

Research highlights

FINDING OUT A CORRELATION BETWEEN DATA COLLECTION AND BAYESIAN REPERTORY

Title: Data collection during the COVID-19 pandemic: Learning from experience, resulting in a Bayesian repertory

Authors: Lex Rutten, Tom Smedley, Galen Ives, Peter Gold, Bernardo Merizalde, Robbert van Haselen, Raj Kumar Manchanda, Ashley Ross, Gustavo Cataldi, Altunay Agaoglu, Tiziana di Giampietro, Theodore Lilas, Frederik Schroyens, José E. Eizayaga

Journal: Homeopathy 2021 May; 110(2):94-101. Doi: 10.1055/s-0040-1718583. Epub 2021 Jan 4.

Summary: A retrospective assessment of most of the common symptoms of COVID-19 infection was performed by Rutten *et al.* on 161 patients (91 females, 58 males and 12 unknown gender) from Argentina, Austria, Belgium, Brazil, China, France, Germany, India, Iran, Italy, The Netherlands, Turkey and the United States of age range 0–84 years. The primary objective of the study was to discover the relationship between specific symptoms of COVID-19 infection and specific medicines for this disease. Likelihood ratio (LR) of common symptoms such as ‘fatigue’ and ‘headache’ showed better differentiation between medicines than did existing reportorial entries, which are mainly based on the narrow presence or absence of symptoms. Amongst 161 cases, the most prescribed medicines were *Bryonia alba* ($n = 45$), *Gelsemium sempervirens* ($n = 25$), *Arsenicum album* ($n = 21$), *Phosphorus* ($n = 12$) and *Camphora* ($n = 12$). *Bryonia*, *Gelsemium* and *Arsenic* presented 91 cases (56.5% of the total), *Phosphorus* and *Camphora* 14.9%. A total of 1404 symptoms were recorded. The systematic collection of treatment data and application of Bayes’s theorem to calculate LRs allows relatively common symptoms to differentiate better between medicines, and this is enhanced by the combination of the common symptoms of the disease.

Comments: A Bayesian repertorisation using a limited number of common COVID-19 symptoms could improve the effectiveness of homoeopathic treatment of COVID-19, especially if there are no specific symptoms to indicate particular medicines. The database underlying the app is derived mostly from mild cases. It is however, uncertain whether severe cases would respond to the same medicines.

HOMOEOPATHY ON ACUTE RESPIRATORY TRACT INFECTIONS IN CASES OF CHILDREN

Title: Homoeopathic preparations for preventing and treating acute upper respiratory tract infections in children: A systematic review and meta-analysis

Authors: David King, Treasure M. McGuire, Mieke van Driel

Journal: Academic Pediatrics 2021 Mar;21(2):211-220. doi: 10.1016/j.acap.2020.07.016.

Summary: The objective of the study was to undertake a systematic review and meta-analysis of the trials with the highest level of evidence, to establish the risk and benefits for oral homoeopathic remedies used to treat and prevent acute respiratory tract infections (ARTIs) in children. Double-blinded randomised trials in children, treated with oral homoeopathic remedies versus placebo or conventional treatments for ARTI, were taken into consideration. The study concluded that effectiveness of homoeopathic remedies for childhood ARTIs is not supported in higher quality trials.

Comments: Many commercial formulations were taken as interventions in many studies which strictly do not follow the homoeopathic principles and philosophy. Significant clinical heterogeneity is another reason for this kind of negative conclusion.

CELLULAR ACTIVITY BY *RHUS TOXICODENDRON* IN THE MOUSE PRE-OSTEOBLAST CELL LINE

Title: Homoeopathic *Rhus toxicodendron* induces cell adhesions in the mouse pre-osteoblast cell line MC3T3-e1

Authors: Young Soo Oh, Soo Chul Chae, Hwan Kim, Hun Ji Yang, Kyung Jin Lee, Myeong Gu Yeo

Journal: Homeopathy 2021;110:108-114. Doi: <https://doi.org/10.1055/s-0040-1718744>.

