. Plant was procured from local areas of Anantapur, botanically identified and authenticated. The root bark was separated carefully, shade dried and made into powder. Extraction was carried out by using cold maceration and the extract was subjected to preliminary phytochemical screening. Anti inflammatory activity was evaluated by carrageenan induced inflammation model at dose level of 200 and 400 mg/kg body weight. The mean paw volume was measured at 0, 1 hr, 2 hr, 3 hr and 4 hr of study by using digital plethysmometer. Indomethacin was used as standard at a dose of 10 mg/kg body weight. Plant extract showed a significant ($p<0.01$) reduction in the paw volume which was compared to that of control group. Present study reveals the anti inflammatory activity of *Momordica dioica* root bark which is used in folklore for the treatment of inflammation.

Key words: Momordica dioica, carrageenan, indomethacin, plethysmometer and folklore

RIPER/PG/004

EVALUATION OF ANTHELMINTIC ACTIVITY OF EXTRACTS FROM *Cassia auriculata*

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Abstract

Helminthes infections are among the most widespread infections in humans, cause enormous hazard to health. Infected people excrete helminthes eggs in there feces, which then contaminate the soil in areas with inadequate sanitation, other people can then be infected by ingesting eggs or larvae in contaminated food, the symptoms for Helminthiasis include – abdominal pain, diarrhea, eosinophilia, asymptomatic gastrointestinal inflammation, an anthelmintic is a substance that expels or destroys gastro-intestinal worms. All anthelmintic essentially kill worms by either starving them to death or paralyzing them. *Cassia auriculata* used for the anthelmintic activity study, Preliminary phytochemical screening of *cassia auriculata* extracts revealed the presence of carbohydrates, glycosides, flavonoids. Characterization of extract shows RF value of ethanol extract 0.43 & 0.309, Lamda max of ethanol extract 230.4nm, IR spectrum was recorded by ATR-IR technique. The present study aimed at the in-vitro anthelmintic activity of *Cassia auriculata* using ethologic and hydro alcoholic extracts in the ratio (3:2) & (1:1), a dose of 125mg, 250mg per 50ml of agar medium was used for evaluating the anthelmintic activity, *Pheritima posthuma* was used for evaluating the anthelmintic activity due to its anatomical and physiological resemble with the intestinal worms of humans. Alcoholic extract shows comparatively good activity than hydro alcoholic extract alprazolam used as standard drug. Anthelmintic from natural sources may play a key role in the treatment of these parasite infections with Minimum side effects and less cost and easily available.

KEY WORDS: Helminthes, Anthelminthic activity, *Pheritima posthuma*, *Cassia auriculata*

RIPER/PG/005

EFFECT OF DETOXIFICATION (SHODHANA) OF SEEDS OF *STRYCHNOS NUX-VOMICA* L ON PHARMACOGNOSTIC, PHYTOCHEMICALS AND ANTI-ULCER ACTIVITY

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Abstract

Ancient literature classifies *Strychnos nux vomica* L. as upa-visha (moderately poison). Several Ayurvedic texts clearly state that this natural drug has to be used only after subjecting it to shodhana (detoxification). In the present study the influence of shodhana on the phytochemical and therapeutic efficacy of nux-vomica seeds is investigated. The *Strychnos nux-vomica* L. seeds are detoxified by subjected to shodhana process by adopting the method as described by ancient literature i.e. keeping in cow's urine for 7 nights, then to swedana, further the seed coat and embryo removed, roasted with cow's ghee and powdered. The seeds were also detoxified as per the native practioner with slight modifications. The product after each step of shodhana (marked them as UNV, PNV1, PNV2, PNV3, PNV4) studied to assess the influence of detoxification on phrmacognostic, phytochemicals, antiulcer property against ethanol induced ulcers and stomach tissue antioxidant properties. Shodhana process reduced the total alkaloid content, strychnine and brucine in each step. Similarly pharmacognostic standards were altered upon shodhana. Various products obtained after stepwise detoxification process such as UNV (unprocessed, 52mg/kg/po) PNV1, PNV2, PNV3, PNV4 (520mg/kg each sample) and nux-vomica formulation (PNV5, 520mg/kg) showed antiulcer property in alcohol induced ulcer model and reduced the lipid peroxidation and elevated the tissue GSH. The antiulcer effect of unprocessed seed was significantly less than the completely detoxified seeds. The complete shodhana processed PNV3 & PNV4 samples and formulation PNV5 showed better antiulcer property than incompletely processed seeds.

Keywords: *Strychnos nux-vomica* L.; Shodhana; detoxification; anti ulcer activity; tissue anti oxidant activity

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EFFECT OF SHODHANA (DETOXIFICATION) OF SEEDS OF *STRYCHNOS NUX-VOMICA* LINN ON ANTI-INFLAMMATORY ACTIVITY

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ABSTRACT

The seeds of *Strychnous nux-vomica* L. (*Loganiaceae*), frequently used as an important ingredient in Indian traditional Ayurvedic system of medicine to treat nervous diseases, arthritic and traumatic pains, anti-inflammatory, liver cancer, improve circulatory system, relieves respiratory diseases, bitter stomachic, digestion, ulcers etc., According to Ayurveda, nux-vomica seeds has been included in the group 'upavisha' (moderately toxic). Therefore it is advised to be used after proper detoxification; otherwise they are only to produce toxic symptoms on the human beings. The toxicity of nux-vomica seeds are reduced by proper purification by shodhana. In the present study the seeds of nux-vomica detoxified by various shodhana processes prescribed in Ayurveda. The partially & completely shodhana processed (detoxified) including formulation of shodhita nux-vomica and unprocessed seeds were tested for anti-inflammatory activity in the carrageenan-induced rat paw edema. The shodhana processed products showed significant anti-inflammatory activities than unprocessed seeds. The completely shodhana processed products (PNV3 & PNV4) and formulation PNV5 showed potent anti-inflammatory activities and they were comparable to that of standard drug treatment.

KEY WORDS: Ayurveda, *Strychnos nux-vomica*, shodhana, detoxification, anti inflammatory

RIPER/PG/007

PROPHYLACTIC AND CURATIVE EFFECT OF *Moringa Oliefera* IN ALBINO RATS

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ABSTRACT

Present study was under taken to examine the effect of Ethanolic and Aqueous extract of *Moringa olifera* leaves for anti-ulcer activity and hepatoprotective activity. The anti-ulcer and hepatoprotective activity was evaluated in normal and parallel diclofene-treating rats. Silymarin (Hepatoproctive) drug was used as a standard drug at dose of 5 mg/Kg orally; Ranitidine (anti-ulcer) drug was used as a standard drug at dose 4 mg/Kg orally in Albino Wister rats with Diclofenace treating were divided into 10 groups of each. In this study anti-ulcer effect and hepatoprotective effect of (100, 200, 250 mg/Kg) of *Moringa oliefera* is studied for 90 days. The parameters evaluated include ulcer-index, SGOT, SGPT

Key words: *Moringa oliefera*, Hepatoprotective activity, Ulcer-index