

RESEARCH HIGHLIGHTS

Research highlights (January–June 2015)

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CLINICAL RESEARCH

INDIVIDUALIZED HOMEOPATHIC TREATMENT AND FLUOXETINE FOR MODERATE TO SEVERE DEPRESSION IN PERI AND POSTMENOPAUSAL WOMEN (HOMDEP-MENOP STUDY): A RANDOMIZED, DOUBLE-DUMMY, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL

Journal reference: PLoS One, Volume 10, Issue 3, 2015, Pages e0118440.

Authors: Macías-Cortés Edel C, Llanes-González L, Aguilar-Faisal L, Asbun-Bojalil J.

Summary: This was a randomized, placebo-controlled, double-blind, double-dummy, superiority, three-arm trial with a 6-week follow-up conducted to assess efficacy and safety of individualized homeopathic treatment versus placebo and fluoxetine versus placebo in peri-and post-menopausal women with moderate to severe depression. One hundred thirty-three peri-and post-menopausal women diagnosed with major depression according to DSM-IV (moderate to severe intensity) were included. After a 6-week treatment, homeopathic group was more effective than placebo by 5 points in Hamilton scale. Response rate was 54.5% and remission rate, 15.9%. It was concluded that homeopathy and fluoxetine are effective and safe antidepressants for climacteric women were significantly different from placebo in response rate definition.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25768800>

HOMEOPATHIC TREATMENT OF MULTIMORBID PATIENTS: A PROSPECTIVE OUTCOME STUDY WITH POLARITY ANALYSIS

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 57-65.

Authors: Frei H.

Summary: The treatment of multimorbid patients who have a combination of three or more concurrent complaints is one of the core competencies of Homeopathy. This article introduces the application of Polarity Analysis (PA) in multimorbidity. PA enables homeopaths to calculate a relative healing probability, based on Boenninghausen's grading of polar symptoms. After its evaluation in the treatment of a variety of acute and chronic disease, which showed improved results compared to a conventional homeopathic approach, it was a challenge to test PA with multimorbid patients. 50 multimorbid patients were treated with PA and prospectively followed for over 1-year. 43 patients (86%) completed the observation period, achieving an average improvement of 91% in their initial symptoms. The cost of homeopathic treatment was 41% of projected equivalent conventional treatment. PA is an effective method for treating multimorbidity. The multitude of symptoms does not prevent the method from achieving good results.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25576272>

HOMEOPATHIC OSCILLOCOCCINUM® FOR PREVENTING AND TREATING INFLUENZA AND INFLUENZA-LIKE ILLNESS

Journal reference: Cochrane Database of Systematic Reviews, Volume 1, Issue 1, 2015, Pages CD001957. [Updated in].

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Authors: Robert T. Mathie, Joyce Frye, Peter Fisher.

Summary: Review was conducted to determine whether homeopathic *Oscillococcinum*[®] is more effective than placebo in the prevention and/or treatment of influenza and influenza-like illness in adults or children. Total six studies, which comprised of two prevention trials (a total of 327 young to middle-aged adults in Russia) and four treatment trials (a total of 1196 teenagers and adults in France and Germany) were included in the review. There was no statistically significant difference between the effects of *Oscillococcinum*[®] and placebo in the prevention of influenza-like illness: Risk ratio 0.48, 95% confidence interval 0.17–1.34, $P = 0.16$. There was insufficient good evidence to enable robust conclusions to be made about *Oscillococcinum*[®] in the prevention or treatment of influenza and influenza-like illness. These findings do not rule out the possibility that *Oscillococcinum*[®] could have a clinically useful treatment effect but, given the low quality of the eligible studies, the evidence is not compelling. There was no evidence of clinically important harms due to *Oscillococcinum*[®].

Source: <http://www.ncbi.nlm.nih.gov/pubmed/23235586>

INFLUENCE OF ADJUNCTIVE CLASSICAL HOMEOPATHY ON GLOBAL HEALTH STATUS AND SUBJECTIVE WELL - BEING IN CANCER PATIENTS – A PRAGMATIC RANDOMIZED CONTROLLED TRIAL

Journal reference: Complementary Therapies in Medicine, 2015.

Authors: Michael Frass *et al.*, Helmut Friehs, Christiane Thallinger, Narinderjit Kaur Sohal, Christine Marosi, Ilse Muchitsch, Katharina Gaertner, Andreas Gleiss, Ernst Schuster, Menachem Oberbaum.

Summary: In this pragmatic randomized controlled trial, 410 patients, who were treated by standard anti-neoplastic therapy, were randomized to receive or not receive classical Homeopathic adjunctive therapy in addition to standard therapy. The main outcome measures were global health status and subjective well-being as assessed by the patients. At each of three visits (one baseline, two follow-up visits), patients filled in two different questionnaires. 373 patients yielded at least one of three measurements. The improvement of global health status between visits 1 and 3 was significantly stronger in the Homeopathy group by

7.7 (95% confidence interval [CI] 2.3–13.0, $P = 0.005$) when compared with the control group. A significant group difference was also observed with respect to subjective well-being by 14.7 (95% CI 8.5–21.0, $P < 0.001$) in favor of the homeopathic as compared with the control group. Results suggest that the global health status and subjective well-being of cancer patients improve significantly when adjunct classical Homeopathic treatment is administered in addition to conventional therapy.

