



Homeopathy combat against coronavirus disease (Covid-19)

D. Kalliantas^{1,2} · M. Kallianta³ · Ch. S. Karagianni¹

Received: 17 April 2020 / Accepted: 7 May 2020
© Springer-Verlag GmbH Germany, part of Springer Nature 2020

Abstract

Aim Today, humanity is living through the third serious coronavirus outbreak in less than 20 years, following SARS in 2002–2003 and MERS in 2012. While the final cost on human lives and world economy remains unpredictable, the timely identification of a suitable treatment and the development of an effective vaccine remain a significant challenge and will still require time. The aim of this study is to show that the global collective effort to control the coronavirus pandemic (Covid 19) should also consider alternative therapeutic methods, and national health systems should quickly endorse the validity of proven homeopathic treatments in this war against coronavirus disease.

Subject and methods With the help of mathematics, we will show that the fundamental therapeutic law on which homeopathy is founded can be proved.

Results The mathematical proof of the law of similarity justifies perfectly the use of ultra - high diluted succussed solution products as major tools in the daily practices of homeopathy.

Conclusion It is now time to end prejudice and adopt in this fight against Covid-19 alternative therapeutic techniques and practices that historically have proven effective in corresponding situations.

Keywords Coronavirus · Covid-19 · Infectious disease · Laws · Homeopathy · Pneumonia

Introduction

On the 29th of December 2019 a number of cases with unknown origin pneumonia were admitted to the hospital of Wuhan, in China. This was caused by a novel betacoronavirus, named as coronavirus (2019-nCoV) (Shajee et al. 2020; Huang et al. 2020). It is an acute infectious disease mainly impacting the respiratory system, which has been found for the first time in human beings (WHO 2020).

Symptoms of Covid-19 are similar to other viral upper respiratory illnesses. Three major severity level phases characterize the coronavirus disease: a mild phase with upper

respiratory symptoms, non-severe pneumonia, and severe pneumonia complicated by acute respiratory distress syndrome (ARDS). The main systemic and respiratory symptoms caused by Covid-19 infection are dependent on the age of the patient and the status of the patient's immune system (Wang et al. 2020a, b, c). The main systemic disorders are fever, cough, fatigue, sputum production, headache, haemoptysis, acute cardiac injuries, hypoxemia, dyspnoea, lymphopenia, and diarrhea. On the other hand, the main respiratory disorders are rhinorrhoea, sneezing, sore throat, pneumonia, ground-glass opacities, RNAemia, acute respiratory distress syndrome (Hussin and Siddappa 2020). The novelty of the virus rests in its unpredictable strange behavior, although in the early stages of the infection it develops very slowly and behaves like the common viruses; if it finds a weakened immune system, it proceeds severely fast, destroying the lungs, by creating pulmonary fibrosis. At this state the patient has a level of dyspnea as if he is drowning in water. At present, there are no specific antiviral drugs or vaccine against Covid-19 infection for potential therapy of humans. The only option available is using broad-spectrum antiviral drugs, HIV-protease inhibitors that could attenuate virus infection and chloroquine, which has been shown to control the 2019-n Co V infection in vitro (Lu 2020; Chen et al. 2020; Wang et al. 2020a, b, c;

✉ D. Kalliantas
dimitris@kalliadass.com

¹ Department of Materials Science and Engineering, School of Chemical Engineering, NTUA, GR15780, Athens, Greece

² National Technical University of Athens, 9 Heroon Polytechniou Str. Zografos Campus, 15780 Athens, Greece

³ School of Dentistry, National and Kapodistrian University of Athens, Athens, Greece

Toots et al. 2019). Anti-inflammatory drugs (such as hormones and other molecules), as well as Chinese traditional medicines, such as ShuFengJieDu capsules and Lianhuaqingwen capsules, have also been used (Ji et al. 2020; Ding et al. 2017). All of the drug options come from experience in treating SARS, MERS, or some other new influenza viruses previously, and are aiming to address active symptoms. These drugs above may prove helpful, but their efficacy needs to be further confirmed. The research methodology with regard to traditional or other medicines which are needed in this pandemic is mentioned by others (Lu 2020; Wang et al. 2020a, b, c; Zhang et al. 2020).

