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

Following are the research papers published during the year 2022-23

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Neuroprotective Effects Of Garcinia Morella And Ficus Religiosa Extract Against Rotenone-Induced Mouse Model Of Parkinson's In Swiss Albino Mice

Manish Yadav[1], Sunishtha Kalra[1], Himanshu Sachdeva[1], Balwan Singh1[2], Praveen kumar[1], Kamini Kalia[3], Noopur Srivastava[4], Govind Singh[1]*

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Abstract:
Parkinson Disease is a severe neurodegenerative condition marked by the gradual decline of dopaminergic neurons, resulting in significant debilitation, which is believed to be influenced by neuroinflammation and various signaling pathways. Experimental procedures involved the allocation of mice into six distinct groups: a control group, a vehicle group receiving ROT (to induce Parkinson's-like symptoms), and three treatment groups receiving herbal extracts of Garcinia morella and Ficus religiosa and a combination of both extracts with ROT at doses of 400 mg/kg, 200 mg/kg, and 600 mg/kg, respectively. A sixth standardised treatment group was administered with a combination of (L-dopa and carbidopa) sinemet, alongside ROT (1.5 mg/kg s.c.). Throughout the 1st, 7th, 14th, and 21st days of the experiment, behavioural parameters were measured to evaluate motor manifestations of PD in mice. On the 22nd day, biochemical analyses were conducted to estimate the Oxidative stress, neurotransmitters, and histology of the substantia nigra and striatal brain tissues. The results of this study indicated that 600 mg/kg p.o. of herbal extracts exhibited significant neuroprotective effects against rotenone-induced PD. These effects were comparable to the standard treatment of sinemet, as supported by behavioural, biochemical, and histological results. Consequently, it can be concluded that the combination dose of herbal extracts has a beneficial antiparkinsonian effect, likely attributed to its potential to alleviate oxidative stress by reducing free radicals and enhancing dopamine and glutamate levels. Based on these findings, the combination dose shows promise as a therapeutic agent for PD. It offers protection to dopamine-producing neurons from rotenone toxicity by reducing oxidative stress and down-regulating stress-related molecules. This investigation shows the neuroprotective properties of the combination of Ficus religiosa and Garcinia morella and results in promising potential in the field of PD prevention and treatment.

Keywords: Ficus religiosa, Garcinia morella, Rotenone, Oxidative stress, Parkinson's disease, Neurodegeneration.

Introduction

Abbreviation's: CAT: Catalase; PD: Parkinson Disease; MDA: Malondialdehyde; ROT: Rotenone; TPC: Total Protein Content; SOD: Superoxide Dismutase; ROS: Reactive oxygen species; NO: Nitrite; GSH: Reduced glutathione; CSIR-NISCAIR: National Institute of Science Communication and Information Resources, IAEC: Institutional Animal Ethics Committee; M.D.U.: Maharshi Dayanand University.

Introduction:

09-02

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Sida acuta Burm f.: A Comprehensive Review

Padmaa.M. Paarakh[1*], **Karthik.M**[1], **Kaviarasu.S**[1], **Kavya.N** [1], **Kavya Shree. S**[1], **Kavya.M**[1], **A. Muthukumar.**[2]

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Abstract:

Major source of food and medicine comes from plants and herbs. Sida acuta Burm f [S. acuta] has various pharmacological activities like, antioxidant, antibacterial, antimalarial, cardiovascular, anti-inflammatory, antiulcer, hepatoprotective, anticancer. Plant extract also has various phytochemical constituents like carbohydrates, steroids, tannins, cardiac glycosides, saponins, flavonoids etc. It also proved that there was no mortality when it was administered to rats with dose up to 2000 mg/kg.

Key words: *Antibacterial activity, Antipyretic activity, Analgesic activity, Hepatoprotective activity, Antiulcer activity, Sida acuta, Review.*

A comprehensive review of Nyctanthes arbor-tristis Linn

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Abstract:

Nyctanthes arbor-tristis Linn.(N. arbor) is a traditional medicinal herb used in India, belongs to Oleaceae family, having numerous uses viz, as an anthelmintic, anti-inflammatory, anti-malarial, anti-viral, anti-cancer, anti-leishmanial, anti-allergic, anti-pyretic, hepatoprotective, anti-histaminic, anti-tryptaminergic, anti-nociceptive, anti-choline esterase, bronchodilatory, pesticidal, anti-spermatogenic, purgative, CNS depressant, hypoglycaemic, hypolipidemic and immunomodulatory agent. The following study is to give comprehensive review on pharmacognostical, pharmacological and scientifically proved activities of Nyctanthes arbor-tristis.

Keywords: *Nyctanthes arbor-tristis Linn., therapeutic uses, pharmacognosy, pharmacological activity, phytoconstituents, comprehensive review.*

Introduction:

Medicinal herbs are used vastly in Indian subcontinent and various other countries. Flora and fauna consist of enormous number of species of plants from various parts from around the globe. Since ancient times, natural plants and their preparations have been used and approximately 80% of the population (according to senses from WHO) are dependent on medicinal plants. There are about 4.25 million species of flowering plants and over 50,000 medicinal plants. Various research was performed to explore the possible sources of therapeutic activities for curing numerous diseases[1].

04 – 04

A Comprehensive Review of Herbal Lotions for Treatment of DermalInfections Caused by Various Microbial Strains

Gururaj S kulkarni[1*], Aditya J[1], Aparna OM[1], Arroju Hrithik[1], Sreelakshmi S[1], SwethaG[1],Padma M parak [2], A Muthukumar[3]

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Abstract:

Several research studies show that herbal medicines have more benefits than synthetic ones. Most infection, especially (skin infections) are affected by bacteria like Staphylococcus aurous, Pseudomonas aeruginosa, Escherichia coli, Klebsiella pneumonia, conform bacteria by incorporating several herbs like Azardirachta indica, Tabebuia impetiginosa, Zizipus Rhamnaceae, Hazy strict, Asp ilia Africana. Which can inhibit the growth of micro-organism with minimum toxic or side effects. This study's main aim is to know the importance of herbs for preventing several skin infections because herbal cosmetics have played an essential role since ancient times.

Keywords:

Herbal lotion, anti-bacterial, skin infections, Azardirachta indica, Aspilla Africana, s.aureus, E.coli.

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A Comprehensive Review of Various Mycobacterium Species

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Abstract

Mycobacterium species are pathogenic to animals and humans. These Mycobacterium species are gram-positive, non-motile, non-spores forming rod-shaped bacteria. The Mycobacterium genus comprises over 190 species, such as Mycobacterium leprae (M. leprae), tuberculosis (TB), Mycobacterium bovis (M.bovis) , and many more. These different species of mycobacterium affect the other organs in the body parts. M. leprae mainly invades and affects the skin and Schwan cells.M. leprae is gram-positive and multiplies slowly for 12 to 13 days. Different drug regimens are given to treat leprosy drugs, such as dapsone, rifampicin, and clofazimine. Mycobacterium bovis causes TB in animals and humans. In humans, M.bovis lesions are primarily extrapulmonary and transmitted to humans by ingestion of infected milk and milk products. The treatment of M.bovis involves using antibiotics together, including rifampicin, isoniazid, and ethambutol. Mycobacterium tuberculosis (M. tuberculosis) causes TB, affects the lungs, and attacks other body parts such as kidneys, brain, spine, etc. It is spread through tiny droplets of infected persons. TB can be fatal if not treated; different drug regimens are provided for 3 to 6 months. The most common medication includes isoniazid, rifampicin, pyrazinamide and ethambutol. This review shows other mycobacterium species, their etiology, pathogenesis, and treatment.