Source: <http://www.complementarytherapiesinmedicine.com/article/S0965-2299%2815%2900037-0/abstract>

NUX VOMICA, THE ARNICA OF RECOVERY FROM ADDICTION: AN EXPLORATORY STUDY OF THE USE OF HOMEOPATHY IN THE REDUCTION OF POSTACUTE WITHDRAWAL SYNDROME IN ADDICTION TREATMENT

Journal reference: Homoeopathic Links, Volume 28, Issue 1, 2015, Pages 054-056.

Authors: Loretta Butehorn, Peris Gumz, Leah Randolph.

Summary: This article details a protocol of using *Nux vomica* in three American treatment settings, with data indicating a positive impact on both immediate symptoms and long-term stabilization. Consistently in all three groups, those who chose to use Homoeopathy completed substance abuse treatment programs at a higher rate than those who did not. The authors conclude that the role of Homoeopathy for recovery from addiction merits further investigation.

Source: <https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0035-1544202>

EFFECTS OF HOMEOPATHIC MOTHER TINCTURES ON BREATH ALCOHOL TESTING

Journal reference: Journal of Forensic Sciences, Volume 60, Issue 1, 2015, Pages S231-S233.

Authors: Boatto G, Trignano C, Burrari L, Spanu A, Nieddu M.

Summary: This article emphasizes on the relation of alcohol use during preparation of homeopathic Mother Tinctures (MTs) and its effect on breath testing. Recently, some defendants charged with driving under the influence of alcohol have claimed that positive breath alcohol test results were due to the ingestion of homeopathic MTs. A series of tests

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were conducted to evaluate the alcoholic content of three homeopathic MTs and their ability to produce inaccurate breath alcohol results. 9 of 30 subjects gave positive results (0.11–0.82 g/L) when tests were taken within 1-min after drinking MT. All tests taken at least 15 min after the MT consumption resulted in alcohol-free readings. An observation period of 15–20 min prior to breath alcohol testing eliminates the possibility of false-positive results.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25387897>

A DOUBLE-BLIND RANDOMIZED PLACEBO-CONTROLLED FEASIBILITY STUDY EVALUATING INDIVIDUALIZED HOMEOPATHY IN MANAGING PAIN OF KNEE OSTEOARTHRITIS

Journal reference: Journal of Evidence Based Complementary and Alternative Medicine, 2015.

Authors: Koley M, Saha S, Ghosh S.

Summary: A prospective, parallel-arm, double-blind, randomized, placebo-controlled pilot feasibility study was conducted to evaluate the efficacy of individualized Homeopathy in osteoarthritis involving 60 patients (Homeopathy, $n = 30$; placebo, $n = 30$) who were suffering from acute painful episodes of knee osteoarthritis and visiting the outpatient clinic of Mahesh Bhattacharyya Homeopathic Medical College and Hospital, Howrah, West Bengal, India. Statistically significant reduction was achieved in three Visual Analog Scales (measuring pain, stiffness, and loss of function) and Osteoarthritis Research Society International scores in both groups over 2 weeks ($P < 0.05$); however, group differences were not significant ($P > 0.05$). It was concluded that Homeopathy did not appear to be superior to placebo; still, further rigorous evaluation in this design involving a larger sample size seems feasible in future.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25636410>

DOCUMENTATION OF PRESCRIPTIONS AND CLINICAL OUTCOMES IN A HOMEOPATHIC HOSPITAL SETTING IN WEST BENGAL, INDIA

Journal reference: Journal of Evidence Based Complementary and Alternative Medicine, Volume 20, Issue 3, 2015, Pages 180-185.

Authors: Saha S, Koley M, Ghosh S, Giri M, Das A, Goenka R.

Summary: Documentation of prescriptions and clinical outcomes in routine homeopathic practice

is a prerequisite for conducting targeted research in Homeopathy. Six Homeopathic physicians participated in methodical data collection over a 3-month period in 6 outpatient departments of Mahesh Bhattacharyya Homeopathic Medical College and Hospital, Howrah, West Bengal, India. A total of 1972 patients' follow-up generated data of 2905 appointments, of which 2272 (78.2%) were positive, 183 (6.3%) negative, and 450 (15.5%) showed no change. Strongly positive outcomes (scores of + 2/+3) were recorded in osteoarthritis, piles, cough, dysfunctional uterine bleeding, chronic suppurative otitis media, and conjunctivitis. This systematic recording shortlisted promising areas of future homeopathic research.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25613329>

MODEL VALIDITY OF RANDOMISED PLACEBO-CONTROLLED TRIALS OF INDIVIDUALISED HOMEOPATHIC TREATMENT

Journal reference: Homeopathy, 2015, Pages 1-6.

