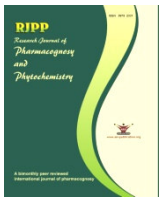

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CONTENT

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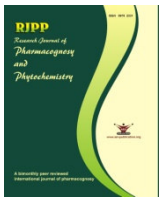

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REVIEW ARTICLE

Phytochemistry and Pharmacology of *Vitex negundo* Linn. – A Review

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ABSTRACT:
Vitex negundo Linn. belongs to family Verbenaceae and is widely distributed in India and is found mostly in warmer zones and ascending to an altitude of 1500 metres in outer western Himalayas. The plant is distributed in various other countries like, Ceylon, Afghanistan, Tropical Africa, Madagascar, China, Philippines, Nepal, Bhutan, Pakistan, *etc*. Several chemical constituents like, pinene, limonene, linalool, camphene, farnesene, betulic acid, urosolic acid, vitexin, isovitexin, negundoside, *etc.,* have been identified and isolated. *Vitex negundo* extracts shows anti-inflammatory and anti-androgenic activities. This plant also finds its use as a biopesticidal and for its anti-feedant activity. Studies have also been reported to demonstrate its ability as a mosquito repellent and an analgesic. The extracts of the plant shows the potential as an antidote for snake poisoning. The plant also exhibits CNS depressant, anti-convulsant, enzyme inhibiting, anti-cancer and anti-bacterial activities. The present review explores its description, traditional uses, chemical constituents, pharmacological activity and commercial importance so that its potential as a multipurpose medicinal agent can be understood and appreciated.

KEYWORDS: *Vitex negundo* Linn, Pharmacological activities, chemical constituents.

***Calotropis procera* (AIT):- A Phytopharmacological Review**

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ABSTRACT:
*Calotropis procera i*s a commonly used herb in Ayurvedic medicine. This review supports all updated information on its phytochemical and pharmacological activities, traditional uses and scientific approach. The plant extracts and its chemical marker or target molecule Arecoline have been widely used for the treatment of a large number of human ailments. The chemical entities of this plant has been used as an antidiabetic, blood pressure regulating activity, antiulceogenic, antioxidant activity, anticonvulsant activity, C.N.S. stimulant activity, oxytocic activity, antifertility, anthelmintic and antiviral activity etc. Scientifically proved activities are related with traditional concept. Scientific evidence exists with respect to their major and minor constituents.

KEYWORDS: Pharmacological activities, *Calotropis procera*

RESEARCH ARTICLE

Analysis of Crude Drugs Present In the Hepatoprotective Polyherbal Formulation by HPTLC Technique

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ABSTRACT:
Extracts of crude drugs such as Ajowan, Mace, Cardamom, Cumin, Nutmeg and Clove used in the Polyherbal formulation - RVSPHF**567** were taken in account and dissolved in their appropriate solvents. These extracts were analyzed individually by High Performance Thin Layer Chromatography (HPTLC) to detect the presence of their phytoconstituents. The instrument used for High Performance Thin Layer Chromatography (HPTLC) was CAMAG LINOMAT 5. These analytical investigations were highly useful for preparing Polyherbal formulation - RVSPHF**567** which is highly effective as Hepatoprotective agent and can be used in-vivo as a potential therapeutic agent. The sample was prepared by solvent extraction. Then 2µl of test solution was loaded as 6mm band length on the 9 x 10 Silica gel $60F_{254}$ TLC plate. This was done by using Hamilton syringe. These plates were kept in respective mobile phase Chloroform: Methanol: Water (6.5: 2.5: 0.4) for spot development to 90mm. These plates were dried and kept in Photo-documentation chamber - CAMAG REPROSTAR 3. The images were captured at White light, UV 254nm and UV 366nm. The developed plates were sprayed with respective spray reagent and photo-documented in White light and UV 366nm mode. Then the same were scanned at 500nm. The Peak table, Peak display and Peak Densitogram show the terpenoids profile in all the crude drugs.

KEYWORDS: Polyherbal, Liver Protective.

Evaluation of Wound Healing Activity of Isolated Compound Quercetin and Alcoholic Extract of Leaves of *Mussaenda frondosa* Linn.