Summary: For the cell-substrate adhesion assay, the cultured MC3T3-e1 cells were trypsinised, starved for 1 h in serum free media and plated onto culture plates coated with fibronectin, 30C *Rhus toxicodendron* or gelatin. The intracellular signals after stimulation of *Rhus toxicodendron* were examined by analysing the tyrosine phosphorylation of focal adhesion kinase (FAK), Src kinase and paxillin using immunoblot assay. Formation of focal adhesion was analysed by immunocytochemistry. Cell adhesion increased after stimulation with *Rhus toxicodendron*. Furthermore, *Rhus toxicodendron* stimulated cells formed many focal adhesions (number of FAs per cell, 35.82 ± 7.68) compared with gelatin-stimulated cells (number of FAs per cell, 19.80 ± 7.18) and exhibited extensive formation of actin stress fibres anchored by FAs formed at the cell periphery.

Comments: *Rhus toxicodendron* has been used to reduce inflammatory conditions. *Rhus toxicodendron* has action on cell adhesions in MC3T3-e1 cells, tyrosine phosphorylation of src kinase and paxillin, tyrosine phosphorylation of FAK and stimulation of MC3T3-e1 cells.

HOMOEOPATHY IN SEVERE ACUTE CONDITION

Title: Severe acute thromboinflammation: A case report of individualised homeopathic treatment

Author: Silvia Waisse

Journal: Homeopathy 2021;110:132-136. Doi: <https://doi.org/10.1055/s-0040-1721064>.

Summary: A 66-year-old female patient suspected with COVID-19 which was confirmed later exhibited acute fever, giant urticaria, elevated acute phase reactants and very high D-dimer levels characterising thromboinflammation. Urticarial vasculitis was ruled out. The appearance of hives was typical for *Apis mellifica*, which is also one of the few remedies that cover 'urticaria during fever'. The D-dimer level has shown correlation with the disease severity. For these reasons, all patients with severe COVID-19 should be tested for hypercoagulability (platelet count, prothrombin time, fibrinogen and D-dimer levels) on admission. After 60 h of *Apis* treatment, both PCR results were reported negative, fever had not recurred and urticaria had disappeared without leaving scars.

Comments: In Kent's repertory, the rubric 'urticaria during fever' is covered by *Apis*, *Ignatia* and *Rhus toxicodendron* (Grade 3), *Copaiva*, *Rhus venenata* and *Sulphur* (Grade 2), *Chlorum* and *Cubeba officinalis* (Grade 1). If the symptom similarity is accurate, the improvement for the severe acute conditions hastens.

PREMENSTRUAL SYNDROME AND PREMENSTRUAL DYSPHORIC DISORDER IN INDIA

Title: Prevalence of premenstrual syndrome and premenstrual dysphoric disorder in India: A systematic review and meta-analysis

Authors: Abhijit Dutta, Avinash Sharma

Journal: Health promotion perspectives, 2021;11(2):161-170. doi: 10.34172/hpp.2021.20.

Summary: The aim of the study was done to estimate the prevalence of premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD) amongst females of reproductive age group living in India. PubMed, Cochrane Library, Scopus and IndMed for studies reporting were taken into consideration. Estimated prevalence along with 95% confidence interval (CI) was reported for each outcome of interest. The quality of each study was evaluated with the help of the Modified Newcastle Ottawa Scale. PRISMA and MOOSE guidelines were followed for this systematic review. 8542 number of patients were considered for this study. The pooled prevalence of PMS and PMDD was 43% (95% CI: 0.35–0.50) and 8% (95% CI: 0.60–0.10), respectively. The estimation was heterogeneous due to multifactorial parameters.

Comments: A high prevalence of PMS and PMDD was found amongst Indian females of reproductive age group. A high

prevalence was found amongst adolescents, which affects the quality of life. Social demography, genetic background and psychological factors are the contributory factors. The authors recommended the development of governmental policies and guidelines to address this problem at individual and community level to increase the health status and productivity of this population.

ROLE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE IN CANCER CASES OF SUB-HIMALAYAN STATE IN INDIA

Title: Use of complementary and alternative medicine amongst patients with cancer in a sub-Himalayan state in India: An exploratory study

Authors: Laxman Pandey, Rajesh Pasricha, Deepa Joseph, Rachit Ahuja, Yanpothung Yanthan, Pankaj Kumar Garg, Manoj Gupta

Journal: Journal of Ayurveda and Integrative Medicine 2021; 12:126-130. doi.org/10.1016/j.jaim. 2021.01.001.

