

DAY 1

Workshop



7th Edition of International Conference on

Pharmacognosy and Medicinal Plants

March 11-12, 2019 | London, UK

Protection from hepatic ischemia and improvement of liver regeneration by *Thuja orientalis*

Alok Kumar Dash

V B S P University, India

Liver is a vital organ performing wider range of functions; oxidative damage is implicated in the pathogenesis of various liver disorders. Present study was aimed at evaluating protective ability of *Thuja orientalis* Linn. against thioacetamide induced hepatotoxicity in rats. *Thuja orientalis* has been used in ayurvedic medicine for the treatment of various disorders. *Thuja orientalis* has the biological capabilities of detoxication, antioxidation and antiinfection. In this study, we evaluated the antihepatotoxic effect of *Thuja orientalis* aqueous and petroleum ether extract on the thioacetamide induced liver injury in a rat model. Hepatic damage, as revealed by histology and the increased activities of serum aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase (ALP) activities and decreased levels of serum total protein (TP), albumin (Alb) and globulin (G) were induced in rats by an administration of 50 mg/kg thioacetamide was injected intraperitoneally (i.p). *Thuja orientalis* extract significantly inhibited the elevated AST, ALP and ALT activities and the decreased TP, Alb and G levels caused by thioacetamide intoxication. From this study, it can be concluded that the aqueous and petroleum

ether extracts of *Thuja orientalis* possesses effective hepatoprotective activity.

Biography

Alok Kumar Dash received his B. Pharm from IGIPS, M. Pharma from KMIPS and PhD Degree from Suresh Gyan Vihar University, Jaipur, Rajasthan, India. He is working as an Assistant Professor in Institute of Pharmacy, Veer Bahadur Singh Purvanchal University, U.P, India. His field of research focuses is on natural products chemistry, pharmacognosy, pharmacological screening and standardization method development for herbals. He has more than 40 national and international publications and two patents to his credit. He is having 10 years of experience in research and teaching. His biography is published in Asian Admirable Achievers (volume ninth) 2016. He is recipient of most coveted institutional and globally reputed Rashtriya Gaurav Award 2017. His profile is selected for Bharat Vikas Award. He is recipient of "Certificate of Excellence in Reviewing-2017" by European Journal of Medicinal Plant, Science Domain International and has been serving as an Editorial Board Member of International Journal of Modern Botany, Scientific and Academic Publishing, Asian Journal of Chemical Sciences, BMC Complementary and Alternative Medicine, Bioequivalence and Bioavailability International Journal, British Journal of Pharmaceutical research and many more.

DAY 1

Scientific Tracks & Abstracts



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DAY 1
MARCH 11, 2019

Sessions

Complementary and Alternative Medicine | Phytochemistry
| Pharmacognosy | Natural Products of Medicinal Interest
| Traditional Medicine | Ethnopharmacology | Toxicological
Studies of Plant Products | Natural Products in Medicines |
Nutraceuticals | Medicinal Plant Chemistry

Session Chair

Niko Radulovic
University of Niš, Serbia

Session Chair

Hulya Kayhan
Art de Huille, Turkey

Session Introduction

- Title: **Perspectives of white birch bud extracts for therapy of tumors**
Marcin Stocki, Bialystok University of Technology, Poland
- Title: **The potential of lemon-balm (*Melissa officinalis*) essential oil to suppress anxiety-related behavior in animals**
Nikola M. Stojanović, University of Nis, Serbia
- Title: **Chemical composition and biological activities on selected edible mushrooms –(truffles of *Tuber* sps and *Ganoderma lucidum*)- growing wild in Greece**
Eleni Stavragi, National and Kapodistrian University of Athens, Greece
- Title: **Cytotoxic activity of the root extracts of *Petroedmondia syriaca* (boiss.) tamamsch**
Demet Akalgan, Girne American University, Cyprus
- Title: **Microbiological property evaluation of natural essential oils used in green cosmetics**
Hulya Kayhan, Art de Huille, Turkey
- Title: **Anti-aggregant effect of *Rubia tinctorum* extracts on platelets *in vitro* and *ex vivo***
Fatima Zahra Marhoume, Hassan I University, Morocco
- Title: **Pharmacognostic standardization of *Crassocephalum crepidioides* (Benth.) S. Moore: An antipyretic leaf drug**
C L Ringmichon, University of Mumbai, India
- Title: **Antidiabetic activity and modulation of antioxidant status by *Ocimum canum* in Streptozotocin-induced diabetic rats**
Alok Kumar Dash, VBSP University, India

