

RESEARCH HIGHLIGHTS

Research Highlights: (July – September 2015)

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FEASIBILITY OF USING PARTOGRAPH BY PRACTITIONERS OF INDIAN SYSTEM OF MEDICINE (AYUSH): AN EXPLORATORY OBSERVATION

Journal reference: Midwifery, Volume 31, Issue 7, 2015, Pages 702-707.

Authors: Nomita Chandhiok, Aparna Shrotri, Neelam Sanjay Joglekar, Nayanjeet Chaudhury, Panna Choudhury, Shalini Singh.

Summary: To understand the use of the partograph by Skilled Birth Attendance/Basic Emergency Obstetric Care (SBA/BEmOC) trained practitioners from Indian systems of medicine called AYUSH practitioners (APs). Mixed method observational study, including an exploration of the views of APs, program managers and SBA trainers on the necessity, feasibility, and barriers to the use of partograph. Primary and community health centers in two purposively selected districts in each of the three states (Rajasthan, Maharashtra, and Odisha) in India where SBA/BEmOC trained APs are deployed to provide SBA services. In-depth interviews with state, district, and block level program managers were held at their respective headquarters. Eighty-three APs plotted the simplified partograph based on a given labor case scenario. In-depth interviews were conducted with 36 program managers and 37 APs (24 Ayurvedic and 13 Homoeopathic). The complete simplified partograph was analyzed according to a previously devised scoring system with a score of 70% or more indicating competency. APs in Rajasthan and Maharashtra demonstrated good partograph, plotting skills (72.1% and 82% respectively) obtaining competency score of more than 70%. However, the overall performance of APs in Odisha was poor (11.1%) and except correct recording of the fetal condition, the APs did not

score well in the plotting of the other partograph components. Errors occurred mainly in the recording of cervical dilatation and uterine contractions. The in-depth interviews revealed that most APs demonstrated a good understanding of the tool in the context of decision-making regarding timely referral in case of prolonged labor or fetal distress. There was a high perception of the need for more hands-on training in the SBA training curriculum. The program managers also expressed the need for appropriate training and supervision to ensure good plotting of partograph. The barriers for partograph use included increased workload, insufficient training, unavailability of partograph forms, and its nonutility for women coming late in labor. Identified barriers could be addressed with further training and local managerial support. An analysis of the causes for the poor performance of APs in Odisha should be carried out. Preservice and periodic in-service training of APs on the completion of the partograph, regular supportive supervision, implementation of program guidelines on mandatory completion of partograph, and an environment that supports its correct and consistent use are recommended. With appropriate training, it is feasible for APs to use partograph for monitoring the progress of labor.

Source: <http://www.sciencedirect.com/science/article/pii/S0266613815000716>

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HOMEOPATHIC REMEDIES WITH ANTINEOPLASTIC PROPERTIES HAVE IMMUNOMODULATORY EFFECTS IN EXPERIMENTAL ANIMALS

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 211-219.

Authors: Valsalakumari Remya, Girija Kuttan.

Summary: Our previous work suggests that *Thuja occidentalis*, *Carcinosinum*, and *Ruta graveolens* have antineoplastic properties. The mechanism of this action has not previously been studied. We studied the hypothesis that the mechanism of action was through the immune modulation. We evaluated the effects of *T. occidentalis*, *Carcinosinum*, and *R. graveolens* at 1M, 200c, and 30c on the immune system of Balb/mice, respectively. The homeopathic preparations were administered orally for 10 consecutive days. Hematological parameters (total white blood cell [WBC] count, differential count, and hemoglobin content), hematopoietic parameters (bone marrow cellularity and α -esterase positive cells), and immune parameters for antibody response and lymphoid cell proliferation were assessed using standard methods. Results were analyzed by statistical comparison with the control. We observed significant enhancement of hematological parameters including total WBC count, hematopoietic parameters such as bone marrow cellularity and the number of α -esterase positive cells, and other parameters of immune response such as circulating antibody titer and the number of plaque forming cells, particularly with higher dilutions of *Thuja* and *Ruta*. Enhanced proliferation of B and T lymphoid cells was also observed. No toxic effects were observed. The results suggest the immunomodulatory activity of homeopathic preparations in high dilution. This may be a mechanism through which homeopathic preparations act.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491614001076>

THE USE OF ANIMAL MODELS IN HOMEOPATHIC RESEARCH: A REVIEW OF 2010–2014 PUBMED INDEXED PAPERS

Journal reference: Homeopathy, Published Online: July 11, 2015.

Authors: Leoni Villano Bonamin, Thayná Neves Cardoso, Aloísio Cunha de Carvalho, Juliana Gimenez Amaral.

Summary: In the 1990s, a study was performed on the effects of highly diluted thyroxine on frog metamorphosis. This model represented one of the most discussed examples of the biological effects of high dilutions (HDs) over the next two decades. In 2010, another critical conceptual review of the use of animal models in homeopathy and HD research was published. The main contribution of these studies was the elucidation of the biological features and phenomenology of the effects of HDs on living systems, representing an important step forward in our understanding of the mechanisms of action of homeopathic medicines. We performed a further review of this line of investigation using the same methods. Fifty-three articles that were indexed in the PubMed database and used 12 different animal species were systematically evaluated. Only a fraction of the studies (29/53) reported herein were performed with “ultra-high” dilutions. The other studies were performed with dilutions in ranges below 10–23 (14/53 articles) or commercial complexes (10/53 articles). Only two articles reported negative results; both used *in vivo* protocols to test commercial complexes, one in fish and one in bees. The quality of the employed techniques improved in 2010–2014 compared with the studies that were reviewed previously in 2010, with the inclusion of more ethically refined protocols, including *in vitro* primary cell cultures and *ex vivo* studies (10/53 articles), often with three or more replicates and analyses of epigenetic mechanisms that were previously unknown in 2010. In our updated review of the past 5 years, we found further demonstrations of the biological effects of Homeopathy using more refined animal models and *in vitro* techniques.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000417>

RISK IN HOMEOPATHY: CLASSIFICATION OF ADVERSE EVENTS AND HOMEOPATHIC AGGRAVATIONS: A CROSS-SECTIONAL STUDY AMONG NORWEGIAN HOMEOPATH PATIENTS

Journal reference: Complementary Therapies in Medicine, Volume 23, Issue 4, August 2015, Pages 535-543.