Keywords: Mycobacterium tuberculosis, TB, Mycobacterium bovis, Mycobacterium leprae, pathogenesis, etiology, treatment.

Gastroretentive Formulation and Characterization of Carvedilol Floating Tablets

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Abstract

Objective:

The main objective of this current study is to formulate gastroretentive tablets of carvedilol using different concentrations of polymers and excipients for retaining the medication in the stomach, as solubility is higher at an acidic pH.

Methods:

The direct compression method was used for preparing GRDDS with varying concentrations of polymers. The drug-excipient compatibility study was conducted. A total of nine formulation batches were developed and evaluated for pre and post compression parameters. The buoyancy behaviour and swelling index were conducted for all formulation batches. The optimized formulation batch studied the impact of the pH on floating and drug release.

Development and Assessment of Quick Release Mucoadhesive Buccal Tablets of Loratadine Utilizing Beta cyclodextrin Inclusion Complex Technique: A Formulation Study

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Abstract

The buccal mode of administration has various benefits, including increasing patient compliance and avoiding the first pass effects on the liver and GIT. The objective of the current study was to develop and assess mucoadhesive buccal tablets of the anti-histaminic drug loratadine, 10 mg. The inclusion complex (a kneading procedure) and direct compression methods are used to make the tablets. The mucoadhesive tablet formulations were created by combining different amounts of sodium starch glycolate, crospovidone, and beta-cyclodextrin as carriers and super disintegrants. By using FTIR and DSC investigations to check the components' compatibility with the medication, it was determined that there were no physicochemical interactions. The formulations were made in the following ratios: from F1 to F3, the dug to carrier (-cyclodextrin) ratio was (1:2), and from F4 to F6, the ratio was (1:4). And it was discovered that the ratio was 1:6 from F7 to F9. Dissolution was carried out in the USP dissolution apparatus-II (paddle) at a speed of 50 rpm and a temperature of 37±5 °C. The evaluation result of the formulations F-7 containing ß-CD of ratio 1:6 and Crospovidone were selected as best formulation.

Key words: *Loratadine, Buccal tablets, beta-cyclodextrin, Crospovidone, SSG, FTIR, Dissolution, Mucoadhesion strength*

A New Formulation Approach of Oro-Dispersible Tablet of Bilastine by Incorporating Co-Processed Super-Disintegrants

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Abstract

The major goal of this study is to prepare an Oro-dispersible tablet of Bilastine, to treat the symptoms of allergic rhinitis and chronic urticaria. It has a high level of selectivity for the H1 histamine receptor. It is under BCS class II medicines and has a 61% oral bioavailability, which limits its absorption dissolution rate. To provide the greatest therapeutic benefit, the bioavailability must be increased. This study uses superdisintegrants to make Bilastine more soluble and dissolve more easily. Nine formulations were produced employing varying quantities of superdisintegrants and co-processed super-disintegrants, such as Crospovidone, sodium starch glycolate, and croscarmellose sodium. Mannitol, microcrystalline cellulose as diluents, magnesium stearate, and talc were the additional excipients utilized. The pre-compression parameters and post-compression parameters were performed and were found within the limit. The drug and excipient compatibility study was carried out by FTIR and DSC and found there was no interactions.

Keywords: *Orodispersible tablets, Bilastine, Co-processed superdisintegrants, Direct compression, Invitro dispersion time.*

Understanding Nanoparticles: A Comprehensive Overview of Classification, Types, Characterization, Properties, and Applications

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Abstract:

As per ISO standards, nanoparticles are minuscule materials, measuring between 1 and 100nm, and they come in various forms. They are classified as inorganic organic and carbon-based NPs based on their size, shape, and properties. Because of their small size, NPs display enhanced physical and chemical characteristics like a large surface area, heightened reactivity, stability, and sensitivity. Recently, NPs have found extensive use in numerous industrial and environmental applications, making them of paramount significance. This review article mainly focuses on categorization, its properties, characterization, and wide-ranging applications.

Keywords: Nanoparticles (NPs), Johnson-Kendall-Roberts (JKD) theory, Derjaguin-Landau-Verwey–Overbeek (DLVO), and Derjaguin-Muller-Toporov (DMT) theory.

Introduction:

Nano is derived from the Greek word "Nanos," meaning "dwarf." The IUPAC (International Union of Pure and Applied Chemistry) adopted the word "nano" as a prefix in 1947 to refer to 109 [1]. The prefix "Nano" is commonly used to represent small particles and materials in modern science. In the early stages of nanotechnology, people unknowingly used nanosized objects and nanoscale particles [2]. For example, in ancient Egypt, dyeing hair black was typical. It was previously thought that hair dye was created using plant substances like henna. Recent studies on hair samples obtained from ancient Egyptian burial sites have revealed that the shade used to color the hair was made from a mixture of lead oxide, lime, and water. This dye contained galenite (lead sulfide, PbS), a nanomaterial.

Contents lists available at

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Original article

Neuroprotective potential of *Cordia dichotoma* in Parkinson's syndrome induced by haloperidol: An animal study

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Histopathology

ABSTRACT

Background: Parkinson's disease (PD) is one of the major neurodegenerative disorders and the prevalence is expected to increase during the next couple of decades. There is a need for safe and effective therapeutic regimen that can effectively manage this neurotoxicity. The leaves and several other parts of *Cordia dichotoma* are known to possess number of medicinal properties. The purpose of this study was to examine the neuroprotective role of *Cordia dichotoma* in an experimental model of haloperidol-induced P.D.

Materials and methods: Five groups of rats were randomly assigned into different groups. Intraperitoneal haloperidol 1 mg/kg was given to the inducer group and 0.5% CMC to the normal control. The reference standard was syndopa 10 mg/kg, p.o., and the test group animals received *C. dichotoma's* ethanolic extract at 200 and 400 mg/kg orally for one week. Rats exposed to haloperidol were assessed for behavioral, neurochemical, and histopathological parameters.

Results: *C. dichotoma* leaves extract dose dependently increased behavioral activity and muscle coordination. The extract at 400 mg/kg was found to increase significantly ($P < 0.001$) the central square activity in open-field test, compared to haloperidol treated rats. In stepping test, both tested doses of *C. dichotoma* (200 mg and 400 mg/kg) were found to significantly ($P < 0.001$) reduce akinesia, besides these doses also decreased the catatonic responses induced by haloperidol. Further, the extraction treatment (200 mg and 400 mg/kg) significantly ($P < 0.001$) decreased malonaldehyde and increased antioxidant enzymes like catalase compared to the control group. Histopathological changes in the test group showed a significant reduction in haloperidol damage to normal morphology in cortical, hippocampus, substantia nigra, and pyramidal.