March 11-12, 2019
London, UKMarcin Stocki et al., Am J Ethnomed 2019, Volume 6
DOI: 10.21767/2348-9502-C1-008

Perspectives of white birch bud extracts for therapy of tumors

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Birch buds (*Gemmae Betulae*) are widely used in traditional medicine mainly as a diuretic and diaphoretic agent but also as an antiseptic, anti-inflammatory and analgesic. Despite the long history of therapeutic use of birch buds in folk medicine, the existing information on their chemical composition and pharmacological effects is insufficient. This circumstance warrants further study of the chemistry and pharmacology of birch buds. The present study was designed to investigate (a) the chemical composition of buds from two species of white birch and (b) the *in vitro* cytotoxic effect of extracts from these sources on selected tumour cells. Extracts from *Betula pubescens* Ehrh. and *Betula pendula* Roth buds were obtained using three different methods: carbon dioxide supercritical fluid extraction (SFE), washing of exudate covering whole buds, and extraction of milled buds with diethyl ether. Chemical composition of the buds of these extracts was examined with chromatographic methods. Twenty three pure compounds were isolated and some were identified in mixtures with GC-MS method. The major components of both sources were terpenoids and methoxylated flavonoid aglycones, derivatives of flavane, flavone and flavonol. For the first time were isolated glycosides (+)-catechin 7-O-glucopyranoside, hyperoside and avicularin and identified procyanidins in butanol extracts. The comparative quantitative examinations showed that buds from *B. pubescens* are richer in flavonoids and phenolic acids than from *B. pendula*. Cytotoxicity was determined by MTT assay, and cell proliferation was determined by [3H] thymidine

uptake in cancer cells and normal skin fibroblasts. The highest cytotoxic activity demonstrated bud exudates and SFE extracts obtained from both *Betula* species. The rich chemical composition of birch buds suggests the possibility of a wider spectrum of biological activity than previously thought. Birch bud extracts could be a promising source of compounds with cytotoxic activity against various cancers.



Recent Publications

1. Isidorov V A, Szoka Ł and Nazaruk J (2018) Cytotoxicity of white birch bud extracts: perspectives for therapy of tumours. PLoS One 13:e02201949.
2. Isidorov V A, Bagan R, Szczepaniak L and Święcicka I (2015) Chemical profile and antimicrobial activity of extractable compounds of *Betula litwinowii* (Betulaceae) buds. Open Chemistry 13(1):125-137.

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3. Isidorov V, Szczepaniak L, Wróblewska A, Pirożnikow E and Vetchinnikova L (2014) **Gas chromatographic-mass spectrometric examination of chemical composition of two Eurasian birch (*Betula L.*) bud exudates and its taxonomical implication. *Biochemical Systematics and Ecology* 52:41–48.**
4. Stocki M, Zapora E, Rój E and Bakier S (2018) **Obtaining of valuable biologically active compounds from logging residue of birch (*Betula spp.*) using supercritical carbon dioxide. *Przemysł Chemiczny* 97:774-778..**

Biography

Marcin Stocki is a PhD student from the Faculty of Biology and Chemistry at the University of Białystok in the field of chemistry. In 2013, he completed Postgraduate studies in Analytics in environmental protection - chromatography and separation techniques in various variants of trace determinations at the Faculty of Chemistry of the Nicolaus Copernicus University in Torun. He is Assistant at Faculty of Forestry of Białystok University of Technology.