Authors: Trine Stub, Agnete E Kristoffersen, Terje Alræk, Frauke Musial, Aslak Steinsbekk

Summary: The registration of adverse events is important to identify the treatment that might impose risk to patients. Homeopathic aggravation, a unique concept for Homeopathy, may impose a

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particular risk, as it is tolerant toward a worsening of the patients' symptoms. The aim of this study was to explore the classification of patient reported reactions as homeopathic aggravations or adverse drug reactions. In a cross-sectional survey, patients were asked to register any reactions they had experienced 14 days after taking homeopathic remedies. Worsening of symptoms was classified as homeopathic aggravation if it was (i) an increase of the patients' existing symptoms (ii) a feeling of well-being that emerged 1–3 days after taking the remedy, and (iii) headache and/or fatigue accompanying these symptoms. A total of 26% of the participants reported worsening of symptoms. One-third was classified as adverse events. Half of these were graded as minor and the other half as moderate according to the Common Terminology Criteria for Adverse Events. Two-thirds were classified as homeopathic aggravations. Of these, 73% were classified as minor and 27% as moderate, giving a tendency toward milder severity for those classified as homeopathic aggravations ($P = 0.065$). Patients reported a substantial part of the short-term reactions after taking homeopathic remedy as a worsening of symptoms. These reactions were classified as mild and moderate. Hence, the risk connected to homeopathic treatment is minor. More studies are needed to confirm the existence of homeopathic aggravation and how to classify the concept in a clinically meaningful way.

Source: <http://www.sciencedirect.com/science/article/pii/S0965229915000953>

KNOWLEDGE, ATTITUDE, AND PRACTICE RELATED TO DIABETES MELLITUS AMONG DIABETICS AND NONDIABETICS VISITING HOMEOPATHIC HOSPITALS IN WEST BENGAL, INDIA

Journal reference: Journal of Evidence Based Complementary Alternative Medicine, Volume, 2015, pii: 2156587215593656 [Epub ahead of print].

Authors: Koley M, Saha S, Arya JS, Choubey G, Ghosh S, Chattopadhyay R, Das KD, Ghosh A, Hait H, Mukherjee R, Banerjee T.

Summary: High prevalence of undiagnosed cases of diabetes mellitus and poor knowledge, awareness, and practice has increased premature death, costly complications, and financial burden. A cross-sectional survey was conducted in November 2014 on 273 diabetics and 355 nondiabetics in three

government homeopathic hospitals in West Bengal, India. A self-administered questionnaire assessing knowledge, awareness, and practice related to diabetes was used. 17.5–29.3% of the participants were aware of the normal blood sugar level. Lack of insulin, frequent urination, hypertension, and poor wound healing was identified most frequently as the cause, symptom, association, and complications. 35.5–46.5% said that diabetes was preventable; 14.1–31.9% knew that diabetes was controllable rather than curable. Consumption of planned diet, avoiding sugar, and testing blood sugar were the most frequently identified components of healthy lifestyle, diabetic diet, and diagnostic domain. Diabetics had higher knowledge and awareness than nondiabetics ($P < 0.0001$); still the latter need to be made aware and knowledgeable to curtail the ever-increasing burden of diabetes.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26156145>

SYZYGIUM JAMBOLANUM AND CEPHALANDRA INDICA HOMEOPATHIC PREPARATIONS INHIBIT ALBUMIN GLYCATION AND PROTECT ERYTHROCYTES: AN IN VITRO STUDY

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 197-204.

Authors: Rashmi Santosh Tupe, Amruta Kulkarni, Krishna Adeshara, Shamim Shaikh, Nilesh Shah, Arun Jadhav.

Summary: Diabetes mellitus is a common endocrine disorder characterized by hyperglycemia eventually resulting in long-term complications. Increased glycation of proteins is implicated in the pathogenesis of complications. For treatment of diabetes, *Syzygium jambolanum* and *Cephalandra indica* are frequently prescribed in homeopathy. However, their role in glycation is not well elucidated. The present study aimed to evaluate the role of these homeopathic preparations in glycation induced structural modifications and further to examine their cellular protection ability. In human erythrocytes, *in vitro* mother tincture and dilutions of *S. jambolanum* (Sj ϕ , 30c, 200c), *C. indica* (Ci ϕ , 30c, 200c), and standard antiglycator (AG) were compared and their antiglycation potential assessed by estimating different markers of glycation (fructosamines, carbonyls, and bound sugar), structural modifications (free amino and thiol group). Phytochemical characterization (total

phenolic, flavonoids, and glycosides contents) was performed. The homeopathic preparations have different mode of action on albumin glycation modifications. S_j ϕ preparation demonstrated effective inhibition of all glycation, structural modifications except amino group protection. When dilutions were compared, S_j preparations showed reduction of glycation, structural modifications. All preparations showed significant erythrocyte protection. S_j ϕ preparation exhibited noteworthy antiglycation and cell protection ability as compared to AG. These homeopathic preparations especially S_j ϕ prevented glycation-induced albumin modifications and subsequent toxicity in human erythrocyte *in vitro*. Further investigation of their potential as AGs is justified.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000120>

MODEL VALIDITY OF RANDOMIZED PLACEBO-CONTROLLED TRIALS OF INDIVIDUALIZED HOMEOPATHIC TREATMENT

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 164-169.

Authors: Robert T Mathie, Michel Van Wassenhoven, Jennifer Jacobs, Menachem Oberbaum, Helmut Roniger, Joyce Frye, Raj K Manchanda, Laurence Terzan, Gilles Chaufferin, Flávio Dantas, Peter Fisher.

Summary: Though potentially an important limitation in the literature of randomized controlled trials (RCTs) of homeopathy, the model validity of homeopathic treatment (MVHT) has not previously been systematically investigated. As an integral part of a program of systematic reviews, to assess MVHT of eligible RCTs of individualized homeopathic treatment. From 46 previously identified papers in the category, 31 papers (reporting a total of 32 RCTs) were eligible for systematic review and were thus the subject of the study. For each of six domains of assessment per trial, MVHT was judged independently by three randomly allocated assessors from our group, who reached a final verdict by consensus discussion as necessary. Nineteen trials were judged overall as “acceptable” MVHT, nine as “uncertain” MVHT, and four as “inadequate” MVHT. These results do not support the concern that deficient MVHT has frequently undermined the published findings of RCTs of individualized homeopathy. However, the 13 trials with “uncertain” or “inadequate” MVHT will be a focus of attention

in supplementary meta-analysis. New RCTs of individualized homeopathy must aim to maximize MVHT and to enable its assessment through clear reporting.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26143448>

UTILIZATION OF PSYCHOTROPIC DRUGS BY PATIENTS CONSULTING FOR SLEEPING DISORDERS IN HOMEOPATHIC AND CONVENTIONAL PRIMARY CARE SETTINGS: THE EPI3 COHORT STUDY

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 170-175.