Conclusion: The observations of the study suggest that *Cordia dichotoma* attenuated the haloperidol-induced neurological changes, indicating that the plant might benefit in the treatment of Parkinson's disease. The activity of *Cordia dichotoma* could be linked to its antioxidant property. Since, the drug is traditionally used in different parts of world; it could be a promising agent if more research establishes its safety and efficacy in other experimental models of Parkinson's Disease.

Peer review under responsibility of King Saud University.

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Harnessing the neuroprotective effect of oral administration of benfotiamine in MPTP induced Parkinson's disease in rats

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ADVANCEMENTS IN UNDERSTANDING AND TREATING ANXIETY DISORDER

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ABSTRACT

Anxiety is a typical human feeling that everyone occasionally feels. Anxiety may, nevertheless, be regarded as an anxiety disorder when it manifests itself excessively and interferes with daily life. A set of mental health illnesses known as anxiety disorders are characterised by extreme, ongoing worry or fear. Therapy and medication are frequently used in the treatment of anxiety disorders. Anxiety disorders are frequently treated using cognitive-behavioural therapy, which assists patients in recognising and altering harmful thought patterns and behaviours. To help alleviate symptoms, doctors may also prescribe drugs like benzodiazepines and selective serotonin reuptake inhibitors (SSRIs). In order to enhance outcomes and quality of life, it is crucial for people with anxiety disorders to get professional assistance as soon as possible. A good diet and regular exercise can also help manage the symptoms of anxiety disorders. Stress management practises can also be useful.

Keywords: Panic disorder, Generalised anxiety disorder, Specific phobia, GABA, Benzodiazepines

INTRODUCTION:

The most common central nervous system disorder is anxiety. "It is characterised as an uncomfortable emotional state accompanied by restlessness, distress, and worry or fear around certain known or unknown potential harm." One-eighth of the population suffers from anxiety, which has been a crucial topic of research in psychopharmacology during the past ten years. Anxiety is the most widespread mental ailment [1]. Nails licking, twitching fingertips, heart palpitations, sleeplessness, shyness, bad

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Special Article: Pharmacognosy

Neem: An Overview

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Abstract

Neem (*Azadirachta indica)* belonging to the Meliaceae family is popular tree. In Traditional System of Medicine, bark, leaf, flower, seed, oil and other parts are used for number of aliments. Number of patents has been filed for neem for pharmacological uses. This review provides a detailed view on Pharmacognosy, phytochemistry and pharmacological activity reported so far.

Keywords: Neem; *Azadirachta indica;* Pharmacognosy; Phytochemistry; Pharmacological activity; Review

Introduction

Azadirachta indica is an adaptable medicinal tree belonging to Meliaceae family. Every part of neem has some beneficial effects on human ailments and hence it has gained worldwide importance. 4000 years existence plant in India is *Azadirachta indica* [1].

A.indica also known as Margosa tree, as *'arista'* or *'nimba'* and 'nimbati *swasthyamdadati* in Sanskrit *meaning 'to give good health'*. The biological benefits of neem are enlisted in *'Charak-Samhita'* and *'Susruta-Samhita',* which forms the basis of Ayurvedic system of treatment. *'Azad- Darakth- E- Hind'* means 'Free tree of India' in Persian. Neem is considered genetic diverse plant. In India, Neem was used for chicken pox and small pox from antiquity. It has been used for environment protection such as soil erosion, soil fertility, insecticide, pesticide etc [2].

Habitat

Although the exact native region of Neem tree is not known, it is thought to be originating naturally in south Asia and it grows in natural forests with drier-climatic condition of southern India and Burma. For many millennia, neem has been cultivated in India, Pakistan, Sri Lanka, Bangladesh, Myanmar, Thailand, Southern Malaysia, and the drier Indonesian islands from Java eastward. Neem was introduced to Fiji and Mauritius during early 19th century [3].

Climate

It is a drought resistant tree and the mean annual temperature ranges from 21 to 32°C for its growth. In India, neem grows at temperatures between 0 to 49°C and annual rainfall of less than 600 mm. The plant is also used in afforestation programmes in arid and semi-arid regions [4].

Propagation and Cultivation

It is a hard tree, grows well in saline soils and drought conditions. Growth is slow in water-logged conditions. Propagated from seeds, which should be sown immediately after ripening, as their viability is very short. Seeds germinate within three weeks time. Root suckers and stem cuttings are also used for planting. It can be grown in all types of soil, but black-loam soil is more suitable. Within one year, the seedlings grow up to a height of 120 cm. Rapid multiplication through leaf culture has been found successful. Tissue culture techniques have been reported for the production of azadirachtin from cultures of leaves and flowers. 20 weeks old callus of leaves is reported to yield maximum concentration of azadirachtin upto 2.68 % and the 12 weeks old flower callus 2.46 % of azadirachtin on dry weight basis [5,6].

Scientific Classification of Neem

Kingdom: Plantae

Division: Magnoliophyte

Class: Magnoliopsida

Order: Sapindales

Family: Meliaceae

Genus: *Azadirachta*

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A REVIEW ON ANIMAL MODELS RELATED TO DEPRESSION

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ABSTRACT

The enormous health burden associated with depression is a result of both, the high prevalence of depressive disease and the inadequate efficacy of currently available pharmacological therapies. It is impossible to reproduce depression in animal models because there is a lack of a fundamental grasp of the underlying illness mechanisms in this condition. The current models of depression aim to create in experimental animals measurable correlates of human symptoms. The extent to which the models generate characteristics like a depressive state varies, and models that take stress exposure into account are frequently used. Learned helplessness, the forced swim test and tail suspension test are paradigms that use acute or sub-chronic stress exposure paradigms. Modern models are either based on modifying the environment to which rodents are exposed (during development or adulthood) or on genetic components (e.g., gene deletion or overexpression of candidate genes, targeted lesions of specific brain regions, electrophysiological control of specific neuronal populations, etc.). These modifications can change behavioral and biological results that are connected to various main depressive symptomatic and pathophysiological features. These techniques use brief exposure to unavoidable or uncontrollable stress and can accurately detect an antidepressant drug response. Long-term models, which may more precisely reflect the processes that result in depression, include chronic mild stress models, early-life stress models, and social conflict models.

Keywords: Depression, Antidepressant, Animal models, Validity

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To,

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[1]Student, The Oxford College of Pharmacy, Bengaluru, Karnataka, India

[2]Assistant Professor, The Oxford College of Pharmacy, Bengaluru, Karnataka, India

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Dear Sir/Madam

Sub: Acceptance Letter to Author(s)*

Congratulation!!! According to my record, your manuscript entitled "Detailed insight on Pathophysiology and Treatment of Neurodegenerative Disorder- Parkinson's Disease" has been accepted for publication in the Indian Journal of Natural Sciences (IJONS) VOL- 14 / ISSUE 80 / OCT 2023. Furthermore, you are responsible for any error in the published paper due to your oversight. Thank you very much for submitting your article to the Indian Journal of Natural Sciences (IJONS).

