Conceptualized, edited, designed and published by Dr. Saurav Arora
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Dose Quantification in Homeopathy

Studies to be read

**Fundamental Research**
- Effects of Ultra-Low-Dose Aspirin in Thrombosis and Haemorrhage
- Dilution-Induced Physico-Chemical Changes of Metal Oxide Nanoparticles Due to Homeopathic Preparation Steps of Trituration and Succussion
- Characterization of Antimonium crudum Activity Using Solvatochromic Dyes
- Calf Blood Compound (CFC) and Homeopathic Drug Induce Differentiation of Primary Human Skeletal Muscle Cells
- Evaluation of Homeopathic Phosphoric Acid, Silica and Pathogenic Vibrio on Digestive Enzyme Activity of Longfin Yellowtail Fish (Seriola rivoliana)
- Homeopathic Potencies May Possess an Electric Field(-like) Component: Evidence from the Use of Encapsulated Solvatochromic Dyes
- Entelechy Regained? Further Musings on a Quantised Gyroscopic Metaphor for the Vital Force in Health and Dis-Ease
- Effects of Homeopathic Phosphorus on Encephalitozoon cuniculi-Infected Macrophages In-Vitro
- An In-Vitro Assay Estimating Changes in Melanin Content of Melanoma Cells due to Ultra-Dilute, Potentized Preparations

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- Psoriasis cases of same diagnosis but different phenotypes-Management through individualized homeopathic therapy
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- Nineteenth-Century Homeopathic Materia Medica Texts Predict Source Materials Whose Physiological Actions Influence Thyroid Activity
- Importance of Temperament in Individualized Homeopathic Prescription: Evaluation by an Open, Randomized, Pilot Trial
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- The Complexity of the Homeopathic Healing Response Part 2: The Role of the Homeopathic Simillimum as a Complex System in Initiating Recovery from Disease
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- Correlation between Vitalism and Genetics According to the Paradigm of Complexity
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New Year 2020
Dose Quantification in Homeopathy

How Much We Dispense As a Single Dose?

Quantification of a Single Dose in Routine Clinical Practice - A Descriptive, Opinion based Survey

By
Dr Saurav Arora, MD
Dr Bharti Arora, MD
How Much We Dispense As a Single / One Dose?

Quantification of a Single Dose in Routine Clinical Practice - A Descriptive, Opinion based Survey

**Preamble:** This survey is to know about *Quantification of a Single Dose* in routine clinical practice.

This survey did not enquire about

- Prescription pattern i.e. whether the participant physician used single dose, or multiple doses etc. (repetition)
- Potency selection criteria.
- Polypharmacy and patents specific practice.

*The responses to the survey strictly adhered to the Privacy Policy of IPRH. The identities are kept strictly confidential.*

**Current Scenario:** In homeopathic clinical practice, there are various challenges, and amongst one of the challenge is quantity of a single dose. Although it has been mentioned in our literature about the concept of minimum dose, but there no consistent universal quantification of a dose. The amount/quantity of a dose differs in different settings despite following the Law of Minimum. It is equally right that a single dose is the minimum quantity of a medicinal substance to arouse the vitality of the patient, but the minimum dose is quantified differently in different settings. This might be influenced by factors such as:

- Baseline teaching
- Experience
- Influence Etc.

For example, a physician may dispense one drop of a medicine while another physician may dispense four drops of the same medicine for a similar condition. In both instances, they follow the law of Single-Minimum Dose, but the quantification is different. It is also argued that the quantity of homeopathic medicines does not play an important role because whatever quantity is given as one dose is considered minimum and single, but this might not be applicable in clinical settings where mother tinctures, biochemic etc. are prescribed.
Aim of this Survey: This survey aims to know about:

How much a physician dispenses as a Single/One Dose in clinical practice i.e.:

- What is the size of globules (sugar pellets) being used?
- How many globules are being prescribed as a Single Dose?
- How many drops of potentized dilution is being prescribed as a Single Dose?
- How many drops of mother tincture are being prescribed as a Single Dose?
- How many tablets of Biochemic salts are being prescribed as a Single Dose?

Important Points:

✓ This is a descriptive, opinion based survey.
✓ This survey aims to collect data from registered homeopathic practitioners.
✓ The survey is a collation of personal experience of a practitioner only.
✓ The survey aims to collect data and arrive at a collective pattern of a Single Dose.
✓ This survey does not aim to alter the beliefs and practices trends of a physician.

No. of Respondents: 417
Countries of Respondents

- Australia: 18
- Austria: 04
- Belgium: 02
- Bolivia: 01
- Brazil: 01
- Canada: 21
- Chile: 01
- Columbia: 01
- Costa Rica: 01
- Germany: 05
- Hungary: 03
- India: 270
- Ireland: 03
- Israel: 01
- Italy: 03
- Mexico: 04
- Netherland: 04
- New Zealand: 01
- Norway: 03
- Pakistan: 02
- Philippines: 01
- Romani: 01
- South Africa: 03
- Sweden: 01
- Switzerland: 04
- Thailand: 01
- United Kingdom: 24
- United States: 32
- Vietnam: 01
1. What is the size of Globules (Sugar Pellets) do you use in your practice?

### Globules size

<table>
<thead>
<tr>
<th>Globule Size</th>
<th>Number of Users [n (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>35 (8.39)</td>
</tr>
<tr>
<td>10</td>
<td>56 (13.42)</td>
</tr>
<tr>
<td>20</td>
<td>55 (13.18)</td>
</tr>
<tr>
<td><strong>30</strong></td>
<td><strong>179 (42.92)</strong></td>
</tr>
<tr>
<td>40</td>
<td>85 (20.38)</td>
</tr>
<tr>
<td>50</td>
<td>3 (0.71)</td>
</tr>
<tr>
<td>60</td>
<td>3 (0.71)</td>
</tr>
<tr>
<td>80</td>
<td>1 (0.23)</td>
</tr>
</tbody>
</table>

**Comparison with India Size**
- Granules correspond to size ~ 10
- Pills No. 3 ~ 20-30
- Pills No 60 ~ 30-40

Source: Helios UK website

N= 417; 0 depicts = variable / odd size of globules being used / no globules used etc.
2. How many Globules do you prescribe as a One (Single) Dose?

No. of Globules as One Dose

<table>
<thead>
<tr>
<th>No. of Globules</th>
<th>Responses [n(%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>19 (4.55)</td>
</tr>
<tr>
<td>1</td>
<td>62 (14.86)</td>
</tr>
<tr>
<td>2</td>
<td>43 (10.31)</td>
</tr>
<tr>
<td>3</td>
<td>64 (15.34)</td>
</tr>
<tr>
<td>4</td>
<td>119 (28.53)</td>
</tr>
<tr>
<td>5</td>
<td>63 (15.10)</td>
</tr>
<tr>
<td>6</td>
<td>33 (7.91)</td>
</tr>
<tr>
<td>8</td>
<td>4 (0.95)</td>
</tr>
<tr>
<td>10</td>
<td>5 (1.19)</td>
</tr>
<tr>
<td>15</td>
<td>4 (0.95)</td>
</tr>
<tr>
<td>20</td>
<td>1 (0.23)</td>
</tr>
</tbody>
</table>

N = 417; 0 depicts = variable number / no use of globules etc.
3. How many drops of potentized dilution do you prescribe as a Single Dose?

<table>
<thead>
<tr>
<th>Drops of Liquid Potentized Medicine as One Dose</th>
<th>Responses [n(%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>45 (10.79)</td>
</tr>
<tr>
<td>1</td>
<td>122 (29.25)</td>
</tr>
<tr>
<td>2</td>
<td>101 (24.22)</td>
</tr>
<tr>
<td>3</td>
<td>47 (11.27)</td>
</tr>
<tr>
<td>4</td>
<td>35 (8.39)</td>
</tr>
<tr>
<td>5</td>
<td>49 (11.75)</td>
</tr>
<tr>
<td>8</td>
<td>2 (0.47)</td>
</tr>
<tr>
<td>10</td>
<td>13 (3.11)</td>
</tr>
<tr>
<td>20</td>
<td>2 (0.47)</td>
</tr>
<tr>
<td>30</td>
<td>1 (0.23)</td>
</tr>
</tbody>
</table>

N= 417; 0 depicts = variable / No usage of liquid preparation in practice
4. How many drops of mother tincture do you prescribe as a One/Single Dose?

N = 417

<table>
<thead>
<tr>
<th>Drops of Mother Tincture</th>
<th>Responses [n(%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Use Mother Tincture</td>
<td>72 (17.26)</td>
</tr>
<tr>
<td>&lt;10</td>
<td>94 (22.54)</td>
</tr>
<tr>
<td>10-20</td>
<td>195 (46.76)</td>
</tr>
<tr>
<td>20-30</td>
<td>20 (4.79)</td>
</tr>
<tr>
<td>30 and above</td>
<td>11 (2.63)</td>
</tr>
<tr>
<td>Variable Dose</td>
<td>25 (5.99)</td>
</tr>
</tbody>
</table>
5. How many tablets of Biochemic salt (not bio-combinations) do you prescribe as a Single Dose?

<table>
<thead>
<tr>
<th>Tablets of Biochemic salt as a One/Single Dose?</th>
<th>Responses [n(%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>53 (12.70)</td>
</tr>
<tr>
<td>1</td>
<td>48 (11.51)</td>
</tr>
<tr>
<td>2</td>
<td>76 (18.22)</td>
</tr>
<tr>
<td>3</td>
<td>50 (11.99)</td>
</tr>
<tr>
<td>4</td>
<td><strong>156 (37.41)</strong></td>
</tr>
<tr>
<td>5</td>
<td>11 (2.63)</td>
</tr>
<tr>
<td>6</td>
<td>2 (0.47)</td>
</tr>
<tr>
<td>10</td>
<td>1 (0.23)</td>
</tr>
<tr>
<td>Variable</td>
<td>20 (4.79)</td>
</tr>
</tbody>
</table>

0 depicts = variable / No usage of liquid preparation in practice
Discussion: The selection of medicine and dose is an individual's decision which is affected by circumstances like baseline education, experience, experimentation and current medical trends. Since homeopathy takes into consideration various aspects, including philosophy of dose concept (as minimum dose), the variations are expected to happen. According to Organon of medicine the dose of homeopathic medicine is be adjusted according to the sensitivity of the patient, so as not to induce proving or adverse symptoms, but the exact quantification of dose is lacking majorly in all philosophies. The concept of minimum dose is used and there exists a variation in the quantification of a dose being “minimum dose”. One drop or even ten drops may constitute a single dose depending upon the circumstances. The dosage, potency and repetition is strictly decided on patient’s susceptibility and other factors like type of disease, age etc., but the final quantity of a dispensed dose might vary from individual to individual. Many physician opine that multiple dose stimulation is more effective than single. Even Dr. Hahnemann advocated multiple wet doses by split dose method at many places [Richard Hale].