Authors: Grimaldi-Bensouda L, Abenhaim L, Massol J, Guillemot D, Avouac B, Duru G, Lert F, Magnier AM, Rossignol M, Rouillon F, Begaud B; EPI3-LA-SER Group.

Summary: Utilization of sedative hypnotic drugs for sleeping disorders (SDs) raises concerns, particularly among older people. This study compared utilization of conventional psychotropic drugs for SD among patients seeking care from general practitioners (GPs) who strictly prescribe conventional medications (GP-CM), regularly prescribe homeopathy in a mixed practice (GP-Mx), or are certified homeopathic GPs (GP-Ho). This was a French population-based cohort study of GPs and their patients consulting for SD, informed through the Pittsburgh sleep quality index questionnaire. Information on psychotropic drugs utilization was obtained from a standardized telephone interview at inclusion, 1, 3, and 12 months. Totally, 346 patients consulting for SD were included. Patients in the GP-Ho group experienced more often severe SD (41.3%) than patients in the GP-CM group (24.3%). Adjusted multivariate analyses showed that patients who chose to be managed by GP-Ho were less likely to use psychotropic drugs over 12 months as opposed to the GP-CM group, with odds ratio (OR) = 0.25; 95% confidence interval (CI): 0.14–0.42. Patients in the GP-Mx group also used less psychotropic drugs, but the result was not statistically significant (OR = 0.67; 95% CI: 0.39–1.16). Rates of clinical improvement of the SD did not differ between groups. Patients with SD who chose to consult GPs certified in homeopathy consumed less psychotropic drugs and had a similar evolution of their condition when compared to patients treated with conventional medical management. This result may translate into a net

advantage with reduction of adverse events related to psychotropic drugs.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26143449>

THE HOMEOPATHIC CHOICE FOR CHILDREN: A QUALITATIVE RESEARCH ON THE DECISION-MAKING PROCESS OF THE FAMILIES

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 176-181.

Authors: Rossi E, Picchi M, Di Stefano M, Marongiu AM, Scarsini P.

Summary: To explore the experiences of parents who chose homeopathic treatment for their children, with particular regard to the decision-making process within the family and the availability of conventional and homeopathic healthcare services. Semi-structured interview with parents immediately after or before the homeopathic visit at the Homeopathic Clinic of Campo di Marte Hospital of Lucca (Italy) from March 1, 2012 to July 18, 2012. Answers were analyzed by frequency of response and grouped into main areas: (1) Choice of homeopathy, (2) intra-family dynamics, (3) behavior in emergency situations, (4) the relationship with the homeopathic doctor, (5) the role of friends and acquaintances, and (6) the “cut off” of use of homeopathy. Parents who choose homeopathic treatments for their children are strongly influenced by context. The choice of homeopathy is usually made by mothers and is rarely hindered by fathers, grandparents or friends, whose approval is important and encourages parents to use homeopathy for their children, both for prevention and treatment. Easy access to the homeopathic doctor was frequently requested, especially for acute situations. This research confirms the importance of context in decision-making processes. Other characteristics of families who use homeopathy, such as level of education, personal coping strategies and family context should be investigated.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26143450>

SOME INTRAPERSONAL QUALITIES OF SOUTH AFRICA HOMEOPATHS WHO HAVE ESTABLISHED SUCCESSFUL PRIVATE PRACTICES

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 182-189.

Authors: Solomon EM, Poggenpoel M, Myburgh CP.

Summary: The purpose of the study was to explore the experiences of homeopaths who have established successful private practices in South Africa (SA) with the aim of identifying some of their intrapersonal qualities which may have contributed to their establishing a successful practice. This was a qualitative phenomenological research design using in-depth interviews with homeopaths running successful private practices across five provinces in SA, which were digitally recorded. Of these, 18 were transcribed and analyzed using a descriptive coding approach and strategies for phenomenological analysis. Themes and supporting categories are identified and described. Homeopaths experiences suggest that they are authentic, self-aware, self-reflective, and proactive. They experienced a need for self-care and support and further found that their integrity, positive attitude, self-discipline, and passion contributed to their success in practice. The intrapersonal qualities can be roughly divided between those that generate inner-support and those which aid homeopaths attain their goal of establishing a practice and are, therefore, crucial aspects of success generation.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26143451>

REPORTING EXPERIMENTS IN HOMEOPATHIC BASIC RESEARCH

Journal reference: Homeopathy, Published Online: July 11, 2015 [In Press].

Author: Beate Stock-Schröer.

Summary: The aim of this study was to develop a criteria catalog serving as a guideline for authors to improve quality of Reporting Experiments in Homeopathic Basic Research (REHBaR). The main focus was in the field of biochemical and biological experiments. So far, there was no guideline for scientists and authors available, unlike criteria catalogs common in clinical research. A Delphi process was conducted among experts who published experimental work within the last 5 years in this field. The process included a total of five rounds, three rounds of adjusting and phrasing plus two consensus conferences. A checklist of 23 items was achieved, augmented with detailed examples how to handle each item while compiling a publication. Background, objectives, and possible hypotheses are necessary to be given in the part “introduction.” The section “materials and methods” is the most

important part, where a detailed description of chosen controls, object of investigation, experimental setup, replication, parameters, intervention, allocation, blinding, and statistical methods is mandatory. In the “results” section, sufficient details on analyzed data, descriptive as well as inferential are needed. Moreover, authors should discuss their results and interpret them in the context of current evidence. REHBaR was compiled for authors when preparing their manuscripts, and to be used by scientific journals in the reviewing process. Reporting experiments in basic research in homeopathy is an important issue to state the quality and validity of gained results. A guideline for REHBaR seemed to be the first step to come to a commitment what information is necessary to be given in a paper. More than that, the catalog can serve as a statement what the standards in good basic research should be.

Source: <http://www.sciencedirect.com/science/article/pii/S147549161500048X>

PHYSIOLOGICAL EFFECTS OF HOMEOPATHIC MEDICINES IN CLOSED PHIALS: A CRITICAL EVALUATION

Journal reference: Homeopathy, Published Online: July 11, 2015 [In Press].