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Yakshitha M 1 , Noopur Srivastava 2 , A Muthu Kumar, Padmaa M Paarakh, Monisha K C, Nithin Kumar C, Purushotham M

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Herbal Interventions for Parkinson's Disease: A Systematic Review on Anti-Parkinson Activity and Natural Remedies

Nithin Kumar C , Noopur Srivastava , Padma M Paarakh, A Muthu Kumar, Yakshitha M, Purushotham M, Monisha KC

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EXPLORING THE PHYTOCHEMISTRY AND MEDICINAL SIGNIFICANCE OF ARTOCARPUS HETEROPHYLLUS (JACK FRUIT) LEAVES: A COMPREHENSIVE REVIEW

Monisha K C 1*, Noopur Srivastava 2, Padmaa M Paarakh 3, A Muthu kumar 4, Yakshitha M 5, Nithin Kumar C 6, Purushotham M 7
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"A Systematic Review of the Phytochemical Constituents and Bioactive Properties of *Mussaenda Frondosa*"

Suvarnalakshmi Gunturu[1], Nidhishree[1] S, Shravya, A. Muthukumar[2], Jyoti Shrivasthava[1], Padmaa M Paarakh[3]

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ABSTRACT

Mussaenda frondosa (M. frondosa) is a plant with significant botanical importance and has been identified as a promising source of bioactive compounds with diverse biological activities. This review provides a comprehensive analysis of the current knowledge of the various biological roles that M. frondosa plays. The phytochemical profile of the plant is explored in great detail, revealing a rich array of alkaloids, flavonoids, terpenoids, and other compounds that contribute to its multifaceted therapeutic potential. In addition, the interplay between the chemical constituents of the plant and their potential medicinal attributes, including their anti-inflammatory, analgesic, antioxidant, hypolipidemic, diuretic, and other properties, is discussed. This review is intended to serve as a guide for researchers interested in exploring the diverse biological activities of M. frondosa and to pave the way for future studies that could harness its potential for human health and well-being.

Keywords: M. frondosa, phytochemicals, bioactivity, medicinal potential, anti-bacterial activity, anti-inflammatory

INTRODUCTION

Plant-based traditional remedies have been celebrated for centuries for their potential to offer various health benefits across various human ailments. These remedies remain an undiscovered resource within the field of medicine. Traditional Medicines encompass health practices, methods, accumulated wisdom, and beliefs employed individually or in synergy to address, diagnose, prevent illness, or promote well-being. The use of traditional herbal medicines continues to thrive in numerous regions, particularly in tribal and rural communities worldwide. Numerous traditionally significant medicinal plants

Accepted for Publication (JBRHA20231843)

Inbox

Ms. Viviana Ric... 09:08

to emadfaiqa, me, J...

Dear Dr. Noopur Srivastava; Shiwani Singh; A. Muthukumar; Padmaa M Paarakh; Saad Ebrahim Alobid; Kuntal Das; Ali Ibrahim Almoteer; Moneer E. Almadani; Fuzail Ahmad; Syed Imam Rabbani; Syed Mohammed Basheeruddin Asdaq;

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REVIEW ARTICLE

A Clinical Review on Ulcerative Colitis (Colon Cancer)

A. Muthukumar[1]*, Bhavani Keserla[2], Syed Mohasin Abbas[3], Reena Thapa[4], Rumana Khatija[5]

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ABSTRACT:

Ulcerative colitis (UC) is also known as colon cancer or colorectal cancer, a chronic inflammatory condition of the large intestine (colon and rectum). It comes under blood in stool, bowel urgency, fatigue, low energy, and rarely fever. Inulcerative colitis, the part of the colon's inner lining of unknown etiology involves the gastrointestinal tract. More than 80% of ulcerative colitis patients have the lining tissue of the inner rectum inflamed or has proctosigmoiditis, and less than 20% of patients haveextensive colitis. The case of UC has risenworldwide in the recent few decades, particularly in growing countries. The high-risk factors are family history, gender, race, and environmental factors contributing are smoking, infection taking Antibiotics, and NSAIDs. In 2013, Over 350,000 new cases of ulcerative colitis and over 125,000 Patients deaths were reported in the USA. Ulcerative colitis is different from Crohn's disease. However,in more the 50% of patients with mildsymptoms of proctosigmoiditis, some patients show proximal extension, and for some patients,opposition occurs with mild symptoms. Moreover, it is essential to identify the patients with some symptoms of ulcerative colitis to clinical risk factors that will help identify which patients are in the critical or higher stage of the disease proximal extension.The ulcerative colitis usually devolves between 20 to 30 years.

KEYWORDS: Colorectal cancer, Corticosteroids, Immunomodulators, Crohn's disease, Antibiotics, Nonsteroidal anti-inflammatory drugs (NSAIDs).

INTRODUCTION:

Ulcerative colitis is an inflammatory disease in which the inner lining of the gastrointestinal tract is affected, leading to a severe condition. Ulcerative colitis can be seen in both men and women in which the men are most affected than women[1,2]. Ulcerative colitis develops between 15 to 35,and it stays for 40 years. It is affected worldwide in many countries, with which Europe and USA being the most affected countries among them[3,4]. The research shows that over 350,000 people have ulcerative colitis in Europe with a death toll of 130,000 in 2013, while in the USA, almost 400,000 people have ulcerative colitis with a death toll of 200,000 in 2013[4,5,6]. The significant symptoms of ulcerative colitis arebloody diarrhoea, soft blood stools, abdominal pain,fatigue, mild fever, and sometimes anaemia[7].

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It is essential to identify the patients affected by UC to avoid the high risk of ulcerative colitis. UC mainly does not spread to transmission but develops in abdominal regions known as thegastrointestinal region, in which the inner lining is inflamed. Diagnosis is the only treatment for ulcerative colitis. The most used diagnosis is colonoscopy and surgery[8,9]. Ulcerative colitis will develop due to our distinctive lifestyle and dietary requirements, and many countries in the world are suffering from this disease,especially developing countries.We must control and prevent the disease through proper health mad diet[10,11].

Prevalence:

Ulcerative colitis has increased in the few decades. As the number of cases of ulcerative colitis increases, it is challenging to control the disease[12,13,14]. Many researchers have said that ulcerative colitis is more evident in developing countries. The mortality ratio of ulcerative colitis patients has decreased in recent years. To avoid the risk of ulcerative colitis, people should not regularly smoke, and the appendectomy[15,16,17]. Appendectomy means a surgical operation in which the

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Future Well-Being with Digital Health Technologies

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Received: 15 September 2022 **Accepted:** 10 December 2022 **Published:** 06 January 2023

Abstract: *A wide range of opportunities are presented by digital healthcare, and it may lead to better patient care. Tools like machine learning, mobile applications and sensors, wearables, and telemedicine may be able to enhance the conventional paradigm of clinical history, examination, differential diagnosis, and therapy. The current epidemic has accelerated the transition to this future, although significant issues still exist.*

Since the start of the twenty-first century, the cultural shift known as digital health has shaped the fundamental principles of healthcare. The traditional hierarchy between patients and doctors is evolving into a collaboration on an equal footing. In the following years, this transition will dominate the significant developments in healthcare. Patients will become the point of care, receiving diagnosis and treatment wherever they are thanks to portable diagnostic devices, or artificial narrow intelligence-based algorithms.

These advancements will redefine what is meant by "well-being," as patients will seek medical attention prior to the onset of their first symptoms, requiring the creation of preventative strategies by professionals using a vast quantity of information about the patient and data from studies. Such innovations would invariably bring with them enormous concerns in terms of privacy, freedom of choice, and patient safety. This article examines probable future scenarios for digital health and seeks to address the key issues therein.