The present survey aimed to receive the opinion of current medical practices in this field. Although, it was opined by many about the true need of survey when the details of a single dose has been described in pharmacy text books, but applicability of same varies in clinical practice. The survey collected the responses in context to a single (one) dose trends in adult patients only, there may be variations in dosage trends in pediatric population.

A challenge was reported by many respondents regarding the size of pillules which vary from country to country. For such responses the appropriate note was made in the results obtained (depicted with 0 or variable).

The results obtained are interesting and to some extent depicts the trends of quantification of dose in clinical practice, but as the responses are limited, generalizations could not be made at a larger level. Most common responses for

- Size of globules used - 30 [42.92%], 40 [20.38%]
- Number of globules used as one dose - 04 [28.53%], 03 [15.34%], 05 [15.10%]
- Drops of Liquid Potentized Medicine as One Dose - 01 [29.25%], 02 [24.22%]
- Drops of Mother Tincture - 10-20 [46.76%], < 10 [22.54%]
- Tablets of Biochemic salt as a One/Single Dose - 04 [37.41%], 02 [18.22%]

The survey is an initial step to understand the dose quantification aspect in practicing homeopathy and further worldwide surveys are warranted to understand the trends.
Studies to be Read

Abstracts of peer-reviewed studies published during July – Dec 2019. The original links are provided with each article. For citations, original links, authors and journals should be referred.

**Fundamental Research**

**Effects of Ultra-Low-Dose Aspirin in Thrombosis and Haemorrhage.**
*Homeopathy* 2019 Apr 20.

**Abstract**

**BACKGROUND:** Aspirin is the oldest and possibly the most widely used pharmacologically active substance still used in allopathic medicine. Its effect on fever and inflammation has paved the way to its anti-thrombotic effect. Dilutions of aspirin have been tested for many years in the University of Bordeaux, in humans as well as in animal models.

**METHODS:** This article is a review of the totality of articles published by the Laboratory of Hematology of the Faculty of Pharmacy of the University of Bordeaux, reporting different doses and dilutions of aspirin, different kinds of inhibitors, transgenic mice and animal models of disease such as portal hypertension and cirrhosis.

**RESULTS:** Homeopathic dilutions of aspirin, notably 15 cH, have shown a pro-thrombotic effect in humans and in in-vivo animal studies. Longitudinal studies in rats have also shown an initial anti-thrombotic effect followed by a pro-thrombotic effect of aspirin several days after a single high-dose administration. This pro-thrombotic effect seems to act by inhibiting the cyclooxygenase (COX)-2 pathway in studies performed with COX selective inhibitors and in knock-out mice without COX-1 or COX-2. This effect may explain the thrombo-embolic complications described after aspirin withdrawal for the purposes of surgery or after non-compliance with anti-platelet therapy, and it may be beneficial in normalising primary haemostasis and decreasing haemorrhage in animal models of portal hypertension and cirrhosis.

**CONCLUSIONS:** Aspirin 15 cH acts through the inhibition of the COX-2 pathway producing a clear pro-thrombotic effect. Further studies should clarify if the pro-thrombotic effect of aspirin withdrawal and the effect of aspirin 15 cH are related, as secondary effects of the same drug. Clarifying this last outcome may be of great significance to public health.

Dilution-Induced Physico-Chemical Changes of Metal Oxide Nanoparticles Due to Homeopathic Preparation Steps of Trituration and Succussion.

Abstract

BACKGROUND: Although the presence of starting materials in extreme dilutions of homeopathic medicines has been established, the physico-chemical changes of these materials induced by the manufacturing steps—that is, solid-solid mixing involving grinding (trituration) and slurry mixing involving impact (succussion), followed by dilution—are still unknown.

METHODS: We subjected cupric oxide and zinc oxide nanoparticles (NPs) to the homeopathic processes of trituration and succussion, followed by dilution up to 6cH. Particle image velocimetry was employed to analyze the fluid motion during succussion and its effect on the NPs. The resulting microstructural and chemical changes at different dilution steps were determined by X-ray photoelectron spectroscopy, Fourier-transform infrared spectroscopy and transmission electron microscopy.

RESULTS: The succussion triggered multi-sized bubble generation and turbulent fluid motion up to a duration of 400 ms, with maximum average velocity of 0.23 m/s. Due to 1% transfer of kinetic energy from a moving eddy with this velocity, upon collision, the rate of temperature change in a particle of size 1 µm and 1 nm was predicted to rise by approximately 102 K/s and 106 K/s respectively. During trituration, the oxide NPs reduced to metals and did not aggregate by remaining within lactose, but they converted to oxidized finer NPs after impact. Silicate chains leached from the vial cross-linked after third dilution, forming large macro-particles and encapsulating the NPs that were retained and carried at higher dilution steps.

CONCLUSION: The results showed that the NPs sustained significant rate of temperature change due to energy transfer from moving eddies during succussion. Different physico-chemical changes, such as size reduction, successive reduction and oxidation of NPs, and morphological changes, were achieved through trituration and succussion. The retention of NPs within cross-linked poly-siloxane chains reveals the importance of both the borosilicate glass vial and the ethanol solution during preparation of homeopathic medicines.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31652463
Characterization of Antimonium crudum Activity Using Solvatochromic Dyes.

Abstract

INTRODUCTION: The mechanism by which highly diluted and agitated solutions have their effect is still unknown, but the development in recent years of new methods identifying changes in water and solute dipole moments is providing insights into potential modes of action.

OBJECTIVE: The objective of the current study was to compare the biological effects of Antimonium crudum (AC) previously obtained by our group and already described in the literature with now measurable physico-chemical effects on solvatochromic dyes.

METHODS: Different dilutions of AC and succussed water have been characterized with respect to their effect on the visible spectra of the solvatochromic dyes methylene violet (MV), a pyridinium phenolate (ET33), and a dimethylamino naphthalenone (BDN) compared with in-vitro action against Leishmania amazonensis-infected macrophages.

RESULTS: Dye responses varied according to the dye used and the level of AC dilution and results were found to corroborate previously published in-vivo and in-vitro effects of AC. In addition, a very significant enhancement in the absorbance increase of MV was seen using the supernatant from AC 200cH-treated cells (15%; p < 0.0001) over that seen with AC 200cH itself (4%; p = 0.034), suggesting the amplification of ultra-high dilution effects by biological systems. Furthermore, supernatants from AC-treated cells increased the range of dilutions of AC that were capable of producing effects on the spectra of MV. The effect of AC dilutions on dye ET33 was eliminated by a weak electric current passed through potency solutions.

CONCLUSION: The data confirm a correspondence between the biological effects of dilutions of AC in-vitro and physico-chemical effects on solvatochromic dyes as measured by changes in their visible spectra. Results also indicate high dilutions of AC are sensitive to exposure to electric currents and biological systems.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31604351
Calf Blood Compound (CFC) and Homeopathic Drug Induce Differentiation of Primary Human Skeletal Muscle Cells.


**Abstract**
The use of injections to treat structural muscle injuries is controversially discussed. In our controlled in vitro study, we investigated the biological impact of Actovegin and Traumeel alone and in combination on primary human skeletal muscle cells. Cells were characterized by immunofluorescence staining for myogenic factor 5 (Myf5) and MyoD, and cultured with or without Actovegin and/or Traumeel. The effects of these agents were assayed by cell viability and gene expression of the specific markers MyoD, Myf5, neural adhesion molecule (NCAM), and CD31. Myotube formation was determined by myosin staining. Neither Actovegin nor Traumeel showed toxic effects or influenced cell viability significantly. High volumes of Actovegin down-regulated gene expression of NCAM after 3 days but had no effect on MyoD, Myf5, and CD31 gene expression. High volumes of Traumeel inhibited MyoD gene expression after 3 days, whereas after 7 days MyoD expression was significantly up-regulated. The combination of both agents did not significantly influence cell viability or gene expression. This is the first study demonstrating that Actovegin and Traumeel potentially modulate human skeletal muscle cells. The relevance of these in vitro findings has to be highlighted in further in vivo studies.


Evaluation of Homeopathic Phosphoric Acid, Silica and Pathogenic Vibrio on Digestive Enzyme Activity of Longfin Yellowtail Fish (Seriola rivoliana).

Homeopathy. 2019 Aug 27.

**BACKGROUND:** This research aimed to observe the effect of homeopathically prepared Vibrio parahaemolyticus (ViP) and V. alginolyticus (ViA) and the commercial homeopathic compound Similia (Phosphoricum acidum and Silicea terra) on the digestive enzyme activities of Seriola rivoliana juveniles under usual culture conditions.

**MATERIALS AND METHODS:** Biochemical analysis was used to study the effect of highly diluted substances (7C potency) prepared from ViP and ViA (Treatment 1: T1) and the homeopathic compound Phosphoricum acidum and Silicea terra (Treatment 2: T2) on changes in the main digestive enzymes on weaning-state fish (WS; 30 days post-hatching [DPH]) and early juveniles (EJ; 62 DPH) versus a reference control group that received no homeopathic medicines.