Authors: Roeland van Wijk, Frederik Anton Clemens Wiegant.

Summary: Phials containing high dilutions of homeopathic remedies are commonly utilized in diagnostic tools in combination with electro acupuncture measuring electrical conductivity of the skin. The present research aimed to elucidate the interaction of the homeopathic remedy and the human organism. The study protocol included the transition of a healthy subject to a diseased state utilizing a sub-harmful dose of a toxin. Subsequently, the subject was exposed to a homeopathic or placebo remedy in a closed glass phial and electrical conductivity was measured in open as well as in blind trials. A total of 229 data were collected from open trials and 750 data from blind trials. The experimental data showed that Homeopathic remedies in closed glass phials may influence the electrical skin conductivity. The results of the blind trials differed considerably from those of the open trials. The percentage of correctly identified (verum and placebo) phials in the open trials (85%) was statistically different from those in the blind

trials (65%). In both types of trials, however, the difference between the sealed phials containing the homeopathic medicine and the placebo was statistically significant. The results of measurements are directly linked to the way in which the tester holds the electrode in one hand and the subject's finger in the other while putting pressure on the electrode.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000405>

MODEL VALIDITY OF RANDOMIZED PLACEBO-CONTROLLED TRIALS OF INDIVIDUALIZED HOMEOPATHIC TREATMENT

Journal reference: Homeopathy, Volume 104, Issue 3, 2015, Pages 164-169.

Authors: Robert T Mathie, Michel Van Wassenhoven, Jennifer Jacobs, Menachem Oberbaum, Helmut Roniger, Joyce Frye, Raj K Manchanda, Laurence Terzan, Gilles Chaufferin, Flávio Dantas, Peter Fisher.

Summary: Though potentially an important limitation in the literature of randomized controlled trials (RCTs) of homeopathy, the model validity of homeopathic treatment (MVHT) has not previously been systematically investigated. As an integral part of a program of systematic reviews, to assess MVHT of eligible RCTs of individualized homeopathic treatment. From 46 previously identified papers in the category, 31 papers (reporting a total of 32 RCTs) were eligible for systematic review and were thus the subject of the study. For each of six domains of assessment per trial, MVHT was judged independently by three randomly allocated assessors from our group, who reached a final verdict by consensus discussion as necessary. Nineteen trials were judged overall as “acceptable” MVHT, nine as “uncertain” MVHT, and four as “inadequate” MVHT. These results do not support the concern that deficient MVHT has frequently undermined the published findings of RCTs of individualized homeopathy. However, the 13 trials with “uncertain” or “inadequate” MVHT will be a focus of attention in supplementary meta-analysis. New RCTs of individualized homeopathy must aim to maximize MVHT and to enable its assessment through clear reporting.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000077>

THE USE OF PLANT – BASED BIOASSAYS IN HOMEOPATHIC BASIC RESEARCH

Journal reference: Homeopathy, 2015 [In Press].

Authors: Tim Jäger, Claudia Scherr, Devika Shah, Vera Majewsky, Ursula Wolf, Lucietta Betti, Stephan Baumgartner.

Summary: The objective was to evaluate homeopathic basic research studies that use plant-based bioassays. With this in view, a compilation was made of the findings of three systematic literature reviews covering plant-based bioassays in the three fields of healthy, abiotically, or biotically stressed plants. This compilation focused on investigations using advanced experimental methods and detailed descriptions, also with the aim of supporting the design of future experiments. Publications included had to report on studies into the effects of homeopathic preparations on whole plants, seeds, plant parts, and cells. Outcomes had to be measured by established procedures and statistically evaluated. A Manuscript Information Score (MIS) was applied using predefined criteria to identify publications with sufficient information for adequate interpretation ($MIS \geq 5$). Additional evaluation focused on the use of adequate controls to investigate the specific effects of homeopathic preparations, and on the use of systematic negative control (SNC) experiments to ensure the stability of the bioassay. Only a fraction of the studies reported here, were performed with “ultra high” dilutions, whereas other studies were performed with moderate or high dilutions. A total of 157 publications were identified, describing a total of 167 experimental studies. Eighty-four studies included statistics and 48 had a $MIS \geq 5$, thus allowing adequate interpretation. Twenty-nine studies had adequate controls to identify the specific effects of homeopathic preparations, and reported the significant effects of decimal and centesimal homeopathic potencies, including dilution levels beyond Avogadro’s number. 10 studies reported the use of SNC experiments, yielding evidence for the stability of the experimental set-up. Plant models appear to be a useful approach for investigating basic research questions relating to homeopathic preparations, but more independent replication trials are needed to verify the results found in single experiments. Adequate controls and SNC experiments should be implemented on a routine basis to exclude false-positive results.

Source: <http://www.sciencedirect.com/science/article/pii/S147549161500048X>

THE USE OF ANIMAL MODELS IN HOMEOPATHIC RESEARCH – A REVIEW

Journal reference: Published Online: July 14, 2015 [In Press].

Authors: Leoni Villano Bonamin, Thayná Neves Cardoso, Aloísio Cunha de Carvalho, Juliana Gimenez Amaral.

Summary: In the 1990s, a study was performed on the effects of highly diluted thyroxine on frog metamorphosis. This model represented one of the most discussed examples of the biological effects of high dilution (HDs) over the next two decades. In 2010, another critical conceptual review of the use of animal models in homeopathy and HD research was published. The main contribution of these studies was the elucidation of the biological features and phenomenology of the effects of HDs on living systems, representing an important step forward in our understanding of the mechanisms of action of homeopathic medicines. We performed a further review of this line of investigation using the same methods. Fifty-three articles that were indexed in the PubMed database and used 12 different animal species were systematically evaluated. Only a fraction of the studies (29/53) reported herein were performed with “ultra-high” dilutions. The other studies were performed with dilutions in ranges below 10–23 (14/53 articles) or commercial complexes (10/53 articles). Only two articles reported negative results; both used *in vivo* protocols to test commercial complexes, one in fish and one in bees. The quality of the employed techniques improved in 2010–2014 compared with the studies that were reviewed previously in 2010, with the inclusion of more ethically refined protocols, including *in vitro* primary cell cultures and *ex vivo* studies (10/53 articles), often with three or more replicates and analyses of epigenetic mechanisms that were previously unknown in 2010. In our updated review of the past 5 years, we found further demonstrations of the biological effects of homeopathy using more refined animal models and *in vitro* techniques.