Keywords: *Digital Healthcare, Artificial Narrow Intelligence-Based Algorithms, Portable Diagnostic Devices, Virtual and Augmented Reality*

1. INTRODUCTION

The COVID-19 pandemic has advanced the healthcare industry's digital revolution, which will change many of the core tenets of medical treatment. We are aware that there may be numerous detours on this route to advancement.[7] the terms "health" and "well-being" have always had a close relationship since they both have an effect on one another. In 1948, the World Health Organization defined health as "not merely the absence of disease or infirmity but a state of complete physical, mental, and social well-being."

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A Review on: Metaverse in Health Care and Pharma

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Abstract: ***The metaverse can be seen as the immersive follow-up to the text-and-picture-based Internet of today, where people stare at a screen, ignoring physical reality. The metaverse offers online experiences that are more immersive and engaging than those of the past, a seamless blending of the physical and digital worlds, by taking advantage of modern technologies like artificial intelligence (AI), augmented reality (AR), virtual reality (VR), and ever-increasing connection (like 5G networks). The metaverse has the potential to influence healthcare because of the convergence of three current main technical trends. (a) telepresence, (b) digital twinning, and (c) blockchain. These three ideas could be used to provide whole new methods of providing treatment, potentially reducing costs, and significantly improving patient outcomes. Finally, while advancements in digital healthcare are to be commended for facilitating easier access to care for a larger spectrum of people, it is crucial to take into account the ethical issues that they raise.***

Keywords: Metaverse, Virtual Reality, Augmented Reality, Digital Twins.

1. INTRODUCTION

Neal Stephenson first used the word "metaverse" in his science fiction book Snow Crash in 1992. It comprises of the stem "verse," which means "world and universe," and the prefix "meta," which stands for "transcendence and virtuality." In three-dimensional, real-time virtual worlds known as metaverses, many users can engage in social, economic, and cultural activities and communicate
with one another through avatars
and their surroundings without being physically present. The healthcare sector, among many others, has reacted to the metaverse phenomenon in 2021. The widespread use of digital

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Nanoparticles in Pharmaceutical Science

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Abstract: ***The development of particle size reduction technologies over the past 30 years has transformed them from a research approach to an established commercial drug delivery platform. Since a growing number of research substances for poor aqueous solubility, nanotechnology methods have gained particular significance. The term "nanotechnology" refers to the development and application of materials whose components are, by standard, no larger than 100 nm in size. Nanotechnology investigates structural behavior at the molecular, and sub-molecular levels. It has the potential to transform several medical and biotechnology instruments and processes into ones that are transportable, less expensive, safer, and simpler to use. Nanoparticles are used for a variety of things, including medical treatments, energy storage in solar and oxide fuel batteries, optical devices, bactericidal agents, electronic devices, biological labeling, and in the treatment of some cancers. They are also widely incorporated into a variety of materials used in everyday life. This paper seeks to provide an overview of nanoparticles, paying attention to the current innovations and future aspects.***

Keywords: ***Nanoparticles, Types, Synthesis, Applications, Etc.***

1. INTRODUCTION

The most important development in recent years, nanotechnology, has modernized medicine. The market for nanotechnology products is steadily expanding. The revolutionary science of nanotechnology will have an impact on our attempts to enhance human health. The lifespan, effectiveness, toughness, adaptability, and unique physicochemical properties of nanoparticles have all been explored by the medical sector. They are used in a variety of therapeutic methods, including the focused administration of drugs, predictive visual monitoring of therapy, and even tumor diagnosis. 1,2

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Industry 4.0 for Pharmaceutical Manufacturing; Smart Factories for Future

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Abstract: *The use of cutting-edge technology like artificial intelligence, machine learning, the Internet of Things (IoT), and big data analytics in manufacturing processes is referred to as industry 4.0, also referred to as the fourth industrial revolution. Industry 4.0 has the potential to completely transform medication research, production, and supply chain activities in the pharmaceutical sector, resulting in more productivity, reduced prices, and better quality. Real-time monitoring of manufacturing processes and supply chain operations is made possible by the implementation of Industry 4.0 technologies in the pharmaceutical manufacturing industry. This can help identify potential problems and enhance decision-making. IoT devices can be used to monitor and improve equipment performance and anticipate maintenance requirements, resulting in less downtime and more productivity. Large data sets can be examined by advanced analytics and machine learning algorithms to spot patterns and abnormalities. Advanced analytics and machine learning algorithms can also scan huge data sets to find trends and abnormalities, making it possible to discover quality problems more quickly and to comply with regulations. Faster medication development, more effective manufacturing techniques, and ultimately improved patient outcomes can result from this.*

Keywords: *Data Security, Internet of Things, Small Factories, Supply Chain Management.*

1. INTRODUCTION

Brief overview of Industry 4.0 and its application in the pharmaceutical industry

The Fourth Industrial Revolution, or Industry 4.0, is the integration of cutting-edge technologies into manufacturing processes to create intelligent factories. Examples of these

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A Brief Introduction on Oro Dispersible Tablets

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Abstract: ***Oro dispersible tablets (ODTs), which have improved solubility and stability over the past three decades, have drawn a lot of interest as a superior alternative to traditional tablets and capsules. ODTs—solid dosage forms with medications that dissolve on the tongue fast, usually in a few seconds. New ODT technologies answer a wide range of pharmaceutical preparations and patient needs, to enhance the lifecycle management to straightforward dosage regimen for dysphagic, children, old, and mentally imbalanced patients. Methods for administering orally dispersible drugs are frequently used to improve patient compliance and bioavailability. Researchers in academia and business have been motivated by this to create novel technologies and orally disintegrating formulations in this field. This article's main objective was to cover the development of ODTs, formulation concerns, novel oral dispersible technology, different types of methodology to evaluate, the selection of drug candidates, and novel possibilities in future.***

Keywords: ***Super Disintegrants, Oro Dispersible Technology, Bioavailability, Oro Dispersible Tablets, Oro Dispersible Technologies.***

1. INTRODUCTION

The tablets are the most popular solid dosage form, which is ideal for taking medicine without any trained person or self. compact, accurate in dosage, and simple to produce. As a result, several efforts have been undertaken to create chemicals that are most effective in solid dosage forms and deliver reliable and effective plasma concentrations following delivery. The biggest issue with oral dosage forms is swallowing problems, particularly for young patients and older patients who are bedridden and experiencing nausea or mental illnesses. A solid dose form that may swiftly dissolve even when taken orally without water has been created in order to address this issue and enhance the patient's intake and compliance.