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ABSTRACT:
Since the time immemorial, our traditional system of medicine and folklore claiming that medicinal plants as a whole or their parts are being used in all types of diseases. Natural remedies from medicinal plants are considered to be effective and safe alternative treatment for wounds. Alcoholic extract of leaves of *Mussaenda frondosa* Linn. (Rubiaceae) and its isolated compound quercetin were evaluated for wound healing activity by using different types of wound healing models such as excision wound, incision wound and dead space wound. The results were obtained in terms of wound contraction, epithelialization time and tensile strength. All results were significant for different parameters in wound healing activity in quercetin and alcoholic extract treated animals compared with control groups. The isolated compound quercetin was confirmed by preliminary phytochemical investigation, IR, NMR and Mass spectroscopic methods.

KEYWORDS: *Mussaenda frondosa* Linn, wound healing activity, alcoholic extract, quercetin.

ABSTRACT:
Moringa oleifera is commonly known as drumstick. Traditionally it is uses as an antitumor, asthma, antibiotic, analgesic and free radical scavenging agents. There was no report on leaf part of plant and hence the present investigation deals with anatomical, microscopical, powder microscopy, determination of leaf constant, phytochemical parameters and extractive values. Phytochemical studies showed the presence of alkaloids, glycosides, fixed oil, flavonoids, proteins and steroids.

KEYWORDS: *Moringa oleifera*, pharmacognostical, powder microscopy, phytochemical.

ABSTRACT:
Ipomoea eriocarpa R.Br.an extensive perennial climber with large, ovoid and tubrerous roots. Present paper deals with preliminary pharmacognostic and physicochemical evaluation of aerial part of *Ipomoea eriocarpa* R.Br. to establish authenticity and possibly to help to distinguish this species from other species. The study includes preparation of different extracts by successive solvent extraction for detail analysis. Fluorescence analysis of different successive extracts and powder were observed under UV light and normal ordinary light, which signifies their characteristics. Different physicochemical parameters such as ash value, extractive values and loss on drying were carried out as per WHO recommended physicochemical determinations and authentic phytochemical procedures. Preliminary qualitative chemical test for different extract showed the presence of Phytosterols, Saponins, Carbohydrates, Resins and Fixed oils and Fats.

KEYWORDS: *Ipomoea eriocarpa* R.Br. Pharmacognostic characterization, Florescence characters, Physicochemical characters.

ABSTRACT:
Preliminary phytochemical screening of leaves of *Premna corymbosa* Rottl demonstrated the presence of alkaloid, glycosides, flavanoids, steroids and triterpenoids. Antipyretic cativity of ethanolic extract of *Premna corymbosa* rottl. Leaves was tested by Brewer's yeast induced pyrexia method.decrease I temperature produced by ethanolic extract in a dose of 100, 200 mg/kg in male rat was measured and compared with reference standard paracetamol(25 mg/kg).

KEYWORDS: *Premna corymbosa* Rottl, Antipyretic activity, Brewer's yeast induced pyrexia.

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ABSTRACT:
Gokhru, the fruits of *Tribulus terrestris* Linn belonging to the family Zygophyllaceae. Large number of compounds has been isolated from the fruits of *Tribulus terrestris* Linn. The present investigation was to isolate and characterize the compounds. Attempt was made to fractionate the 50%bmethanolic extract to isolate the phytoconstituents using column chromatography. One among the isolated compound is Tiliroside. It has been confirmed by various physio-chemical investigations like (M.P, NMR, HPLC, TLC etc).

KEYWORDS: *Tribulus terrestris*, Zygophyllaceae, Tiliroside, Column chromatography.

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ABSTRACT:
Nephrotoxicity is the major cause of morbidity and mortality in diabetes and it is the leading cause of end stage renal disease. Hyperglycemia induced oxygen free radicals cause oxidative stress and subsequent oxidative damages, leading cell and tissue injury. Sprague-Dawley rats of both sexes were divided into 4 groups, Control, Diabetic control , Diabetic + *Ginkgo biloba* and Diabetic + Vit E group. Blood urea, serum creatinine and serum uric acid as well as plasma malondialdehyde, superoxide dismutase, catalase, reduced glutathione were estimated and histopathological studies of kidneys were performed. Alloxan at the dose of 120mg/kg i.p, for 2 months at the interval of 14 days, induced diabetes. This prolonged diabetes increased oxidative stress and caused an increase in the levels of serum creatinine, urea, uric acid and plasma malondialdehyde while there were decrease in the levels of superoxide dismutase, catalase and reduced glutathione in diabetic group as compared to normal control group. Histopathological examination revealed hemorrhage, necrosis, and infiltration of leukocytes around the glomerulus and interstitial spaces. Co-administration of *Ginkgo biloba* 300mg/kg orally, daily for 2 months in diabetic-induced rats caused decreased in the levels of serum creatinine, urea, uric acid and plasma malondialdehyde. Increased levels of superoxide dismutase, catalase and reduced glutathione were also found. The study revealed protective antioxidant activity of *Ginkgo biloba* in diabetic nephrotoxicity.