Source: <http://www.sciencedirect.com/science/article/pii/S0965229915000953>

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: Subhranil Saha, Munmun Koley, Shubhamoy Ghosh, Mohan Giri, Asim Das, and Rachna Goenka.

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, West Bengal, India. A specifically designed Microsoft Excel Spreadsheet enabled recording of consecutive appointments-date, patient identity, medical condition/complaint, whether chronic/acute, new/follow-up case, patient-assessed outcome (7-point Likert-type scale: -3 to +3), prescribed homeopathic medication, and whether other medication/s being taken for the condition. Spreadsheets were submitted monthly for data synthesis and analysis. 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 short-listed promising areas of future homeopathic research.

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

DOES ADDITIONAL ANTIMICROBIAL TREATMENT HAVE A BETTER EFFECT ON UPPER RESPIRATORY TRACT INFECTION COUGH RESOLUTION THAN HOMEOPATHIC SYMPTOMATIC THERAPY ALONE? A REAL-LIFE PRELIMINARY OBSERVATIONAL STUDY IN A PEDIATRIC POPULATION

Journal reference: Multidisciplinary Respiratory Medicine, Volume 10, Issue 1, 2015, Pages 25.

Authors: Zanasi A, Cazzato S, Mazzolini M, Ierna CM, Mastroberto M, Nardi E, Morselli-Labate AM.

Summary: The effectiveness of homeopathic syrup on cough has been demonstrated in an adult population

in a previous double-blind, randomized study. The present prospective observational study investigated children affected by wet acute cough caused by noncomplicated upper respiratory tract infections, comparing those who received the homeopathic syrup versus those treated with the homeopathic syrup plus antibiotic. The aims were: (1) To assess whether the addition of antibiotics to a symptomatic treatment had a role in reducing the severity and duration of acute cough in a pediatric population, as well as in improving cough resolution and (2) to verify the safety of the two treatments. Eighty-five children were enrolled in an open study: 46 children received homeopathic syrup alone for 10 days, and 39 children received homeopathic syrup for 10 days plus oral antibiotic treatment (amoxicillin/clavulanate, clarithromycin, and erythromycin) for 7 days. To assess cough severity, we used a subjective verbal category-descriptive (VCD) scale. Cough VCD score was significantly ($P < 0.001$) reduced in both groups starting from the second day of treatment (-0.52 ± 0.66 in the homeopathic syrup group and -0.56 ± 0.55 in children receiving homeopathic syrup plus oral antibiotic treatment). No significant differences in cough severity or resolution were found between the two groups of children in any of the 28 days of the study. After the 1st week (day 8), cough was completely resolved in more than one-half of patients in both groups. Two children (4.3%) reported adverse effects in the group treated with the homeopathic syrup alone versus 9 children (23.1%) in the group treated with the homeopathic syrup plus antibiotics ($P = 0.020$). Our data confirm that the homeopathic treatment in question has potential benefits for cough in children as well and highlight the strong safety profile of this treatment. The additional antibiotic prescription was not associated with a greater cough reduction and presented more adverse events than the homeopathic syrup alone.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26251722>

RISK IN HOMEOPATHY: CLASSIFICATION OF ADVERSE EVENTS AND HOMEOPATHIC AGGRAVATIONS: A CROSS-SECTIONAL STUDY AMONG NORWEGIAN HOMEOPATH PATIENTS

Journal reference: Complementary Therapies in Medicine, Volume 23, Issue 4, 2015, Pages 535-543.

Authors: Stub T, Kristoffersen AE, Alræk T, Musial F, Steinsbekk A.

Summary: The registration of adverse events is important to identify the treatment that might impose risk to patients. Homeopathic aggravation, a unique concept for homeopathy may impose a particular risk, as it is tolerant toward a worsening of the patients' symptoms. The aim of this study was to explore the classification of patient reported reactions as homeopathic aggravations or adverse drug reactions. In a cross-sectional survey, patients were asked to register any reactions they had experienced 14 days after taking homeopathic remedies. Worsening of symptoms was classified as homeopathic aggravation if it was (i) an increase of the patients' existing symptoms (ii) and/or a feeling of well-being that emerged 1–3 days after taking the remedy (iii) and/or headache and/or fatigue accompanying these symptoms. A total of 26% of the participants reported worsening of symptoms. One-third was classified as adverse events. Half of these were graded as minor and the other half as moderate according to the Common Terminology Criteria for Adverse Events. Two-thirds were classified as homeopathic aggravations. Of these, 73% were classified as minor and 27% as moderate, giving a tendency toward milder severity for those classified as homeopathic aggravations ($P = 0.065$). Patients reported a substantial part of the short-term reactions after taking homeopathic remedy as a worsening of symptoms. These reactions were classified as mild and moderate. Hence, the risk connected to homeopathic treatment is minor. More studies are needed to confirm the existence of homeopathic aggravation and how to classify the concept in a clinically meaningful way.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26275646>

ULTRA-HIGH DILUTION 1994" REVISITED 2015 – THE STATE OF FOLLOW-UP RESEARCH

Journal reference: Homeopathy, Volume Published Online: August 29, 2015 [In press].

Authors: Christian Endler P, Jurgen Schulte, Beate Stock-Schroerer, Sandra Stephen.

Summary: The "Ultra High Dilution 1994" project was an endeavor to take stock of the findings and theories on homeopathic extreme dilutions that were under research at the time in areas of biology, biophysics, physics and medicine. The project finally materialized into an anthology assembling contributions of leading scientists in the field. Over the following two decades, it became widely quoted

within the homeopathic community and also known in other research communities. The aim of the present project was to re-visit and review the 1994 studies from the perspective of 2015. The original authors from 1994 or close laboratory colleagues were asked to contribute papers covering their research efforts and learning from 1994 to 2015. These contributions were edited and cross-referenced, and a selection of further contributions was added. About a dozen contributions reported on follow-up experiments and studies, including further developments in theory. Only few of the models that had seemed promising in 1994 had not been followed up later. Most models presented in the original publication had meanwhile been submitted to intra-laboratory, multicenter or independent scrutiny. The results of the follow-up research seemed to have rewarded the efforts. Furthermore, contributions were provided on new models that had been inspired by the original ones or that may be candidates for further in-depth ultra-high dilution (UHD) research. The project "Ultra High Dilution 1994 revisited 2015" is the latest output of what might be considered the "buena vista social club" of homeopathy research. However, it presents new developments and results of the older, established experimental models as well as a general survey of the state of UHD research.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000600>

SULPHUR ALTERS NFKB-P300 CROSS-TALK IN FAVOUR OF P53-P300 TO INDUCE APOPTOSIS IN NON-SMALL CELL LUNG CARCINOMA

Journal reference: International Journal of Oncology, Volume 47, Issue 2, 2015, Pages 573-82.