**RESULTS:** Treatment T2 significantly increased the activity of trypsin and lipase and decreased the activity of amylase, whereas treatment T1 increased the activity of chymotrypsin and reduced the activity of aminopeptidase-N in WS fish. Except for alkaline phosphatase, which was significantly reduced in the intestine, no significant differences in enzymatic activity were found between treated EJ fish and controls. The fish of the WS group had a higher growth rate with the T2 treatment.

**CONCLUSIONS:** T1 treatment stimulated chymotrypsin in EJ fish and T2 promoted intestinal maturation of WS fish. Higher growth rate with the T2 treatment may be associated with the stimulation of trypsin activity. Thus, T2 may be applied, under hatchery conditions, during larval stages with an aim to enhance digestion and assimilation of inert food.

Homeopathic Potencies May Possess an Electric Field(-like) Component: Evidence from the Use of Encapsulated Solvatochromic Dyes.


**Abstract**

**BACKGROUND:** Homeopathic potencies have been shown to interact with a range of solvatochromic dyes to produce spectroscopic changes in the visible region of the electromagnetic spectrum. Furthermore, the nature of the changes observed under different experimental conditions is beginning to limit the number of possible hypotheses that can be put forward regarding the fundamental identity of potencies.

**AIMS AND METHODS:** The present study uses β-cyclodextrins to encapsulate solvatochromic dyes of widely varying structures. The purpose of this approach is to de-couple the primary dye-potency interaction from any subsequent aggregation effects.

**RESULTS:** Despite large differences in molecular structure between dyes, results show that potencies affect all dyes according to the same fundamental principles. Specifically, positively and negatively solvatochromic dyes collectively respond in opposite and complementary ways to potencies in accordance with the differential stabilisation of their excited and ground electronic states. Under the conditions of encapsulation, positively solvatochromic dyes display a bathochromic shift of, on average, 0.4 nm with a 2% absorbance change, and negatively solvatochromic dyes display a hypochromic shift of, on average, 0.2 nm with a 1% absorbance change. This behaviour is only ever seen in two situations—where solvent becomes more polar or where an electric field is applied to solutions of dyes.

**CONCLUSIONS:** The conditions used in this and previous studies to investigate the interaction of potencies with solvatochromic dyes preclude increased polarity of solvent as being responsible for the observed effects and that an explanation in which potencies carry an electric field (or electric field-like) component is by far the more likely. From the magnitude of the spectral changes induced in the dye Brooker’s merocyanine by Arsenicum 10M, an estimate of the strength of the postulated electric field of $1.16 \times 10^7$ V/m can be made, which is comparable with the potential difference across cell membranes.


Abstract
BACKGROUND: Many complementary and alternative medicine modalities consider the vital force (Vf) an organism’s source of health and healing, Hahnemann’s notion of the Vf having similarities with quantum systems. Thus, the Vf is only indirectly observable via expressed symptoms: a quantum property is only indirectly observable via its observed experimental effects.

OBJECTIVE: To develop further a quantised gyroscopic metaphor of the Vf in which dis-ease slows axial rotation, causing the Vf to precess (i.e., express symptoms). The curative remedy accelerates axial rotation, throwing off the dis-ease, so precession (and symptom expression) cease.

METHOD: Using earlier wave functions depending solely on observed patient symptoms and changes to them, 6 further wave functions are generated, representing the Vf in various states of dis-ease and health.

RESULTS: All 6 Vf wave functions can be arranged on 6 of the 9 points of an enneagram, the other 3 representing the practitioner.

CONCLUSION: Transformations between the 6 Vf states are readily visualised. They may also be divided into two groups separated by a therapeutic “event horizon,” the practitioner being the “arbiter” between them. Thus, they could represent non-reductive information states, suitable as starting points for understanding the influence of consciousness on the therapeutic process..

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31382261
Effects of Homeopathic Phosphorus on Encephalitozoon cuniculi-Infected Macrophages In-Vitro.


Abstract

**INTRODUCTION:** Encephalitozoon cuniculi (E. cuniculi), a fungus that acts as an intracellular pathogen, causes a marked neurological syndrome in many host species and is a zoonotic concern. Although no well-established treatment for this syndrome is known, previous successful clinical experience using homeopathic phosphorus has been described in which symptom remission with no mortality occurred in 40/42 animals by means of unknown immunological mechanisms. The latter observation was the main motivation for this study.

**OBJECTIVE:** To verify, in an in-vitro model, if macrophages infected with E. cuniculi can change in function after treatment with different potencies of phosphorus.

**MATERIALS AND METHODS:** RAW 264.7 macrophages were infected with E. cuniculi in-vitro and treated with various homeopathic potencies of phosphorus. The vehicle was used as a control solution (0.06% succussed ethanol). After 1 and 24 hours, the following parameters were analyzed: parasite internalization (by the Calcofluor staining method), lysosome activity (by the acridine orange method), cytokine/chemokine production (by the MAGPIX system), and cell ultrastructure. Automatic image analysis was used when applicable, and the experiments were performed in triplicate.

**RESULTS:** Treatment with vehicle alone increased interleukin (IL)-6, tumor necrosis factor alpha and monocyte chemotactic protein -1 production (p ≤ 0.05) and reduced the number of internalized parasites (p ≤ 0.001). A progressive and time-dependent increase in RANTES (regulated on activation, normal T-cell expressed and secreted) and lysosome activity (p ≤ 0.002) was observed only after treatment with the highest potency of phosphorus (Phos 200cH), together with decreased apoptosis rate, intense parasite digestion, and the presence of non-internalized spores.

**CONCLUSIONS:** Phos 200 cH has a modulatory action on the activity of infected macrophages, especially a specific increase in RANTES, a key element in the prognosis of E. cuniculi-infected and of immunosuppressed patients bearing infections.

An In-Vitro Assay Estimating Changes in Melanin Content of Melanoma Cells due to Ultra-Dilute, Potentized Preparations.

Abstract

**INTRODUCTION:** The authors had previously conducted an in-vitro study to observe the effect of homeopathic medicines on melanogenesis, demonstrating anti-vitiligo potential by increasing the melanin content in murine B16F10 melanoma cells. A similar experiment was performed using further homeopathic preparations sourced from kojic acid (KA), hydrogen peroxide (H2O2; HP), 6-biopterin (BP), and [Nle\textsubscript{4}, D-Phe\textsubscript{7}]-α-melanocyte-stimulating hormone (NLE), some of which are known to induce vitiligo or melano-destruction at physiological dose.

**MATERIALS AND METHODS:** The homeopathic preparations of BP, KA, NLE, and HP were used in 30c potency. Alcohol and potentized alcohol were used as vehicle controls. Prior to starting the main experiment, the viability of B16F10 melanoma cells after treatment with study preparations was assayed. Melanin content (at 48 h and 96 h) and tyrosinase activity in melanocytes were determined.

**RESULTS:** At the end of 48 hours, NLE and HP in 30c potency had a significantly greater melanin content (p = 0.015 and p = 0.039, respectively) compared with controls; BP and KA in 30c potency had no significant effects. No significant changes were seen at the end of 96 hours. KA, NLE, HP, and vehicle controls showed an inhibition of tyrosinase activity.

**CONCLUSION:** The study demonstrated melanogenic effects of two homeopathic preparations. Further research to evaluate the therapeutic efficacy of these medicines is warranted.

A Placebo-Controlled Double-Blind Randomized Trial with Individualized Homeopathic Treatment Using a Symptom Cluster Approach in Women with Premenstrual Syndrome.

BACKGROUND: In a double-blind placebo-controlled randomized trial with parallel groups, the efficacy of individually prescribed homeopathic medicines was evaluated in women with premenstrual syndrome (PMS).

METHODS: In an outpatient department of a university clinic in Jerusalem, Israel (1996-1999), women with PMS, aged 18 to 50 years, entered a 2-month screening phase with prospective daily recording of premenstrual symptoms by the Menstrual Distress Questionnaire (MDQ). They were included after being diagnosed with PMS. A reproducible treatment protocol was used: women received a homeopathic prescription based on symptom clusters identified in a questionnaire. The symptoms were verified during a complementary, structured, interview. Only women whose symptoms matched the symptom profile of one of 14 pre-selected homeopathic medicines were included. Each participant was administered active medicine or placebo via random allocation. Primary outcome measures were differences in changes in mean daily premenstrual symptom (PM) scores by the MDQ. Analysis was by intention-to-treat.

RESULTS: A total of 105 women were included: 49 were randomized to active medicine and 56 to placebo. Forty-three women in the active medicine group and 53 in the placebo group received the allocated intervention with at least one follow-up measurement and their data were analyzed. Significantly greater improvement of mean PM scores was measured in the active medicine group [0.443 (standard deviation, SD, 0.32) to 0.287 (SD, 0.20)] compared to placebo [0.426 (SD, 0.34) to 0.340 (SD, 0.39)]; p = 0.043.

CONCLUSIONS: Individually prescribed homeopathic medicines were associated with significantly greater improvement of PM scores in women with PMS, compared to placebo. Replication, with larger sample size and other refinements, is recommended to confirm the efficacy of this treatment in other settings.

Psoriasis cases of same diagnosis but different phenotypes - Management through individualized homeopathic therapy.


This case series demonstrates that classical homeopathy may have a solution to psoriasis and its complications which goes beyond skin clearance and achieves general well-being. The variety in clinical phenotypes and their response to treatment may be explained on the basis of the theory of "Levels of Health."

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31428376

Case series of an alternative therapy for generalised lichen planus: Four case studies.