March 11-12, 2019
London, UKNikola M Stojanović et al., Am J Ethnomed 2019, Volume 6
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The potential of lemon-balm (*Melissa officinalis*) essential oil to suppress anxiety related behavior in animals

Nikola M Stojanović, Pavle Randjelović, Marko Mladenović, Nenad Stojiljković, Sonja Ilić, Gordana Nikolić and Niko S Radulović

University of Nis, Serbia

Anxiety disorders are among the most frequent psychiatric diseases with around ¼ of the world population suffering from these disorders during their lifetimes [1, 2]. Besides psyche related symptoms these patients can have a large number of somatic symptoms as well. Although, the treatment of these disorders is mainly focused on resolving its mental component, one cannot neglect the need for the treatment of accompanying somatic symptoms. *Melissa officinalis* L. (lemon balm), in various formulations has been extensively used as an ethnomedicinal remedy for the treatment of different psyche related symptoms and its use is considered relatively safe. In the present study, the potential activity of *M. officinalis* essential oil was evaluated in several *in vitro* models and *in vivo* animal studies mimicking or involving anxiety-related somatic symptoms. Effects of *M. officinalis* essential oil on BALB/c mice motor activity was estimated using an open field, rotarod and horizontal wire tests. The performance of mice treated with 25 mg/kg of the oil showed a statistically significant decrease in the motor impairment arising from acute anxiety (open field test), while there was a prolonged latency and a reduction of the frequency of falling from a rotating rod and/or a horizontal wire (signs of muscle weakness/spasms). Additionally, the essential oil was assayed for its potential in inhibiting acetylcholinesterase activity and was found to be a very weak enzyme inhibitor. The potential beneficial properties of the essential oil on the function of the gastrointestinal system were evaluated in the models of spontaneous and induced isolated mouse ileum contractions. Concentrations

of the essential oil higher than 1 µg/mL were found to inhibit both spontaneous and induced ileum contractions. The observed activity of the essential oil could be attributed to a large number of different constituents of the oil, most probably the monoterpenes which represent more than 50% of the oil.



Recent Publications

1. Ballard C G, O'Brien J T, Reichelt K and Perry E K (2002) Aromatherapy as a safe and effective treatment for the management of agitation in severe dementia: The results of a double-blind, placebo-controlled trial with Melissa. J Clin Psychiatry 63(7):553-558.
2. Stojanović N M, Samardžić L J, Randjelović P J and Radulović N S (2017) Prevalence of self-medication practice with herbal products among non-psychotic psychiatric patients from southeastern Serbia: A cross-sectional study. Saudi Pharm J. 25(6):884-890.

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3. **Ulbricht, Brendler T, Gruenwald J, et al. (2005) Lemon balm (*Melissa officinalis* L.): an evidence-based systematic review by the natural standard research collaboration. J Herb Pharmacother. 5(4):71-114**

Biography

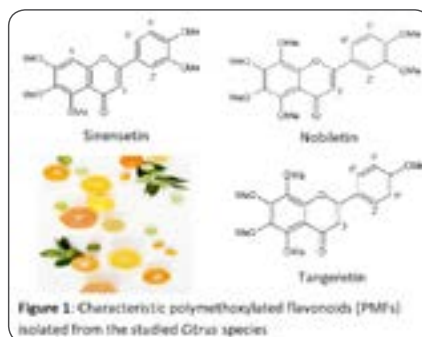
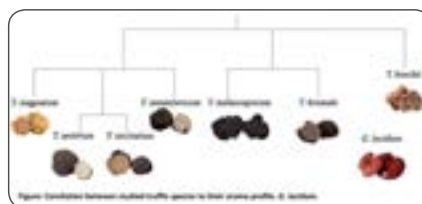
Nikola Stojanovic obtained his MD Degree in the Department of Medicine, Faculty of Medicine, University of Nis, Serbia and was awarded as the Best Graduated Student for the graduation year 2014/2015. He began his research work during the second year of his studies and he is now doing a large number of specialized *in vivo* and *in vitro* experiments in the fields of pharmacology, toxicology, biology, immunology and microbiology of active natural/synthetic compounds. His main focus currently involves the effects of essential oils on the levels of anxiety in both humans and animals. Besides that, he is an Author and Coauthor of a number of publications in highly esteemed peer-reviewed journals.