Authors: Saha S, Bhattacharjee P, Guha D, Kajal K, Khan P, Chakraborty S, Mukherjee S, Paul S, Manchanda R, Khurana A, Nayak D, Chakraborty R, Sa G, Das T.

Summary: Adverse side effects of chemotherapy during cancer treatment have shifted considerable focus toward therapies that are not only targeted but are also devoid of toxic side effects. We evaluated the antitumorigenic activity of sulfur, and delineated the molecular mechanisms underlying sulfur-induced apoptosis in nonsmall cell lung carcinoma (NSCLC) cells. A search for the underlying mechanism revealed that the choice between the two cellular processes, NF κ Bp65-mediated survival, and p53-mediated apoptosis was decided by the competition for a limited pool of transcriptional

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coactivator protein p300 in NSCLC cells. In contrast, sulfur inhibited otherwise upregulated survival signaling in NSCLC cells by perturbing the nuclear translocation of p65NFκB, its association with p300 histone acetylase, and subsequent transcription of Bcl-2. Under such anti-survival condition, induction of p53–p300 cross-talk enhanced the transcriptional activity of p53 and intrinsic mitochondrial death cascade. Overall, the findings of this preclinical study clearly delineated the molecular mechanism underlying the apoptogenic effect of the nontoxic homeopathic remedy, sulfur, in NSCLC cells.

Source: <http://www.ncbi.nlm.nih.gov/pubmed/26095308>

UPDATE ON HORMESIS AND ITS RELATION TO HOMEOPATHY

Journal reference: Homeopathy, Available Online: 31 August 2015 [In Press].

Authors: Menachem Oberbaum, Cornelius Gropp.

Summary: Hormesis is a dose–response relationship characterized by a biphasic dose response to stressors with low-dose stimulation and a high dose inhibition. The first systematic description of hormesis appeared toward the close of the 18th century by the German pharmacology professor Hugo Schulz. The stressor agent can be any agent or factor capable of causing a deleterious effect. The biological systems can be diverse: Bacteria, fungi, algae, yeasts, animals, humans, protozoa, and plants. The range of endpoints covers longevity, reproduction, cancer, survival, growth, metabolic effects, and others. Hormesis is a nonspecific phenomenon, which can occur in any biological system and can be caused by any stressor. It is quantifiable and reproducible. The apparent similarity between the basic principle of hormesis and homeopathy's Similia Principle, together with the homeopathic claim that hormesis validates homeopathy caused its marginalization, and its rejection during the past century by central figures in pharmacology. Recent years have seen a slight renaissance in the conventional scientific attitude toward hormesis. There is no convincing evidence of similarity between these two systems. Moreover, there are several crucial differences between them, which seem to refute any idea that they stem from the same root. This paper discusses these differences. The rejection of hormesis on grounds of its similarity to homeopathy is unjustified. The authors suggest exploring the differences between

both systems. Such exploration may answer the key question of whether they do indeed share a root or embrace the same principles. Such exploration may also spur research within both systems to answer further open questions.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000569>

OPEN-LABEL OBSERVATIONAL STUDY OF THE HOMEOPATHIC MEDICINE *PASSIFLORA* COMPOSE FOR ANXIETY AND SLEEP DISORDERS

Journal reference: Homeopathy, Published Online: August 27, 2015 [In Press].

Authors: Stéphanie Villet, Véronique Vacher, Aurélie Colas, Karine Danno, Jean-Louis Masson, Philippe Marijnen, Marie-France Bordet.

Summary: Anxiety and sleep disorders (SDs) are frequently treated with psychotropic drugs. Health authorities in France have been advised to improve access to alternative treatments such as homeopathic medicines. Our aim was to describe the sociodemographic characteristics and clinical progression of patients prescribed homeopathic medicine *Passiflora* compose (PC) for anxiety and/or SDs. This was an open-label, observational study. Randomly selected general practitioners (GPs) known to prescribe homeopathic medicines recruited consecutive patients (≥ 18 -years) prescribed PC. The following data were recorded at inclusion by the GP: Sociodemographic data and anxiety severity (Hamilton anxiety rating scale [HAM-A]); and by the patients: Level of anxiety (STAI Spielberger self-assessment questionnaire) and SDs (Jenkins sleep scale [JSS]). Anxiety and SDs were reassessed after 4 weeks of treatment using the same scales. A total of 639 patients (mean age: 46.3 ± 17.5 years; 78.6% female) were recruited by 98 GPs. Anxiety was present in 85.4% (HAM-A) and 93.3% (Spielberger State) at inclusion (mean scores: 17.8 ± 8.91 and 54.59 ± 11.69 , respectively) and SDs were present in 74.0% (mean score: 15.24 ± 5.28). A total of 401 (62.7%) patients received PC alone and 167 (26.1%) PC + psychotropics. After 4 weeks, mean anxiety scores decreased by more than 7, 12, and 6 points (HAM-A, Spielberger State and Trait respectively) and SDs score by more than 4 points (JSS). Anxiety and/or SDs improved significantly in patients included on this study. PC could be an alternative to the use of psychotropic drugs for

first intention treatment of anxiety and SDs. Further studies are needed to confirm those results.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000570>

EFFECTS OF A DRAGONFLY (ANAX IMPERATOR) HOMEOPATHIC REMEDY ON LEARNING, MEMORY AND CELL MORPHOLOGY IN MICE

Journal reference: Homeopathy, Published Online: August 23, 2015 [In Press]

Authors: Oguz Mutlu, Guner Ulak, Sibel Kokturk, Ipek Komsuoglu Celikyurt, Pelin Tanyeri, Furuzan Akar, Faruk Erden.

