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List of National /International papers published-

Academic year 2024-2025

S.NO	TITLE OF PAPER	NAME OF AUTHOR	DEPARTMENT	NAME OF JOURNAL	YEAR OF PUBLICATION	ISSN-NO
1	Proper disposal of expired and unused drugs – A global overview	**Dr.C.Jothimanivannan** Principal	Pharmaceutical Chemistry	European journal of biomedical and pharmaceutical sciences	2024 - 2025	2349-8870
2	Synthesis, characterization and in-vitro studies on chalcone based Quinoxaline: Acetylcholinesterase inhibition through in-silico technique for Alzheimer's disease	**Ms. M.Manisha** Assistant Professor	Pharmaceutical Chemistry	Journal of advanced zoology	2024-2025	0253-7214
3	Phytochemical and pharmacological evaluation of bark extract of wrightia tinctoria and comparative studies with Amoxicillin	**Ms. M.Manisha** Assistant Professor	Pharmaceutical Chemistry	European journal of biomedical and pharmaceutical sciences	2024-2025	2349-8870

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4	Computational methods for in-silico design of Ursolic acid against biological targets	**Mrs.C.Kalaiselvi** Professor	Pharmaceutics	Indica journal	2024-2025	0019-686X
5	Capsules: Types, manufacturing, formulation, quality controltests, packaging and storage, instruments – A overview article	**Mrs.K.Soundarya** Associate Professor	Pharmaceutics	World journal of pharmaceutical and life sciences	2024-2025	2454-2229

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PROPER DISPOSAL OF EXPIRED AND UNUSED DRUGS - A GLOBAL OVERVIEW

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ABSTRACT
A proper drug disposal is required for unused drugs that remain after the end of the medical treatment and expired drugs in hospital, wholesale and retail pharmacy, industry and homes because improper drug disposal leads off environmental contamination, risks to human health, medication fish down toilets or thrown in the trash that can contaminate the water source, affecting the aquatic life and accidental ingestion by children or pets. In India, knowledge and awareness about current Good Drug disposal practices are lacking among the general public. These practices need to be improved in order to protect the environment. This paper reviews the guidelines for proper drug disposal methods given by World Health Organization, expired drug collection methods from people and importance of drug disposal. This paper further explains the effects of improper drug disposal, some flaws of drug disposal in our country, laws of drug disposal and their future aspects for the regulation of drug disposal.

KEYWORDS: Drug disposal, environmental contamination, WHO guidelines, disposal practices.

INRODUCTION
Drugs are indispensable part of the medical care system a proper drug disposal is required for unused drugs that remain after the end of the medical treatment and expired drugs in hospital, wholesale and retail pharmacy, industry and homes it is important for good drug management system. A questionnaire based survey was conducted in india, it results as lack of the safe drug disposal awareness in majority peoples. Most of medicine consumers lack of awareness in proper disposal of expired and unused medicines it resulting as rinsing the medicine down to the sink or flushing them in the toilet or discarding the medicines in the garbage thus disturb the ecosystem. So, need to minimizing expenses for disposal of pharmaceutical waste involves sorting different products and following their specific disposal methods accordingly, thereby optimize resource allocation and environmental impact.

METHODS OF DRUG DISPOSAL
World health organization guideline for methods of safe disposal of expired and unused drugs. Those methods are classified in two types.

► Methods of drug disposal in home
1. Return to donor
The process of returning unusable drugs for safe disposal by the manufacturer Should be considered, especially for medications like antineoplastics that pose disposal challenges. Additionally, unwanted donations, particularly those nearing or past their expired, could potentially be returned to the donor for proper disposal.

2) Sewer
Properly diluted liquid pharmaceutics or antiseptics can be safely disposed of in sewer or fast-flowing water source, but caution is necessary in situation where sewers are damaged, required the expertise of a hydrogeologist or sanitary engineer to mitigate potential risk to public health and the environment.

3) Discus with local guidelines
Always consult local authorities for specific disposal instruction in your area to ensure proper handling and disposal of bulk or liquid pharmaceuticals, as regulation may vary depending on your location.

► Methods of drug disposal in industries
1) Landfill
The landfill method involves directly depositing waste into designated land disposal sites without any pre-treatment or preparations, making it the oldest and most commonly used approach for solid waste disposal, there are two types of landfill.

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Synthesis, Characterization And *In-Vitro* Studies On Chalcone Based Quinoxaline: *Acetylcholinesterase* Inhibition Through *In-Silico* Technique For Alzheimer's Disease

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Abstract

Inhibition of Acetylcholine esterase (AChE) to prevent the reduction of ACh level in Alzheimer's disease (AD) patients has been a popular strategy. Therapeutic applications of chalcones and Quinoxalines are becoming the attractive target due to its inherent diverse biological properties in recent times. In this study, virtual library was created containing 15 novel chalcone-quinoxaline hybrid derivatives using CHEMDRAW. Toxicity and ADME properties of those compounds were screened using admetSAR. 2D-QSAR *in-silico* models were developed to predict the activities of newly designed compounds before a decision is being made whether these compounds should be really synthesized and tested. In addition, docking studies had performed for newly designed compounds using PyRx software. 15 compounds were synthesized and characterized by IR, ^{1}H NMR, ^{13}C NMR and LC-MS. Then all compounds were tested for cell viability *in-vitro* MTT assay. Among the tested compounds, M2 and M4 were shown to be the most effective against the evaluated cell lines. In-depth, detailed investigations on *in-vivo* activity may be undertaken. The current study suggests that more research is needed for chalcone merged quinoxaline derivatives developed as a potent lead for Alzheimer's disease.

Key Words: QSAR, Docking, chalcone, quinoxaline, Acetylcholine esterase Alzheimer's disease.

1. INTRODUCTION

Molecular hybridization (MH) is a strategy used for the design of new chemical entities by the fusion of two different chemotypes. This is an alternative to combination chemotherapy, where two or more drugs of different mechanisms of action were combined for the treatment [1, 2]. However, the simple combination chemotherapy has a high risk of drug–drug interaction [3]. The molecular hybridization is a rational design

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PHYTOCHEMICAL AND PHARMACOLOGICAL EVALUATION OF BARK EXTRACT OF WRIGHTIA TINCTORIA AND COMPARATIVE STUDIES WITH AMOXICILLIN

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ABSTRACT

Plant extract have been used for a wide variety of purpose of many thousands of years. In particular the antimicrobial activity of plant extract has formed the basic of many application including raw and processed food preservation, pharmaceutical, alternative medicine and natural therapies. The bark of wrightia tinctoria is considered for anti-dirrhoeal. aphrodisiac,Anti-helmalit is febrifuge, stomachic,tooth ache,tonic. It has antibacterial, anti inflammatory, antioxidant, antifungal, anticancer, anti diabetes, antiviral activity. More over studies Pharmacognosy, antimicrobial activity and photochemistry part of wrightia tinctoria. Thebark of wrightia tinctoria contain bioactive compound such as alkaloids,saponins,quinine,tannins, glycosides,flavonoids, phenolic substance, terpenoids. It has antibacterial activity against both gram positive and gram negative studies have shown that extract from the bark effectively inhibit staphylococcus aureus and escherichia coli. The antimicrobial potential was assessed using the agar well diffusion method against bacteria. Among the different bacteria strains a more inhibitory action was observed against staphylococcus aureus and compare to standard drug amoxicillin.

KEYWORDS: Wrightia Tinctoria, Anti Micriobial, Gram Positive, Anti inflammatory, Staphylococcus aureus, Escherichia Coli, Amoxicillin.

INTRODUCTION

In recent years, multiple drug resistance in human pathogenic microorganisms has been developed due to indiscriminate use of commercial antimicrobial drugs commonly used in the treatment of such diseases. Over the last three centuries, intensive efforts have been made to discover clinically useful antimicrobial drugs .Plant extracts have been used for a wide variety of purposes for many thousands of years. In particular, the antimicrobial activity of plant extracts has formed the basis of many applications, including raw and processed food preservation, pharmaceuticals, alternative medicine, and natural therapies.

Antimicrobials of plant origin are effective in the treatment of infectious diseases while simultaneously mitigating many of the side effects that are often associated with synthetic antimicrobials. Wrightia tinctoria R.Br. and Wrightia arborea (Densst.) Mabb. belong to the family Apocynaceae. They are distributed in all districts of deciduous forest of India W. tinctoria is commonly called as "Indrajav" and locally as Pandhara kuda, while W. arborea is known as Tambda kuda. These species have been important in the traditional healing. However, the former one is widely recognized medicinal plant.

The bark of W. tinctoria is considered for antidiarrhoeal, aphrodisiac, anthelmintic, febrifuge, stomachic, toothache, tonic and dog bite. It is employed in seminal weakness and flatulence, also used in piles and skin diseases. Whereas, a preparation of the bark made from Wrightia arborea is found useful in menstrual and renal complaints. Moreover, several studies viz. pharmacognosy, antimicrobial activity and phytochemistry on different parts of these two species studied earlier. This work however, is designed to evaluate the comparative account phytochemical components and antibacterial activity of bark of both species on selected bacterial strains.

The bark of Writghtia tinctoria contains bioactive compounds such as flavonoids, alkaloids and tannis which exhibit strong antibacterial activity against both gram positive and gram negative bacteria. Studies have shown that extract from the bark effectively inhibit

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"Computational methods for *in-silico* design of Ursolic acid against biological targets"

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CAPSULES: TYPES, MANUFACTURING, FORMULATION, QUALITY CONTROL TESTS, PACKAGING AND STORAGE, INSTRUMENTS-A OVERVIEW ARTICLE

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ABSTRACT

Capsules are solid preparations containing either a soft or hard soluble shell for the drug or excipient. Typically made of gelatin or another suitable polymeric material, the sell produces a straight forward, tasteless, odorless, elegant, and simple dosage form that does not require a secondary coating step, at all medicinal dosage forms, the capsule in solid form has never been the subject of research. In order to accomplish modified drug release, this review incorporates more recent trends in the outer layer of capsules, capsule fill material, a capsule sealing technique, and various capsule systems. When making capsules, the gelatin solution is processed with the help of preservatives and surfactants. Water, which serves as a plasticizing agent for the gelatin coating and is necessary for the function of empty capsules, is present in a significant quantity. The basis of hard capsules is often composed of plasticizer and water. Additionally, the base may include sugars, colours, flavours, and preservatives. The animal source of gelatin can be a problem for certain consumers such as vegetarians or vegans and religious or ethnic groups, Since unmodified gelatin is prone to cross linking when in contact with aldehydes, solubility problems might be expected with certain fill formulations. The non-gelatin capsule shells are made up of such as Starch, HPMC, PVA, and Alginate.

KEYWORDS: Capsule, Gelatin, Manufacturing, Formulation, Quality control test, Pacaging and storage, Instrument.