Authors: Robert T Mathie, Michel Van Wassenhoven, Jennifer Jacobs, Menachem Oberbaum, Helmut Roniger, Joyce Frye *et al.*

Summary: The objective of this review paper was to assess Model Validity of Homeopathic Trial (MVHT) of eligible Randomized Controlled Trials (RCTs) of individualized homeopathic treatment. 31 papers (reporting a total of 32 RCTs) were eligible for systematic review and were thus the subject of the study. Nineteen trials were judged overall as “acceptable” MVHT, nine as “uncertain” MVHT, and four as “inadequate” MVHT. Review concludes that new RCTs of individualized Homeopathy must aim to maximize MVHT and to enable its assessment through clear reporting.

Source: [http://www.homeopathyjournal.net/article/S1475-4916\(15\)00007-7/abstract](http://www.homeopathyjournal.net/article/S1475-4916(15)00007-7/abstract)

SURVEY STUDIES

AWARENESS AND PRACTICE CONCERNING ORAL CANCER AMONG AYURVEDA AND HOMEOPATHY PRACTITIONERS IN DAVANGERE DISTRICT: A SPECIALITY-WISE ANALYSIS

Journal reference: Journal of Natural Science Biology and Medicine, Volume 6, Issue 1, 2015, Pages 116-119.

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Authors: Kulkarni RS, Arun PD, Rai R, Kanth VS, Sargaiyan V, Kandasamy S.

Summary: This survey was undertaken to evaluate the knowledge, awareness, and practice concerning oral cancer. Questionnaire comprising 15 questions was distributed to 42 Ayurveda and 38 Homeopathy doctors in Davangere District, Karnataka, India, assessing their oral examination habits, knowledge on the risk factors, patient education, clinical signs of the disease and its treatment. Lesser number of the practitioners routinely examined oral mucosa (16.7% and 5.3%, respectively). Fewer advised their patients about the risk factors (2.4% and 2.6%). Less positive response was obtained for the correct method for confirmation of diagnosis (28.6% and 15.8%). Many doctors agreed that they had not undergone training in cancer institute ($P = 0.29$). Twenty-three (54.8%) Ayurveda and 28 (73.7%) Homoeopathic doctors opined that they did not have sufficient knowledge regarding early detection and prevention of oral cancer and many were desirous of receiving further information (97.6% and 84.2%, respectively). This study attempts to highlight the need for improving the oral cancer knowledge and awareness among practicing Ayurveda and Homoeopathic doctors.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4367020/>

USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE IN PERSONS WITH SPINAL CORD INJURY IN SWITZERLAND: A SURVEY STUDY

Journal reference: Spinal Cord, 2015. [Epub ahead of print]

Authors: Pannek J, Pannek-Rademacher S, Wöllner J.

Summary: Questionnaire-based survey was conducted to evaluate the use of and the satisfaction with complementary and alternative medicine (CAM) techniques in patients with spinal cord injury (SCI). Of the 103 participants (66 men and 37 women), 73.8% stated that they have used some form of CAM since SCI, with acupuncture and Homoeopathy being the two techniques that were used most frequently (31% each). The most common indications for CAM use were pain and Urinary Tract Infections (UTIs). CAM was used supplementarily rather than exclusively. Overall satisfaction (85.1%) as well as satisfaction rates for the different indications (pain: 85%; UTI: 90.5%) and for the most frequently used forms of

CAM (Homoeopathy: 90.6%; Acupuncture: 78.1%) were high. Conclusion: According to our data, there is a demand for adjunctive CAM procedures for the treatment of medical complications by persons with SCI. CAM led to high satisfaction levels.

Source: <http://www.nature.com/sc/journal/vaop/ncurrent/full/sc201521a.html>

PATIENTS' PREFERENCE FOR INTEGRATING HOMEOPATHY (PPIH) WITHIN THE STANDARD THERAPY SETTINGS IN WEST BENGAL, INDIA: THE PART 1 (PPIH-1) STUDY

Journal reference: Journal of Traditional and Complementary Medicine, Volume 5, 2015, Pages 116-118.

Authors: Munmun Koley, Subhranil Saha, Jogendra Singh Arya, Gurudev Choubey, Alope Ghosh, Kaushik Deb Das *et al.*

Summary: The objectives of this study were to examine the knowledge, attitudes, and practice of Homoeopathy among Indian patients already availing Homoeopathy treatment and its integration into mainstream healthcare. A cross-sectional survey was conducted among adult patients attending the out-patients of the four Government Homoeopathic hospitals in West Bengal, India. A self-administered 24-item questionnaire in local vernacular Bengali language was developed and administered to the patients. A total of 1352 patients' responses were included in the current analysis. 40% patients thought that homoeopathic medicines can be used along with standard therapy. 32.5% thought that homoeopathic medicines might cause side effects while only 13.3% believed that those might interact with other medications. Patients' knowledge ranged between 25.1% and 76.5% regarding regulations of practicing and safety of homoeopathic medicine in India and abroad; while positive attitude toward the same ranged between 25.4% and 88.5%. 88.6% of the patients had favorable attitude toward integrated services. A favorable attitude toward integrating Homoeopathy into conventional healthcare settings was obtained among the patients attending the homoeopathic hospitals in West Bengal, India.