In our present work, we will focus upon the logical structure and benefits of homeopathy as a therapeutic system suitable to cope with this pandemic.

Methods With the help of mathematics, we will show that the fundamental therapeutic law on which homeopathy is founded can be proved.

Results and discussion

Homeopathy is a natural therapy method and an experimental science. It exploits a main property of nature, that of self-similarity on a change of scale. The term self-similarity is used to show that similarity between the disease and the substances which under the same conditions present similar behavior must be full and lead to a mathematical identity.

Homeopathy, as a healing method, is based on the Hippocratic *Similia Similibus Curentur* therapeutic law. The physician relies on the wholeness of symptoms revealed during the entire evolution of the infection, and prescribes an ultra - high diluted succussed solution product which has been proven to heal similar conditions. This is a great advantage in this timing while Covid-19 disease is in rapid development, because the diagnosis of the indicated ultra-high diluted succussed solution product is based on individual symptoms (if these are very characteristic) or on the totality of symptoms, and not in the pathology.

Established medicine has to wait until the cause for the pathology is found, whereas in homeopathy we take into consideration the response of the organism to the causative factor (the totality of the symptoms) in order to start the treatment. Therefore, the intervention can be immediate and very helpful for the patient.

The totality of symptoms for each patient become the guiding signs for finding the indicated remedy. In that way we can prescribe an ultra high - diluted succussed solution product with the first manifestation of symptoms, preventing the full development of the pathology. Let us not forget that the basic principle is that there are not diseases but patients, and that every patient is a special case. Homeopathic ultra - high

diluted succussed medicinal products which are used as remedies come from nature (of plant, animal, mineral nosode origin etc.), naturally manufactured (trituration, dilution, succussion) and with an infinite storage time. They present reverse self-similarity properties with almost all known diseases. Also, as we have demonstrated in our previous work, the physical features — size and granularity — of solid raw starting materials to prepare these ultra high diluted succussed solution products are strongly affected by trituration in lactose, before turning them into homeopathic solutions, and in the final triturated step the materials are transformed into micro/nano scale (Kalliantas et al. 2018; Kalliantas et al. 2017). The validation of the Hippocratic idea that a substance which may cause symptoms to a healthy person can also cure these symptoms was carried out for the first time by S. Hahnemann with Cortex Peruvian fever tree bark. He called this work “drug proving” and he was the first to lay the foundations of the experimental medicine long before the birth of Claude Bernard (Kalliantas 2008).

Let us see how this reasoning–practice can be depicted on a mathematical level theoretically. The value of this footprint helps the logic of documentation–foundation that runs through homeopathy. Let E and E' be the patient and the prover (a healthy person on whom a homeopathic remedy is tested for effectiveness) respectively.

Patient E .

A = Dynamic operator of the pathogenic cause.

χ_i = Symptom or symptoms of physical disease which correspond to the alterations of the biochemical kinetics of the organism after the action of A .

χ_0 = the normal biochemical kinetics of the organism.

The term “operator” means a symbol, which, when being applied to a function, is transformed into another.

Prover E' .

C = Dynamic operator of the under-examination pathogenic substance.

x'_i = Symptom or symptoms of the prover which correspond to alterations of the biochemical kinetics of the organism after the action of C .

χ'_0 = the normal biochemical kinetics of the prover.

According to the above statement, the patient, before becoming ill, was healthy, and a pathogenic cause had an effect on him. The action of A upon E gives us symptoms. Therefore, it could be said that the symptom or symptoms are the result of the action A and its development on x_0 of E . Then, it could be considered that:

$$x_i = Ax_0. \quad (1)$$

Here A can be considered to transform x_0 into x_i (disturbed metabolism). Similarly, if x'_i is the same symptom or symptoms in the prover as those of the patient, then this is a result of the C 's action, which is the dynamics of the under-

examination pathogenic substance in x'_0 , which is the normal biochemical kinetics of the prover.