INTRODUCTION

The Latin word "capsula," which means a small box or container, is the origin of the word "capsule." The term is used in a variety of scientific fields, including anatomy, where it is used to describe a membrane that surrounds something, botany, where it is used to describe fruits, and astrophysics, where it is used to describe a spacecraft.[1] The term "capsule" has been used in the pharmacy to describe both a glass ampule and the protective cap that covers a medicine bottle's stopper. In recent times, the term "capsule" has primarily been used to refer to solid dosage forms, which are containers containing a medicine. They fall into one of two main categories: hard capsules (two pieces) or soft capsules (one piece), depending on whether glycerol or another plasticizer makes them flexible and soft. There has been a soft gel dosage form for a long time. Soft gels first appeared in the 19th century. Numerous improvements have been made to the production of these soft capsules since then.[2] Manufacturing soft gel still necessitates specialized expertise and equipment, both of which are only provided by a small number of businesses to pharmaceutical clients.

Despite the advancements in soft gel manufacturing, the soft gel dosage form has largely remained unchanged over time. Consequently, the technology lost its patent protection, which is a disadvantage in the age of pharmaceutical life-cycle management. As a result, Banner has developed new soft gel varieties that not only provide additional patent protection for the compounds they deliver but also provide distinct advantages over standard soft gel. Formulations have steadily increased in popularity ever since the invention of the Soft Capsule Making Machine in the 1970s, with rapid advancements in recent years. This could be demonstrated by the emergency of more than 560 sets of transfer-mode Soft Capsule Making Machines, which produce up to 60 billion pills annually (or more than 3600 different drugs) worldwide.[3] Any substance that, when consumed, alters an organism's physiology or psychology is considered a drug.

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1	Nicotine Detection Kit	T.Sampath kumar	Pharmacognosy	International Journal of Pharmaceutical science review and research	2023-2024	0976-044X

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Research Article

Nicotine Detection Kit

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ABSTRACT

Aim: To develop and demonstrate the effectiveness of a Nicotine Detection Kit for detecting nicotine presence in saliva of the tobacco users.

Method: We propose a qualitative experiment to demonstrate the presence of nicotine in the saliva of the tobacco users and highlight how it forms compounds with metal. This experiment involves extracting nicotine from tobacco and then creating a reaction between nicotine and Co(II).

Results: Our novel kit delivers precise and reliable nicotine detection using saliva, making it a user-friendly, non-invasive tool for tracking nicotine exposure. This advancement holds great promise for applications in healthcare and public health.

Keywords: Nicotine, Tobacco users in India, Detection kit, Inexpensive kit, Narcotics detection method.

INTRODUCTION

Nicotine is naturally found in the plants belonging to the Solanaceae family(Tobacco, tomato, potato). The majority of tobacco users are addicted to nicotine delivered by tobacco product. Nicotine is a stimulant drug that acts as an agonist at nicotinic acetylcholine receptors. Nicotine consumed with tobacco (various form like smoking and non-smoking form) is probably the second most used drug in the world after caffeine from coffee and tea[1]. All forms of tobacco carry the same level of harm. Tobacco or nicotine consumption is a common practice observed in numerous countries, cultures, and diverse religious traditions worldwide. Cigarette smoking is the most common form of tobacco use worldwide. Other tobacco products include waterpipe tobacco, cigars, cigarillos, heated tobacco, roll-your-own tobacco, pipe tobacco, bidis and kreteks, and smokeless tobacco products. Nearly 2.5 million were nonsmokers who died from heart disease or lung cancer caused by exposure to second hand smoke[1]. Nicotine is widely recognized for its substantial systemic impact, and its potent addictive qualities are just one facet of its influence. This compound exerts detrimental effects on various bodily systems, including the cardiovascular, reproductive, pulmonary, and renal systems, among others.

Nicotine is an unusual alkaloid in that it has two nitrogen-containing heterocycles, pyridine and pyrrolidine. It is, of course, the tobacco component that makes smoking highly addictive, leading to the consequence that long-term smoking causes cancer

Nicotine appears as a colorless to light yellow or brown liquid. Combustible. Toxic by inhalation and by skin absorption. Produces toxic oxides of nitrogen during combustion. Nicotine is primarily metabolized in the body by the cytochrome P450 (CYP) enzyme family, specifically the CYP2A6 isoform. This enzyme converts nicotine into cotinine, and further metabolizes cotinine into trans-3'-hydroxycotinine. Other metabolites of nicotine include cotinine-N-oxide, nornicotine, norcotinine, 4-oxo-4-(3-pyridyl)-butanoic acid, 4-hydroxy-4-(3-pyridyl)-butanoic acid, and nicotine-N'-oxide[6].

Statistics data about tobacco user (worldwide)

Tobacco kills more than 8 million people each year, including 1.3 million non-smokers who are exposed to second-hand smoke. In 2020, 22.3% of the world's population used tobacco: 36.7% of men and 7.8% of women. More than 80% of all smokers now live in countries with low or middle incomes. China produced and consumed more than 30% of the cigarettes in the world. In many developing countries, tobacco use is notably prevalent. For instance, China stands out with a striking contrast in smoking prevalence between genders, as 74% of males are smokers, while only 8% of females use tobacco. Every day, almost 2,500 children under 18 years of age try their first cigarette, and more than 400 of them will become new, regular daily smokers[2]. Individuals who initiate smoking during their formative years face a higher risk of developing a strong nicotine addiction compared to those who commence smoking later in life. Since 2014, electronic cigarettes (e-cigarettes) have consistently held the title of the most frequently used tobacco product among young people (below age 22). Nicotine pouch sales have seen a rapid increase in the U.S.

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1	A Review On Topical and Transdermal Delivery System	M.Gomathi	Pharmaceutics	International Journal of Pharmaceutical Research and Applications	2022-2023	2249-7781
2	Assessment Of Knowledge About Adverse Drug Reaction Among Pharmacy Students	S.Sasi Kumar	Pharmaceutical analysis	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870
3	Phytochemisty,Traditional Uses And Biological Activites Fig(FICUS CARICAL) Family (MORACEAE)- A Breif Review	T.Sampath kumar	Pharmacognosy	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870

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4	A Review On Scorpion Venom: An Unrevealed Medicine For Human Ailments: Great Scope For Pharmaceutical Research	T.Sampath kumar	Pharmacognosy	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870
5	Advancements in Ocular In Situ Gelling System to Overcome Ocular Barriers	M.Gomathi	Pharmaceutics	International Journal of Pharmaceutical Research and Applications	2022-2023	2249-7781
6	A Comparative Pharmaceutical Study of Generic and Branded Tablet's Quality Control Tests According to Pharmacopoeias	T.Sampath kumar	Pharmacognosy	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870
7	A Complete Review of Oldenlandia Umbellata Linn (impural) Plant	M.Vanitha	Pharmacology	World Journal of Pharmaceutical Research	2022-2023	2277-7105

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8	Ethnobotanical Survey of Medicinal Plants From Sankari, Salem district, Tamilnadu, India	T.Sampath kumar	Pharmacognosy	International Journal of Pharmaceutical Research and Applications	2022-2023	2249-7781
9	Pharmacognostical and Pharmacological Profile of Cynodon Dactylon: a Review	T.Sampath kumar	Pharmacognosy	International Journal of Pharmaceutical Research and Applications	2022-2023	2249-7781
10	Assesment of Knowledge about Jaundice among People of Various Districts in Tamil Nadu	G.Sekar	Pharmacology	International Journal of Pharmaceutical Research and Applications	2022-2023	2249-7781
11	A Detailed Review on Preparative Methods and Applications of Transdermal Drug Delivery System	M.Gomathi	Pharmaceutics	Journal of Current Pharma Research	2022-2023	2230-7834
12	Less Symptoms, Less Awareness- A Deep view on Osteoporosis	T.Sampath kumar	Pharmacognosy	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870

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13	A Review of Formulation and Evaluation of Tablets	M.Gomathi	Pharmaceutics	European Journal of Biomedical and Pharmaceutical sciences	2022-2023	2349-8870
14	Body Detoxification by Detox Water	T.Sampath kumar	Pharmacognosy	world journal of Pharmaceutical and life science	2022-2023	2454-2229
15	A Review on Development and characterization of Ethosomes- A novel Transdermal Drug Delivery System	M.Gomathi	Pharmaceutics	Journal of Current Pharma Research	2022-2023	2230-7834

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A Review On Topical and Transdermal Delivery System

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ABSTRACT:

Topical drug delivery systems have been shown to overcome difficulties in drug delivery, especially orally. A topical patch is a drug-containing adhesive patch that is attached to the skin and a specific dose of drug can be delivered to the blood through the skin. It promotes the healing of an injured area of the body. Transdermal drug deliveryhas made an important contribution to medical practice, but it has yet to fully achieve its potential as an alternative to the oral delivery and hypodermic injections.The transdermal patch may essentially can provide a controlled release of the medication into the patient, usually through either a porous membrane covering a reservoir of medication or through body heat melting thin layers of medication embedded in the adhesive. An advantage of thistypes of delivery systems to avoid first pass metabolism. The disadvantage of the topical delivery system is the skin a very effective barrier, so only drugs with small molecules that can easily penetrate the skin can be delivered by this method.

KEY WORDS: Topical drug delivery, Transdermal drug delivery, Skin permeation, Systemic circulation, Kinetics.

I. INTRODUCTION:

Transdermal:

Topical formulations containing drugs showing systemic action are called transdermal delivery systems (TDS) or transdermal systems .Transdermal delivery may be defined as the delivery of a drug through 'intact' skin so that it reaches the systemic circulation in sufficient quantity to be beneficial after administration of a therapeutic dose[1].

Advantages:

Avoidance of First pass metabolism of drug, Self administration is possible, Topical are a painless, Prolonged duration of action.

Disadvantages:

Possibility of local irritation at the site of application, It can be uncomfortable to wear, Slower onset than oral preparation[2].

Basic Components of Transdermal Drug Delivery Systems-

1. Polymer matrix or matrices.
2. The drug.
3. Permeation enhancers.
4. Other excipients.

1. **Polymer Matrix:** The Polymer controls the release of the drug from the device. Possible useful polymers for Transdermal,

a.Natural Polymers: e.g., cellulose derivatives, Zein, Gelatin, Shellac, Waxes, Proteins, Gums and their derivatives, Natural rubber, Starch etc.
b. Synthetic Elastomers: e.g., polybutadieine, Hydrin rubber, Polysiloxane, Silicone rubber, Nitrile Acrylonitrile, Butyl rubber, Styrenebutadieine rubber, Neoprene etc.
c. Synthetic Polymers: e.g., polyvinyl alcohol, Polyvinyl chloride, Polyethylene, Polypropylene, Polyacrylate, Polyamide, Polyurea, Polyvinyl pyrrolidone, Polymethylmethacrylate ,Epoxy etc.

2. **Drug:** For successfully developing a transdermal drug delivery system, the drug should be chosen with greatcare. The following are some of the desirable properties of a drug for transdermal delivery.
3. **Permeation Enhancers:** These are compounds which promote skin permeability by altering the skin as a barrier to the flux of a desired penetrant.
4. **Other Excipients:** Adhesives: The fastening of all transdermal devices to the skin has so far been done by using a pressure sensitive adhesive which can be positioned on the face

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ASSESSMENT OF KNOWLEDGE ABOUT ADVERSE DRUG REACTION AMONG PHARMACY STUDENTS

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ABSTRACT

The objective was to assess the knowledge about adverse drug reactions among the pharmacy students of several colleges in Tamil Nadu. A cross sectional study was carried out among 150 students in various districts between June -July 2022 by using Google form containing MCQ type questionnaire. The students score was recognized as good and poor. The descriptive statistics were calculated using Microsoft word 2013. 150 students responded to that questionnaire and their about ADR was assessed. Despite of relatively better attitude towards pharmacovigilance and ADR, they had a limited knowledge regarding ADR and Pharmacovigilance. The study findings highlight the need to strengthen the community pharmacovigilance program for safer medications use at the community level. **Aim and Objective:** The main objective of the present work is to assess the knowledge about Adverse Drug Reactions among the pharmacy students in Tamil Nadu.