Sources: <http://www.sciencedirect.com/science/article/pii/S2225411015000383>

FUNDAMENTAL RESEARCH

TRYPANOSOMA CRUZI: BIOTHERAPY MADE FROM TRYPOMASTIGOTE MODULATES THE INFLAMMATORY RESPONSE

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 48-56.

Authors: Sandri P, Aleixo DL, Sanchez Falkowski GJ, Nascimento Júnior AD, Gomes ML, Hernandez L, Machado de Oliveira Dalalio M, Moreira NM, Toledo MJ, Gabriel M, de Araújo SM.

Summary: This study evaluates the effect of *Trypanosoma cruzi* biotherapy 17dH (BIOT) on mice of different ages, infected with the protozoa concerned. Performing a blind, controlled, randomized by drawing experiment, 110 animals 4- or 8-week-old, Swiss, male mice were divided into infected control treated hydro-alcoholic 7% (confidence interval [CI]-4 = 34 or CI-8 = 21 animals) and infected control treated with biotherapy 17dH-0.2 ml/animal/20 consecutive days/oral regimen (BIOT-4 = 33 or BIOT-8 = 21 animals). To both groups of 4 and 8 weeks of age, treated or untreated, survival of mice was higher in the treated group than in the control, although it was not statistically significant ($P = 0.32, 0.55$, respectively). 8-week-old animals treated with biotherapy showed higher parasitemia and lower tissue parasitism. Opposite pattern was observed in 4-week-old animals. There is a difference of high diluted medication effect in 4- and 5-week-old mice. Hence, treatment with the medicine produced from *T. cruzi* modulates the inflammatory response with increased apoptosis and decreased serum levels of transforming growth factor- β .

Source: <http://www.sciencedirect.com/science/article/pii/S1475491614000745>

DNA FRAGMENTATION AND CELL CYCLE ARREST: A HALLMARK OF APOPTOSIS INDUCED BY RUTA GRAVEOLENS IN HUMAN COLON CANCER CELLS

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 36-47.

Authors: Arora S, Tandon S.

Summary: The present study investigated the anti-cancer effect of various potencies of *Ruta graveolens* (*Ruta.*) on COLO-205 cell line, as

evidenced by cytotoxicity, migration, clonogenicity, morphological and biochemical changes, and modification in the levels of genes associated with apoptosis and cell cycle. On treatment of COLO-205 cells maximal effects were seen with mother tincture and 30C potencies, wherein decrease in cell viability along with reduced clonogenicity and migration capabilities were noted. In addition, morphological and biochemical alterations such as nuclear changes (fragmented nuclei with condensed chromatin) and DNA ladder-like pattern (increased amount of fragmented DNA) in COLO-205 cells indicating apoptotic related cell death were seen. The expression of apoptosis and cell-cycle related regulatory genes assessed by reverse transcriptase-polymerase chain reaction revealed an up-regulation of caspase 9, caspase-3, Bax, p21 and p27 expression and down-regulation of Bcl-2 expression in treated cells. The mode of cell death was suggestive of intrinsic apoptotic pathway along with cell cycle arrest at the G2/M of the cell cycle. These findings indicate that phytochemicals present in *Ruta* showed potential for natural therapeutic product development for colon carcinoma.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25576270>

HEPATOPROTECTIVE EFFECT OF LYCOPodium CLAVATUM 30CH ON EXPERIMENTAL MODEL OF PARACETAMOL-INDUCED LIVER DAMAGE IN RATS

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 29-35.

Authors: Henrique da Silva G, Barros PP, Silva Gonçalves GM, Landi MA.

Summary: Study on Wistar rats was conducted to evaluate the effectiveness of *Lycopodium clavatum* 30C (*Lyc*) as a hepatoprotector against liver damage experimentally induced by paracetamol (Pct). Thirty animals subdivided into 6 groups were used. Animals from the treated groups were pretreated for 8 days with *Lyc* 30C (0.25 ml/day), receiving a dose of 3 g/kg of Pct on the 8th day. A positive control group received similar treatment, replacing *Lyc* 30C with 30% ethanol and a negative control received only 30% ethanol. After 24 and 72 h, the animals were sacrificed for tissue and blood sample collection. Pretreatment with *Lyc* 30C reduced hepatic lesions produced by Pct overdose as evidenced by a significant reduction ($P < 0.05$)

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in Alanine Transaminase levels (ALT) in the Lyc 24 h-group (901.04 ± 92.05 U/L) compared to the respective control group (1866.28 ± 585.44 U/L). It was concluded that *Lyc* 30C exerted a moderate hepatoprotective effect on acute Pct-induced hepatitis, mainly shown by a histological decrease in necrosis and inflammatory foci, preserved glycogen and other 1,2-glycols in zone 3 and reduced serum levels of ALT and aspartate aminotransferase.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25576269>

EFFECT OF HOMEOPATHIC *LYCOPODIUM CLAVATUM* ON MEMORY FUNCTIONS AND CEREBRAL BLOOD FLOW IN MEMORY-IMPAIRED RATS

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 24-28.