Abstract

Lichen planus (LP) is an idiopathic, cell-mediated immune disorder, accompanied by itching. Spontaneous remission occurs. Topical and systemic therapies are utilised. Four cases of generalized LP with and without mucosal involvement treated homeopathically are presented. Case 1: A 48-year-old female presented with a 7-month history of generalized itchy rash, which had been diagnosed as LP, treated unsuccessfully with topical steroids and removal of dental fillings. Examination revealed violaceous papules on upper and lower limbs, oral mucosal lesions and an irregular, erythematous, blanching, macular rash on the chest. She received homeopathic Ignatia amara at medication dilution factor (MK) potency, weekly dose and went into remission at 3 months. Patient remains in remission. Case 2: A 65-year-old female presented with a 27-year history of generalized LP, which had been unresponsive to topical steroids. Examination showed generalized, violaceous papules, with no mucosal involvement. She received homeopathic Aurum metallicum, MK potency, weekly, and went into remission. She relapsed at 8 months after onset of therapy, following a very stressful incident, but gained remission again with Aurum metallicum after 1 month of therapy. She remains in remission. Case 3: A 38-year-old male presented with a 21-year history of generalized LP. Medical history was significant for hepatitis B and asthma. Topical steroid therapy was only partially successful. Examination revealed generalized, violaceous papules, with oral and genital involvement. He received homeopathic Lycopodium at MK potency, weekly, and remitted by 2 months. He remains in remission. Case 4: A 41-year-old male presented with a 12-year history of generalized hypertrophic LP, which had responded partially to topical steroids and ultraviolet A therapy. Medical history was significant for reduced sense of smell. Examination revealed generalized, violaceous, hypertrophic papules and nodules. He received homeopathic Carcinosinum at MK potency and remitted at 6-months. In its long-standing, generalized form, with mucosal involvement, LP may respond to individualized homeopathy. More research may clarify homeopathy’s place in LP therapy.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31384327
Effectiveness of a homeopathic complex medicine in infantile colic: A randomized multicenter study.


Abstract

**OBJECTIVES:** Infantile colic is a common benign disease occurring in early infancy that may have a great impact on family life. In the present study, the effectiveness and safety of the complex homeopathic medicine Enterokind was compared with Simethicone for treating infantile colic.

**DESIGN AND SETTING:** Current data were drawn from a prospective, multicenter, randomized, open-label, controlled clinical trial that was conducted in 2009 in 3 Russian outpatient clinics. Children received either Enterokind (Chamomilla D6, Cina D6, Colocynthis D6, Lac defloratum D6 and Magnesium chloratum D6) or Simethicone. Data from infants ≤ 6 months with infantile colic are presented here.

**MAIN OUTCOME MEASURES:** The main outcomes assessments were the change of total complaints score (maximum 17 points) and total objective symptoms score (maximum 22 points) after 10 days of treatment.

**RESULTS:** Data from 125 infants ≤ 6 months with infantile colic were analyzed. The differences in total complaints and objective symptoms scores between baseline and day 10, estimated from the ANCOVA model, were found to be highly significant \( p < 0.0001; \) ITT in favor of Enterokind, both for complaints \( \Delta = -2.38; 95\% \) confidence interval \( [CI]: [-2.87; -1.89] \) and for objective symptoms \( \Delta = -2.07; 95\% CI: [-2.65; -1.49] \). 1 adverse event (AE), vomiting, occurred under Enterokind and was rated to be unlikely related to it; 4 AEs occurred under Simethicone. All AEs were non-serious.

**CONCLUSIONS:** The current study indicates that Enterokind is an effective and safe homeopathic treatment for functional intestinal colic in infants ≤ 6 months.

Nineteenth-Century Homeopathic Repertories Predict Increased Urinary Excretion of Bile in Cholestasis but Not in Non-Cholestatic Infant Jaundice.


Abstract

**INTRODUCTION:** There are two types of bilirubin: conjugated bilirubin, prevalent in cholestatic jaundice, and unconjugated bilirubin, prevalent in hematologic jaundice. Conjugated bilirubin is water soluble and is excreted in urine, whereas unconjugated bilirubin is neither water soluble nor excreted in urine. Homeopathic repertories published prior to the discovery of the two types of bilirubin in 1913 present an opportunity to test the reliability of homeopathic repertories and associated materia medica. If procedures involved in the collecting of homeopathic observations are reliable, then in repertories published prior to 1913, medicines listed for cholestatic jaundice should exhibit a stronger association with urine bile than medicines listed for hematologic jaundice.

**MATERIALS AND METHODS:** In three repertories published prior to 1913, medicines associated with jaundice were further classified into groups labeled “Cholestatic” or “Infant, mostly hematologic”. Medicines were identified as “Cholestatic” if associated with both white/clay-colored stool and liver/gallbladder symptoms. Medicines were identified as “Infant, mostly hematologic” if associated with infant jaundice without meeting criteria for the “Cholestatic” group. Controls were medicines appearing in Hahnemann’s *Materia Medica* Pura. Each category was assessed for green urine-usually reflective of bile in urine.

**RESULTS:** In Knerr’s repertory, the “Cholestatic” group demonstrated a significantly greater association with green urine than controls (p < 0.05, Fisher’s exact test), whereas the “Infant, mostly hematologic” group did not differ significantly from controls. For Lippe’s and Boenninghausen’s repertories, statistical significance was not demonstrated. Across repertories, the overall weighted pooled odds ratio (OR) demonstrated significance in the association between the “Cholestatic” group and green urine (OR, 2.384; 95% confidence interval, 1.234 to 4.607), whereas the “Infant, mostly hematologic” group was similar to that of controls (OR, 0.754; 95% confidence interval, 0.226 to 2.514).

**CONCLUSIONS:** Based on the presence or absence of bile in the urine, homeopathic repertories from the 19th century can distinguish between disease processes involving conjugated bilirubin and disease processes involving unconjugated bilirubin.

Nineteenth-Century Homeopathic Materia Medica Texts Predict Source Materials Whose Physiological Actions Influence Thyroid Activity.


INTRODUCTION: The homeopathic materia medica contains hundreds of thousands of observations collected over the course of two centuries. It includes both clinical observations of potentized medicines and observations of the actions of potentized medicines on healthy subjects (provisions). This current study was undertaken to determine the degree to which observations within the materia medica were associated with the physiological mechanisms for thyroid activity-inhibiting substances in their undiluted state.

MATERIALS AND METHODS: Four specific symptoms for iodine deficiency were selected to describe the hypothyroid state: (1) generalized aggravation by or sensitivity to cold; (2) chronic painless hoarseness; (3) goiter; (4) painless diffuse non-scarring alopecia. Symptom representation for the four selected symptoms within the homeopathic materia medica was compared for 2 halogen inhibitors, for 3 substances that influence thyroid hormone target tissues, for 6 substances known or suspected to increase thyroid-stimulating hormone or decrease thyroid hormone levels, and for 11 substances not known to inhibit thyroid activity. To avoid knowledge bias, only those compilations of materia medica whose publication dates preceded the discoveries of crucial aspects of thyroid physiology were used as source materials for investigation.

RESULTS: Homeopathic medicines derived from 11 substances with mechanisms for inhibition of thyroid activity were more likely to exhibit selected symptoms than the medicines derived from the 11 substances without known physiological mechanisms for thyroid activity inhibition. The difference between groups was analyzed via the Mann-Whitney non-parametric U test and was statistically significant to p < 0.01. After observations obtained from provings alone were removed from analysis, the difference remained significant to p < 0.01. Only the two halogen inhibitors of iodine (bromine and fluoric acid) and one of the influencers of thyroid hormone target tissue (calcium carbonate) were significantly goitrogenic.

CONCLUSIONS: With respect to thyroid activity inhibition, there is a statistically significant association between observations recorded within the homeopathic materia medica and the expected physiological mechanisms for the corresponding undiluted substances.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/30873570
Importance of Temperament in Individualized Homeopathic Prescription: Evaluation by an Open, Randomized, Pilot Trial.


Abstract

BACKGROUND: The importance of temperament in the selection of an individualized homeopathic medicine has not been evaluated systematically. The current study explored this under-researched area.

MATERIALS AND METHODS: A prospective, open, randomized (1:1), two parallel arms, pilot trial was performed on patients suffering from various chronic diseases. Each patient’s temperament was assessed using a newly developed “temperament diagnostic questionnaire”. Outcome measures were health status using the EQ-5D-5L questionnaire and a visual analog scale (VAS) of patient’s self-rated health, measured at baseline and at 3 months. Homeopathic medicines were prescribed on the basis of individualization, randomly with or without accounting for individual temperament, and patients grouped accordingly (temperament(+)) and temperament(-)). Baseline comparability of the two groups was checked, followed by analysis of group differences. A p-value < 0.01 was considered as statistically significant.

RESULTS: Fifty protocol-compliant patients were analyzed. The two groups were comparable at baseline. Over 3 months of intervention, there was significant improvement (p < 0.01) in each group. Though improvement in the EQ-5D-5L score was greater in the temperament(+) group (mean difference, 2.4; 95% confidence interval [CI], 0.2 to 4.5), the change did not achieve the threshold for statistical significance (p = 0.029). Improvement in VAS score was significantly greater in the temperament(+) group than in temperament(-) patients (mean difference, 15.2; 95% CI, 4.9 to 25.4; p = 0.004).

CONCLUSION: Considering temperament as a key element of individualized prescription may enhance health improvement from homeopathic treatment in chronic diseases. Independently replicated rigorous trials with validated scales are warranted.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31100756
Effect of Adjuvant Homeopathy with Usual Care in Management of Thrombocytopenia Due to Dengue: A Comparative Cohort Study.


Abstract

**BACKGROUND:** Dengue is an emerging threat to public health. At present, no clear modalities are available for the prevention and management of thrombocytopenia due to dengue. This article reports the clinical outcomes of integrative homeopathic care in a hospital setting during a severe outbreak of dengue in New Delhi, India, during the period September to December 2015.

**METHODS:** Based on preference, 138 patients received a homeopathic medicine along with usual care (H+UC), and 145 patients received usual care (UC) alone. Assessment of thrombocytopenia (platelet count \( \leq 100,000/\text{mm}^3 \)) was the main outcome measure. Kaplan-Meier analysis enabled comparison of the time taken to reach a platelet count of 100,000/mm3.

**RESULTS:** There was a statistically significantly greater rise in platelet count on day 1 of follow-up in the H+UC group compared with UC alone [mean difference = 12,337; 95% confidence interval [CI], 5,421 to 19,252; \( p = 0.001 \)]. This trend persisted until day 5 [mean difference = 14,809; 95% CI, 1,615 to 28,004; \( p = 0.02 \)]. The time taken to reach a platelet count of 100,000/mm3 was nearly 2 days earlier in the H+UC group compared with UC alone [H+UC: 3.44 days ± standard error of the mean [SEM] 0.18; 95% CI, 3.08 to 3.80; UC: 5.28 days ± SEM 0.29; 95% CI, 4.71 to 5.86; \( p < 0.001 \)].