KEYWORDS: Adverse drug reaction, Pharmacovigilance, Knowledge Assessment, Pharmacy Students, Cross-sectional study.

INTRODUCTION

- We define an Adverse Drug Reaction as "an appreciably harmful or unpleasant reaction, resulting from an intervention related to the use of a medicinal product, which predicts hazards from future administration and warrants prevention or specific treatment, or alteration of the dosage regimen, or withdraw of the product".[1]
- ADRs are considered a major cause of patient's morbidity, mortality, hospital admissions as well as increasing length of hospitalization and cost of treatment.[2]
- It affects irrespective of the age group of patients worldwide with varying magnitude of causing morbidity and mortality.[2]
- Adverse Drug Reactions are unintended and undesired effects of drugs used for prevention, diagnosis, or treatment of disease.[3]
- ADRs are reported to be the 46th leading cause of death in the United States of America.[4]
- Adverse Drug effects are more commonly recorded in elderly clients than in young adults or middle age clients, because the geriatric population takes more drugs simultaneously than other age groups.[5]
- More than 60% of the adverse drug events were caused by drug- drug interactions. Of these, more than 46% were considered "preventable" because the drug-drug interaction was known.[5]
- A study from South India revealed that 0.7% of hospital admissions were due to ADRs and a total of 3.7% hospitalized patients experienced ADRs of which death accounts for 1.3%.[6]

METHODS

The cross-sectional study was conducted over a period of one month (June-July) of 2022 among pharmacy students from nearly 10 pharmacy colleges in Tamil Nadu. The sample size is about 150 students in Third year and Final year B. Pharm. A semi structured questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire was validated by the faculties of SS Institute of Pharmacy, Sankari.[7-11] It consists of 18 questions related to ADR, Pharmacovigilance, PVPI, and CDSCO. Out of 18 questions, 10 questions were multiple choice questions and 08 questions were yes/no type questions. The questionnaire was distributed over pharmacy students through Google form, all the questions were compulsory, restrictions were set, and only one response can be submitted by an individual student. Each correct answer and each positive response were given a score of 1 whereas the negative response or wrong responses were

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PHYTOCHEMISTRY, TRADITIONAL USES AND BIOLOGICAL ACTIVITIES FIG (FICUS CARICA L.) FAMILY (MORACEAE)–A BRIEF REVIEW

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ABSRACT

The fig, ficus carica is a species of tiny tree in the flowering plant family moraceae that is indigenous Mediterranean region. The Mediterranean region, as well as Asia's west and south. There have cultivated since antiquity and currently widely cultivated all over the world. Figs, among other fruits and leaves, are significant nutrients, including as vitamins, minerals, carbohydrates, and amino acids. And due to the phytochemical makeup, they have negative health impacts. a variety of bioactive substances such flavonoids (flavonols), phenolic compounds (phenolic acids), extracted from the F. carica fruits and leaves, which are the primary components of the manufacturing of a variety of alcoholic drinks, including wine, liqueur, and spirit. This chapter seeks to review the various biological and chemical traits discovered and spirits that people have ingested and been aware of throughout history. Among others, coumarins, sterols, volatiles (monoterpenes, sesquiterpenes, norisoprenoids, ketones, alcohols, esters, etc.), coumarins, flavones, and anthocyanins, as well as others, have been studied. This chapter seeks to review the various biological and chemical traits discovered and spirits) that people have ingested and been aware of throughout history. Traditional medicine has employed the plant to treat a number of conditions, includings cancer, inflammation, and gastrointestinal issues. The therapeutic actions are antibacterial, hypolipidemic, and hypoglycemia action. different disorders such as respiratory (sore throats, cough, andbronchial problems). It is one of the traditional Mediterranean species belonging to the family of Moraceae. Which is widely seen in the regions of sub-tropical and tropical countries. In vitro and in vivo studies has reported that figs fruits, leaves, stem, and latex have health management effect via antioxidant, anti-spasmodic, antimicrobial, anticarcinogenic and many more other effects.

KEYWORDS: Ficus caria, Fig, edible Fig, fig tree, phytochemistry, pharmacological activities.

INTRODUCTION

Ficus carica, the common fig is a deciduous shrub or small tree belonging to Moraceae or mulberry family. Fig is very common fruit crops grown in temperate regions throughout the world for its delicious fruits.[1] The genus Ficus is one of the largest genera of angiosperms in the tropical and sub-tropical regions all over the world having more than 800 species of trees, epiphytes, and shrubs.[2] Ficus carica L. is known as common fig abundantly distributed in southwest Asia and eastern Mediterranean and is also the first figs species that has been cultivated by humans. This common fig has pear-shaped fruit, hollow and fleshy receptacle; can be consumed either in fresh or dry fruit.[3] Figs are mostly grown in Mediterranean climates, but can be grown in more humid regions including the tropics and subtropics. Turkey produces 26% of the total world's figs alone and Egypt, Iran, Greece, Algeria, and Morocco together constitute around 70% of the total world's fig production (FAO, 2006).[4] In addition, a group researchers reported fig's fruits, leaves and roots traditionally used to treat several disorders such as colic, indigestion, loss of appetite and diarrhea, sore throats, coughs and bronchial problems, inflammatory and cardiovascular disorders. Researchers have discovered the enormous resource of medicinal plants like figs to be incorporated in modern pharmaceutical for medicine development for treating severe diseases like cardiovascular, anti-inflammatory and antispasmodic remedy.[5] In addition, Prophet Muhammad the Messenger of Allah also mentioned figs in his hadith as narrated by Abu Darda RA: "Eat figs! If I would say a certain type of fruit was sent down to us from the heavens, I would say it's a fig because it has no seeds

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A REVIEW ON SCORPION VENOM: AN UNREVEALED MEDICINE FOR HUMAN AILMENTS: GREAT SCOPE FOR PHARMACEUTICAL RESEARCH

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ABSTRACT

Scorpion venom components have multifaceted orientation against bacterial, viral, fungal infections and other neuronal disorders. In ancient era, venoms are considered as toxic substance. But, in this era, it is used as a valuable medicine to cure certain types of diseases and disorders such as antibacterial, anti-rheumatic etc. venomous animals found worldwide except cold geographical regions. Animal venoms are complex mixtures of highly specialized toxic short peptides enzymatic in nature which exert severe pathophysiological effects. We are killing scorpions, because sting was poison but this poison also used as a medicine. An optimum concentration of scorpion venom should not produce side effects while it crosses their limit it will be poisonous. By this the study concludes that, even if the Scorpions are dangerous their venom are useful to us and instead of killing them, they can be nourished and breeded for economic purposes. And by nature we have the raw material (scorpion) abundantly in our environment; instead of killing them we should utilize them properly.

KEYWORDS: Scorpion venom, Antiviral, Anti-rheumatic, Antifungal, Poison.

INTRODUCTION

Scorpions are a very ancient group that originated as terrestrial animals approximately 300 million years ago and have persisted ever since. They are widespread around the globe, present in all continents apart from Antarctica, and are adapted to a variety of environments, including high altitudes, deserts, rainforests, and cave. Some scorpion species are endemic and dependent of their original habitats' natural conditions, living in small populations with restrict mobility.[1] In the olden days venoms are considered as poisonous substance. But in this modern era, it is used as a valuable medicine to cure certain types of diseases and disorders and used in some cosmetic preparation. Most of us want to avoid scorpions and for good reasons. But the venom in a scorpion's sting is much more than just a toxic substance. In fact, much like snakes venom, the venoms found in scorpions have a several application that could be used to save life rather than end them. For example proteins from scorpion venoms can be used in immune suppressants and anti-malarial drugs and an amino acid in scorpion venom can help clinicians more easily detect lethal brain tumours. Now researchers have discovered a type of scorpion venom which contains two compounds that could beat bacteria resistance to Antibiotics. This scorpion called Diplocentrus melicis native to Eastern Mexico and lives underground most of the year, appearing only i Mexico's rainy season. Researchers isolated the compounds in the Scorpion venom and synthesised them in the Lab. They then treated the synthetic version in mice. Unfortunately, Scorpion is the most expensive liquid on the Earth. It costs around $38,585,507.46 per gallon (3.7 litres). It's even more expensive than Thailand's King cobras venom, which costs around $153,000 a gallon (3.7 litres). Unfortunately, the scorpion produces just 2 mg of venom at a time. Therefore, it is necessary to make synthetic version of these venom, otherwise there won't be enough to lower the cost, and no one will be able to afford the drugs. Beyond using them to fight off anti-bacterial resistant illnesses, Researchers are looking into using scorpion venom as potential pain killers as well as using a peptide from scorpion venom to supress immune responses, allowing it to be used in the treatment of auto immune disease. Even cancer is beginning to feel the Scorpions sting. A drug called VIDATOX is obtained from blue scorpions. It is known as Cuba's miracle drug and the drug shows promising anti-cancer activity and it has been tested on more than 10000 cancer patients. So far, the drug has yielded positive results against various

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Advancements in Ocular in Situ Gelling System to Overcome Ocular Barriers

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ABSTRACT

Topical Application of Drugs is the method of choice under most circumstance because of its convenience and safety for ophthalmic chemotherapy. A significant challenge to the formulator is to circumvent (bypass) the protective barriers of the eye without causing permanent tissue damage. Development of newer, more sensitive diagnostic technique & novel therapeutic agents continue to provide ocular delivery system with high therapeutic efficacy . Thus, a conventional ocular dosage form has various disadvantages of its use in ocular disease. Hence, an ideal ocular delivery system has always been aimed, where the bioavailability of drug is maintained for a longer period of time. The present review aims to focus on the drawbacks of the conventional ocular therapy & the advantages of designing novel delivery system, with their certain specific advantages in ocular pharmacokinetics & the enhancement of bioavailability. A lot of research going on in this area proves the fact that in situ gelling system can be beneficial in the ocular drug delivery system.The compiled data presented in this review will act as a good information resources and reference point for further reseachers in the field of ocular drug delivery aiming non-invasive sustained release of drugs in the anterior and posterior segment of the eye.

Key words: Ocular drug delivery, intraocular barriers, Ocular bioavailability.