Authors: Hanif K, Kumar M, Singh N, Shukla R.

Summary: The present study was planned to explore the effect of *Lyc* on learning and memory function and Cerebral Blood Flow (CBF) in Intra Cerebroventricularly (ICV) administered streptozotocin (STZ) induced memory impairment in rats. STZ (ICV) treated rats showed impairment in learning and memory along with reduced CBF. *Lyc* MT and 200 showed improvement in learning and memory. There was increased CBF in STZ (ICV) treated rats at all the potencies of *Lyc* studied. The above study suggests that *Lyc* may be used as a drug of choice in the condition of memory impairment due to its beneficial effect on CBF.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25576268>

RECONSTITUTED MOTHER TINCTURES OF *GELSEMIUM SEMPERVIRENS* L. IMPROVE MEMORY AND COGNITIVE IMPAIRMENT IN MICE OPOLAMINE-INDUCED DEMENTIA MODEL

Journal reference: Journal of Ethnopharmacology, Volume 159, 2015 Jan 15, Pages 274-284.

Authors: Palit P, Mukherjee D, Mandal SC.

Summary: The present study examines whether *Gelsemium* reconstituted tincture can protect against scopolamine-induced cognitive discrepancies in amnesic mouse model. In order to investigate the protective mechanism of *Gelsemium* against dementia, *in vitro* acetylcholinesterase and β -secretase enzyme inhibition and estimation of glutathione level in

mouse brain were carried out. Significant inhibition was found with *Gelsemium* on AChE and β -secretase enzyme with an IC50 of 9.25 and 16.25 μ g/ml, respectively, followed by increasing glutathione levels in comparison to the untreated dementia group. *Gelsemium* significantly demonstrated *in vivo* anti-dementia activity (60% protection) and increased exploratory behavior. Hence, *Gelsemium* can be a promising anti-dementia agent, mediating the protection against amnesia, attention disorders, and learning dysfunctions through dual inhibition of both acetylcholinesterases (no false positive effect was shown), β -secretase and antioxidant activity.

Source: www.ncbi.nlm.nih.gov/pubmed/25459447

EVALUATION OF CHEMOPREVENTIVE POTENTIALS OF ETHANOLIC EXTRACT OF *RUTA GRAVEOLENS* AGAINST A375 SKIN MELANOMA CELLS *IN VITRO* AND INDUCED SKIN CANCER IN MICE *IN VIVO*

Journal reference: Journal of Integrative Medicine, Volume 13, Issue 1, 2015, Pages 34-44.

Authors: Samrat Ghosh, Sourav Sikdar, Avinaba Mukherjee, Anisur Rahman Khuda-Bukhsh.

Summary: In this study, efficacy of ethanolic extract of *Ruta graveolens* (RG) on skin melanoma cells (A375) *in vitro* and on 7,12-dimethylbenz (a) anthracene (DMBA)-induced skin cancer *in vivo* has been tested in Swiss albino mice. The effects of RG were determined by evaluating body weight, tumor incidence, tumor volume, and tumor burden in mice. Enzymatic and nonenzymatic antioxidant status was assessed. The role of some relevant signaling proteins was also analyzed. RG caused death of A375 cells through induction of caspase 3-mediated apoptosis and Beclin-1-associated autophagy. Moreover, RG administration (75 mg/kg body weight) which showed no acute or chronic toxicity, showed a significant reduction in the skin tumor burden of DMBA-painted mice. RG also demonstrated potent anti-lipid peroxidative and antioxidant functions during the course of skin cancer induction by DMBA. Chemopreventive potential of RG was demonstrated from overall results of this study, indicating its possible use in the therapeutic formulation of an effective drug to treat skin cancer.

Source: www.ncbi.nlm.nih.gov/pubmed/25609370

EVALUATION OF NEURO-PHARMACOLOGICAL ACTIVITIES IN SIX HOMEOPATHIC DRUGS

Journal reference: African Journal of Pharmacy and Pharmacology, Volume 9, Issue 11, 2015, Pages 367-374.

Authors: Farah-Saeed, Noor-Jahan, Mehjabeen Mansoor Ahmad.

Summary: The effects of extracts of *Digitalis purpurea* L., *Sambucus nigra* L., *Thuja occidentalis* L., *Urtica urens* L., *Arctostaphylos*, *Uva-ursi* L. and *Apis mellifica* L. were analyzed *in vivo* in mice. The analysis of neuropharmacological activity was recorded at different doses such as 100, 300, and 500 mg/kg and compared with control and standard drug, diazepam. The tested extracts exhibited significant neuropharmacological activities in open field, dip cage, light and dark, cage cross, and forced swimming activities. Our research supports the safe and effective use of the extracts in low doses.