March 11-12, 2019
London, UKEleni Stavragi et al., Am J Ethnomed 2019, Volume 6
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Chemical composition and biological activities on selected edible mushrooms – (truffles of *Tuber* sps. and *Ganoderma lucidum*) growing wild in Greece

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In the framework of our phytochemical studies on edible mushrooms, we report herein, the chemical analyses of selected species of truffles (*Tuber aestivum*, *T. melanosporum*, *T. mesentericum*, *T. magnatum*, *T. borchii*, *T. brumale* and *T. uncinatum* and *Ganoderma lucidum*) growing wild in North Greece (all truffles) and Lesvos island respectively. Truffles are the fruiting bodies of mycorrhizal filamentous fungi well-known and valuable as food, since antiquity regarding to their unique taste and peculiar aroma. *G. lucidum* is the most appreciated and widely used medicinal mushroom in Asia, since last 2400 years. The aim of this study was to qualify and quantify their aroma profile by Headspace Solid-Phase Micro extraction (HS-SPME) on fresh, frozen and dried samples, comparing them with five commercial truffle olive oils of the Greek market. Isolation procedures through different extractions and analytical techniques were further evaluated and the isolated metabolites were structurally determined by modern spectral means. All studied samples were compared regarding their total phenolic content by Folin Ciocalteu. Their antioxidant and *in vitro* enzyme inhibitory properties were determined using free radical scavenging (DPPH, ABTS), reducing power (FRAP, CUPRAC), phosphomolybdenum and ferrous ion chelating assays, while they were also evaluated against cholinesterases, α -amylase and α -glucosidase enzymes. Finally, their antimicrobial activity was evaluated against a panel of human pathogenic bacteria and fungi showing an interesting profile.



Recent Publications

1. Tufa T, Damianakos H, Zengin G, Graikou K and Chinou I (2018) Antioxidant and enzyme inhibitory activities of disodium radosiin isolated from *Alkanna sfikasiana* Tan, Vold and Strid. South African Journal of Botany 120:157-162.

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2. Marini G, Graikou K, Zengin G, Karikas G A, Gupta M P and Chinou I (2018) **Phytochemical analysis and biological evaluation of three selected *Cordia* species from Panama. *Industrial Crops and Products* 120:84-89.**
3. Zengin G (2016) **A study on *in vitro* enzyme inhibitory properties of *Asphodeline anatolica*: new sources of natural inhibitors for public health problems. *Industrial Crops and Products* 83:39-43.**
4. Wasser S P (2005) **Medicinal mushroom science: history, current status, future trends, and unsolved problems. *International Journal of Medicinal Mushrooms* 12(1):1-16.**
5. Hall I P, Yun W and Amicucci A (2003) **Cultivation of edible ectomycorrhizal mushrooms. *Trends in Biotechnology* 21(10):433-438.**

Biography

Eleni Stavraki has graduated from the Faculty of Pharmacy, Comenius University of Bratislava. She has four years of working experience as a Pharmacist influenced her on phytochemistry and the value of herbal medicines. Therefore, she participated in the Master Program of the Division of Pharmacognosy and Chemistry of Natural Products, Dept. of Pharmacy, National and Kapodistrian University of Athens (GR) and devoted her research on medicinal mushrooms. In the framework of this study, she had the opportunity to learn phytochemical methods on the isolation, structural elucidation and further applications of bioactive natural products.