Summary: Homeopathy is a form of alternative medicine which uses highly diluted preparations that are believed to cause healthy people to exhibit symptoms similar to those exhibited by patients. The aim of this study was to investigate the effects of dragonfly (*Anax imperator* [Anax i.]) on learning and memory in naive mice using the Morris water maze (MWM) test; moreover, the effects of dragonfly on MK-801-induced cognitive dysfunction were evaluated. Male balb-c mice were treated with dragonfly (30C and 200C) or MK-801 (0.2 mg/kg) alone or concurrently ($n = 10$). Dragonfly (D) and MK-801 were administered subchronically for 6 days intraperitoneally 60 min and 30 min, respectively, before the daily performance of the MWM test. This study revealed that in the familiarization session and first session of the MWM test, Anax i. D30 significantly decreased escape latency compared to the control group, although MK-801, D30, and D200 significantly increased escape latency at the end of five acquisition sessions. Anax i. combined with dizocilpine maleate (MK-801) also significantly decreased escape latency in the familiarization session and first session of the MWM test, although this combination increased escape latency compared to the MK-801 alone group at the end of the test. Time spent in escape platform's quadrant in the probe trial significantly decreased while mean distance to platform significantly increased in MK-801, D30, and D200 groups. In the MWM test, Anax i. combined with MK-801 significantly decreased speed of the animals compared to the MK-801 alone group. General cell morphology was disturbed in the MK-801 group while D30 and D200 seemed to improve cell damage in the MK-801 group. These results suggest that the homeopathic

Anax i. can impair learning acquisition and reference memory, and it has beneficial effects on disturbed cell morphology.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000594>

FROM HIGH DILUTIONS TO DIGITAL BIOLOGY: THE PHYSICAL NATURE OF THE BIOLOGICAL SIGNAL

Journal reference: Available Online: 24 August 2015 [In Press].

Author: Yolène Thomas.

Summary: The memory of water was a radical idea that arose in the laboratory of Jacques Benveniste in the late 1980s. Twenty-five years have passed and yet, often angry debate on its merits continues despite the increasing number of scientists who have reported confirmation of the basic results. One working hypothesis was that molecules can communicate with each other, exchanging information without being in physical contact and that at least some biological functions can be mimicked by certain energetic modes characteristics of a given molecule. These considerations informed exploratory research that led to the speculation that biological signaling might be transmissible by electromagnetic means. Around 1991, the transfer of specific molecular signals to sensitive biological systems was achieved using an amplifier and electromagnetic coils. In 1995, a more sophisticated procedure was established to record, digitize and replay these signals using a multimedia computer. From a physical and chemical perspective, these experiments pose a riddle, since it is not clear what mechanism can sustain such "water memory" of the exposure to molecular signals. From a biological perspective, the puzzle is what nature of imprinted effect (water structure) can impact biological function. A parallel can be drawn between this debate on the memory of water, which presumes that the action of molecules is mediated by an electromagnetic phenomenon, and the often acrimonious debate on the transmission of nerve influxes via synaptic transfer of specific molecules, neurotransmitters. The latter debate began in 1921 with the first experiments by Loewi and was still active in 1949, 28 years later. A strong reluctance to accept research that questions basic aspects of long-accepted biochemical paradigms is to be expected. In this paper, we will provide a brief summary of experiments relating to the memory of

water: The earlier work on high dilutions and then the experiments, which followed and continued today, on digital biology.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000508>

HOMEOPATHIC MEDICINES FOR PREVENTION OF INFLUENZA AND ACUTE RESPIRATORY TRACT INFECTIONS IN CHILDREN: BLIND, RANDOMIZED, PLACEBO-CONTROLLED CLINICAL TRIAL

Journal reference: Published Online: August 03, 2015 [In Press].

Authors: Camila Monteiro Siqueira, Fortune Homsani, Venício Féo da Veiga Carlos Lyrio, Haroldo Mattos, Sonia Regina Lambert Passos, José Nelson Couceiro, Carla Holandino Quaresma.

Summary: Influenza and its complications are common at all ages, especially in children. Vaccines and anti-influenza drugs aim to prevent it. Preventative approaches with favorable risk profiles should be considered for flu, particularly since the evidence of the efficacy of anti-viral drugs is debated. This pragmatic clinical trial was conducted in the Brazilian Public Health System in Petrópolis (BPHSP) with children aged from 1 to 5 years old. The medications used were mainly selected based on *in vitro* experiments (InfluBio), and in successful qualitative clinical experiences (Homeopathic complex). Following informed parental consent, subjects were randomly distributed, in a blind manner, to three experimental groups: Homeopathic Complex, Placebo, and InfluBio. BPHSP health agents collected flu and acute respiratory infection symptomatic episodes monthly following the established protocol. The number of these episodes was registered in 1 year (2009–2010). Of the 600 children recruited, 445 (74.17%) completed the study (149: Homeopathic complex; 151: Placebo; 145: InfluBio). The number of flu and acute respiratory infection symptomatic episodes detected in this clinical trial was low; however, it was different between homeopathic groups and placebo ($P < 0.001$). In the 1st year postintervention, 46/151 (30.5%) of children in the placebo group developed 3 or more flu and acute respiratory infection episodes, while there was no episode in the group of 149 children who used Homeopathic complex, and only one episode in the group of 145 (1%) children who received InfluBio. These results

suggested that the use of homeopathic medicines minimized the number of flu and acute respiratory infection symptomatic episodes in children, signaling that the homeopathic prophylactic potential should be investigated in further studies.

Source: <http://www.sciencedirect.com/science/article/pii/S1475491615000090>

RISK IN HOMEOPATHY: CLASSIFICATION OF ADVERSE EVENTS AND HOMEOPATHIC AGGRAVATIONS – A CROSS-SECTIONAL STUDY AMONG NORWEGIAN HOMEOPATH PATIENTS

Journal reference: Complementary Therapies in Medicine, Volume 23, Issue 4, 2015, Pages 535-543.

Authors: Trine Stub, Agnete E Kristoffersen, Terje Alræk, Frauke Musial, Aslak Steinsbekk.

Summary: The registration of adverse events is important to identify treatment that might impose risk to patients. Homeopathic aggravation, a concept unique for homeopathy may impose a particular risk, as it is tolerant toward a worsening of the patients' symptoms. The aim of this study was to explore the classification of patient reported reactions as homeopathic aggravations or adverse drug reactions. In a cross-sectional survey, patients were asked to register any reactions they had experienced 14 days after taking homeopathic remedies. Worsening of symptoms was classified as homeopathic aggravation if it was (i) an increase of the patients' existing symptoms (ii) and/or a feeling of well-being that emerged 1–3 days after taking the remedy (iii) and/or headache and/or fatigue accompanying these symptoms. 26% of the participants reported worsening of symptoms. One-third was classified as adverse events. Half of these were graded as minor and the other half as moderate according to the Common Terminology Criteria for Adverse Events. Two-thirds were classified as homeopathic aggravations. Of these, 73% were classified as minor and 27% as moderate, giving a tendency toward milder severity for those classified as homeopathic aggravations ($P = 0.065$). Patients reported a substantial part of the short-term reactions after taking homeopathic remedy as a worsening of symptoms. These reactions were classified as mild and moderate. Hence, the risk connected to homeopathic treatment is minor. More studies are needed to confirm the existence

of homeopathic aggravation and how to classify the concept in a clinically meaningful way.

