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Keywords: Memory enhancer,nootropic

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Nyctanthes arbortristis Linn. is one of the well known medicinal plant. It is a common wild hardy large shrub or small tree. It is a native of India, distributed wild in sub-Himalayan regions and southwards to Godavari. Different parts of this plant are used in Indian systems of medicine for various pharmacological actions. The rural people of Orissa use *Nyctanthes arbortristis* L. to cure various ailments. It's claimed traditional uses have been proved on scientific basis using in-vitro and in-vivo experiments. The present study will give comprehensive information on the chemical constituents and mainly pharmacological activities of this plant.

Keyword-*Nyctanthes arbour-tristis* L., Pharmacology, Phytochemistry, Review

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KEYWORDS: *Momordica charantia*, Charantin, antidiabetic, Photochemistry, Pharmacological activities.

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ABSTRACT

Obesity is one of the major health concerns which give an open invitation for six of the most terrible diseases known to man – diabetes, atherosclerosis, cardiovascular problems, paralysis, gangrene and heart attacks, therefore, herbs like Garcinia, Guggul, Kelp, Siberian ginseng, Green tea etc are used.

Keywords: Obesity, herbs for obesity.

RESEARCH ARTICLE

- **Free Radical Scavenging Activity of Leaves of *Memecylon edule* Roxb**
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ABSTRACT

Free radical scavenging potential of leaves of *Memecylon edule*. Roxb was studied using superoxide radical scavenging effect, hydroxyl radical scavenging effect, lipid peroxide assay, nitric oxide scavenging effect. The content of superoxide radicals was studied by NBT reduction method, hydroxyl radical by Deoxy-ribose degradation method, lipid peroxide level by estimating the thiobarbituric acid releasing substances (TBARS) and the nitric oxide radical by Griess method. The ethanolic and aqueous leaf extracts were used for the study with reference to the ascorbic acid as standard drug. It was found that the aqueous extract showed significant free radical scavenging potential compared to the ethanolic extract. The IC₅₀ for aqueous extract was found to be 502.9 μg/ml, 493.78 μg/ml, 469.6 μg/ml and 227.8 μg/ml for superoxide radical scavenging effect, hydroxyl radical scavenging effect, lipid peroxide assay and nitric oxide scavenging effect respectively. The extracts studied can provide efficient antioxidant protection by complementary mechanisms, such as free radical scavenging and metal ions reduction with the non polar extracts.

KEYWORDS: *Memecylon edule*, superoxide radical scavenging effect, hydroxyl radical scavenging effect, lipid peroxide assay, nitric oxide scavenging effect.

- **Anti-Diabetic Activity of Ethanolic and Aqueous Extracts of Leaves of *Butea monosperma* (L) Toub**
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ABSTRACT

The antidiabetic activity of alcoholic and aqueous extracts of leaves of *Butea monosperma* (L) Toub. were evaluated. Both the extracts showed significant antidiabetic activity, aqueous extract was found to be almost significant as standard drug in lowering blood glucose level. Whereas the ethanolic extracts treated group showed blood glucose level which is comparatively less to aqueous extract and standard drug. The drug/extracts were given twice a day dose was found significant.

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ABSTRACT

Prosopis cineraria (L) Druce is one of the highly valued plant in the Indigenous System of Medicine. Its bark is said to be a potent drug for several ailments such as leprosy, dysentery, bronchitis, asthma, leucoderma, piles, muscular tremors, asthma, rheumatism and inflammations. It is also known to possess anthelmintic, antibacterial, antifungal, antiviral and anticancer activities. In view of its medicinal importance, the present research was focused on the pharmacognostical and antimicrobial properties of stem bark of *P. cineraria* by *in vitro* approach. Pharmacognostic

investigation of the fresh, powdered and anatomical sections of the stem barks of *P. cineraria* was carried out to determine its macroscopical and microscopical characters along with the physico-chemical and preliminary phytochemical analysis. The antimicrobial activity of ethyl acetate and hydro alcoholic extracts of stem barks were evaluated against two Gram positive (*Staphylococcus aureus*, *Staphylococcus epidermidis*), two Gram negative (*Escherichia coli*, *Klebsiella pneumoniae*) bacterial strains and two fungal strains (*Aspergillus niger*, *Aspergillus fumigatus*) by agar disc diffusion method. Minimum Inhibitory Concentration (MIC) required for cessation of microbial growth was evaluated by agar streak dilution method. Both the extracts showed dose dependent activity against the microorganisms investigated. The hydroalcoholic extract exhibited significant activity against the test organisms than the ethyl acetate extract.

KEYWORDS: *Prosopis cineraria*, Antibacterial, Antifungal, Minimum Inhibitory Concentration (MIC), Stem bark.

- **Central Nervous System Depressant Activity of Ethanol Extract of Aerial Parts of *Cynodon dactylon* (L.) Pers. (Durva) in mice**
Sharda Sonawane, Deepak Bharati, Undale VR and Bhosale AV.....119

ABSTRACT

Cynodon dactylon L. (Durva) a shrub from Poaceae family is popularly used in folk medicine for treating a wide variety of disorders in South and western India, China and central Asia.