A relatively new dosage form technology is the rapidly disintegrating oral dosage form (tablet or film), which swiftly disperses in the oral cavity in absence of water. The dosage form starts to break down as soon as it comes into contact with saliva, and full breakdown

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Revolutionizing the Pharmaceutical Industry with Artificial Intelligence

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Abstract: ***The pharmaceutical industry is one of the most important industries in the world. It provides essential medicines and treatments that help people live longer and healthier lives. The industry is also one of the most regulated and complex, with drugs taking years to develop and billions of dollars in investment. However, the emergence of artificial intelligence (AI) is transforming the way drugs are developed, tested, and brought to market. AI has the potential to revolutionize the pharmaceutical industry by accelerating drug discovery, reducing costs, and improving patient outcomes. In this article, we will explore the ways in which AI is transforming the pharmaceutical industry and how it is changing the way drugs are developed and delivered to patients. AI simplifies labour by analyzing, filtering, sorting, forecasting, scoping, and recognizing massive data volumes to follow the best implementation techniques for coming up with the optimum solution. Artificial intelligence has the potential to lower prices and provide new, effective medicines, but most significantly, it has the potential to save lives. It can be successfully applied to develop a robust, long-lasting pipeline of new medications. We would be able to produce medicines more quickly and affordably by utilizing the power of current technology.***

Keywords: ***Artificial Intelligence, Technology and Tools, Trends in Pharma, Drug Development, AI in Pharma.***

1. INTRODUCTION

A significant change must be made to the current drug discovery process and technologies in the pharma field. AI imitates human behaviour in terms of the thought processes involved in problem-solving. The pharmaceutical business has a genuine opportunity to change how it does research and development (R&D), making it more effective and dramatically raising the success of early drug development with the use of artificial intelligence (AI) and machine

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Technologies in the Pharmaceutical Industries and Medical Health Care

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Abstract: *This review aims to illustrate upcoming technological developments in the pharmaceutical industries and healthcare facilities may look in the near future. In order to achieve this, we examine recent technologies and advanced medical developments in healthcare as well as in the pharma industries. Such as Artificial intelligence which provides an understanding between process parameters and different formulations. Blockchain is a sophisticated database that stores data in a way that makes it impossible to alter or hack the system. Clouding Technology enhances the drug discovery process. In the Future hospitals will need room for scanning and 3D printing since they can create virtually anything, including medical devices and human body components, and also produce drugs for every individual. Robotics is widely used in surgery as well as in chemical handling in laboratories. IT (Information Technology) is a database that helps in gathering information in surgery departments, hospitals, labs, and clinics.*

Our geriatric populations' quality of life can be maintained with the aid of new, technologies and innovations in health care. To overcome these obstacles, medical technology, as well as pharma industries, as well as pharma industries must unite and promote, high-quality methods while incorporating them into many related fields.

Keywords: *Artificial Intelligence, Blockchain, Clouding Technology, 3D Printing, Robotics, Information Technology.*

1. INTRODUCTION

In recent tenner, Technology has significantly changed how people live in recent decades since it affects every aspect of daily life, including communication, transportation, manufacturing, business, and the pharmaceutical and medical industries [1,2]. The technological system is simple to operate and use, enabling more work to be managed in a shorter amount of time, and has a low degree of complexity and error in the working process [3]. This relevance has only

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Veterinary Dosage Forms

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Abstract: ***In the field of science known as veterinary medicine, non-human animals such as cattle, working animals, and domestic animals are treated using medical, surgical, public health, dental, diagnostic, and therapeutic concepts. The development of veterinary dosage forms holds promise for the future of biotechnology, medication therapy, and diagnostics. Brief explanations of the classification of animals, the requirement for veterinary dosage forms, the flavorings used in animals, the various routes of administration, and the dosage form in animals are the main points of this overview. A brief discussion has been had on stability studies and control agencies from various nations that concentrate on the legal requirements for veterinary pharmaceuticals.***

Keywords: ***Veterinary, Bolus, Feed Additives, Drenches, Tubing Product.***

1. INTRODUCTION

Pharmaceutical preparations known as veterinary dosage forms are meant for use or topical application to one or more domestic animal species as well as other species of veterinary interest. Some veterinary preparations contain medications that are not frequently used in people, despite the fact that most veterinary dosage forms contain the same medication as human dosage forms. . When compared to human pharmacology, veterinary pharmacology is more diverse in terms of species and places a greater emphasis on particular medication classes. Certain dose formulations can be used on both humans and specific animal species.

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Microspheres in Pharmaceutical Science

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Abstract: ***Microcapsules are multi-particulate drug-delivery systems that can be configured to accomplish extended or controlled drug delivery to improve bioavailability, balance, and to target the medication to a specific webpage online at a set rate. They are made of polymers that are natural, semi-natural, and artificial, as well as polymeric wax or other shielding substances. Usually made of free-flowing powders with protein or synthetic polymer particles, microspheres have sizes between 1 to 1000 micrometer. The range of microsphere training approaches offers multiple ways to manipulate them as drug management components and to enhance the therapeutic potency of a particular medicine. In comparison to normal dose forms, these transport structures offer various advantages, including increased efficacy and decreased toxicity. Stepped forward affected person compliance and convenience.***

Keywords: ***Microcapsules, Microspheres, Types of Microspheres, Methods and Preparation of Microcapsules Etc.***

1. INTRODUCTION

Oral instructions the greatest effective method of taking pharmaceuticals is through a long shot drug management. However, the ability of many medications to repair is constrained by their rapid circulation in half of lifestyles and limited absorption via a specified segment of stomach. Such a pharmacokinetic barrier frequently results in a common dosage of medication to provide a therapeutic effect. A controlled and site-specific medication launch is a rational strategy to enhance bioavailability and the pharmacokinetic and pharmacodynamic characteristics. Microspheres are tiny, round debris with dimensions ranging from 1 m to 1 000 m. They are globular, freely flowing detritus made up of proteins or synthetic polymers that may naturally degrade. Microspheres come in two different varieties: micromatrices and microcapsules, each of which is described as: The chemical that is imprisoned is largely enclosed by an outstanding tablet wall in microcapsules. and micromatrices, in which the imprisoned substance is dispersed throughout the matrix. Microparticles is another name for microspheres. A range of synthetic and natural materials can be used to synthesise microspheres. They are crucial for

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CHARACTERISTICS OF DOPAMINE IN MORTAL BODY

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I. ABSTRACT

Dopamine is a synapse that is created in the substantia nigra, ventral tegmental region, and nerve center of the mind. Brokenness of the dopamine framework has been ensnared in various sensory system sicknesses. The degree of dopamine transmission expansions because of a prize and by countless unequivocally added substance drugs. The job of dopamine brokenness as a result of oxidative pressure is engaged with wellbeing and sickness. Present new possible focuses for the improvement of helpful intercessions in view of mortal body. The current audit centers around the remedial capability of dopamine in human body and the variable that is been setting off the dopamine levels.

Index terms: Dopamine action, Factors affecting, drugs

II. INTRODUCTION

Dopamine is a type of neurotransmitter in nerous system. It is also a hormone. Which is the mainly mad in your brain[hypothalamus]. It plays a role as a 'reward center' and in many body function, including memory, movement ,motivation, mood, attention and more.

High [or] low levels of dopamine leads to diseases such as Parkinson's disease, restless legs syndrome and attention deficit hyperactivity disorder[ADHD].

Dopamine plays multiple functions in the brain. Dopamine was first identified with reward function from anatomical and pharmacological evidence. The dopamine had earlier been identified as an intermediary in the synthesis of nor adrenaline and adrenaline from tyrosine. It also act as chemical messenger communicating messages between nerve cells in your brain and the rest of human body. As in the brain the hypothalamus will be releasing the dopamine.