Source: <http://www.academicjournals.org/journal/AJPP/article-abstract/E81BCE951951>

EVALUATION OF ANTI INFLAMMATORY ACTIVITY OF ARGENTUM NITRICUM, STAPHYSAGRIA AND IGNATIA AMARA IN EXPERIMENTAL ANIMAL MODEL

Journal reference: International Journal of Advances in Pharmacy Biology and Chemistry, Volume 4, Issue 1, 2015, Pages 76-83.

Authors: Humera Anser, Rahila Najam.

Summary: Various homeopathic remedies are used to relief inflammation; in this study, three homeopathic medicines remedies *Argentum nitricum*, *Ignatia Amara*, and *Staphysagria* were tested for anti-inflammatory effects on rat. 1% w/v acetic acid solution was injected intradermally into the plantar side of the right hind paw of rat. Rats were divided into five groups, each consisting of 10 animals. Group 1 served as control, Group 2 served as standard reference, Group 3 received *Argentum nitricum*, Group 4 received *Staphysagria*, Group 5 received *Ignatia amara*. The effect of *Staphysagria* > *Ignatia amara* > *Argentum nitricum* as anti-inflammatory agent is significant in the written order when compared with the reference drug that is, ibuprofen at 2 h, that is, the % inhibitions were 28.83%, 23.76%, 20.42%, respectively.

All these remedies are promising agents with anti-inflammatory activity in the animal model, used in this study.

Source: <http://www.ijapbc.com/files/10-34174.pdf>

ENHANCEMENT OF ADAPTIVE BIOLOGICAL EFFECTS BY NANOTECHNOLOGY PREPARATION METHODS IN HOMEOPATHIC MEDICINES

Journal reference: Homeopathy, Volume 104, Issue 2, 2015, Pages 123-138.

Authors: Iris R. Bell, Gary E. Schwartz.

Summary: The purpose of this paper was to discuss how traditional homeopathic manufacturing reagents and processes could generate the ability of a given potency to initiate nonlinear adaptive changes in an organism as a complex adaptive system or network. Remedies would act as enhanced micro- and nano-scale forms of their source material via direct local ligand-receptor interactions at very low potencies and/or by triggering systemic adaptive network dynamical effects via their NP based electromagnetic, optical, and quantum mechanical properties at higher potencies. Based on surface area, size, shape, and charge, nanoparticles adsorb a complex pattern of serum proteins, forming a protein corona on contact that constitutes a unique biological identity. When the system reaches its physiological limits during a Homeopathic aggravation or the natural disease state, the amplified remedy signal triggers a nonlinear reversal in dynamical direction back toward health.

Source: [http://www.homeopathyjournal.net/issue/S1475-4916\(15\)X0002-6](http://www.homeopathyjournal.net/issue/S1475-4916(15)X0002-6)

HISTORICAL FOUNDATIONS OF HORMESIS

Journal reference: Homeopathy, Volume 104, Issue 2, 2015, Pages 83-89.

Authors: Edward J. Calabrese.

Summary: The present paper provides a historical assessment of the concept of hormesis and its relationship to Homeopathy and modern medicine. It is argued that the dose-response concept was profoundly influenced by the conflict between Homeopathy and traditional medicine and that decisions on which dose-response model to adopt were not based on "science" but rather on historical

antipathies. While the historical dispute between Homoeopathy and traditional medicine has long since subsided, their impact on the field has been enduring and generally unappreciated, profoundly adversely affecting current drug development, therapeutic strategies and environmental risk assessment strategies and policies.

Source: [http://www.homeopathyjournal.net/article/S1475-4916\(15\)00002-8/abstract](http://www.homeopathyjournal.net/article/S1475-4916(15)00002-8/abstract)

GAS NANOBUBBLES AND AQUEOUS NANOSTRUCTURES: THE CRUCIAL ROLE OF DYNAMIZATION

Journal reference: Homeopathy, Volume 104, Issue 2, 2015, Pages 101-115.

Authors: Jean-Louis Demangeat

Summary: Nanobubbles (NBs) have been a subject of intensive research over the past decade. Their peculiar characteristics, including extremely low buoyancy, longevity, enhanced solubility of oxygen in water, zeta potentials, and burst during collapse, have led to many applications in the industrial, biological, and medical fields. Therefore, the formation of NBs during the preparation of Homoeopathic dilutions under atmospheric pressure cannot be ignored. This paper reports new experiments that confirm the involvement of NBs and prove the crucial role of dynamization to create superstructures specific to the solute. The second dynamization was shown to enhance or regenerate these superstructures. I postulate that superstructures result from a nucleation process of NBs around the solute, with shells of highly organized water (with ions and silicates if any) which protect the solute against out-diffusion and behave as nucleation centers for further dilution steps.