Aim of the study: To investigate the CNS depressant properties on experimental animals.

Materials and methods: ethanol extract of aerial parts of *Cynodon dactylon* (EECD) was studied to investigate its CNS depressant pharmacological properties in the classical behavioral models (open-field, elevated plus maze-EPM, Rota-rod, and Barbiturate-induced sleeping time) using mice. We decided to use i.p. administration of drugs because this pathway allows faster viability of the ethanol extract of aerial parts of *Cynodon dactylon* than oral pathway using 50% propylene glycol as a solvent in mice at single doses of 50, 75 and 100mg/kg.

Results: No significant effect was evident on motor coordination of the animals in the rotarod test. On EPM, all the doses of EECD presented a significant reduction on the time of permanence in the open arms, indicating an absence of anxiolytic-like effect. In addition, the EECD increased the immobility time in the forced swimming test and potentiated pentobarbital-induced sleeping time in mice, confirmed a probable sedative and central depressant effect in the animals,

Conclusion: Our results suggest that the ethanol extract of *c. dactylon* at 75mg/kg and 100mg/kg dose biologically active substance(s) that might be acting in the CNS and have significant depressant and anticonvulsant potentials, supporting folk medicine use of this plant.

KEY WORDS: *C. dactylon*, central nervous system, EECD, EPM, FST.

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ABSTRACT

Increasing prevalence of multidrug resistant strains of microorganisms has initiated the exploration of alternate antimicrobial agent. Taking into account the medicinal importance of *Dolichos Lablab* (Fabaceae) in this respect, an attempt was made in the current study to investigate the antimicrobial potential of this plant. Antimicrobial activity of the ethanolic, petroleum ether, aqueous, chloroform, ethyl acetate and n-hexane extracts of *Dolichos Lablab* beans were determined against various pathogenic bacteria and fungi. The extracts were tested against various bacteria like *Bacillus subtilis*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli* and fungi like *Candida albicans* by disk diffusion method. Minimum Inhibitory Concentration (MIC) values of each active extract were determined. It is concluded that n-Hexane and chloroform extract exhibited significant antimicrobial and antifungal activity.

Keyword- *Dolichos Lablab*, Antibacterial, Antifungal, Disk diffusion method

- **Antioxidant Activity of Ethanolic and Aqueous Extracts of Leaves of *Plumeria rubra*(Linn.)**
Dhundhwal DK, KL Senthilkumar, Joshua Samuel L, K Senthilkumar.....126

ABSTRACT

Antioxidant or inhibitors of oxidation are compounds, which retard or prevent oxidation and in general prolong the life of the oxidizable matter. The reactive oxygen species (ROS) in the body, include superoxidation anion, singlet oxygen, hydroxyl radical and hydrogen peroxide. The oxidative damage initiated by these is propagated by lipid peroxidation which may cause further damage to DNA. The body defense system against the oxidation damage consist of energy such as superoxide dismutases, glutathione peroxide, catalase and the reducing agent such as glutathions ascorbate and iron. Antioxidant agents of natural have attracted special interest because they can protect human body from free radical. Hence, the present study was aimed at evaluating the free radical scavenging activity of ethanolic and aqueous leaves extract of *Plumeria rubra* (linn.).

- **Pharmacognostical Studies on *Thespesia populnea* Bark**
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ABSTRACT

Thespesia Populnea is a reputed ever green tree belonging to the family malvaceae; commonly known as Indian tulip tree. The plant is distributed tropical regions and coastal forest in India. It is well known and all the parts are used in Indian system of medicine. The plant has been used as astringent, antibacterial, hepatoprotective, haemostatic, anti-diarrhoeal and anti-inflammatory. The scientific parameter is necessary to identify the exact plant material and to find its quality and purity. The present study deals with various pharmacognostical examinations like organoleptic or macroscopical characters, microscopical or anatomical studies, physical evaluation and preliminary phytochemical screening of various successive extracts were carried out and the parameters were reported. These studies indicated the possible information for correct identification and standardization of this plant material.

KEYWORDS: *Thespesia populnea*, bark macroscopy, bark microscopy.

- **Cytotoxic activity of *Alphonsea sclerocarpa* bark extract**
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ABSTRACT

In vitro cytotoxic activity of *Alphonsea sclerocarpa* has been investigated by trypan blue dye exclusion method at various concentration on Ehrlich Ascites Carcinoma cells. The ethanolic extracts of *Alphonsea sclerocarpa* has showed the significant cytotoxic property by inhibiting the dye exclusion was evaluated by comparing with standard 5-Fluorouracil. The preliminary study indicates the ethanolic extract of *Alphonsea sclerocarpa* has significant cytotoxic property and suggests for further investigation for its antitumor and anticarcinogenic function in different models.

KEY WORDS: *Alphonsea sclerocarpa*, Cytotoxic activity, EAC cells, 5-fluorouracil

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