Source: <http://www.sciencedirect.com/science/article/pii/S0965229915000953>

HOMEOPATHY: FROM TRADITION TO SCIENCE?

Journal reference: Journal of Medicine and the Person, Volume 13, Issue 1, April, 2015, Pages 7-17.

Authors: Giulio Viganò, Paola Nannei, Paolo Bellavite.

Summary: Homeopathy is a form of therapy based on the similarity (“similia similibus curantur,” like cures like), whose popularity is increasing but whose scientific basis is still under discussion. Starting from the premise that it is a “holistic” medicine, programmatically aimed at the whole person in its entirety and individuality, here we go through an overview of his history, basic concepts and scientific evidence. This therapy was founded by Samuel Hahnemann in the late 18th century, although similar concepts existed previously. It has spread around the world in the 19th century, in part because of its success in epidemics outbreaks, but declined during most of the 20th century. Its popularity was increased in the late 20th and early 21st century in many parts of the world and today stands the problem of its integration with conventional medicine. There are different schools of homeopathy. Homeopathy is controversial mainly because of its use of highly diluted medicines, but there is growing evidence that is, not a mere placebo. There is a significant body of clinical research including randomized clinical trials suggesting that homeopathy has effectiveness in curing many symptoms and in improving the quality of life of patients. Cohort studies, observational, and economic have produced favorable results. Despite the long history of scientific controversy, homeopathy is an “anomaly” of modern medicine that deserves further investigation for its potential scientific and ethical merits.

Source: <http://link.springer.com/article/10.1007%2Fs12682-014-0197-y>

EFFICACY OF HOMOEOPATHY IN TREATMENT OF TYPE 2 DIABETES MELLITUS EVALUATED USING GLYCOSYLATED HAEMOGLOBIN

Journal reference: Asian Journal of Homoeopathy, Volume 9, Issue 32, August 2015-October 2015, Page 32-37.

Authors: Bayula Babu, Kamath MK.

Summary: The study conducted to assess the action of Homoeopathic medicines in type two diabetes mellitus cases by accessing the glycosylated hemoglobin. A total of 34 cases in the age group of 30–70 years were selected for the study. Each was tested for HbA1c before and after 3 months of treatment. The collected data were analyzed by mean, standard deviation, and paired *t*-test. HbA1c before the treatment was 8.63 ± 1.90 , and after treatment, it was 8.02 ± 1.53 showing 7.14% reduction after the treatment that was statistically significant as $P = 0.014 < 0.05$.

Source: Asian Journal of Homoeopathy

ASAFOETIDA: AN EXCREPT FROM THE MATERIA MEDICA PURA PROJECT

Journal reference: American Journal of Homeopathic Medicine, Volume 108, Issue 2, Summer 2015.

Authors: Timothy Fior, Andre Saine.

Summary: The Materia medica project is an international endeavor to update Materia medica and repertories. Thus far, over 100 remedy monographs have been prepared, and the goal is to complete close 600 remedy monographs. Excerpts from the Asafotida monograph are presented which include a portion of a new genius of the remedy and several cases from the old as well as modern homeopathic literature. One of the main themes of the remedy is within outward, which applies to the reverse peristalsis and pains in various parts of the body. Also, the remedy is characterized by fetid discharges and painful carious ulcers that are sensitive to touch. Finally, the remedy is characterized by flatulent hysteria and wandering pains.

Source: American Journal of Homeopathic Medicine

COLOCYNTHIS, LOXOSCELES RECLUSE AND PATIENT MADE ISODES IN CANCER: CASE REPORTS

Journal reference: American Journal of Homeopathic Medicine, Volume 108, Issue 2, Summer 2015.

Author: Cornelia Richardson-Boedler.

Summary: The Homoeopathic plant remedy colocynthis is demonstrated in 2 case reports here presented to effectively treat cancer of the liver and carcinoid rectal growth. In third case, the effects of patient made isodes in chronic diarrhea and multiple

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myeloma are discussed. Broader applicability of these healing agents in cancerous conditions is suggested. The remedy *Loxosceles reclusa* is recommended for patients seeking transplantation after surgical loss. The bite of this spider is known to cause a delayed hypersensitivity in victims, similar to that which occurs in patients rejecting organ transplantation. Hence, the Homoeopathic preparation acts preventively.

Source: American Journal of Homeopathic Medicine

IMMUNOMODULATORY EFFECTS OF ETHANOLIC EXTRACT OF TYPHONIUM FLAGELLIFORME (LODD.) BLUME IN RATS INDUCED BY CYCLOPHOSPHAMIDE

Journal reference: Journal of Evidence Based Complementary and Alternative Medicine, Volume 20, Issue 3, 2015, Pages 167-172.

Authors: Arief Nurrochmad, Muthi Ikawati, Ika Puspita Sari, Retno Murwanti, Agung Endro Nugroho.

Summary: The present study aimed to examine the immunomodulatory effect of ethanolic extract of *Typhonium flagelliforme* (Lodd.) Blume in cyclophosphamide-treated rats. The immunomodulatory effects were determined by lymphocytes proliferation, phagocytic activity of

macrophages, plasma cytokines of tumor necrosis factor- α , interleukin-1 α , interleukin-10 levels, and killer T cells (CD8+ T cells) counts. The results showed that the administration of ethanolic extract of *T. flagelliforme* reduced immunosuppressive effect on lymphocyte proliferation, increase the number and phagocytic activity of macrophages in cyclophosphamide-treated rats. Moreover, the ethanolic extract of *T. flagelliforme* also significantly ($P < 0.05$) improved the immune system activities especially the proliferation of CD8+ T cells and reduced the suppressive effects on cytokines such as tumor necrosis factor- α and interleukin-1 α . In conclusion, the ethanolic extract of *T. flagelliforme* has immunomodulatory properties in cyclophosphamide-treated rats. The results suggest that *T. flagelliforme* can reduce immunosuppressive effect caused by a chemotherapeutic agent.

Source: <http://chp.sagepub.com/content/20/3/167>. abstract

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