INTRODUCTION

Eye is most interesting organ due to its drug disposition characteristics. Generally, topical application of drugs is the method of choice under most circumstances because of its convenience and safety for ophthalmic chemotherapy[1,2] A significant challenge to the formulator is to circumvent (bypass) the protective barriers of the eye without causing permanent tissue damage.2 Development of newer, more sensitive diagnostic techniques and novel therapeutic agents continue to provide ocular delivery systems with high therapeutic efficacy. Conventional ophthalmic formulations like solution, suspension, and ointment have many disadvantages which result into poor bioavailability of drug in the ocular cavity. The specific aim of designing a therapeutic system is to achieve an optimal concentration of a drug at the active site for the appropriate duration. Ocular disposition and elimination of a therapeutic agent is dependent upon its physicochemical properties as well as the relevant ocular anatomy and physiology. A successful design of a drug delivery system, therefore, requires an integrated knowledge of the drug molecule and the constraints offered by the ocular route of administration[3]

The various approaches that have been attempted to increase the bioavailability and the duration of the therapeutic action of ocular drugs can be divided into two categories. The first one is based on the use of sustained drug delivery systems, which provide the controlled and continuous delivery of ophthalmic drugs. The second involves maximizing corneal drug absorption and minimizing precorneal drug loss[4,5,6]

Ideal ophthalmic drug delivery must be able to sustain the drug release and to remain in the vicinity of front of the eye for prolong period of time. Consequently it is imperative to optimize ophthalmic drug delivery; and by addition of polymers of various grades, development of in situ gel or colloidal suspension or using erodible or non erodible insert to prolong the precorneal drug retention.

THE ANATOMY OF THE EYE [7]

The human eye, elegant in its detail and design, represents a gateway to the process we call vision. The eyeball is spherical in shape and about

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A COMPARATIVE PHARMACEUTICAL STUDY OF GENERIC AND BRANDED TABLET'S QUALITY CONTROL TESTS ACCORDING TO PHARMACOPOEIAS

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ABSTRACT

Generic medications are pharmaceuticals that are therapeutically equivalent to an original off patent drug. Both authorized generics and branded generics are the versions of generic medications. Generic supply medications having quality of branded drugs at lower prices and this establishes their recognition among the masses who earlier has limited options to buy only brand-name drugs. In India people have many myths about generics due to lack of knowledge and awareness. Even Doctors generally not prescribed the generics drug because of they are more doubtful about quality and safety. Pharmacist not dispenses generics because of less commission on sale of generics and less demand by peoples. So this study is taken to remove this myth from their mind set. The Present study deals with a brief overview of the comparative study of quality requirements for finished products (generic and branded) quality control Tests for tablets according to Pharmacopoeias (IP/BP). For this purpose a set of 5 different tablets from generic and branded source are taken. Quality control tests were conducted on those tablets. The pharmacopoeias have laid down the specified limits within which the value should fall in order to be compliant as per the standards. However the parameters and standards differ to some extent from each other. Hence an attempt is being made to compare the quality of the each branded and generic medicines.

KEYWORDS: Generic Medicines, Branded Medicines, Quality control, Pharmacopoeias.

INTRODUCTION

The goal of all Pharmaceutical industry is to make a good quality product. Most of the Standard products of pharmaceutical companies are the patented drugs, when a pharmaceutical company innovates or discovers new drug they file a patent for the same and only they have the rights to manufacture the drug for around 20 years. After 20 Years when the patent is expired other companies can also manufacture that particular product, which is termed as branded generics. This means generics are the copy of branded drugs manufactured by different companies. In India there are lots of myths about quality of generic products because of different types of packaging and labelling of products.

Many people consider generics as lower quality products because of lack of knowledge and not very well known manufacturers. So in this article we did comparative study of generic and branded products to understand whether generics maintain good quality and have same efficacy as that of standard drugs.

In 2008, the government of India started "jan Aushadhi" the program contemplates making unbranded quality medicine available to the patient at affordable price through retail store.

In November, 2016, to give further impetus to the scheme, it was again renamed as "Pradhan Mantri Bhartiya Janaushadhi Pariyojana" (PMBJP).

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses. PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.

The Hon'ble Minister of Finance while presenting the Budget for the year 2016-17 in Parliament, made a special mention on PMJAY. The excerpt of the Budget Speech of Hon'ble Finance Minister is reproduced below:

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A COMPLETE REVIEW OF OLDENLANDIA UMBELLATA LINN (IMPURAL) PLANT

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ABSTRACT

Oldenlandia umbellata linn plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. The colouring matter is found principally in this plant and is collected when the plants was dried through some extraction methods. Our review article focusses to pharmacognostical studies and give number of pharmacological activites are Anti-Tussive, Cytotoxicity, Anti-Inflammatory, Anti-Pyretic, Hepatoprotective Effect, Antioxidant, Anti-Bacterial and Anti-Microbial activity and also against Respiratory Tract Pathogens. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Oldenlandia umbellate, Anti-Tussive, Chaaya ver, Chay root, Anti-Microbial.

INTRODUCTION

Oldenlandia umbellata (called chay root or choy root, from its Tamil name, chaaya ver) is a low-growing plant native to India. A colour-fast red dye can be extracted from the root bark of (preferably) a two-year-old plant. Chay root dye was once used with a mordant to impart a

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Ethnobotanical survey of medicinal plants from Sankari, Salem district, Tamil nadu, India.

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ABSTRACT:

From the olden days plants and its secondary metabolites are used in various divisions of medicine and used to cure various disease and disorders. And we knew few plants by observing its morphological and organoleptical characters but so many plants are yet unidentified. Though our ancestors had left us some knowledge about plants which have medicinal activity.The earliest mention of medicinal use of plants in Hindu culture was found long year ago in 'Rig Veda' which was written between 4500 to 1600 BC. In this present study Ethnobotanical survey was carried out in Sankari, Salem district, Tamilnadu, India. Traditional uses of 72 plant species spread all over Sankari were described in this study. This present study reveals that these plants plays an vital role in the primary health care of the people.

KEYWORDS: Ethnobotany, Medicinal plants, morphology, organoleptic, Rig Veda, Ancestors, Sankari.

I. INTRODUCTION:

Ethnobotany is the study of a regions plants and their practical uses through the traditional knowledge of a local culture and people The ethnobotany is the study of interactions between plants and people with a particular emphasis on traditional tribal culture. According to the world health organization(WHO), about 65 to 85% of the worlds population in developed countries depends essentially on plants for their primary health care due to poverty and lack of access to modern medicine. An ethnobotanist thus strives to document the local customs involved in the practical uses of local flora for the aspects of life such as plants as medicines, foods, intoxicants and clothing. Richard Evans Schultes, often referred to father of ethnobotany.

The knowledge of medicinal plants as been accumulated in the course of many countries based on different medicinal systems such as Ayurveda, Unani and Siddha. In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular source of medicine. During the last few decades there has been a increasing interest in the study of medicinal plants and their traditional uses in different part of the world.

The idea of ethnobotany was first proposed by the early 20th century botanist John William Harshberger Ethnobotany is not new to India because of its rich ethnic Diversity.There are over 400 different tribals and other ethnic groups in India. The tribals constitute about 7.5% of about India's population.During the last few decades there has been an increasing interest in the study of medicinal and their traditional use in different parts of India and there are many reports on the uses of plants in traditional healing by either tribal people or indigenous community of India. Apart from the tribal groups, many other dwellers and rural peoples also posses unique knowledge about the plants. Research interest and activities in the area of ethno medicine have increased tremendously in the last decade. Since the inception of the discipline, scientific research in ethno medicine has made important contribution to the understanding of traditional medical knowledge and practice. The detonation of the ethno medicine literature has been motivated by an increased awareness of the consequences of the recognition of native health concepts as a means of maintaining ethnic identities, the search for new medical treatments and technologies. Species like Pterocarpus santalinus, Coscinium fenestratum, Janakia arayalpathra, Cycus circinalis and Saussurea costus are critically endangered in the wild are found in the Eastern Ghats. Tribes dwelling in remote places

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Pharmacognostical and pharmacological profile of Cynodon dactylon: A review

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ABSTRACT:
Cynodon dactylon (L.) Pers. (family- Poaceae), is a long-lived herb found in various regions of India. It is native to Europe, Africa, Australia and much of Asia. It has been introduced to the Americas. The plant has been rich in metabolites notably proteins, carbohydrates, minerals, flavonoids, carotenoids, alkaloids,glycosides and triterpenoides. This review includes several biological activities of the plant C. dactylonsuchas, antimicrobial, antiviral and wound healing properties.

KEYWORDS: Cynodon dactylon, Pharmacognostical, pharmacological profile.

I. INTRODUCTION:

From the olden days plants and its secondary metabolites are used in various disease divisions of medicine and used to cure various disease and disorders. And we knew few plants by observing its many plants are yet unidentified. Though our ancestors had left us some knowledge about plants which have medicinal activity.[1] According to an estimation of the World Health Organization, about80 percent of the world's population uses herbs to fulfil its primaryhealthcare needs. More than 35,000 plant species are being usedaround the world as medicinal plants in traditional and ethnomedicinal practices. Among numerous species of plants growing inIndia, Durva or taxonomically the Cynodon dactylon occupies a keyposition in ethno medicinal practices and traditional medicalknowledge systems (Ayurveda, Unani, Nepalese, and Chinese).[2]

During the last few decades there has been an increasing interest in the study of medicinal plants andtheir traditional use in different parts of the world.[3]Herbal products were being the effectual source of both traditional and modern medicines which are used widely to treat several medical problems. It is evident that the plant kingdom contains enormous and inexhaustible source of active ingredients vital in the management ofmany diseases. Use of plants as to cure health related problems in the traditional way is very popular.Americaand Middle Eastern countries. Use of such plants has minimal side effects. In recent years,pharmaceutical companies spent substantial amount of time and money in devcloping therapeutic products which is based upon natural products extracted from plants [Ben Sassi et al., 2007 and Coruhet al., 2007]. Whole plant of the Cynodon dactylon is traditionally usedto treat painful and inflammatory condition.C. dactylon was generally known to be in the east ofAfrica. It was then distributed extensively at abovethe sea level of 2000 meters of height or altitude. It isone kind of monocot weed that is inherent to Africa.It started to grow along the coastal region in thetemperate parts and in the tropical areas where650-1750 millimetres of rainfall was seen. It alsogrew along the riverside and the landscape regionsirrigated in the arid zones of the Earth.It cangrow nearly anywhere in the world between about30° S and 30° N scope and it can tolerate annualprecipitation of 10 to 430 cm. It is indeed a perennial,monocot warm weather grass that occurs on almostall kind of soil types.[4]Cynodon dactylon may be applied both externally as well asinternally due to its various medicinal value.[5]

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Assesment of Knowledge about Jaundice among People of Various Districts in Tamil Nadu

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ABSTRACT:
Jaundice in adult can be caused by a wide variety of benign or life threatening disorders. Newborn jaundice occurs when a baby has a high level of bilirubin in the blood. Bilirubin is a yellow substance that the body creates when it replaces old red blood cells. The liver helps to break down the substance and so it can be removed from the body in the stool. High plasma bilirubin level (hyperbilirubinemia) can cause various manifestations involving gastrointestinal bleeding, diarrhoea, anemia, edema, weight loss and can be fatal.The objective was to assess the knowledge about jaundice disease among the people of Tamil Nadu. A cross sectional study was carried out among 200 people in various districts between November – December 2022 by using Google form containing 15 MCQ type questionnaire. The descriptive statistics were calculated using Microsoft excel. 200 people responded to that questionnaire and their knowledge about jaundice was assessed.