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A REVIEW ON THERAPEUTIC AND BIOLOGICAL DIVERSITY OF *OPHIORRHIZA* SPECIES

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I. ABSTRACT

The current study reports on a *Ophiorrhiza* genus with their various species and its respective chemical constituents according to their potency. This *Ophiorrhiza* genus belongs to rubiaceae family. Ophio' means snake, 'rhiza' means root. Traditionally, *Ophiorrhiza* species have been called "snake roots" due to their healing properties for snake bites. These species having characteristics of alkaloids, secoiridoidmonoterpenes, sesquiterpenes, steroids, quinines and phenylpropanoids and also it possesses many biological activities such as anticancer, antiviral, antiulcer, antivenom, antimicrobial. *Ophiorrhiza* species is an alternative source of camptothecin. This camptothecin helps to synthesize some of the major anticancer agents such as irinotecan and topotecan. The current review focus on chemical constituents, traditional uses as well as biological activities of *ophiorrhiza* species and its future prospects.

Index Terms: *Ophiorrhiza* species, Camptothecin, Biological activity

II. INTRODUCTION

Ophiorrhiza belongs to family of rubiaceae. *Ophiorrhiza* species can be distinguished by its fivepetal flower with slightly unequal opposite leaves, succulent stems, humorous capsular seed of small rhomboid shape and laterally compressed fruits. Most of the *ophiorrhiza* species are abiding herbs (perennial herbs) which has capability of growing from relatively 10cm to 1m in height. Due to the presence of camptothecin they possess cytotoxic activity. Presently *Ophiorrhiza* genus comprises of 321 species, 5 varieties and 1 subspecies. *Ophiorrhiza* are mainly found in western ghats region in specific, 46 species and 5 varieties are mainly allocated in the north eastern states and western ghats of India, whereas 16 species and 3 varieties can be found in the state of Kerala, India.[2]

Ophiorrhiza species generally possess chemical constituents such as camptothecin, pumiloside, luteolin, Harman, bracteatine, blumeanine, tetrahydro alastonine, strictosidinic acid and lyalosidic acid in varying concentration. Camptothecin is an inhibitor of topoisomerase enzyme which was originally derived from

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Boswellia Serrata Biologically Active Compounds and It's Activities

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I.ABSTRACT

In recent days plant extracts are used in treating disease as it shows good activity against the diseases and they shows reduced ADR when administered. In this review we are discussing about the extract of plant Boswellia serrata belonging to the family of BURSERACEA. The major compound extracted from the oleoresin gum of *Boswellia serrata* is boswellic acid, which shows many biological activities. The plant resin from the bark is called as Salai Guggul, Indian Olinanum and Indian frankincense etc. It deals with many biological activities like Anti inflammatory,Anti Cancer, Hyperlipidaemic, Hypoglycaemic ,Anti Asthmatic and Anti fungal activities.

INDEX TERMS: *Boswellia serrata*, Boswellic acid.

II.INTRODUCTION

The Boswellia genus , which includes *Boswellia serrata* and Boswellia sacra ,has been used in traditional medicine for centuries and is commonly grow in Oman, Yemen and Saudi Arabia as well as in some parts of India and Africa .The Oleo-gum-resin from the bark of *Boswellia serrata* tree known as salia guggul or Indian Frankincense is used in Ayurveda to treat various inflammatory disease including asthma and bronchitis .The resin contains Boswellic acid a pentacyclic triterpenes acid that has been shown to have Anti inflammatory effects and may be useful in managing chronic inflammatory disease such as ulcerative colitis and rheumatoid arthritis. It is observed that *Boswellia serrata* shows more than 45% of anti inflammatory activity[1,2].Chronic inflammation will cause severe health issues such as cardiovascular disease, neurodegeverative disorder, cancer and diabetes, but research has shown that certain dietary poly phenols such as those found in olive, green tea and turmeric have anti inflammatory properties and many reduce the risk of these disease . The plant LIBRA[Levels of Intake, Benefits and Risk Assessment, Conducted by European commission] project aims to evaluate the health benefits and risk of plant food supplements, including those with anti-inflammatory properties, and promotes science based decision making in the regulation of these supplements [3].Nile tilapia is a popularly cultured species in many tropical countries, and the use of *Boswellia Serrata* resin extract as a feed additives could potentially improve its growth performance ,immune response, disease resistance and anti oxidant status according to a new study [4].Recent findings suggest that inhibition of inflammatory pathway constitutes a new therapeutic strategy for Osteoarthritis which is a most common type arthritis in adults and characterised by excessive degradation of the extracellular matrix leading to pain in the affected joints. This loss pf aggrecan, an increase in matrix metalloproteinases and the involvement of inflammatory component induced symptoms are closely associated with OA(osteoarthritis) MMP's(matrix metalloproteinases) are endogenous proteolytic enzymes induced by proinflammatory .Cytokines ,which can contribute to the pathogenesis of several condition including arthritis ,tumour invasion and metastasis ,suppression of proinflammatory cytokines and MMP's(matrix metalloproteinases) therefore may be valid approach to OA(osteoarthritis) treatment[5]. *Boswellia serrata* ,commonly known as Sallai or frankincense is a highly effective herbal drug extracted from the oleogum resin of Boswellia trees .This extract rich in boswellic acid and pentacyclic triterpene ,has been found to be effective in

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A Review On The Marketing Strategy Of Aloe Vera Extracts

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Abstract

Aloe Vera a magical herb with multi use property. It is reported to be used in Pharmaceutical, cosmetic industry as well as for home remedy purpose. Studies have reported that Aloe Vera is having soothing effect on skin so used by various cosmetic industry for their formulations. The pharmacological property that is being stated is it is can be used for the treatment of Anticancer, Antidiabetic, Antihyperlipidemia, Purgative and many more. The chemical composition of Aloe Vera is it consist of polysaccharides, sugars, minerals. Proteins, lipids and phenolic compounds. The current market scenario is that the liquid products of the aloe is playing a high role in the global market. In the global Aloe Vera market the most of the aloe extract is being used by the pharmaceutical industry, second comes the cosmetical industry and the third is food industry. It is reported that it will be having a more commercial opportunity than other medicinal plants in the coming years.

Keywords: Aloe Vera, Wound healing, Cosmeceutical, Treatment

Introduction

Aloe Vera is a multi-use herb which belong to the family liliaceae and has been generally used for centuries in all over the world. It is known for its abundant properties in medicinal as well as incosmetic market.In Ayurveda Aloe Vera is names as Kumari. The Ayurvedic use of Aloe Vera given by maharishi is it can be used for burns and wounds, mild sunburn. Aloe Vera juice will help to maintain a healthy digestive system because of its laxative property. Ayurveda research states that if Aloe Vera juice taken in morning helps to flush out all the toxins from the body and hence will boosts the immune system [1].

In Unani Aloe Vera is nomenclature as Sibr. The Unani studies states that Aloe Vera have an abortifacient activity, not only it leads to abortifacient activity but in some causes may lead to some teratogenic effect.It is having an anti-mutagenic effect because it directly reduce Geno toxicity, besides these usesit also shows actions likeantitumor, haemodynamic, hypolipidemic, hepatoprotective, immunomodulatory, wound healing[2] [3] [4]. In Siddha system of medicine, Aloe Vera is known as kumari. In this system of medicine Aloe Vera is used as a general tonic, as a purgative and as an emmenagogue. A case study was carried out for the treatment of uterine prolapse which was successful and improvement was seen during the treatment [5] [6] [7].