Source: [http://www.homeopathyjournal.net/article/S1475-4916\(15\)00004-1/abstract](http://www.homeopathyjournal.net/article/S1475-4916(15)00004-1/abstract)

CELL SENSITIVITY, NONLINEARITY AND INVERSE EFFECTS

Journal reference: Homeopathy, Volume 104, Issue 2, 2015, Pages 139-160.

Authors: Jean-Louis Demangeat.

Summary: It has been claimed that the homoeopathic principle of “similarity” (or “similia”) and the use of individualized remedies in extremely low doses conflicts with scientific laws, but this opinion can be

disputed on the basis of recent scientific advances. Several mechanisms to explain the responsiveness of cells to ultra-low doses and the similarity as inversion of drug effects have again been suggested in the framework of hormesis and modern paradoxical pharmacology. Low doses or high dilutions of a drug interact only with the enhanced sensitivities of regulatory systems, functioning as minute harmful stimuli to trigger specific compensatory healing reactions. In this paper hypotheses about homeopathic drug action at cellular and molecular levels is reviewed and is presented a new conceptual model of the principle of similarity based on allosteric drug action. While many common drugs act through orthostatic chemical interactions aimed at blocking undesired activities of enzymes or receptors, allosteric interactions are associated with dynamic conformational changes and functional transitions in target proteins, which enhance or inhibit specific cellular actions in normal or disease states. The concept of allostery and the way it controls physiological activities can be broadened to include diluted/dynamized compounds, and may constitute a working hypothesis for the study of molecular mechanisms underlying the inversion of drug effects.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000053>

UNEQUAL BROTHERS: ARE HOMEOPATHY AND HORMESIS LINKED?

Journal reference: Homeopathy, Volume 104, Issue 2, 2015, Pages 97-100.

Authors: Menachem Oberbaum, Michael Frass, Cornelius Gropp.

Summary: There is ongoing tension between hormesis and Homoeopathy. Some homoeopaths insist on a common root with hormesis, which hormesis researchers reject. There are more differences between these two paradigms than commonalities. Currently, there is no clear evidence of a common root between the two paradigms. It is time for thorough and serious research to lay this question to rest. One possible approach is to compare the activity of a hormetic agent, prepared in the usual way, with that of the same agent in the same concentration prepared homoeopathically by serial dilution and succussion.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000065>

EFFECTS OF GINKGO BILOBA EXTRACT ON CEREBRAL OXYGEN AND GLUCOSE METABOLISM IN ELDERLY PATIENTS WITH PREEXISTING CEREBRAL ISCHEMIA

Journal reference: Complementary Therapies in Medicine, Volume 23, Issue 2, 2015, Pages 220-225.

Authors: Xu L, Hu Z, Shen J, McQuillan PM.

Summary: Cerebral injury caused by hypoperfusion during the perioperative period is one of the main causes of disability and death in patients after major surgery. No effective protective or preventive strategies have been identified. This study was designed to evaluate the effects of *Ginkgo biloba* extract on cerebral oxygen and glucose metabolism in elderly patients with known, pre-existing cerebral ischemia. Sixty American Society of Anesthesiologists II–III patients, diagnosed with vertebral artery ischemia by transcranial Doppler ultrasonography, and scheduled for elective total hip replacement surgery, were enrolled in the study. They were randomly allocated to receive either 1 mg/kg *Ginkgo biloba* extract (G group $n = 30$) or normal saline (D group $n = 30$) after induction of anesthesia. Blood samples were collected from radial artery and jugular venous bulb catheters for blood gas analysis and determination of glucose and lactate concentrations preoperatively, before surgical incision, at the end of surgery, and on postoperative day 1. Arterial O_2 content (CaO_2), jugular venous O_2 content ($CjvO_2$), arteriovenous O_2 content difference ($Da-jvO_2$), cerebral oxygen extraction rate (CEO_2), and arteriovenous glucose and lactate content differences ($Da-jvGlu$ and $Da-jvLac$) were calculated. There were no significant differences in CaO_2 or $Da-jvGlu$ during surgery between groups ($P > 0.05$). However, the Ginkgo group had higher $CjvO_2$, internal jugular venous oxygen saturation ($SjvO_2$) and lower CEO_2 , $Da-jvO_2$ and $Da-jvLac$ at the end of surgery (T2) and on postoperative day 1 (T3) than those in the control group ($P < 0.05$).

Source: <http://www.ncbi.nlm.nih.gov/pubmed/25847559>

VETERINARY RESEARCH

VETERINARY HOMEOPATHY: META-ANALYSIS OF RANDOMISED PLACEBO-CONTROLLED TRIALS

Journal reference: Homeopathy, Volume 104, Issue 1, 2015, Pages 3-8.

Authors: Mathie RT, Clausen J.