KEYWORDS: Bilirubin, Hyperbilirubinemia, Jaundice, Knowledge assessment,Cross sectional study.

AIM AND OBJECTIVE:
The main aim of this present study is to assess the knowledge about the jaundice among the people of Tamil Nadu.

I. INTRODUCTION:

Jaundice is when clinically there is an increase in the amount of bilirubin in serum rising above 85mmol/L (5mg/dl). When in utero, unconjugated bilirubin is cleared in the placenta to produce cord serum bilirubin of approximately 35mmol/L (2mg/dl). After birth, jaundice is a reflection of the bilirubin present in the liver, the rate of hepatic excretion and the ability to bind to albumin proteins to retain the bilirubin present in the plasma. Many variations in individual responses to bilirubin load prevent specific levels of psychological Jaundice[1] Jaundice is defined as a yellowing of skin, mucous membranes and sclera due to the deposition of yellow orange bile pigment i.e. bilirubin[2] The bilirubin is an endogenously synthesized pigment that can be toxic specially in new born children[3]Jaundice is a yellowing of the skin, whites of the eyes, and body fluids. It is caused by an increase in the amount of bilirubin in the blood. Bilirubin is a yellowish pigment that is produced from the breakdown of heme, primarily from hemoglobin and Red blood cells (RBCs). Bilirubin is transported by the blood to the liver, where the liver process it, allowing it to be excreted in bile. Bile is a thick yellow-green-brown fluid that is secreted into the upper small intestine (duodenum) to get rid of waste product (such as bilirubin and excess cholesterol) and to aid in the digestion of fats. Jaundice may arise from increased breakdown of Red blood cells, inherited changes in bilirubin metabolism, liver disease or damage, and whenever there is interference with bile excretion. Normally, about 1% of our Red blood cells retire every day, to be replaced by the fresh Red blood cells. The old ones are processed in the liver and disposed of. Much of the resulting bilirubin leaves the body in the stool. If there are too many Red blood cells retiring from the liver to handle, yellow pigment builds up in the body. When there is enough to be visible, Jaundice results. Jaundice can be caused by too many Red blood cells retiring, by the liver being overloaded or damaged, or by the inability to move processed bilirubin from the liver through the biliary tract to the gut. Most babies have Jaundice during the first week of life. The ordeal of birth can send many Red blood cells to an early retirement (especially if a vacuum is used) and babies livers are often unprepared for the load. Before Moms milk comes

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A Detailed Review on Preparative Methods and Applications of Transdermal Drug Delivery System


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Keywords: Skin Transdermal drug delivery systems, polymers used, Preparative methods.

ABSTRACT

Human skin comprises three distinct but mutually dependent tissues a) The stratified, vascular, cellular epidermis, b) the Underlying dermis of connective tissues and c) Hypodermis. In 1981, FDA approved the first TDDS device for commercial use which provides the controlled systemic absorption of the drug through the different layers of skin. Transdermal drug delivery systems are defined as self-contained, discrete dosage forms which, when applied to the intact skin, deliver the drug(s), through the skin, at a controlled rate to the systemic circulation. Transdermal medication delivers a steady infusion of a drug over an extended period of time. Transdermal delivery can increase the therapeutic value of many drugs by avoiding specific problems associated with the drug. The first transdermal treatment of Alzheimer's disease was done through the Rivastigmine patch. This review article focuses the on advantages, disadvantages, applications, basic components, preparative methods involved in the fabrication of transdermal patches.

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LESS SYMPTOMS, LESS AWARENESS-A DEEP VIEW ON OSTEOPOROSIS

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ABSTRACT

Osteoporosis increases the risk of breaking a bone. About one half of all women over the age of 50 will have a fracture of the hip, wrist, or vertebra (bones of the spine) during their lifetime. Osteoporosis itself has no symptoms; its main consequence is the increased risk of bone fractures. The aim of our study was to assess the knowledge of osteoporosis symptoms, treatment, diagnosis in the population. A prevalence study was carried out to evaluate the knowledge of osteoporosis among the medical and paramedical students of in various designation Tamilnadu, India. We used the online survey tool (Google form). A total of 217 participants completed the online questionnaire. A semi structure questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire. We found that their knowledge was not as adequate and sufficient so should be recommended to increase the level of knowledge on osteoporosis among healthcare profession

KEYWORDS: Osteoporosis, knowledge assessment, pharmacy, awareness, cross sectional studies

INTRODUCTION

- Osteoporosis is a disease which makes bones weak and fragile. This greatly increases the risk of breaking a bone even after a minor fall or bump. The disease has no obvious symptoms, so many people don't know they have osteoporosis until they suffer a fracture. Fractures can be life-altering, causing pain, disability and loss of independence.[1]
- Osteoporosis is the major cause of fractures in postmenopausal women and in older men. Fractures can occur in any bone but happen most often in bones of the hip, vertebrae in the spine, and wrist.[2]
- Data of 2013, sources estimate that 50 million people in India are either osteoporotic (T-score lower than -2.5) or have low bone mass (T-score between -1.0 and -2.5).[3]

MATERIAL AND METHOD

The Cross-sectional study was conducted for month between 15th oct to 15th nov (one month) of 2022 among medical and paramedical students nearly 15 medical college in Tamilnadu We used the online survey tool (Google form). A total of 217 participants completed the online questionnaire. A semi structure questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire was validated by faculties(no7-10) of SS Institute of Pharmacy, Sankari.[4] It consists of 10 questions on knowledge of Osteoporosis (yes/no type questions). All the 10 questions were compulsory, Restrictions were set, only one response can be submitted by an individual student. The responses were collected and the data were analyzed in a statistical manner.[5]

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A REVIEW ON FORMULATION AND EVALUATION OF TABLETS

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ABSTRACT

Tablets are the most commonly prescribed dosage form as offer a convenient form of drug administration provides dosage uniformity from tablet to tablet. As per IP tablet, pharmaceutical tablet are solid, flat or biconvex dishes until dosage form prepare by compressing a drug or a mixture of drug, with or without diluents. Tablet are now the most popular dosage form accounting for some 70% of all ethical pharmaceutical preparation produced. The excipients include diluents, binders adhesive, disintegrant etc., Tablets vary in shape and differ greatly in size and weight depending on the amount of the medicinal substance. Among the various step involved in tablet manufacturing granulation is one of the most important until operation in the production of pharmaceutical tablet dosage form. The present work aims to comprehensively review the advantages ,disadvantages, formulative ingredients preparation methods, applications and evaluation of tablets.

KEYWORDS: Tablets, excipients, granulation techniques, equipments, evalution test.

INTRODUCTION

Oral route is the most commonly preferred route of drug administration. The popularity of the oral route is due to patient acceptance, ease of administration, accurate dosing and cost effectiveness.[1] Solid medicaments may be administered orally as powders, pills, cachets, capsules or tablets. Tablet is the most widely used dosage form among the total available dosage forms because it is simple administration, lower price of production, and elegance.[2] The aesthetic quality like color, texture, mouth feels, and taste masking is depending on coating techniques. Tablets are solid dosage form manufactured either by dry granulation, wet granulation or direct compression medicaments with or without excipients, intended to produce desired pharmacological response.[3] The oral route is the most popular route used for administration of drugs, which is due in part to the ease of administration and to the fact that gastrointestinal physiology offers more flexibility in dosage form design than other routes. Oral route is most popular for systemic effect due to its easy of ingestion, pain, avoidance, versatility and most importantly, patient compliance.[4] Solid oral delivery systems (especially tablets) is system of choice among all drug delivery system and they do not require special treatment and are therefore less expensive to manufacture, likewise immediate release tablets are more among all the tablets. An ideal dosage regimen in the drug therapy of any disease or the goal of any delivery system is the one, which immediately attains the desired therapeutic concentration of drug in plasma (or the site of action) and maintains it constant for the entire duration treatment.[5] Oral drug delivery is most widely utilized route of administration among all the routes [nasal, ophthalmic, rectal, and Parental routes] that have been explored for systemic delivery of drugs via pharmaceutical products of different dosage form. Oral route is considered most natural, uncomplicated, convenient and safe [in route] due to its ease of administration, patient acceptance, and costeffective manufacturing Pharmaceutical products designed for oral delivery are mainly immediate release type or conventional drug delivery systems, which are designed for immediate release of drug for rapid absorption.[6],[7]

Definition

According to the Indian Pharmacopoeia (IP); Pharmaceutical tablets are solid, flat orbiconvex dishes, unit dosage form, prepared by compressing a drug or a mixture of drugs, with or without diluents.

According to the United States of Pharmacopoeia (USP); Tablet is defined as a compressed solid dosage form containing medicaments with or without excipients. According to the Indian Pharmacopoeia Pharmaceutical tablets are solid, flat or biconvex dishes, dosage form, prepared by compressing a drugs or a mixture of drugs with or without diluents. It is the most popular dosage

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BODY DETOXIFICATION- BY DETOX WATER

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ABSTRACT

Detox Water is a type of alternative-medicine treatment which aims to rid the body of unspecified "toxins" – substances. Fruits, vegetables, and herbs consist of various bioactive compounds like flavonoids, carotenoids, phenolic acids. These phytochemicals act as antioxidants by scavenging free radicals. The phytochemicals can be released from the plant materials by immersing into water. This method is known as water infusion. Detox water is more helpful and better than the soft drinks, carbonated drinks available in the market. These infused water helps our body's vital organs to make their work easy. Various detox water recipes available, which has more benefits to our body. Detox water is easy to make and use .And the fruits are easily available and are cheap. During a detox diet, it is recommended that no fruit be consumed, so that the body is forced to draw its energy from the stored fat, instead of from the sugar in the fruit. We discussed preparation methods for the detox water.

KEYWORDS: Detox water, metabolism, phytochemicals, and natural detox diet, detox water recipes.

INTRODUCTION

Detoxification (often shortened to detox and sometimes called body cleansing) is a type of alternative-medicine treatment which aims to rid the body of unspecified "toxins" – substances. Consumption of fruits and vegetables have been shown to increase life span, improve mental and cardiovascular health, prevent cancer and help in weight management among other ailments. It has been shown that fruits, vegetables, and herbs consist of various bioactive compounds like flavonoids (quercetin and kaempferol), phenolic acids (chlorogenic acid and caffeic acid), and carotenoids (lutein and zeaxanthin), as well as vitamins, minerals and fibers. These bioactive compounds have proven to exert beneficial effects on human health by preventing diseases caused by oxidative stress. Oxidative stress releases free oxygen radicals in the body and has been implicated in several disorders including cancer, auto-immune disease and ageing. These phytochemicals act as antioxidants by scavenging free radicals. The phytochemicals can be released from the plant materials by immersing into water. This method is known as water infusion.

DETOXIFICATION

i. Why to detox[2]

The liver is the natural system of detox our body
The aim of detoxing and why should anyone consider it?