March 11-12, 2019
London, UKDemet Akalgan, Am J Ethnomed 2019, Volume 6
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Cytotoxic activity of the root extracts of *Petroedmondia syriaca* (Boiss.) Tamamsch

Demet Akalgan

Girne American University, Cyprus

The isolated and purified 12 coumarins from the roots of the plant were identified as 3'-isobutyryloxymarmesin acetate, 3'- α -angeloyloxydeltoin, smyrioidin, deltoin, marmesin acetate, scoparone, bergapten, psoralen, colladonin, 14'-Acetoxybadrakemin, marmesin and 14'-hydroxybadrakemin using their physical and spectral characteristics, three compounds of them were isolated for the first time in this study. The extracts (hexane, CH₂Cl₂ etc.) were evaluated for cytotoxicity by the MTT method using MCF-7 cell line. The cytotoxic activity of the compounds was obtained and the coumarin mixture were investigated and the cytotoxic activity was found to be significant. This is the first report on the chemical composition and cytotoxic activity of the roots *P. syriaca*. The cytotoxic activity of the coumarin mixture was found to be significant. The highest activity was found in the petroleum ether and dichloromethane extracts. In order to identify their cytotoxic compounds, petroleum ether and dichloromethane extracts were subjected to a series of chromatographic separations. Structures of the purified compounds were elucidated by spectroscopic methods, chemical transformations and direct comparison with the authentic standards and they were available as scoparone (1), psoralen (2), bergapten (3), marmesin (4), marmesinacetate (5), deltoin (6), smyrioidin (7), 4'-acetyl-3'- isobutyryloxymarmesin (8), colladonin (9) and 14- acetoxybadrakemin (10). Petroleum ether and dichloromethane extracts of *Petroedmondia syriaca* (Boiss.) Tamamsch showed cytotoxic activity on MCF-7 cell lines at 25 μ g/mL and higher concentrations (Figures 1&2). This is the first report on the chemical composition and cytotoxic activity of the roots of *P. syriaca*. The

cytotoxic activity testing of the isolated compounds is currently in progress. Cytotoxic activity of colladonin has recently been reported.

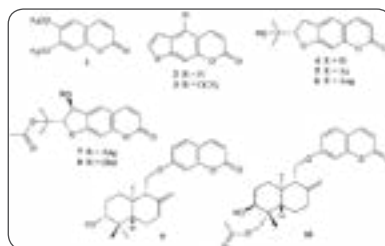
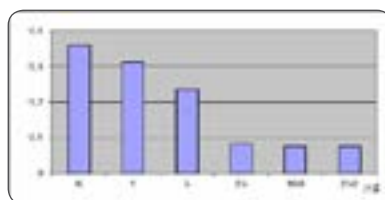
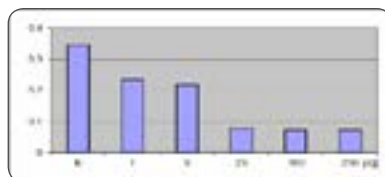


Figure 1:

Figure 2: Cytotoxic activity of the petroleum ether extract of *P. syriaca*Figure 3: Cytotoxic activity of the dichloromethane extract of *P. syriaca*

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Recent Publications

1. Tosun F, Akalgan D and Ve Miski M (2017) Cytotoxic coumarins from the roots of *Petroedmondia syriaca* (Boiss.) Tamamsch. 2nd International Gazi Pharma Symposium Series (GPSS-2017), 11-13th October, Ankara.
2. Tosun F, Akalgan D and ve Miski M (2017) Effects of the root extracts of *Petroedmondia syriaca* (Boiss.) Tamamsch. on the colon cancer cells, IX. Apiales Symposium, 31st July-2nd August 2017, Guangzhou-China.
3. Tosun, F., Akalgan, D., ve Miski, M. (2016). Cytotoxic activity of the root extracts of *Petroedmondia syriaca* (Boiss.) Tamamsch. The 29th International Symposium on the Chemistry of Natural Products (ISCP-29) and the 9th International Conference on Biodiversity (ICOB-9), Sept. 24th- 27th, Izmir-Turkey.
4. Orhan I E, Tosun F, Gülpınar A R, Kartal M, Duran A, Mihoglugil F and Ve Akalgan D (2015) LC-MS quantification of parthenolide and cholinesterase inhibitory potential of selected *Tanacetum L.* (Emend. Briq.) taxa. *Phytochemistry Letters* 11:347-352