**CONCLUSION:** These results suggest a positive role of adjuvant homeopathy in thrombocytopenia due to dengue. Randomized controlled trials may be conducted to obtain more insight into the comparative effectiveness of this integrative approach.

Usefulness of classical homeopathy for the prophylaxis of recurrent urinary tract infections in individuals with chronic neurogenic lower urinary tract dysfunction. 

Abstract

**Context/Objective:** to investigate the usefulness of classical homeopathy for the prevention of recurrent urinary tract infections (UTI) in patients with spinal cord injury (SCI). Design: prospective study. Setting: rehabilitation center in Switzerland. Participants: patients with chronic SCI and ≥3 UTI/year.

**Interventions:** Participants were treated either with a standardized prophylaxis alone or in combination with homeopathy. Outcome measures: The number of UTI, general and specific quality of life (QoL), and satisfaction with homeopathic treatment were assessed prospectively for one year. Results: Ten patients were in the control group; 25 patients received adjunctive homeopathic treatment. The median number of self-reported UTI in the homeopathy group decreased significantly, whereas it remained unchanged in the control group. The domain incontinence impact of the KHQ improved significantly (*P* = 0.035), whereas the general QoL did not change. The satisfaction with homeopathic care was high.

**Conclusions:** Adjunctive homeopathic treatment lead to a significant decrease of UTI in SCI patients. Therefore, classical homeopathy could be considered in SCI patients with recurrent UTI.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/29485355](https://www.ncbi.nlm.nih.gov/pubmed/29485355)
Perioperative Homeopathic Arnica and Bromelain: Current Results and Future Directions. 

Abstract

INTRODUCTION: Arnica and bromelain, two of the most widely recommended homeopathic medications to improve perioperative outcomes, have yet to be widely adopted by allopathic practitioners. A significant barrier to utilization of herbal medications by allopathic doctors is that the preparations and dosing regimens are not widely known or understood. The goal of this review was to critically analyze studies that have examined the perioperative efficacy of arnica and bromelain with a focus on treatment regimen and outcomes.

METHODS: A triple database search was conducted with the keywords “arnica,” “bromelain,” and ”surgery.” References for each identified article were analyzed for additional articles. Articles were analyzed for methodology, outcomes, and conclusion. Articles were excluded if they did not involve human subjects, were published before 1990, and if they were not available in English. Level of evidence was determined based on methodology.

RESULTS: A total of 29 articles met inclusion criteria, with 20 and 9 in the arnica and bromelain treatment groups, respectively. There was marked heterogeneity with regard to surgical procedure, dosing regimen, outcomes measured, and results. Arnica seems to have a mitigating effect on ecchymosis, most notably following rhinoplasty and facelifts/facial procedures. Bromelain is well supported across numerous studies in reducing trismus, pain, and swelling following molar extractions. However, there was no effect demonstrated when evaluating topical arnica following blepharoplasty procedures.

DISCUSSION: A systematic review of the literature demonstrates the potential for arnica and bromelain to improve perioperative outcomes including edema, ecchymosis, and pain control. Future studies are required to determine safety and efficacy of dosing and interactions with other medications. We hope this article stimulates surgeons to consider using these interventions to improve perioperative outcomes in the context of well-done studies with an objective analysis of results.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31800557

Abstract

BACKGROUND: The concepts of complex systems science enhance the understanding of how people develop and recover from disease. Living systems (human beings, animals, and plants) are self-organizing complex adaptive systems (CAS): that is, interconnected networks. CAS maintain life by initiating and carrying out non-linear dynamical changes to optimize survival fitness and function in the context of an ever-changing environment.

AIMS: In Part 1 of this two-part paper, we relate concepts from complex systems science to homeopathic healing. The systemic changes of homeopathic healing involve adaptive patterns of responses to salient signals (similia) for reversing disease patterns and generating emergent multi-symptom healing over time.

METHODS AND RESULTS: This narrative review relates homeopathic clinical practice theory to complex systems and network research. Homeopathic medicines communicate individually salient environmental information to the organism, with effects that are multi-system and indirect. The body’s defense mechanisms recognize the self-similar information that the correctly chosen simillimum medicine at low dose conveys as a weak external/internal environmental stressor or danger signal (hormetin) to mobilize neural and cellular defenses. The body networks then use endogenous cell to cell signaling and amplify the small magnitude signal information. The results are disproportionately large: that is, non-linear, adaptive, modifications across the inter-connected self-organized biological networks/sub-systems of the body. CAS amplification mechanisms for small or weak signals include stochastic resonance, time-dependent sensitization, and hormesis.

CONCLUSIONS: The body as a complex system has the capacity for self-organization, emergence and self-similarity over global (overall health and wellbeing) and local (organ) levels of organization. These features are key for future research on the systemic healing that evolves over time during individualized homeopathic treatment..

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31785596


**Abstract**

**BACKGROUND:** Evidence indicates that homeopathic medicines are complex self-organizing nano-scale systems that generate unique low-intensity electromagnetic signals and/or quantum coherence domains. In Part 1, we reviewed relevant concepts from complex adaptive systems science on living systems for the nature of homeopathic healing.

**AIM:** In Part 2, we discuss the complex-system nature of homeopathic medicines. The aim is to relate the evidence on the nature and properties of homeopathic medicines to the complex systems model for homeopathic healing.

**METHODS AND RESULTS:** The work is a narrative review, with complexity model development for the nature of homeopathic medicines. Studies suggest that homeopathic manufacturing generates nano-structures of source material, silica and silicon quantum dots if succussed in glassware or including botanical source materials; or carbon quantum dots if succussed in plastic or including any organic source materials, as well as solute-induced water nano-structures carrying medicine-specific information. On contact with physiological fluids (e.g., blood plasma), there is evidence that nano-structures additionally adsorb individualized patterns of the recipient’s own proteins on to their surfaces to create a unique protein corona coat (shell). Thus, the simillimum may generate a personalized biological identity upon administration. Consequently, a medicine can serve as an individually salient, self-similar information carrier, whose protein corona constituent pattern reflects the individual’s current internal state of health/disease. Homeopathic medicine complexity emerges from interactions of the component parts from source, silica from glassware or carbon from plastic containers, solvents (lactose, water, ethanol), adsorbed biomolecule layers from plant or animal sources, and adsorbed biomolecules of the recipient. Low doses of these complex medicines can act as biological signaling agents to initiate hormesis via a network-wide pattern of adaptive responses by the recipient complex adaptive system, rather than as conventional pharmaceutical drugs. Biological mediators of adaptive responses include inter-connected network elements of the cell danger/damage defense system: for example, gene expression, reactive oxygen species, heat shock proteins, cytokines, macrophages, T-cells, and associated brain-immune system mediator pathways.

**CONCLUSIONS:** Every homeopathic medicine is a complex nano-scale system involving multiple inter-connected, interacting components, and emergent properties. Simillimum individualization derives from formation of a unique personalized protein corona shell adsorbed to the reactive surface of the homeopathic nano-structures on contact with the recipient’s body fluids. Low doses of such complex nano-structures initiate the adaptive processes of hormesis to mobilize endogenous healing of a disease state. The capacity for self-organization and self-similarity in complex systems is the key to future research on the nature of homeopathic medicines and systemic healing during individualized homeopathic treatment.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31785597](https://www.ncbi.nlm.nih.gov/pubmed/31785597)
Homeopathy for treatment of irritable bowel syndrome.

Abstract

BACKGROUND: Irritable bowel syndrome (IBS) is a common, chronic disorder that leads to decreased health-related quality of life and work productivity. A previous version of this review was not able to draw firm conclusions about the effectiveness of homeopathic treatment for IBS and recommended that further high quality RCTs were conducted to explore the clinical and cost effectiveness of homeopathic treatment for IBS. Two types of homeopathic treatment were evaluated in this systematic review: 1. Clinical homeopathy where a specific remedy is prescribed for a specific condition; 2. Individualised homeopathic treatment, where a homeopathic remedy based on a person’s individual symptoms is prescribed after a detailed consultation.

OBJECTIVES: To assess the effectiveness and safety of homeopathic treatment for IBS.

SEARCH METHODS: For this update we searched MEDLINE, CENTRAL, Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Allied and Complementary Medicine Database (AMED), the Cochrane IBD Group Specialised Register and trials registers from inception to 31 August 2018.

SELECTION CRITERIA: Randomised controlled trials (RCTs), cohort and case-control studies that compared homeopathic treatment with placebo, other control treatments, or usual care, in adults with IBS were considered for inclusion.

DATA COLLECTION AND ANALYSIS: Two authors independently assessed the risk of bias and extracted data. The primary outcome was global improvement in IBS as measured by an IBS symptom severity score. Secondary outcomes included quality of life, abdominal pain, stool frequency, stool consistency, and adverse events. The overall certainty of the evidence supporting the primary and secondary outcomes was assessed using the GRADE criteria. We used the Cochrane risk of bias tool to assess risk of bias. We calculated the mean difference (MD) and 95% confidence interval (CI) for continuous outcomes and the risk ratio (RR) and 95% CI for dichotomous outcomes.