- Drug, virus, bacterium, artificial chemical, pesticide, hormone (endogenous and synthetic) is metabolized by the enzyme pathways inside the liver cells, it may become overworked and congested so that we need to respect and take care of this vital organ.
- In a nutshell, detoxing necessitates the elimination of all carbonated drinks, alcohol and processed foods, while simultaneously cutting down on calories, so that the fat soluble toxic chemicals (trapped in fat stores) a drainage to break down fat released when fat is converted to energy. Detoxing usually involves exercise, massage and lymphatic drainage to break down fat stores so that they are released along with the toxins.
- During a detox diet, it is recommended that no fruit be consumed, so that the body is forced to draw its energy from the stored fat, instead of from the sugar in the fruit.
- Because it is easier to derive energy directly from sugar the liver will always use sugar preferentially, before tackling the more complex process of converting fat to energy. When no sugar is

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A Review on Development and Characterization of Ethosomes - A Novel Transdermal Drug Delivery System

Journal of Current Pharma Research
(An Official Publication of Human Journals)

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Keywords: Skin, Transdermal drug delivery, ethosomes, preparative methods, characterization.

ABSTRACT

Skin is the largest organ of the human body that restricts the movement of drugs into the systemic circulation. A topical drug delivery system is a system where the drug reaches the systemic circulation. The major obstacle in this route is the low diffusion rate of drugs across the stratum corneum. Exosome are a novel vesicular carrier showing enhanced delivery of drugs to the deeper layers of skin. The autosomal system is composed of phospholipid, ethanol, and water. Ethosomes are "ethanolic liposomes". Ethanol has long been known to have permeation-enhancing properties. The size of ethosomes may vary from nanometers to microns and they permeate through the skin layers more rapidly and possess significantly higher transdermal flux. In this review, we have focused on the advantages, disadvantages, preparative methods, and characterization of ethosomal formulation.

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1	Pharmacognostical Studies and Pharmacological Activities of Cssandrora Infundibuliformis	M.Vanitha	Pharmacology	International Journal of Research and Development in Pharmacy & Life Sciences	2021-2022	2278-0238
2	Pharmacological Activities of Barnyard Millets- a Review	C.Kalaiselvi	Pharmaceutics	World Journal of Pharmaceutical Research	2021-2022	2277-7105
3	Microbesads- A Reivew	M.Gomathi	Pharmaceutics	European Journal of Biomedical and Pharmaceutical sciences	2021-2022	2349-8870
4	Pharmacological Activities of Centratherum Puntatum Review	M.Vanitha	Pharmacology	World Journal of Pharmaceutical Research	2021-2022	2277-7105

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5	Assesment of Knowledge About Pharmacovigilance Among Pharmacy Students	T.Sampath kumar	Pharmacognosy	World Journal of Pharmaceutical Research	2021-2022	2277-7105
6	Pharmacognostical Studies and Pharmacologcal Activities of Beta Vulgaris - Review	C.Kalaiselvi	Pharmaceutics	World Journal of Pharmaceutical Research	2021-2022	2277-7105
7	Pharmacological Activities of Bougainvillea Glabra- a Review	C.Kalaiselvi	Pharmaceutics	World Journal of Pharmaceutical Research	2021-2022	2277-7105
8	Pharmacological Activities of Tabebuia Rosea – A Review	M.Vanitha	Pharmacology	World Journal of Pharmaceutical Research	2021-2022	2277-7105
9	Pharmacological Activities of Neolamarckia Cadamba - a Review	C.Kalaiselvi	Pharmaceutics	World Journal of Pharmaceutical Research	2021-2022	2277-7105
10	Formulation and evaluation of Mefenamic acid solid dispersions	M.Gomathi	Pharmaceutics	World Journal of Pharmaceutical Sciences	2021-2022	2321-3310

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11	Evaluation of medication adherence on hypertensive patients in a tertiary care hospital	S.Sasi Kumar	Pharmaceutical analysis	World Journal of Pharmaceutical Sciences	2021-2022	2321-3310
12	Comparative study of atorvastatin, metformin and telmisartan on high fat induced obesity in Albino Wistar rats	M.Vanitha	Pharmacology	World Journal of Pharmaceutical Sciences	2021-2022	2321-3310
13	A complete review on a complete medicinal plant: Cucurbita	T.Sampath kumar	Pharmacognosy	World Journal of Pharmaceutical Sciences	2021-2022	2321-3310

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PHARMACOGNOSTICAL STUDIES AND PHARMACOLOGICAL ACTIVITIES OF CROSSANDRA INFUNDIBULIFORMIS –A REVIEW

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ABSTRACT

Crossandra Infundibuliformis plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of Crossandra infundibuliformis got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and stem as test samples. Our review article focusses to Pharmacological studies, phytochemical screening pharmacological activites are hepatoprotective, anti-bacterial, anti-mycobacterial, anti-ulcer, anti-diabetic, anticancer, anti-microbial, anti-oxidant, anti-solar, anti-fungal, insectidial, aphrodisiac, anti-arthritic, anti-candidal, anti-hyperlipidemic, anthelmentic, anti-cancer. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Crossandra Infundibuliformis, Antisolar, Aphrodisiac, Antidiabetic, Anticancer, Antiulcer.

INTRODUCTION

Crossandra infundibuliformis, the firecracker flower, is a species of flowering plant in the family Acanthaceae, native to southern India and Sri Lanka. It is most often found in south Indian region Malenadu and Kerala. It is an erect, evergreen subshrub growing to 1 m with

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PHARMACOLOGICAL ACTIVITIES OF BARNYARD MILLETS- A REVIEW

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ABSTRACT

Barnyard millets is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of Barnyard millets got their authentication when tested using different disease-based pharmacological models taking various plant parts of Barnyard Millets. Our review article focusses to pharmacological activites are anti-nutritional, Immunostimulatory, Anti-oxidant, Hepatoprotective, Hydrogen peroxide-Scavenging Enzyme, Anti-inflammatory, Hypoglycaemic, Hypolipidemic, cytotoxicity, Antibacterial. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Barnyard millets, Echinochloa frumentacea, Hepatoprotective, Antibacterial.

INDRODUCTION

Barnyard millet (Echinochloa species) has become one of the most important minor millet crops in Asia, showing a firm upsurge in world production. The genus Echinochloa comprises of two major species, Echinochloa esculenta and Echinochloa frumentacea, which are predominantly cultivated for human consumption and livestock feed. They are less susceptible to biotic and abiotic stresses. Barnyard millet grain is a good source of protein, carbohydrate, fiber, and, most notably, contains more micronutrients (iron and zinc) than

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MICROBEADS – A REVIEW

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ABSTRACT

The goal of any drug delivery system is to provide a therapeutic amount of drug to the proper site in the body and also to achieve and maintain the desired drug concentration. This could be achieved through multiparticulate dosage form like beads which are divided into many individual units, so, called subunits, each exhibiting some desired characteristics. Micro particulate drug delivery systems have various well-known advantages over single unit dosage form. Preparation of microbeads drug delivery system is one of the alternatives which involve neither use of harsh chemical nor elevated temperature. The conventional techniques involve the use of ionotropic gelation method, emulsion gelation method, polyelectrolyte complexation method, etc. The majority of work has been done on the preparation of microbeads by ionotropic gelation method rather than other methods owing to its ease of preparation. The ionotropic gelation method is based on the ability of polyelectrolytes counter ions to crosslink to form a hydrogel sustained release formulation.

KEYWORDS: Microparticulate drug delivery, Microbeads, Preparative methods, Polymers used, Applications.

INTRODUCTION

Multiparticulate systems have been paid considerable attention since several years in controlling and sustaining of release rate of many active pharmaceutical ingredients. And use of natural biodegradable polymers as rate controlling agents also has been enormously increased. Recently, dosage forms that can precisely control the release rates and targets drugs to a specific body site have made enormous impact in the formulation and development of novel drug delivery systems. Oral multiunit dosage forms such as microcapsules and microspheres have received much attention as modified/ controlled drug delivery systems for the treatment of various diseases without major side effects. Additionally, the beads maintain functionality under physiological conditions, can incorporate drug to deliver locally at high concentration ensuring that therapeutic levels are reached at the target site while reducing the side effects by keeping systemic concentration low. It will therefore be advantageous to have means for providing an intimate contact of the drug delivery system with microbeads. **(Jagadevappa S Patil *et al.*, 2014).** Microspheres are, in strict sense, spherical empty particles. However, the terms microcapsules and microspheres are often used synonymously. In addition, some related terms are used as well. For example, essentially "micro beads" and "[illegible]" are used alternatively. **(Narasimha rao R *et al.*,**

Definition

Microbeads are small, solid and free flowing particulate carriers containing dispersed drug particles either in solution or crystalline form that allow a sustained release or multiple release profiles of treatment with various active agents without major side effects. **(Abdul Hasan Sathali *et al.*, 2012)**

Additionally, the beads maintain functionality under physiological conditions, can incorporate drug to deliver locally at high concentration ensuring that therapeutic levels are reached at the target site while reducing the side effects by keeping systemic concentration low. It will therefore be advantageous to have means for providing an intimate contact of the drug delivery system with the absorbing membranes. This can be achieved by coupling the bioadhesive characteristics to microbeads and develop bioadhesive microbeads. Therapeutic molecules complexed by polymers capable of forming a gel may also released by diffusion hence, drug delivery system by a polymeric matrix that is non – toxic, biocompatible and biodegradable. **(Bathula Bharathi *et al.*, 2014)**

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PHARMACOLOGICAL ACTIVITIES OF CENTRATHERUM PUNCTATUM – A REVIEW

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ABSTRACT

Centratherum Punctatum plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and root oil as test samples. Our review article focusses to pharmacological activites are anti-oxidant, anthelmintic, anti-cancer, anti-inflammatory, laravicidal activity, protease activity, prolifretive activity, anti-fungal, cytotoxicity, antiplasmodial, antimicrobial, HIV-1 reverse transcriptase inhibitory, synergistic activity, wound healing property. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: "Anticancer", "Antifungal", "Anthelmintic", "Centratherum punctatum", "Kesavardhini", "larvicidal activity".

INTRODUCTION

The native distribution range of C. punctatum is very ambiguous. Depending on the authors this species is considered native to Central and South America, but also to the Philippines and Australia (Kirkman, 1981; Davidse et al., 2009; USDA-ARS, 2013). Recent reviews and checklists have it as naturalized in Asia, Africa, Madeira, the West Indies, and islands in the Pacific Ocean (Flann, 2009; see also distribution table for details). C. punctatum grows

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ASSESSMENT OF KNOWLEDGE ABOUT ADVERSE DRUG REACTION AMONG PHARMACY STUDENTS

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ABSTRACT

The objective was to assess the knowledge about adverse drug reactions among the pharmacy students of several colleges in Tamil Nadu. A cross sectional study was carried out among 150 students in various districts between June -July 2022 by using Google form containing MCQ type questionnaire. The students score was recognized as good and poor. The descriptive statistics were calculated using Microsoft word 2013. 150 students responded to that questionnaire and their about ADR was assessed. Despite of relatively better attitude towards pharmacovigilance and ADR, they had a limited knowledge regarding ADR and Pharmacovigilance. The study findings highlight the need to strengthen the community pharmacovigilance program for safer medications use at the community level. **Aim and Objective:** The main objective of the present work is to assess the knowledge about Adverse Drug Reactions among the pharmacy students in Tamil Nadu.

KEYWORDS: Adverse drug reaction, Pharmacovigilance, Knowledge Assessment, Pharmacy Students, Cross-sectional study.