Biography

Demet Akalgan has obtained PhD on Pharmacognosy, Pharmacognosy researches on *Petroedmondia syriaca* (Boiss.) Tamamsch and Master of Science in Phytotherapy. She has 16 years of experience at Ministry of Health on Regulatory Affairs and Regulations of Medical Devices, Medicinal Products, Clinical Trials and Cosmetics. She has various certifications and trainings on European Union structure and ICH Guidelines (GMP, GDP and GCP). She is the Head of Pharmacognosy Department, Faculty of Pharmacy and Lecturing on Pharmacognosy at Girne American University. She has publications on breast cancer and migraine. She provides scientific support and consultation to private industry.

March 11-12, 2019
London, UKHulya Kayhan, Am J Ethnomed 2019, Volume 6
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Microbiological property evaluation of natural essential oils used in green cosmetics

Hulya Kayhan

Art de Huille, Turkey

Essential oils are also have long been known to have antimicrobial properties and these properties have been reviewed in the past studies as having strong antimicrobial effects. Wilkins and Board also reported that more than 1,340 plants are known to be potential sources of antimicrobial compounds. Furthermore, antimicrobial activity of plant extracts is frequently due to the essential oil fraction, or to sulfur-containing compounds in the aqueous phase. These compounds are also responsible for the characteristic aroma and flavor of the spices. The antimicrobial activity of plant oils and extracts has formed the basis of many applications, including raw and processed food preservation, pharmaceuticals, alternative medicine and natural therapies. This study was designed to investigate antimicrobial properties of natural essential oils including; citronella, cinnamon, palmarosa, niaouli, clove, lavender, bergamot, lemon, grapefruit, petitgrain, peppermint, tea tree and eucalyptus from different oil sources. Datas taken from the disk diffusion assay indicate that cinnamon, niaouli, lavender, petitgrain and the tea tree oils have the most intense antibacterial effects on related microorganisms at the concentration %100 (direct usage). Endpoints confirm results reported in the past studies including the MIC assays on the related natural oils. Overall, natural oils have been used safely for many decades on the cosmetic formulations and this experiment emphasizes one more time the importance of the natural oils usage in industry. After all these endpoints, we can summerize that essential oils are gaining popularity within the supported antimicrobial results. As personal care and naturopathic

remedies continue to provide alternative solutions for people desiring to take charge of their own health care, it is important to have a firm understanding of essential oils.

Recent Publications

1. Ecem Özdemir, İsmail Aslan, Bekir Çakıcı, Betül Türker, Cem Emre Çelik (2018) Microbiological property evaluation of natural essential oils used in green cosmetic industry. *Current Perspectives on Medicinal and Aromatic Plants* 1(2):59-64.
2. M Y Günel, M Ozansoy, Ü Kılıç, İ Keskin, EM Özdemir, İ Aslan and Z Eren (2018) Role of erythropoietin and its receptor in the development of endometriosis in rats. *Journal of the Turkish German Gynecological Association*.
3. Ethemoglu M S, Seker F B, Akkaya H, Kilic E, Aslan I, Erdogan C S and Yilmaz B (2017) Anticonvulsant activity of resveratrol-loaded liposomes *in vivo*. *Neuroscience* 357:12-19.
4. Gunal M Y, Ayla S, Ozansoy M, Bedri N, Aslan I, Ersavas C and Kilic E (2016) The healing effect of resveratrol on excisional wound. In *Acta Physiologica* 218:38-38.
5. Özcan P, Fıçıcıoğlu C, Yıldırım Ö K, Özkan F, Akkaya H and Aslan İ (2015) Protective effect

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of resveratrol against oxidative damage to ovarian reserve in female Sprague–Dawley rats. Reproductive biomedicine online 31(3):404-410.