Chinese system of medicinenomenclatured Aloe Veraas LuHui. According to Chinese system of medicine Aloe Vera most prescribe by their doctor for treatment of constipation, abdominal pain, vertigo, and headache[8] [9].

The Cosmeceutical property of the herb is it is used as a gel form for treating sun burns, tanning problems, soothing property, glowing skin, reduces rashes, reduces itching problems. Aloe Vera provides a cooling effect so used in most of the skin care formulations.

Marketed brands for different system of medicine:The marketed Aloe Vera gel used by Chinese is Bioxutag, Disaar. The marketed brand of Aloe Vera gel used for Ayurvedic medicine is Alorsh Aloe Vera Gel. The marketed product for siddha system of medicine is Aloevin Aloe Vera Facial Gel.

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Morinda Citrifolia L. (Noni)-A Review on Its Health Benefits, Phytochemistry and Its Recent Researches

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Abstract

Morinda citrifolia, a fruit commonly known as "Noni", has been habitually used in parts of East Asia to relieve many diseases. Noni juice is a globally popular health beverage originating in the tropics. Traditional healers believe the noni plant to be useful for a wide range of health issues and noni juice consumers throughout the world have similar perceptions. Product derived from the fruit *Morinda citrifolia* (Noni) have been commercialized in USA since 1990's and are increasing distributed all over the world. In European countries fruit juice of noni has been approved as novel food by European commission in, 2003. Noni has tradionally used to relieve inflammatory disease, Fermented noni has effect on atopic dermatis(AD) to study the improving effect of fermented noni treatment on atopic dermatitis like skin lesions and elucidate molecular mechanism. It is most effective against colon and rectal cancer. Morindone and damnacanthal have significant cytotoxicity effect and selectivity and activity against colorectal cancer cell lines has also been identified. The aim of this review study is to identify more such health benefits and chemical compounds or phytochemicals in recent researches.

Keywords: fermented citrifolia, noni, Morindone, colorectal cancer, anthraquinone compounds

Introduction :

Noni(*Morinda citrifolia* L) is a fruit bearing tree in coffee family, Rubiaceae. Noni juice became a popular health supplement. It is a small to medium size tree (3-10m height) with pantropical distribution[1]. Noni fruit and leaves have a history of food used among pacific island as well as in Southern and southeast Asia. In recent times the fruit has been used to produce dietary supplement.

Product derived from fruit and leaves are being sold as capsules, tea and juice, the fruit juice being the predominant form. Juice can be pasteurized or obtained by fermentation process.In USA the noni product attributed claims of "cure all" for a variety of diseases

An active 'alkaloid' named "Xeronine" is present and is derived from Proxeronine found in noni. It has a wide range of potential indications for noni juice, like hypertension, menstrual cramp, gastric ulcer, sprains, atherosclerosis, blood vessel disorders, relief of pain.

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TO STUDY THE EFFECT OF PANDEMIC RESTRICTION ON QUALITY OF LIFE AND MEDICATION ADHERENCE OF TYPE 2 DIABETES PATIENTS

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ABSTRACT

Objectives: To study the effect of covid 19 pandemic restrictions on quality of life and medication adherence in diabetic patients.

Methods: A prospective cross-sectional study was conducted in The Oxford Medical College and Research Centre with 124 patients diagnosed with a-history of Type 2 diabetes(Type 2 DM). Consent was taken, and information was collected through a data entry form between May 2022 and October 2022. These subjects were interviewed using WHOQOL BREF and MORISKY MEDIATION ADHERENCE SCALE -8(MMAS-8) used to measure the effect of pandemic restriction in detail on quality of life and medication adherence. A follow-up was done after 2 weeks to measure the improvement in medication adherence.

Result: A total of 124 Type 2 DM patients were included in this study. 33.05% of patients rated poor quality of life (QOL), and 71.75% were dissatisfied with their health during the pandemic period. Medication adherence during pandemic was low with mean score of (5.12±1.86) evaluated with MMAS-8

Conclusion: The study suggests that the pandemic restrictions have widely impacted the QOL, physical activity, lifestyle and adherence. From the study we conclude that there are significant changes in Quality of life and medication adherence of diabetic patient during pre-pandemic and pandemic period.

KEY WORDS: Type II DM, Quality of life, WHOQOL BREF, MORISKY MEDICATION ADHERENCE SCALE 8.

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Compounds Having the Radio Sensitization Effect on Cancer Cells

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ABSTRACT

Radiosensitization, often known as RT or XRT, is a popular cancer therapy strategy. It is based on radio-sensitizing substances that only target cancer cells, slowing the proliferation of aberrant cells and preventing the formation of new ones. This therapy is crucial because it protects healthy tissues while damaging the DNA of cancer cells, effectively eradicating them from the body.The subject of our review paper is a variety of radiodensity compounds that demonstrate radiosensitivity against distinct cancer kinds. These substances provide prospective ways to enhance the inhibition of cancer cell proliferation, perhaps raising the effectiveness of cancer treatments. Radio sensitization, often known as RT or XRT, is a popular cancer therapy strategy. It is based on radio-sensitizing substances that only target cancer cells, slowing the proliferation of aberrant cells and preventing the formation of new ones. This therapy is crucial because it protects healthy tissues while damaging the DNA of cancer cells, effectively eradicating them from the body.The subject of our review paper is a variety of radiodensity compounds that demonstrate radiosensitivity against distinct cancer kinds. These substances provide prospective ways to enhance the inhibition of cancer cell proliferation, perhaps raising the effectiveness of cancer treatments.

Keywords: Cell oxidization, Radio sensitization, Reactive oxygen species (ROS), Radiotherapy.

INTRODUCTION

Cancer is the most life-threatening condition caused by various type of processed food, radiations, pollution etc. The main treatments available are radiotherapy, chemotherapy, surgeryand the most effective treatment is IR.

The longtime exposure to IR may cause resistance to the cancer cells to induces resistance radiodensity compounds are introduces in IR treatment [8]. The radio therapy has the main problem in the IR radiation will kill cancer cells and noncancer cells and it is time taking process so IR radiation will provide with radiosensitization compounds these compounds will weak the cell to the radiosensitization by oxidization process and radiosensitizing [5].

Compounds are highly reactive and toxic in nature, most of the compounds will break the double strand of the DNA and inhibit the proliferation of cells [5,6].

These compounds will be administered through oral in rare conditions and it is administered through the direct implantation of the tumor and it will allowand release the drug in controlled manner. Some drugs have different mechanism like they will increase the ROS levels which is produced in mitochondria will be released in to the cytoplasm of the cell.[9,10].

One of the major considerations in radiotherapy is exposure of tumor to hypoxia condition it shows limitation to radiotherapy they show more resistance to radiation when compared to normal oxygen microenvironmentenhancement ratio will refer the therapeutic effect in presence of oxygen [15].

Therefore pancreatic cancer is the major problem which is diagnostic which is demonstrated by inhibition of ChK1 sensitizes, The pancreatic cancer it also found the inhibition of HRR, G2 receptors which will cause the radiosensitisestion effect it also causes the DNA Damages Which gives the selective sensitization of tumors [15]