INTRODUCTION

- We define an Adverse Drug Reaction as "an appreciably harmful or unpleasant reaction, resulting from an intervention related to the use of a medicinal product, which predicts hazards from future administration and warrants prevention or specific treatment, or alteration of the dosage regimen, or withdraw of the product".[1]
- ADRs are considered a major cause of patient's morbidity, mortality, hospital admissions as well as increasing length of hospitalization and cost of treatment.[2]
- It affects irrespective of the age group of patients worldwide with varying magnitude of causing morbidity and mortality.[2]
- Adverse Drug Reactions are unintended and undesired effects of drugs used for prevention, diagnosis, or treatment of disease.[3]
- ADRs are reported to be the 46th leading cause of death in the United States of America.[4]
- Adverse Drug effects are more commonly recorded in elderly clients than in young adults or middle age clients, because the geriatric population takes more drugs simultaneously than other age groups.[5]
- More than 66% of the adverse drug events were caused by drug- drug interactions. Of these, more than 46% were considered "preventable" because the drug-drug interaction was known.[5]
- A study from South India revealed that 0.7% of hospital admissions were due to ADRs and a total of 3.7% hospitalized patients experienced ADRs of which death accounts for 1.3%.[6]

METHODS

The cross-sectional study was conducted over a period of one month (June-July) of 2022 among pharmacy students from nearly 10 pharmacy colleges in Tamil Nadu. The sample size is about 150 students in Third year and Final year B. Pharm. A semi structured questionnaire was adopted from previous studies with minor changes to suit the study population and the questionnaire was validated by the faculties of SS Institute of Pharmacy, Sankari.[7-11] It consists of 18 questions related to ADR, Pharmacovigilance, PVPI, and CDSCO. Out of 18 questions, 10 questions were multiple choice questions and 08 questions were yes/no type questions. The questionnaire was distributed over pharmacy students through Google form, all the questions were compulsory, restrictions were set, and only one response can be submitted by an individual student. Each correct answer and each positive response were given a score of 1, whereas the negative response or wrong response

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PHARMACOGNOSTICAL STUDIES AND PHARMACOLOGCAL ACTIVITIES OF BETA VULGARIS - REVIEW

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ABSTRACT

Beta vulgaris plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of Beta vulgaris got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and root oil as test samples. Our review article focusses to pharmacological activites are antioxidant, antibacterial and anticancer activities, anti-diuretics, hepetoprotective, hemopoietic activity, antihypertensive activity, phase II enzyme-inducing and antioxidant activities, antimicrobial and immunomodulatory activities, antimycotoxigenic activity, antidiabetic activity. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Beta vulgaris, Amaranthaceae, Antidiuretics activity, Phase II enzyme inducing, Antidiabetic activity, antimicrobial.

INTRODUCTION

Beta vulgaris (beet) is a species of flowering plant in the subfamily Betoideae of the family Amaranthaceae. Economically, it is the most important crop of the large order Caryophyllales. It has several cultivar groups: the sugar beet, of greatest importance to produce table sugar; the root vegetable known as the beetroot or garden beet; the leaf vegetable known as chard or spinach beet; and mangelwurzel, which is a fodder crop. Three

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PHARMACOLOGICAL ACTIVITIES OF BOUGAINVILLEA GLABRA- A REVIEW

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ABSTRACT

Bougainvillea glabra plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of Bougainvillea glabra got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and root oil as test samples. Our review article focusses to pharmacological activites are anti-oxidant, anthelmintic, anti-diabetic, anti-yeast, anti-oxidant, anti-bacterial, This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Paperflower, Bougainvillea Glabra, Antidiabetic, Anticancer Activity.

INTRODUCTION

Bougainvillea glabra, the lesser bougainvillea or paperflower, is the most common species of bougainvillea used for bonsai. The epithet 'glabra' comes from Latin and means "bald". It is an evergreen, climbing shrub with thick, thorny stems and drooping branches that are glabrous or sparsely hairy. The leaves have a 3–10 millimetre-long (1⁄8–3⁄8 in) stem. The leaf blade is ovate to ovate-lanceolate, pointed or briefly pointed, 5 to 13 centimeters long and 3 to 6 centimeters wide, sparsely fluffy hairy on the underside and bald on the top. The leaf-like bracts are purple, oblong or elliptical, pointed, 65–90 mm (2 1⁄2–3 1⁄2 in) long and about

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PHARMACOLOGICAL ACTIVITIES OF TABEBUIA ROSEA –A REVIEW

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ABSTRACT

Tabebuia rosea plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of vasantharani got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and root oil as test samples. Our review article focusses to pharmacological activites are antidiabetic, antioxidant, antiproliferative, anticancer, anti infectious, phytotoxicity, anticancer, antiulcer, larvicidal, anti-inflammatory, anti-bacterial, cytotoxic, activities. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Tabebuia rosea, vasantharani, antidiabetic, antiulcer, anticancer.

INDRODUCTION

Tabebuia rosea, also called pink poui, and rosy trumpet tree is a neotropical tree that grows up to 30 m (98 ft) and can reach a diameter at breast height of up to 100 cm (3 ft). The Spanish name roble de sabana, meaning "savannah oak", is widely used in Costa Rica, probably because it often remains in heavily deforested areas and because of the resemblance of its wood to that of oak trees.[3] It is the national tree of El Salvador, where it is called "Maquilishuat". The tree is short length, with irregular, stratified ramification and only few

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PHARMACOLOGICAL ACTIVITIES OF NEOLAMARCKIA CADAMBA – A REVIEW

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ABSTRACT

Neolamarckia cadamba plant is very well known for its therapeutics benefits in Indian systems of medicine including Ayurveda and Siddha and in other forms of traditional medicine worldwide for the treatment of several ailments. It observed that many traditional utilities of N.cadamba got their authentication when tested using different disease-based pharmacological models taking various extracts of roots, leaves, and root oil as test samples. Our review article focusses to pharmacological activites are anti-diabetic, anti-oxidant, anti-pyretic, anthelmintic, anti-cancer, anti-hyperglycemic, anti-diuretics, laxative, hepetoprotective, anti-inflammatory, anti-bacterial, analgesic, antimicrobial and geranyl acetate esterase inhibitory activities. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

KEYWORDS: Neolamarckia cadamba, Cadamba, Kadam, Anti-cancer, GAE inhibitory activity.

INTRODUCTION

Neolamarckia cadamba, with English common names burflower-tree, laran, and Leichhardt pine, and called kadam or cadamba locally, is an evergreen, tropical tree native to South and Southeast Asia. The genus name honours French naturalist Jean-Baptiste Lamarck. Initially

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Formulation and evaluation of Mefenamic acid solid dispersions

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ABSTRACT

The main objective of this study was to prepare and evaluate solid dispersion of Mefenamic acid, to enhance the dissolution rate, solubility & bioavailability. Mefenamic acid solid dispersion were prepared using Poly vinyl Pyrrolidone (PVP K 30) and Poly Ethylene Glycol (PEG 4000) as hydrophilic carriers by solvent evaporation and kneading techniques. FTIR studies showed that there was no interaction between the drug and polymer. The prepared Solid dispersion KM3(1:3) using PVP K30 showed minimal wetting time of 14 seconds compared with the other formulations. *In vitro* release studies in Phosphate buffer pH of 7.4 revealed that the solid dispersions prepared by kneading method showed faster drug release compared with solvent evaporation method. So, the dissolution profile of solid dispersion containing PVP K30 (1:3) by kneading method was selected as the best formulation because of its faster drug release among all formulations. The development of solid dispersion of Mefenamic acid could be a promising approach to enhance its dissolution rate, solubility and bioavailability.

Keywords: Solid dispersion, Mefenamic acid, PVP K30, PEG4000

INTRODUCTION

Oral administration is the most convenient, widely utilized, and preferred route of drug delivery for systemic action. Poor aqueous solubility is one of the major hurdles in the development of new drugs into oral dosage forms, since dissolution is the first step in the absorption of drugs. The solubility and dissolution behaviour of a drug is key determinant to its oral bioavailability. An improvement of oral bioavailability of poorly water-soluble drugs remains one of the most challenging aspects of drug development. [1,2] Mefenamic acid, an anthranilic acid derivative, is used to treat symptoms of pain, rheumatoid arthritis and dysmenorrhea. Mefenamic acid binds the prostaglandin synthetase receptors COX-1 and COX-2, inhibiting the action of prostaglandin synthetase. Its half-life is 2 hours. It belongs to BCS class II, having low solubility & high permeability. Due to the poor solubility of drug, the dissolution is reduced and hence it suffers from

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Original Article

Evaluation of medication adherence on hypertensive patients in a tertiary care hospital

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ABSTRACT

The Present study aims to evaluate the Medication Adherence on hypertensive Patients in a tertiary care hospital located in Bhavani. We used descriptive, Cross-sectional study of over 185 patients who were admitted in the period of October 2020 to March2021. The Descriptive Data collection form and Morisky tool were used as the data collection tool. Our study reports that Patient with hypertension have Poor medication adherence so, the pharmacists need to work hard to improve the medication adherence in patients

Keywords: Hypertension, Medication Adherence, Morisky Scale, Cross-sectional Study

INTRODUCTION

Hypertension is a significant public health problem in many countries. It remains an important public health challenge and one of the most important risk factors for coronary heart disease, stroke, heart failure and end stage renal disease. Cardiovascular diseases have emerged as an important health problem in India. High blood pressure (BP) is a major risk factor and better control can lead to prevention of 500,000 of the 1.5 million annual deaths from cardiovascular diseases in India Epidemiological studies demonstrate that prevalence of hypertension is increasing rapidly among Indian urban populations and using the current definitions more than two-fifths of the Indian urban adult population has hypertension. In India, the prevalence of hypertension reports was increasing rapidly in the urban, i.e. 25% of adults, and gradually even in rural areas, i.e. 10% of individuals are affected. In 2005, a worldwide data showed that 639 million patients with hypertension are seen in low- and middle-income countries and predicted that which may rise to about 60% in 2025

Survey reports on hypertension prevalence conducted in community over a period of three to six decades showed an increase of 30% in urban population (1.24%-36.4%) and 10% in rural population (1.99%-21.2%).

Hypertension: It is defined simply as persistently elevated arterial blood pressure. It is a heterogeneous disease in which, it result from unknown patho physiologic etiology (essential or primary hypertension). This form of hypertension

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Comparative study of atorvastatin, metformin and telmisartan on high fat induced obesity in Albino Wistar rats

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ABSTRACT

Objectives: To study the anti-obesity activity of telmisartan, atorvastatin and metformin alone and combination on high fat induced obesity in albino Wistar rats.
Materials and methods: Animals were divided into six different groups each comprising three animals. Group 1 (saline control), Group 2 (High fat diet), Group 3 (high fat diet + Atorvastatin), Group 4 (high fat diet + Telmisartan), Group 5 (high fat diet + Metformin), Group 6 (high fat diet + Atorvastatin + telmisartan + metformin).
Results: telmisartan, atorvastatin and metformin alone and combination shows anti-obesity activity on high fat diet induced obesity in albino Wister rats.