Then we have

$$x'_i = Cx'_0 \tag{2}$$

Here C again can be considered to transform x'_0 into x'_i . Since the patient and the prover are human beings with similar functions (there are no identical organisms), the relationship which connects their biochemical kinetics can take place with the help of an operator, such as B.

Then we have

$$x'_i = Bx_i \tag{3}$$

$$x'_0 = Bx_0 \tag{4}$$

Therefore

$$x'_i = Cx'_0 \tag{2}$$

So (3)

$$\Rightarrow x'_i = BAx_0 \tag{5}$$

From (4)

$$\Rightarrow x'_0 = Bx_0 \Rightarrow x_0 = B^{-1}x'_0 \tag{6}$$

and (5)

$$\Rightarrow x'_i = (BAB^{-1})x'_0$$

and

$$\left. \begin{matrix} x'_i = Cx'_0 \\ x'_i = (BAB^{-1})x'_0 \end{matrix} \right\} \Rightarrow Cx'_0 = (BAB^{-1})x'_0 \\ C = BAB^{-1}$$

It can be observed that the “operators” C and A which correspondingly represent the dynamics of the pathogenic substance and the dynamics of the pathogenic factor are inter-related with an affine transformation.

The operator B is used to connect two biochemical kinetics, the patient and the prover, in an equality relationship. It could also be noticed that in the equation of operators $C = BAB^{-1}$, B is presented as the product of itself with its opposite.

Homeopathy is an individualized system of therapy, therefore there is no possibility that one remedy will cure all cases of a specific pathology. However, from the afore-mentioned symptoms, both respiratory and systemic, professional homeopathic physicians could use homeopathic ultra - high diluted succussed solution products in the early stages of pathology such as Aconitum napellus or Arsenicum Album or Eupatorium perfoliatum or Gelsemium or Ipecacuana, in the

later stages Bryonia or Phosphorus as the main drugs, and in the final stages Antimonium Tartaricum or Baptisia or Camphor Officinalis. (Vithoukias 1997; Ghegas 2000; Allen 1995; Boericke 1990; Schroyens 1993). All the ultra - high diluted succussed solution product doses can be given to patients in 200c or 1 M potencies without using any other medications.

Conclusion

Today, it is imperative that ever-safe medicinal products such as homeopathic ultra - high diluted succussed solutions are tested in this pandemic. Epidemiological research has to be carried out to include homeopathic treatment and compare it to established treatments. Patients should be assigned randomly in two different groups of at least 200–400 individuals, and receive respectively established and homeopathic treatment. The evaluation of the results from both groups could reveal which group has a superior outcome in survival, general health conditions, etc., and to what extent.

Compliance with ethical standards

Conflict of interest The authors declare that they have no financial or other conflicts of interest in relation to this research and its publication.

Competing interests The authors declare that they have no competing interests.