Summary: This meta-analysis tested the hypothesis that the outcome of homeopathic intervention (treatment and/or prophylaxis, individualized and/or nonindividualized) is distinguishable from corresponding intervention using placebos. Nine of 15 trials with extractable data displayed high risk of bias; low or unclear risk of bias was attributed to each of the remaining six trials, only two of which comprised reliable evidence without overt vested interest. For all $n = 15$ trials, pooled Odds Ratio (OR) = 1.69 (95% Confidence Interval [CI], 1.12–2.56); $P = 0.01$. For the $n = 2$ trials with suitably reliable evidence, pooled OR = 2.62 (95% CI, 1.13–6.05); $P = 0.02$. Meta-analysis provides some very limited evidence that clinical intervention in animals using homeopathic medicines is distinguishable from corresponding intervention using placebos. The low number and quality of the trials hinders a more decisive conclusion.

Source: www.ncbi.nlm.nih.gov/pubmed/25576265

APPLICATION OF CERTAIN HOMOEOPATHIC MEDICINES USED AGAINST FRUIT ROT OF APPLE CAUSED BY *PENICILLIUM EXPANSUM* LINK

Journal reference: International Journal of Life Sciences, Volume 3, Issue 1, 2015, Pages 96-98.

Authors: Baviskar RN, Suryawanshi NS.

Summary: Blue mold of apple caused by *Penicillium expansum* is one of the most important serious destructive postharvest diseases in India. Twenty-three isolates of *P. expansum* were isolated from rotted fruits of apple collected from APMC fruit market of Vashi, Navi Mumbai. Their sensitivity was tested against carbendazim. Of 13 homeopathic medicines were used for the management of carbendazim resistant mutant of *P. expansum* (EMS-Pe-10). *Sepia officinale* was more effective PCE value (40.42) when used individually and in mixture with carbendazim PCE value was increased as compared to individual (53.25) and followed by *Arsenicum album*, *Tabacum*, *Cynopodium*, *Baptisia tinctoria*, *Ustilago maydis*, *Iris versicolor*, *Zincum metallicum*, and *Argentum metallicum*.

Source: <http://www.ijlsci.in/abstract3-1-17>

KNOWLEDGE AND EDUCATION

HOW TO HANDLE WORSENING OF CONDITION DURING TREATMENT-RISK ASSESSMENT IN HOMEOPATHIC PRACTICE

Journal reference: Forsch Komplementmed, Volume 22, Issue 1, 2015, Pages 30-35.

Authors: Stub T, Salamonsen A, Kristoffersen A, Musial F.

Summary: This article gives emphasis to patient's safety during practice of Homoeopathy. It is suggested to train students to identify about the red flags of disease condition and serious adverse events during their education in medical colleges. Available data suggest that the risk profile of Homoeopathic remedies in ultramolecular potencies is minor, but there is a potential for indirect risk related to homoeopathic practice. The concept of "homoeopathic aggravation" which is unique for Homeopathy may impose a particular risk as it allows the health status of the patients to deteriorate before there is a possible improvement. In that respect, it is imperative to distinguish Homoeopathic aggravations from adverse effects.

Source: www.karger.com/Article/FullText/377644

HOMEOPATHY AND INTEGRATIVE MEDICINE: KEEPING AN OPEN MIND

Journal reference: Journal of Medicine and the Person, Volume 13, Issue 1, 2015, Pages 1-6.

Authors: Bellavite P.

Summary: Among the various complementary and alternative medicines, Homeopathy enjoys growing popularity with the lay population, but it is not acknowledged by academia or included in medical guidelines. The major problem is to establish the effectiveness of this clinical approach using the strict criteria of evidence-based medicine. This issue of the Journal of Medicine and the Person collects contributions from some of the most prestigious centers and research groups working in the field of Homoeopathy and integrative medicine. These contributions are not specialized information but

are of general interest, focusing on this discipline as one of the emerging fields of personalized medical treatment.

Source: link.springer.com/article/10.1007%2Fs12682-014-0198-x

HEALTH EDUCATION OR A SHARED THERAPEUTIC PROJECT? HEALTH CARE GOES BEYOND THE PEDAGOGICAL DIMENSION

Journal reference: Cien Saude Colet, Volume 20, Issue 2, 2015, Pages 537-546.

Authors: Slomp Junior H, Feuerwerker LC, Land MG.

Summary: The general objective of this research was to assess the possible contribution of Homoeopathy to the development of caregiving therapeutic projects in multidisciplinary workshops of permanent education in health, in the context of primary health care. The chosen points of analysis were the series of inconveniences expressed by health workers with respect to their work processes and it was the emergence of the theme of health education in the first meetings with the teams that led to the production of this article. This study discusses the existential territory of "being a health professional" as understood from a concept of education as a significant benchmark and of a certain interventionist mission as a transcendent value. A progressive waning of the importance of health education was observed during the workshops, sometimes even disappearing from the discussions, as the caregiving therapeutic projects took shape. The conclusion reached is that this waning involved a process of moving toward a pact with the health system user, eventually considered to be a valid interlocutor; and that health care transcends any strictly pedagogical dimension.

Source: www.ncbi.nlm.nih.gov/pubmed/25715147

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