Biography

Hulya Kayhan after graduating from Istanbul University Faculty of Pharmacy, she went to London to make a Master's Degree in Pharmaceutical Technology. During her graduate studies at King's College, she

took alternative therapies covering aromatherapy and phytotherapy. Aromatherapy attracted a lot of her interest and she began to intensify its work in this area. She took lessons from the greatest instructors of aromatherapy and meticulously scanned all resources in different languages, reinforced her mastery of aromatherapy, decided to create a brand. Today, she is the owner of "Art de Huile" which is the most popular brand on aromatherapy. She continues her works by organizing conferences on aromatherapy as well as by giving trainings to pharmacist colleagues and doctors and by joining panels. medical aromatherapy in Turkey, has led doctors to enter prescriptions.

March 11-12, 2019
London, UKFatima Zahra Marhoume et al., Am J Ethnomed 2019, Volume 6
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Anti-aggregant effect of *Rubia tinctorum* extracts on platelets *in vitro* and *ex vivo*

Fatima Zahra Marhoume^{1,2}, Abdellah Bagri¹, Hicham Boufous^{1,2}, Mehdi Ait Laaradia² and Abderrahman Chait²

¹Université Hassan-Ier, Morocco

²University Cadi Ayyad, Morocco

Platelets play pivotal role in primary hemostasis and several cardiovascular diseases (CVD) in atherothrombotic disease and are associated with an increase in blood platelets aggregation. *Rubia tinctorum* (RT) extracts was investigated for anti-aggregant activity induced by collagen *in vitro* and *ex vivo* by measuring the bleeding time and platelets count. Our finding demonstrated that RT extract showed a significant ($P < 0.001$) inhibition of collagen induced platelets aggregation (1.48 ± 0.76 , $n=3$). This results

correlate well with data of bleeding time and platelet count. Phytochemical analysis revealed the presence of flavonoids which may be implicated in this action.

Biography

Fatima Zahra Marhoume currently working as a professor in Laboratory of Pharmacology, Neurobiology and Behavior, Semlalia Faculty of Sciences, Cadi Ayyad University, Marrakech, Morocco.

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London, UKC L Ringmichon, Am J Ethnomed 2019, Volume 6
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Pharmacognostic standardization of *Crassocephalum crepidioides* (Benth.) S. Moore: An antipyretic leaf drug

C L Ringmichon

University of Mumbai, India

C*rassocephalum crepidioides* (Benth.) S. Moore belongs to the family Asteraceae. The herb is commonly known as "Preitharpu" by the locals of Manipur. It has been used as a folklore medicine. The fleshy leaves and stems are eaten as a vegetable in Manipur. The leaf juice is used on cuts and bruises to prevent bleeding and for relief from fever, pain and stomach disorders, etc. The current investigation deals with the Pharmacognostic standardization of the said leaf drug. The parameters used are macroscopic, microscopic, histochemistry, preliminary phytochemical screening, physicochemical studies, powder study and fluorescence analysis. The diagnostic characters of leaves are presence of anomocytic stomata, uniseriate multicelled trichomes, fibers with distinct lumen, annular type of vessels, single layer palisade tissue, prism shaped calcium oxalate crystals and tannin filled cells. Physicochemical studies revealed total ash (17.47%), acid insoluble ash (0.65%), water soluble ash (14.8%), water soluble extractive (13.77%), alcohol soluble extractive (2.64%) and chloroform soluble extractive (4.29%). These parameters will help in laying the pharmacopeial standards to authenticate the leaf drug.