MAIN RESULTS: Four RCTs (307 participants) were included. Two studies compared clinical homeopathy (homeopathic remedy, asafoetida or asafoetida plus nux vomica) to placebo for IBS with constipation (IBS-C). One study compared individualised homeopathic treatment (consultation plus remedy) to usual care for the treatment of IBS in female patients. One study was a three armed RCT comparing individualised homeopathic treatment to supportive listening or usual care. The risk of bias in three studies (the two studies assessing clinical homeopathy and the study comparing individualised homeopathic treatment to usual care) was unclear on most criteria and high for selective reporting in one of the clinical homeopathy studies. The three armed study comparing individualised homeopathic treatment to usual care and supportive listening was at low risk of bias in four of the domains and high risk of bias in two (performance bias and detection bias). A meta-analysis of the studies assessing clinical homeopathy, (171 participants with IBS-C) was conducted. At short-term follow-up of two weeks, global improvement in symptoms was experienced by 73% [46/63] of asafoetida participants compared to 45% [30/66] of placebo participants (RR 1.61, 95% CI 1.18 to 2.18; 2 studies, very low certainty evidence). In the other clinical homeopathy study at two weeks, 68% [13/19] of those in the asafoetida plus nux vomica arm and 52% [12/23] of those in the placebo arm experienced a global improvement in symptoms (RR 1.31, 95% CI 0.80 to 2.15; very low certainty evidence). In the study comparing individualised homeopathic treatment to usual care (N = 20), the mean global improvement score (feeling unwell) at 12 weeks was 1.44 + 4.55 (n = 9) in the individualised homeopathic treatment arm.
compared to 1.41 + 1.97 \( n=11 \) in the usual care arm \( \text{MD} 0.03; 95\% \text{CI} -3.16 \) to 3.22; very low certainty evidence\]. In the study comparing individualised homeopathic treatment to usual care, the mean IBS symptom severity score at 6 months was 210.44 + 112.4 \( n = 16 \) in the individualised homeopathic treatment arm compared to 237.3 + 110.22 \( n = 60 \) in the usual care arm \( \text{MD} -26.86, 95\% \text{CI} -88.59 \) to 34.87; low certainty evidence\]. The mean quality of life score (EQ-5D) at 6 months in homeopathy participants was 69.07 [SD 17.35] compared to 63.41 [SD 23.31] in usual care participants \( \text{MD} 5.66, 95\% \text{CI} -4.69 \) to 16.01; low certainty evidence\]. For in the study comparing individualised homeopathic treatment to supportive listening, the mean IBS symptom severity score at 6 months was 210.44 + 112.4 \( n = 16 \) in the individualised homeopathic treatment arm compared to 262 + 120.72 \( n = 18 \) in the supportive listening arm \( \text{MD} -51.56, 95\% \text{CI} -129.94 \) to 26.82; very low certainty evidence\]. The mean quality of life score at 6 months in homeopathy participants was 69.07 [SD 17.35] compared to 63.09 [SD 24.38] in supportive listening participants \( \text{MD} 5.98, 95\% \text{CI} -8.13 \) to 20.09; very low certainty evidence\]. None of the included studies reported on abdominal pain, stool frequency, stool consistency, or adverse events.

**AUTHORS’ CONCLUSIONS:** The results for the outcomes assessed in this review are uncertain. Thus no firm conclusions regarding the effectiveness and safety of homeopathy for the treatment of IBS can be drawn. Further high quality, adequately powered RCTs are required to assess the efficacy and safety of clinical and individualised homeopathy for IBS compared to placebo or usual care.


**Correlation between Vitalism and Genetics According to the Paradigm of Complexity.**

**Abstract**

**INTRODUCTION:** In homeopathic philosophy, vital force is a non-material substrate that is responsible for maintaining the body’s sensations and functions and where homeopathic medicines act. In genetics, the body’s vital functions are controlled by biochemical information, which is contained in the cell genome and consists of a protein encoding portion (exome) and another that regulates this encoding scheme (epigenome). Both the philosophical vital force and the genome present properties of complex and dynamic self-organisation systems.

**AIMS:** This study aimed to explore and develop a philosophical-scientific correlation between vitalism and genetics according to the complexity paradigm.

**RESULTS:** Vital principle and genome present inseparable composition among distinct existing components that influence one another and form a network of connections that create complex and dynamic self-organisation behaviour. Described in both models, ‘vortex’ indicates the existence of a force coming from within the system that is externalised as an emergent, information-transmitting phenomenon. Supporting this correlation, some experimental studies show that homeopathic medicines act on the genome by modulating gene expression.

**CONCLUSIONS:** In line with the similarity of existing characteristics and properties, the genome may be considered as hypothetical biological substrate of organic vital force.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31319421](https://www.ncbi.nlm.nih.gov/pubmed/31319421)

Abstract

Objectives: In Part 1 of the review of physicochemical research performed on homeopathic preparations the authors identified relevant publications of sufficient reporting quality for further in-depth analysis. In this article, the authors analyze these publications to identify any empirical evidence for specific physicochemical properties of homeopathic preparations and to identify most promising experimental techniques for future studies.

Methods: After an update of the literature search up to 2018, the authors analyzed all publications in terms of individual experiments. They extracted information regarding methodological criteria such as blinding, randomization, statistics, controls, sample preparation, and replications, as well as regarding experimental design and measurement methods applied. Scores were developed to identify experimental techniques with most reliable outcomes.

Results: The publications analyzed described 203 experiments. Less than 25% used blinding and/or randomization, and about one third used adequate controls to identify specific effects of homeopathic preparations. The most promising techniques used so far are nuclear magnetic resonance (NMR) relaxation, optical spectroscopy, and electrical impedance measurements. In these three areas, several sets of replicated high-quality experiments provide evidence for specific physicochemical properties of homeopathic preparations.

Conclusions: The authors uncovered a number of promising experimental techniques that warrant replication to assess the reported physicochemical properties of homeopathic preparations compared with controls. They further discuss a range of experimental aspects that highlight the many factors that need to be taken into consideration when performing basic research into homeopathic potentization. For future experiments, the authors generally recommend using succussed (vigorously shaken) controls, or comparing different homeopathic preparations with each other to reliably identify any specific physicochemical properties.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31290681
Effects of Ultra-Low-Dose Aspirin in Thrombosis and Haemorrhage.

Abstract
BACKGROUND: Aspirin is the oldest and possibly the most widely used pharmacologically active substance still used in allopathic medicine. Its effect on fever and inflammation has paved the way to its anti-thrombotic effect. Dilutions of aspirin have been tested for many years in the University of Bordeaux, in humans as well as in animal models.

METHODS: This article is a review of the totality of articles published by the Laboratory of Hematology of the Faculty of Pharmacy of the University of Bordeaux, reporting different doses and dilutions of aspirin, different kinds of inhibitors, transgenic mice and animal models of disease such as portal hypertension and cirrhosis.

RESULTS: Homeopathic dilutions of aspirin, notably 15 cH, have shown a pro-thrombotic effect in humans and in in-vivo animal studies. Longitudinal studies in rats have also shown an initial anti-thrombotic effect followed by a pro-thrombotic effect of aspirin several days after a single high-dose administration. This pro-thrombotic effect seems to act by inhibiting the cyclooxygenase (COX)-2 pathway in studies performed with COX selective inhibitors and in knock-out mice without COX-1 or COX-2. This effect may explain the thrombo-embolic complications described after aspirin withdrawal for the purposes of surgery or after non-compliance with anti-platelet therapy, and it may be beneficial in normalising primary haemostasis and decreasing haemorrhage in animal models of portal hypertension and cirrhosis.

CONCLUSIONS: Aspirin 15 cH acts through the inhibition of the COX-2 pathway producing a clear pro-thrombotic effect. Further studies should clarify if the pro-thrombotic effect of aspirin withdrawal and the effect of aspirin 15 cH are related, as secondary effects of the same drug. Clarifying this last outcome may be of great significance to public health.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31005060
Explaining Homeopathy with Quantum Electrodynamics.

Abstract

BACKGROUND: Every living organism is an open system operating far from thermodynamic equilibrium and exchanging energy, matter and information with an external environment. These exchanges are performed through non-linear interactions of billions of different biological components, at different levels, from the quantum to the macro-dimensional. The concept of quantum coherence is an inherent property of living cells, used for long-range interactions such as synchronization of cell division processes. There is support from recent advances in quantum biology, which demonstrate that coherence, as a state of order of matter coupled with electromagnetic (EM) fields, is one of the key quantum phenomena supporting life dynamics. Coherent phenomena are well explained by quantum field theory (QFT), a well-established theoretical framework in quantum physics. Water is essential for life, being the medium used by living organisms to carry out various biochemical reactions and playing a fundamental role in coherent phenomena.

METHODS: Quantum electrodynamics (QED), which is the relativistic QFT of electrodynamics, deals with the interactions between EM fields and matter. QED provides theoretical models and experimental frameworks for the emergence and dynamics of coherent structures, even in living organisms. This article provides a model of multi-level coherence for living organisms in which fractal phase oscillations of water are able to link and regulate a biochemical reaction. A mathematical approach, based on the eigenfunctions of Laplace operator in hyper-structures, is explored as a valuable framework to simulate and explain the oneness dynamics of multi-level coherence in life. The preparation process of a homeopathic medicine is analyzed according to QED principles, thus providing a scientific explanation for the theoretical model of “information transfer” from the substance to the water solution. A subsequent step explores the action of a homeopathic medicine in a living organism according to QED principles and the phase-space attractor’s dynamics.

RESULTS: According to the developed model, all levels of a living organism-organelles, cells, tissues, organs, organ systems, whole organism-are characterized by their own specific wave functions, whose phases are perfectly orchestrated in a multi-level coherence oneness. When this multi-level coherence is broken, a disease emerges. An example shows how a homeopathic medicine can bring back a patient from a disease state to a healthy one. In particular, by adopting QED, it is argued that in the preparation of homeopathic medicines, the progressive dilution/succussion processes create the conditions for the emergence of coherence domains (CDs) in the aqueous solution. Those domains code the original substance information (in terms of phase oscillations) and therefore they can transfer said information (by phase resonance) to the multi-level coherent structures of the living organism.

CONCLUSIONS: We encourage that QED principles and explanations become embodied in the fundamental teachings of the homeopathic method, thus providing the homeopath with a firm grounding in the practice of rational medicine. Systematic efforts in this direction should include multiple disciplines, such as quantum physics, quantum biology, conventional and homeopathic medicine and psychology.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/30901775
Investigating the sociodemographic profile and health-related outcomes of chronically ill homeopathic patients: results from an observational multi-centered study in Bulgaria.