Keywords: Atorvastatin, Telmisartan, Metformin and High Fat Diet

INTRODUCTION

Obesity is a condition where a person has accumulated so much body fat that it might have a negative effect on their health. If a person's bodyweight is at least 20% higher than it should be, he or she is considered obese. If your Body Mass Index (BMI) is between 25 and 29.9 you are considered overweight. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health[1]. People are generally considered obese when their body mass index (BMI), a measurement obtained by dividing a person's weight by the square of the person's height, is over 30 kg/m^2, with the range 25–30 kg/m^2 defined as overweight. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, obstructive sleep apnea, certain types of cancer, and osteoarthritis.

BMI is defined as the subject's weight divided by the square of their height and is calculated as follows.
$BMI = m / h^2$
where m and h are the subject's weight and height respectively.

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Review Article

A complete review on a complete medicinal plant: *Cucurbita*

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ABSTRACT

Cucurbita is a best source of potassium and beta-carotene, which is a carotenoid that converts to vitamin A. The medicinal plant has many major secondary metabolites, triterpenoids, diterpene, Cucurbita glycosides, cucurbitosides, carotenoids etc. Number of pharmacological reaches has done to report hepatoprotection, inhibit benign prostatic hyperplasia, antioxidant, anticancer, antimicrobial, antiinflamatory, antidiabetic, and antiulcer activities of Cucurbita. It has more therapeutic potential. Our review article focusses to give compilation of Origin, Nomenclature, History, cultivation, various names, various species, composition and pharmacological uses. This article can give potential research areas to explore next, and to formulate new formulation in allopathy and some traditional medicine system.

Keywords: Pumpkin, Cucurbita, Phytoconstituents, Anti-Cancer, Anti Diabetic, Anti-Ulcer activity

INTRODUCTION

From the ancient history to 21st century in many parts of the world and India, plants, animals and other nature things have many influences on our culture and human civilization Since the beginning of civilization, human beings have devoted plants and such plants are protected as a genetic resource and used as edible, medicine, provender, dietary supplements, fertilize and in every other way and those will helps to enhance scope[1] of pharmacognosy, Cucurbita is one of those plants. Species of Pumpkins, Cucurbita pepo or Cucurbita mixta are from the same family as cucumbers, squash and other vine-dwellers that have seeds. Pumpkins are flavoursome and have multi nutrients. Vitamin A in pumpkins is the major vitamin helps to maintain healthy skin and immunity, while fiber used to balance blood glucose levels, balance blood pressure and muscle relaxant to safeguard the circulatory system. Its fat content is low, but it contains anti-inflammatory omega-3 fatty acids in the form of alpha-linolenic acid. Cucurbita possess anti-cancer activity. It also has anti diabetic activity, it helps to maintain rhythm of heart beat and protects heart.The other name of Cucurbita is cupping glass, cucurbitula and also latin meaning Gourd. It will help to

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1	Formulation and Evaluation of in vitro antidiabetic Polyherbal tablets form some traditional used Herbs	T.Sampath kumar	Pharmacognosy	The Journal of Phytopharmacology	2020-2021	2320-480X
2	Review on Scope of Pharmacognosy graduate in various government research institute in India	T.Sampath kumar	Pharmacognosy	The Journal of Phytopharmacology	2020-2021	2320-480X

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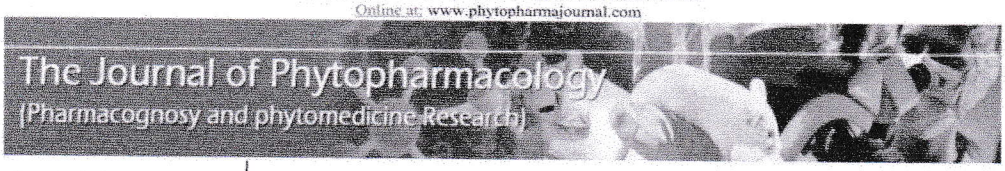

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Formulation and Evaluation of in vitro antidiabetic Polyherbal tablets form some traditional used Herbs

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ABSTRACT

The main objective of the project is to formulate and evaluate poly herbal anti diabetic tablet. Polyherbal antidiabetic formulation consists of six herbs viz., *Nigella sativa* (seed), *Moringa oleifera* (seed), Linum *usitatissimum* (seed), *Trigonella foenum*(seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum* (seed). Nine preliminary clumps of tablets were defined by fluctuating the organization off the excipient's extents for phenomenal stream property. The mixed powder of each of the nine preliminary groups were investigated for its stream attributes like mass thickness, tapped thickness, compressibility file, Hausner's proportion and Angle of rest. Absolutely nine preliminaries of plan were completed utilizing various decisions of excipients thinking about various realities of assembling issues just as quality deformities as a top priority. Every one of the resultant plans were assessed for their stream property, consistency of filling, consistency of weight, dampness substance and breaking down time. The dried polyherbal remove was streamlined for its quality measures and its cluster consistency by making nine diverse preliminary clumps (Trial 1,2,3,4,5,6,7,8,9). The preliminaries were exposed to preformulation boundaries to affirm the consistency and quality. The outcome presumes that the preliminary 9 was amazing in all boundaries and the qualities were found inside as far as possible and it was utilized for detail Polyherbal Tablet. The developed polyherbal Phytochemical study showed the presence of flavonoids in this formulation flavonoids, tannins phenolic compounds are by using qualitative phytochemicals anaylsis. The poly herbal tablets and extracts are subjected in to HPTLC analysis estimation of Quercetin and rutin. This may be responsible for the potent anti-diabetic activity. The in vitro antidiabetic activity of tablets was evaluated by glucose uptake assay by using 3T3 Cell line. Further investigations are suggested for solidness concentrates in the detailed polyherbal tablet and furthermore clinical preliminaries need to act in future in Human Volunteers.

Keywords: Glucose uptake assay, 3T3 L1 Cell line, Anti Diabetic Tablet, Quercetin, Rutin, HPTLC.

INTRODUCTION

A natural equation comprises of a particular mix of individual home-grown fixings that are formed for a particular infirmity or gathering of illness conditions. At the point when spices are consolidated together, they become more strong and compelling inside the body than single spice because of their initiating or catalyzing impact upon each other.1As per WHO, Diabetes Mellitus is defined as heterogenous metabolic disorder characterised by common feature of chronic hyperglycemia with disturbance of carbohydrate, protein and fat metabolism.2Tablets are defined as solid preparations intended for oral administration, each containing a single dose of one or more active ingredients. Tablets are prepared by compaction and contain drugs and formulation additives.

MATERIALS AND METHODS

Collection of plant extract

The following plant extract bought from traders, *Trogonella foenum*(fenugreek, seed),*Moringa oleifera* (seed), *Nigella sativa* (seed), *Linum usitatissimum* (Flax seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum (horse seed).*

Preliminary Phytochemical Analysis of Extract

The Following Seed Extracts Are *Nigella sativa* (seed), *Moringa oleifera* (seed), *Linum usitatissimum* (seed), *Trogonella foenum*(seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum* (horse seed) Subjected to Preliminary Phytochemical Screening for Detection of the Secondary Metabolite and Primary Metabolite [9-10]

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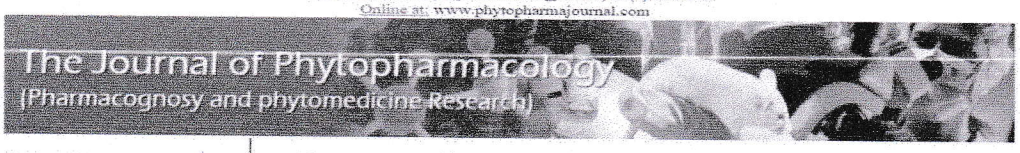

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Review on Scope of Pharmacognosy graduate in various government research institute in India

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ABSTRACT

The Pharmacognosy is study of crude drugs, the role of Pharmacognosist difference based on the research institute. In India lot of research of institute available for development of herbal and traditional based drugs such as phytopharmaceutical, chemistry of natural products and siddha, Ayurveda, Unnai propertery drugs. The graduate from Pharmacognosy have lot of carrier opportunities and temporary project Positions such as JRF, Project associate in various research institute such as CSIR-CDRI, CIAMP, IIIM, IHBT NBRI. The another very important scope of Pharmacognosist in AYUSH Department, the ministry of ayush estabalished various research lab for development Ayruveda, siddha, unani, and Homopathy medicine they are like CCRAS, CCRS, CCRH, CCRUM. The role of Pharmacognosist in ayush institute such as authentication and standardization of raw drugs and formulated crude drugs as churna, chooranam etc. Indian pharmacopeia laboratory also a very important carrier opportunites for pharmacognosy graduate.

Keywords: Pharmacognosy, AYUSH, Phytopharmaceuticals, Crude drugs, Medicinal plants.

INTRODUCTION

Pharmacognosy is a significant part of drug store that incorporates the logical investigation of underlying, physical, compound, biochemical, and organic properties of unrefined medications and quest for new medications from plant, creature, and mineral sources. It was presented and utilized interestingly by J. A. Schmidt (1811) and C. A. Seydler (1815), individually, to characterize the part of medication or item which manages rough medications. It is the study of nature-inferred drugs and remembers reads for primary, physical, synthetic, organic characters of unrefined medications their remedial use, history, strategy for development, assortment, readiness, safeguarding, and trade [1]. Modern Pharmacognosy involves the broad study of natural products from various sources including plants, bacteria, fungi, and marine organisms [2] This study acts as an important link between pharmacology and medicinal chemistry which also plays a vital role between tradatonal and allopathic systems of medicines. Organic science incorporates the recognizable proof (scientific categorization), hereditary qualities, and development of plants. Synthetic portrayal of incorporates the seclusion, ID and evaluation of constituents in plant materials [3]. Switch pharmacognosy is utilized to discover new organic focuses for regular mixtures by virtual or genuine screening and distinguish normal assets that contain the dynamic atoms. Turn around pharmacognosy and its converse mooring segment can't just be incorporated into a program for new lead disclosure but on the other hand is a helpful way to deal with discover new applications for recognized compounds [4]. Results of all, pharmacognosy research regions are proceeding to grow, and now remember parts of cell and sub-atomic science for connection to normal items, ethnobotany and phytotherapy, notwithstanding the more customary insightful strategy improvement and Phytochemistry [5]. Larger part of members accept there is parcel of extension to investigate the Complementary and Alternative Medicine (CAM), investigation of which can become principle branch in future. Adaptable nature of the subject has really assisted with advancing the control. Interdisciplinary nature of subject ought to be kept as such to oblige more up to date drifts, which thusly hurry further turn of events [6]. Recent years in India the Pharmacognosy field is well developed in various interdisciplinary drug discovery research institute and public health related Indian system of medicine hospitals such as siddha, ayruvedha, unani and homeopathy. In this review paper mainly focused on job opportunities in the various interdisciplinary research institute and nature of them work.

Carrier Scope of Pharmacognosy Graduate in Council of Scientific and Industrial Research Institute (CSIR)

The Council for Scientific and Industrial Research (CSIR) is a modern research and development organization known for its latest knowledge base in research and development in various scientific and technological fields. CSIR has a history of 65 years and was designed by Dr. Bhatnagar to meet the challenge of time. Want to build a new CSIR to meet the needs of modern India. CSIR is spread all over

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