Summary: The purpose of the study was to evaluate the benefits complementary and alternative medicine in oncology. This study reported that manipulative CAM therapy might be useful in symptomatic management in cancer patients. A total of 2614 patients with cancer were included in this questionnaire-based study which was conducted amongst patients with cancer in a tertiary care hospital in a sub-Himalayan city. Half of the patients ($n = 1208$, 46.2%) reported to have been treated with CAM. Breast cancer ($n = 274$, 23%) was most prevalent, with majority at advanced stages. Using CAM benefitted a significant number of patients with cancer. There is an urgent need to integrate CAM with modern system of medicine.

Comments: The Indian Council of Medical Research conducted a study in 2007, including 45,000 people, and reported that 18% of people used CAM system for common problems where 33% used it for serious problems. CAM usage is more common in advanced (16.9%) and metastatic cancer patients (75.9%) than early stages (7.1%), with the most common diagnosis being breast cancer (23%), followed by prostate (20%), head and neck (15.9%) and urinary bladder (7.9%) malignancy.

ADJUNCTIVE HOMOEOPATHIC TREATMENT IN COVID-19

Title: Adjunctive homeopathic treatment of hospitalised COVID-19 patients (COVIHOM): A retrospective case series

Authors: Michael Takacs, Michael Frass, Gernot Walder, Philippa Fibert, Maria Rottensteiner, Walter Glück, Peter Lechleitner, Menachem Oberbaum, Ilse Leisser, Kavita Chandak, Peter Panhofer, Petra Weiermayer

Journal: Complementary Therapies in Clinical Practice 2021;44:10145. Doi: <https://doi.org/10.1016/j.ctcp.2021.101415>.

Summary: The aim of the study was to describe the effect of adjunctive individualised homoeopathic mode of treatment delivered to the COVID-19-infected hospitalised patients. Totally 13 patients of COVID-19 patients were taken into consideration. The mean age was 73.4 ± 15.0 (standard deviation) years. Twelve (92.3%) were speedily discharged without significant complications after 14.4 ± 8.9 days. A single patient admitted in advanced stage of septic disease died in hospital. A relevant improvement of clinical symptoms was observed in 12 surviving patients. Six (46.2%) were critically ill and treated in the intensive care unit (ICU). The mean stay at the ICU of the five surviving patients was 18.8 ± 6.8 days.

Comments: As there is no conventional treatment of COVID-19 available at present, adjunctive homoeopathic treatment may be helpful to treat patients with high-risk group of positive patients.

MICRO-NANO PARTICULATE CONCEPT OF HOMOEOPATHIC MEDICINES

Title: Micro-nano particulate compositions of *Hypericum perforatum* L. in ultra-high diluted succussed solution medicinal products

Authors: Dimitris Kalliantas, Meletia Kallianta, Konstantinos Kordatos, Chaido Stefania Karagianni

Journal: Heliyon 2021;7:e066604. Doi: <https://doi.org/10.1016/j.heliyon.2021.e066604>.

Summary: Ultra-high diluted succussed medicinal products make a very interesting explanation about the structure of the medicines. The main focus of the study was to know about the unanswered question of the chemical composition and the physiochemical properties of these products using *Hypericum perforatum* L. as a representative. During the trituration process functional chemical groups which is present in the alpha-lactose monohydrated got disappeared and some others new ones came in view at the end process. A difference on physiochemical properties between the source material and final triturating product was viewed. The presence of micro-nanoparticles in

colloidal form in all potencies derived trituration or extraction origin was found. The whole preparation process leads to creation of micro-nanoparticles something that for solid origin these products are created by trituration and for extract origin products these nanoparticles exist from the initiation.

Comments: Trituration is responsible for converting sparingly soluble raw materials into completely soluble state, before they are turned into homoeopathic solutions. In this research, it was found that beyond the reduction of grain size to a nano dimensional scale up to 6X potency, there is an appearance of functional groups in organic compounds in the mixture that did not exist in initial sample.

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Conflicts of interest

None declared.

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