**Abstract**

**BACKGROUND:** The Complementary and Alternative Medicine (CAM) field in Europe has been a focus of research developments and public health policy changes for years. However, these processes are still in their infancy phase in Bulgaria. In this paper, homeopathy is the investigated CAM-modality at a Bulgarian context. The aim is threefold: 1) to outline the sociodemographic profile of the chronically ill adult patients (≥18 years old) who choose homeopathic medical treatment (HMT); 2) To identify the patients’ sources and needs of information about homeopathy, and the reasons to use HMT; and 3) to measure health-related outcomes in patients who have visited homeopathic clinics to look for HMT of their chronic conditions.

**METHODS:** A cross-sectional observational multi-centered study (≥18 years old, n = 211) was conducted between June 2016 to Dec. 2017 in Bulgaria. Potentially eligible participants for the study were all chronically ill patients who had been receiving HMT for a year or more and had visited the homeopathic clinics for a follow up within the study period. The EQ-5D-3L instrument was applied with an additional questionnaire on sociodemographic and health related data.

**RESULTS, DISCUSSION AND CONCLUSIONS:** The study results outlined the country specific sociodemographic profile of the chronically ill homeopathic patients in Bulgaria: they are predominantly female, with higher education and at the age groups between 30 and 50. The EQ-5D-3L version, was applied to measure patients’ health-related quality of life and to promote the use of a standardized generic instrument as a complementary and reliable scientific tool to assess the patient-reported outcomes of the homeopathic patients. Regarding the reasons of choice: the participants choose HMT because it is safe and mild, to avoid excessive antibiotic use, because the conventional treatment was not successful, etc. The study confirms the social demand for more scientific information about homeopathy. Participants stated that the medical universities’ curriculum should keep pace with the modern CAM-developments. A key message is that the future of the successful chronic disease management is in the integration of the conventional and CAM-modalities and these processes should be facilitated through public health regulations, education and research. The presented study is a supportive action in this direction.

**KEYWORDS:** Bulgaria; Chronically ill patients; Homeopathy; Public health

[Sociodemographic profile of the homeopathy user in Spain].
Aten Primaria. 2019 Oct;51(8):499-505

Abstract

OBJECTIVE: To identify the sociodemographic profile of the homeopathy user in Spain.

DESIGN: Quantitative study.

LOCATION: Spain.

CORPUS: The Centre for Sociological Research database (Study 3205, February 2018), with a total of 2,486 interviews, and the sub-sample that includes all patients who have claimed to use homeopathy in Spain in the last 12 months (n=124).

MAIN MEASUREMENTS: The percentages, means and/or standard deviation of the factors were calculated, as well as the significance of the changes in the different variables analysed in the general population, and the specific users of homeopathy in Spain. This was determined by the variance analysis or Pearson’s χ² test, depending on the nature of the variable in the study.

RESULTS: The homeopathy user-type profile in Spain is a woman, of middle/high social status, with higher university studies, and with a progressive political ideology.

CONCLUSIONS: The Spanish profile is similar to that in other international studies.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/30262221

Prevalence of ethanol and other potentially harmful excipients in pediatric oral medicines: survey of community pharmacies in a Nigerian City.

Abstract

OBJECTIVE: Excipients are needed in the formulation of oral liquid medicines intended for children; they have however been reported to trigger safety issues. This study evaluated the concentrations and prevalence of ethanol and other potentially harmful excipients in pediatric formulations marketed in South Eastern Nigeria in line with international labeling guidelines and allowable daily limits (ADL). The study sampled oral pediatric formulations offered for sale in registered pharmacies. Those with accessible information leaflets were assessed for the presence and quantity of previously flagged excipients with potential to harm the pediatric population.

RESULT: Of the 380 oral pediatric medicines, 140 provided access to list/quantity of ingredients. 47.9% (67) of the formulations contain at least one of the flagged excipients while the remaining only listed the active ingredients. Ethanol had the highest occurrence (62.7%) and was more in cough/cold medicines. A homeopathic cough and cold remedy had concentration of 90% v/v. Ethanol and sucrose in some formulations exhibited concentrations with a potential of crossing their approved daily intake (ADI) [1-90% v/v and 1.7 g-3.7 g/5 ml respectively]. Ethanol use in studied pediatric formulations was quite high, with ethanol-containing formulations being prescribed for children 0-6 years and older. Only 26 (38.8%) completely satisfied the labelling requirements for ethanol containing formulations.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31349864

Abstract

**INTRODUCTION:** Burning mouth syndrome (BMS) is a rare disease of unknown origin. No efficient treatment is known, and integrative approaches are warranted. So far, individualised homeopathy (iHOM) has not been evaluated or reported in any peer-reviewed journal as a treatment option.

**METHODS:** At the Centre of Complementary Medicine at a university institute in Switzerland, a 38-year-old patient with BMS and various co-morbidities was treated with iHOM between July 2014 and August 2018. The treatment involved prescription of individually selected homeopathic single remedies. During follow-up visits, outcome was assessed with two validated questionnaires concerning patient-reported outcomes. To assess whether the documented changes were likely to be associated with the homeopathic intervention, an assessment using the modified Naranjo criteria was performed.

**RESULTS:** Over an observation period of 4 years, an increasingly beneficial result from iHOM was noted for oral dysaesthesia and pains as well as for the concomitant symptoms.

**CONCLUSION:** Considering the multi-factorial aetiology of BMS, a therapeutic approach such as iHOM that integrates the totality of symptoms and complaints of a patient might be of value in cases where an association of psychological factors and the neuralgic complaints is likely.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31505694](https://www.ncbi.nlm.nih.gov/pubmed/31505694)
Homeopathy as Therapy for Mycosis Fungoides: Case Reports of Three Patients.  

Abstract

BACKGROUND: Mycosis fungoides (MF) is an uncommon, indolent, form of cutaneous T cell lymphoma, of which there are various types according to international classification. Various treatment modalities are available; however, these are fraught with potentially severe adverse effects.

METHODS: Three cases of immunohistochemically confirmed MF were treated with classical individualized homeopathy. Each case was followed up with photographic documentation and was reported according to the criteria set out in the HOM-CASE guidelines. Based on the WHO-EORTC (World Health Organization-European Organization for Research and Treatment of Cancer) criteria, the patients were classified as T1b, T1a/T1b and T2b respectively.

RESULTS: All cases remitted following homeopathic treatment and remained in remission. Side effects were not reported in these cases.

CONCLUSIONS: MF may respond to individualized homeopathic medicine. Although the case number here is small, MF is not a common disorder, spontaneous remission is not usually expected, and the disease may progress to a more severe form. Hence, these findings could serve as a basis for further research into the role of individualized homeopathic medicine in the treatment of MF.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31344727
How target-orientated is the use of homeopathy in dairy farming?-A survey in France, Germany and Spain. 

**Abstract**

**BACKGROUND:** Veterinary remedies are intended to support animals in their recovery from diseases. Treatment outcome depends not only on the general effectiveness of the remedies themselves, but also on other prerequisites. This is true for antibiotics, but even more so for treatments with homeopathic products which are characterised by their individualised approach. While the effectiveness of homeopathy has been addressed in various clinical control trials, the practical conditions under which homeopathic products are used on dairy farms have not yet been investigated. This study provides an initial insight into the existing prerequisites on dairy farms for the use of homeopathy (i.e. the consideration of homeopathic principles) and on homeopathic treatment procedures (including anamnesis, clinical examination, diagnosis, selection of a remedy, follow-up checks, and documentation) on 64 dairy farms in France, Germany and Spain. The use of homeopathy was assessed via a standardised questionnaire during face-to-face interviews.

**RESULTS:** The study revealed that homeopathic treatment procedures were applied very heterogeneously and differed considerably between farms and countries. Farmers also use human products without veterinary prescription as well as other prohibited substances.

**CONCLUSIONS:** The subjective treatment approach using the farmers’ own criteria, together with their neglecting to check the outcome of the treatment and the lack of appropriate documentation is presumed to substantially reduce the potential for a successful recovery of the animals from diseases. There is, thus, a need to verify the effectiveness of homeopathic treatments in farm practices based on a lege artis treatment procedure and homeopathic principles which can be achieved by the regular monitoring of treatment outcomes and the prevailing rate of the disease at herd level. Furthermore, there is a potential risk to food safety due to the use of non-veterinary drugs without veterinary prescription and the use of other prohibited substances.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31300066](https://www.ncbi.nlm.nih.gov/pubmed/31300066)
Evaluation of Parasitological Homeopathic Complex in the Control of Gastrointestinal Nematodes in Peripartum Sheep.  

Abstract

**BACKGROUND:** The appearance of anthelmintic resistance has made it difficult to control verminosis in sheep, leading to increased research to find alternative nematode control. The use of homeopathy in veterinary medicine has been studied as an alternative for the treatment and control of some diseases. In this study, ewes received an anti-parasitic homeopathic complex medicine during the critical peripartum period of increased susceptibility to nematodes.

**METHODS:** Three randomized groups containing 16 animals each were assigned as follows: 'H10' received 10 g homeopathic complex added to concentrated food per day; 'H20' received 20 g homeopathic complex added to concentrated food per day; 'C' [control group] did not receive a homeopathic complex. Animals were tested to evaluate the effect of homeopathy on several health parameters during a period of 110 days.

**RESULTS:** The parasite that prevailed in the copro-cultures of both treatments throughout the experiment was Haemonchus contortus (78.26%). Packed cell volume averages did not present statistically significant differences between the treatments [24.5, 24.4 and 23.9% to C, H10 and H20, respectively; p < 0.05]. For total white cell count, lower mean values (± standard error of mean) were observed for the H20 treatment [5,490.9 ± 0.02/µL; p < 0.05], whereas the H10 [5,919.4 ± 0.02/µL] and control [6,098.5 ± 0.02/µL] presented higher and similar averages (p > 0.05). The values for erythrocytes, monocytes, and lymphocytes did not show differences between treatments (p > 0.05). Body weight was greater in the H10-treated animals compared with control. For the fecal egg count (FEC) of Trichostrongylidae and Strongyloides spp., respectively, the averages of the H20 treatment [1,523.0 and 30.6] were not different from control [1,616.0 and 31.6] and H10 [1,038.0 and 27.6]; for Trichostrongylidae, however, H10 presented a lower FEC than the control (p = 0.02). For Cooperia, H10- and H20-treated animals showed FEC reductions of 97% and 98%, respectively.