Biography

C L Ringmichon obtained a PhD Degree in Botany from University of Mumbai, India. She was working as a Senior Research Fellow in Indian Council of Medical Research (ICMR), New Delhi. She was teaching in Biology at North Point Higher Secondary School, Imphal and Little Angel's English School, Manipur. She was also a Visiting Lecturer in Faculty of Botany, Dapoli Urban Bank Senior College, University of Mumbai. She has Published 08 research Papers and contributed 01 Chapter (Book Published on Ethnobotany of India, Volume 3, by Apple Academic Press Inc.). She had attended 15 International and National Conference, Seminar and Workshop; she had also 03 oral presentations and 07 Poster presentations in international and national conference. Currently, she is working on Ethno medicinal plants of Manipur. Her Doctoral research focused on Pharmacognostic and Pharmacological studies on some Ethno medicinal antipyretic plants from Manipur. Her area of study is Botany, Pharmacognosy, Phytochemistry, Pharmacology and Ethno medicine. She's the member of the Ethnobotany: International Journal of the Society of Ethnobotanists. She has also received Rajiv Gandhi Scholarship (UGC) for her Research work.

March 11-12, 2019
London, UKAlok Kumar Dash, Am J Ethnomed 2019, Volume 6
DOI: 10.21767/2348-9502-C1-008

Antidiabetic activity and modulation of antioxidant status by *Ocimum canum* in Streptozotocin-induced diabetic rats

Alok Kumar Dash

VBSP University, India

The aqueous extract of *Ocimum canum* (Family: Lamiaceae) leaf was investigated for its antidiabetic effect in Wistar Albino rats. Diabetes was induced in albino rats by administration of streptozotocin (45 mg/kg, I.P). The aqueous extract of *Ocimum canum* at a dose of 100 mg/kg and 200 mg/kg of body weight was administered to diabetes induced rats for a period of 28 days. The effect of aqueous extract of *Ocimum canum* leaf extract on blood glucose, plasma insulin, glycosylated haemoglobin, serum lipid profile low density lipoprotein (LDL), very low density lipoprotein (VLDL), high density lipoprotein (HDL), atherogenic index and the activities of alanine aminotransferase (ALT), aspartate aminotransferase (AST) and alkaline phosphatase (ALP) of all groups were analyzed. Antioxidant enzyme catalases (CAT), superoxide dismutase (SOD), reduced glutathione (GSH), serum thiobarbituric (TBAR) were measured in the diabetic rats. The aqueous extract of *Ocimum canum* leaf elicited significant reductions of blood glucose ($p < 0.01$), lipid parameters except HDL-C, serum enzymes and significantly increased HDL-C and antioxidant enzymes. From the above results it is concluded that aqueous extract of *Ocimum canum*

possesses significant antidiabetic, antihyperlipidaemic and antioxidant effects in streptozotocin induced diabetic rats.

Biography

Alok Kumar Dash received his B. Pharm from IGIPS, M. Pharma from KMIPS and PhD Degree from Suresh Gyan Vihar University, Jaipur, Rajasthan, India. He is working as an Assistant Professor in Institute of Pharmacy, Veer Bahadur Singh Purvanchal University, U.P, India. His field of research focuses is on natural products chemistry, pharmacognosy, pharmacological screening and standardization method development for herbals. He has more than 40 national and international publications and two patents to his credit. He is having 10 years of experience in research and teaching. His biography is published in Asian Admirable Achievers (volume ninth) 2016. He is recipient of most coveted institutional and globally reputed Rashtriya Gaurav Award 2017. His profile is selected for Bharat Vikas Award. He is recipient of "Certificate of Excellence in Reviewing-2017" by European Journal of Medicinal Plant, Science Domain International and has been serving as an Editorial Board Member of International Journal of Modern Botany, Scientific and Academic Publishing, Asian Journal of Chemical Sciences, BMC Complementary and Alternative Medicine, Bioequivalence and Bioavailability International Journal, British Journal of Pharmaceutical research and many more.