KEYWORDS: Diabetes, Oxidative stress, Nephrotoxicity, *Ginkgo biloba*.

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ABSTRACT:
Many *Crinum* species are traditionally used in different parts of the world for various local pains, inflammatory processes and microbial infections. In the present study, the total ethanolic extracts of *C. augustum* Rox. bulbs and *C. asiaticum* L. leaves were fractionated separately into five fractions each. The resulting fractions (400 mg/Kg, orally) of the total extract of *C. augustum* Rox. bulbs were evaluated for their analgesic and anti-inflammatory effects in mice using the hot plate and carrageenan-induced paw oedema tests versus acetyl salicylic acid (ASA) (100 mg/Kg, orally) and indomethacin (15 mg/Kg, orally), respectively. Fractions II, III and ASA showed the highest analgesic effects, whereas; II, III, IV and indomethacin were the highest anti-inflammatory ones at that tested doses. On the other hand, a comparative study of the antimicrobial activities of the total extracts of both plants together with their fractions (at 5, 10 and 50 mg/ml) showed inhibitory effects on *S. aureus* and *E. coli*, especially at 50 mg/ml. In addition, the per oral LD_{50} of the total extract of *C. augustum* Rox. bulbs were determined to be 1.6 g/Kg in mice.

KEYWORDS: Acute toxicity, Analgesic, Anti-inflammatory, Antimicrobial, Crinum.

***In-Vitro* Anti Bacterial Activity of Water Extract of *Moringa oleifera* Leaf Stalk**

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ABSTRACT:
Since our ancestors are using *Moringa oleifera* as a traditional source of medicine. *Moringa oleifera* is said to having nutritional and antihelmintic activity. In some region it is also used as an immune builder and detoxifier. This experiment was conducted to evaluate that *Moringa oleifera* posses anti bacterial activity or not. To assess the effect of extract several bacterial strains were used which includes *Staphylococcus aureus, Escherichia coli, Bacillus subtilis, Bacillus cereus, Micrococcus luteus and Enterobacter aerugenes*. The activity was determined using paper disc diffusion method. Concentrations of extract were 1000mg/ml, 750mg/ml, 500mg/ml, 250mg/ml and standard drug tetracycline was used in the concentration of 250mg/ml. *Moringa oleifera* shows very little activity against *Escherichia coli* and *Enterobacter aerugenes* but *Bacillus subtilis, Bacillus cereus, Micrococcus luteus* and *staphylococcus aureus* are resistant to the action of *Moringa oleifera*. The anti bacterial activity produced at 1000mg/ml and the activity is less than standard drug tetracycline (250mg/ml). So the conclusion of experiment is *Moringa oleifera* possesses little anti bacterial activity at very high concentrations.

KEYWORDS: *Moringa oleifera*, anti bacterial activity, Paper disc diffusion method.

Effect of *Phyllanthus niruri* Leaf Extract on Antioxidant Activity and UV Induced Chromosomal Aberration in *Swiss Albino* Mice

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ABSTRACT:
In the recent study of investigation, the genotoxic effect of leaf extract of *Phyllanthus niruri* has been analysed against UV- induced chromosomal aberration in the bone marrow cells of mice. Single i.p. administration of *Phyllanthus niruri* leaf extract at three different doses namely 250, 500 and 750 mg/kg b. wt. have provided protection when given 24 hr prior to the exposure of Ultra Violet radiation (UV B, 315 nm). A dose inhibition of chromosomal aberration was observed which was statistically significant ($p<0.05$) as compared to the UV treated group. In another set of experiment, the antioxidant activity of *Phyllanthus niruri* leaf extract using Fenton reaction was also observed and we found a dose dependent inhibition of Thiobarbituric acid reactive substance (TBARS) as compared to positive control. The minimum inhibitory concentration 50% of *P. niruri* and DMSO was found to be 68.76 and 56.98 respectively. Its seems to have a preventive potential against UV induced chromosomal aberrations in the bone marrow cells of the mice and also found antioxidant activity. Therefore, the results suggest a genotoxic and antioxidant potential of *Phyllanthus niruri* leaf extract.

KEYWORDS: Genotoxicity, Ultra Violet, *Phyllanthus niruri*, Bone marrow, Chromosome, Antioxidant activity, Radioprotector.