**CONCLUSIONS:** H20 treatment in peripartum sheep resulted in greater body weight and lower leukocyte count. H10 was associated with lower FEC for Trichostrongylidae. Both H10 and H20 justify a label of ‘effective anthelmintic’ for Cooperia.

Effect of Homeopathic Medicines on Intestinal Coccidia and Immune Response Cells in Spotted Rose Snapper (Lutjanus guttatus).


Abstract

BACKGROUND: Homeopathy has been widely applied in freshwater species but rarely in marine fish. Farm stress destabilises host-pathogen equilibrium, favouring parasites and disease. Coccidial endoparasites cause intestinal infections and cell degeneration.

MATERIALS AND METHODS: Naturally parasite-infested juvenile snapper Lutjanus guttatus (n = 430; weight 1.9 ± 0.01 g; length 4.9 ± 0.03 cm) specimens were distributed in group sizes of 43, in 10 fiberglass tanks (100 L) with aeration and continuous water change. Five groups in duplicate were assessed: Passival (PaV); Passival and Phosphoricum acid Similia (PaV-PhA); Passival and Silicea terra Similia (PaV-SiT); Endecto and Infecções (End-Inf) and a control (Ethanol) for 45 days. Feed was sprinkled with treatment (5% v/w) and dried to avoid ethanol side-effects. Statistical results were expressed as mean ± standard error of the mean.

RESULTS: Intestinal coccidia were recorded histopathologically, with the least incidence attained at T45 with End-Inf treatment (p < 0.001), coinciding with the highest lymphocyte (p = 0.015) count. Fish treated with PaV-PhA recorded a higher percentage of neutrophils (p = 0.015), and those treated with PaV-PhA, PaV-SiT and End-Inf revealed a decrease in lesions, degree of alteration and change in intestine and stomach tissues (p < 0.05). The number of mucous cells in gills was greater (p < 0.001) for End-Inf (43 ± 0.58), PaV-SiT (40 ± 2.89) and PaV-PhA (39 ± 3.46) as compared respectively with T0 and control (19 ± 0.58 and 28 ± 2.31). PaV and PaV-SiT increased carbohydrate reserves in liver (28.4 ± 1.39% and 22.4 ± 0.12%, respectively) compared with T0 and control (3.4 ± 0.32 and 5.6 ± 0.66%). The highest survival rate was 97.7 ± 0.16% in fish treated with PaV and End-Inf.

CONCLUSION: Homeopathic treatments had a positive effect on fish health. Besides the accumulation of metabolic reserves in the liver, homeopathic treatment was associated with mucin increase in gills as well as raised production of lymphocytes and neutrophils in blood, which could act as macrophages against intestinal coccidia.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/30999384
[Homeopathy in the public health service: pre-assessment of activities in Recife, Pernambuco].

**Abstract**

Based This study is a pre-assessment of homeopathy activities in the municipality of Recife, Pernambuco. Review of official and technical documentation produced a preliminary logical theoretical model for this intervention, based on a matrix of criteria and indicators for evaluation. The model and matrix were submitted to key informants with expertise in the area, and the data were collected from six interviews in 2016. Three major components were seen to be needed for both tools: joint management and coordination; homeopathic care; and education, communication, and social mobilization. We expect the theoretical model and matrix of criteria and indicators which were developed and validated to serve as a reference to establish procedures for monitoring and assessing similar interventions.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31800847](https://www.ncbi.nlm.nih.gov/pubmed/31800847)

[Defending entitlement: struggles and fate of the practice of homeopathy in Colombia (1905-1950)].

**Abstract**

This article analyzes the practice and professional status of Colombian homeopaths in the twentieth century, based on applications for licenses in the “Teguas” series in the Archivo General de la Nación. Within the historical context of the practice of medicine in Colombia, it studies homeopathic practice within the framework of the debate between licensed and permitted medicine. In that context, the field of homeopathy was subordinate to university medicine and homeopaths were a group of practitioners who were neither homogeneous nor organized, but characterized by their shared struggle to become “entitled” to practice, and their advocacy of professional status through constant litigation against official reprimands.

Abstract

The change in position of homeopathic remedies in the health market produced by the emerging pharmacological paradigm was key to the popularization of homeopathy in Spain. The introduction of specifics and their marketing strategies led to a rise in popular legitimization of homeopathy, and the battles between different professionals created fertile ground for explaining and promoting this doctrine. This article analyzes a contextualized case in Barcelona in the early twentieth century, and explores from different perspectives the new role of pharmacists and medications in spreading homeopathy, centering on strategies for popularizing homeopathic remedies in Spain.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31800845

Abstract

**Background:** Assignment of expiry date to homeopathic medicines is a subject of important concern to its pharmacists and practitioners. This study compares the regulatory framework for the expiry of homeopathic medicines in four countries: Brazil, Germany, India and the United States.

**FINDINGS:** Different or no expiry periods are variously followed. Whereas Germany, with some exceptions, employs a maximum expiry of 5 years for both potencies and finished products, Brazil adopts a 5-year expiry for finished products only, potencies used in manufacture being exempted from an assigned expiry date. In India, all homeopathic medicines except dilutions and back potencies have a maximum of 5 years’ shelf-life, including those supplied to consumers. In the United States, homeopathic medicines are exempted from expiry dates.

**COMMENTS:** There is neither a rational basis nor scientific evidence for assigning a short (3-5 years) expiry period for homeopathic medicines as followed in some of the countries, particularly in light of the fact that some studies have shown homeopathic medications to be effective even after 25 years. Homeopathic ultra-dilutions seem to contain non-material activity that is maintained over time and, since these exhibit different chemical properties compared to the original starting material, it is quite possible they possess properties of longer activity than conventional medicines. Regulators should acknowledge this feature and differentiate expiry of homeopathic medicinal products from that of conventional drugs.

**Article Link:** [https://www.ncbi.nlm.nih.gov/pubmed/31357216](https://www.ncbi.nlm.nih.gov/pubmed/31357216)
Empirical investigation of preparations produced according to the European Pharmacopoeia monograph 1038.
Eur J Pharm Sci. 2019 Sep 1;137:104987

Abstract

According to the European Pharmacopoeia monograph 1038 (Praeparationes homoeopathicae), homeopathic preparations are produced by successive dilution and succussion steps. Dilution levels beyond Avogadro’s limit, however, render specific effects implausible according to standard scientific knowledge. Accordingly, we were interested in a critical empirical investigation of preparations produced according to this monograph. Within a precursor study we developed a bioassay based on a fingerprint metabolomic analysis of Lepidium sativum seeds germinated in vitro in either homeopathic preparations or controls in a blinded and randomized assignment. Results of the precursor study were not consistent with the hypothesis that the effects of a Stannum metallicum 30x preparation are identical to placebo. In the present study we investigated the reproducibility of these effects after scrutinizing and optimizing experimental procedures. Ten independent experiments were performed in a blinded and randomized assignment in two independent laboratories. Additionally, 10 systematic negative water control experiments were performed in both laboratories to critically assess the stability of the experimental set-up. The effects of the Stannum metallicum 30x treatment were reproduced. The systematic negative control experiments did not yield false-positive results, indicating a stable experimental set-up. We thus repeatedly observed biological effects conflicting with the assumption that Stannum metallicum 30x is identical to placebo. We therefore wish to discuss whether these findings are to be considered a scientific anomaly or whether they might stimulate further investigations to clarify whether application of the European Pharmacopoeia monograph 1038 may result in pharmaceutical preparations with specific effects.

Article Link: https://www.ncbi.nlm.nih.gov/pubmed/31295547
Antiproliferative potential and phenolic compounds of infusions and essential oil of chamomile cultivated with homeopathy.

Abstract

ETHNOPHARMACOLOGICAL RELEVANCE: Chamomilla recutita (Asteraceae) is used worldwide as a soothing, anti-inflammatory and aromatherapy. In Brazil, it is one of the most cultivated medicinal species. However, the cultivation form may alter the production of compounds in the secondary metabolism and compromise the therapeutic purpose of this species.

AIM OF THE STUDY: Evaluation of antiproliferative and genotoxic effects of infusions and essential oil of chamomile, cultivated with homeopathy, on the cell cycle of Allium cepa, as well as the determination of the phenolic compounds present in the infusions of the chamomile inflorescences.

MATERIAL AND METHODS: For the Allium cepa test, two concentrations of 10 and 40 g L-1 of inflorescences of chamomile were used for the preparation of the infusions and essential oil diluted to 0.10%, referring to the six treatments obtained in field cultivation, in which were carried out the applications of homeopathy from the emergence to the harvest of the plants. Distilled water and ethanol were used as negative control and glyphosate 2% as a positive control. The determination of phenolic compounds present in the infusions was carried by liquid chromatography in a UHPLC apparatus.

RESULTS: Chamomile infusions at concentrations of 10 and 40 g L-1 of inflorescence reduced mitotic index and emphasized antiproliferative activity on the cell cycle of Allium cepa. However, the treatments related to essential oil diluted to 0.10% showed a response variation dependent on the dynamization used, as well as for apigenin concentration.

CONCLUSIONS: Therefore, cultivation with homeopathy does not induce a genotoxic effect in the use of infusions and essential oil of chamomile and it emphasize antiproliferative activity on the cell cycle of Allium cepa, favoring the sustainable cultivation and the safe use of this medicinal species when cultivated with homeopathy.

IPRH is thankful to Homeopathy Research Institute (HRI) to share the knowledgeable compilation of #HRILondon2019 conference video presentations. The same may be accessed at link http://bit.ly/hrifilms2019

HRI London 2019 Conference was the fourth international homeopathy research conference and was described by many as the best yet! There are 38 individual films, organised by research themes into 8 playlists. Watching all films will provide 11 hours of learning time.
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