References

- Allen TF (1995) The Encyclopedia of pure materia medica. B. Jain Publishers Ltd, New Delhi
- Boericke W (1990) Pocket manual of homeopathic materia medica & repertory. B. Jain Publishers Ltd, New Delhi
- Chen N, Zhou M, Dong X, Qu J, Gong F, Han Y, Qiu Y, Wang J, Liu Y, Wei Y, Xia J, Yu T, Zhang X, Zhang L (2020) Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet (10223) 395: 507–513. [https://doi.org/10.1016/S0140-6736\(20\)30211-7](https://doi.org/10.1016/S0140-6736(20)30211-7)
- Ding Y, Zeng L, Li R, Chen Q, Zhou B, Chen Q, Cheng PL, Yutao W, Zheng J, Yang Z, Zhang F (2017) The Chinese prescription lianhuaqingwen capsule exerts anti-influenza activity through the inhibition of viral propagation and impacts immune function. BMC Complement Altern Med 17:130
- Ghegas V (2000) The classical homeopathic lectures. Homeo-Study VZW, Genk, Belgium
- Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, Zhang L, Fan G, Xu J, Gu X, Cheng Z, Yu T, Xia J, Wei Y, Wu W, Xie X, Yin W, Li H, Liu M, Xiao Y, Gao H, Guo L, Xie J, Wang G, Jiang R, Gao Z, Jin Q, Wang J, Cao B (2020) Clinical features of patients infected with 2019 novel coronavirus in Wuhan. China Lancet 395:497–506
- Hussin AR, Siddappa NB (2020) The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. J Autoimmunity 109: 102433. <https://doi.org/10.1016/j.jaut.2020.102433>

- Ji S, Bai Q, Wu X, Zhang DW, Wang S, Shen JL, Fei GH (2020) Unique synergistic antiviral effects of Shufeng Jiedu capsule and oseltamivir in influenza a viral-induced acute exacerbation of chronic obstructive pulmonary disease. *Biomed Pharmacother* 121:109652
- Kalliantas D, Kassalia ME, Georgiadou A, Karagianni Ch S (2018) The physical features—size and granularity—of solid materials are strongly affected by trituration in lactose, before turning them into homeopathic solutions. *Mater Sci Eng C* 93:305–318
- Kalliantas D, Kassalia ME, Karagianni CHS (2017) Trituration and fractal dimension in homeopathic pharmacopoeia. *Pharmaceutica Analytica Acta* 8:554
- Kalliantas D (2008) *The Chaos theory of disease*. Kallianta A Publications, Eleusis, Greece
- Lu H (2020) Drug treatment options for the 2019-new coronavirus (2019-nCoV). *Biosci Trends* 14(1):69–71. <https://doi.org/10.5582/bst.2020.01020>
- Schroyens F (1993) *Synthesis repertorium homeopathicum syntheticum* Edition 5. Homeopathic Book Publishers, London
- Shajeea AA, Baloch M Naseem A, Asadullah AA, Ayman I (2020) The outbreak of coronavirus disease 2019 (COVID-19)—an emerging global health threat. *J Inf Publ Health* 13(4): 644–646. <https://doi.org/10.1016/j.jiph.2020.02.033>
- Toots M, Yoon JJ, Cox RM, Hart M, Sticher ZM, Makhsous N, Plesker R, Barrena AH, Reddy PG, Mitchell DG, Shean RC, Bluemling GR, Kolykhalov AA, Greninger AL, Natchus MG, Painter GR GR, Plemper RK (2019) Characterization of orally efficacious influenza drug with high resistance barrier in ferrets and human airway epithelia. *Sci Transl Med* 11(515):5866
- Vithoulkas G (1997) *Materia medica viva*. International Academy of Classical Homeopathy, Alonissos, Greece
- Wang M, Cao R, Zhang L, Yang X, Liu J, Xu M, Shi Z, Hu Z, Zhong W, Xiao G (2020a) Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. *Cell Res*, 03 30(3):269–271
- Wang W, Tang J, Wei F (2020b) Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan. *China J Med Virol* 92:441–447
- Wang M, Cao R, Zhang L, Yang X, Liu J, Xu M, Shi Z, Hu Z, Zhong W, Xiao G (2020c) Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. *Cell Res* 30:269–271. <https://doi.org/10.1038/s41422-020-0282-0>
- WHO (2020) Novel Coronavirus – China. WHO, Geneva. www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/
- Zhang D, Wu K, Zhang X, Deng S, Peng B (2020) In silico screening of Chinese herbal medicines with the potential to directly inhibit 2019 novel coronavirus. *J Integrative Med* 18:152–158. <https://doi.org/10.1016/j.joim.2020.02.005>

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.