Original Article

Proposed interaction mechanism between medicine and the diseased cell in diluted homoeopathic medicine

Bijay Krishna Chaudhuri[1,2]*, Biswadeep Chaudhuri[3]

[1]Centre for Interdisciplinary Research and Applications, Kolkata, West Bengal, India, [2]Centre for Rural and Cryogenic Technologies, Jadavpur University, Kolkata, West Bengal, India, [3]Department of Biotechnology, University of Engineering and Management, Kolkata, West Bengal, India

Abstract

Background: High-diluted homoeopathic medicines practically contain no medicinal molecules. The disease-curing mechanism of homoeopathic medicines has not yet been adequately understood. Acceptable knowledge of this mechanism is essential for further development of homoeopathic science. **Objectives:** The purpose of this article is to provide a phenomenological model to understand the interaction mechanism between homoeopathic medicines and the diseased cell (DC), which cure diseases with a view to build a conceptual framework that would facilitate subsequent clinical and theoretical investigations. **Methods:** We have proposed the formation of hydrogen bonded nano and micro clusters (NAM) during the preparation (succession) of homoeopathic medicines. NAM are composed of effective ionic charge (such as O^+, H^+ and other ions) distribution patterns (CDPs). During the electrostatic interaction between CDP around NAM and that around DC, H^+ ion (proton) or other ion tunnelling takes place, which normalises the highly disordered (higher entropy) state of the CDP around DC to bring it to the normal state. **Results:** NAM is DC dependent. The entropy change around the DDP leads to information change, which is transmitted to the brain through neurotransmitters to complete the disease remediation process. Proton or ion tunnelling from NAM to DC is quantum mechanical in nature. **Conclusion:** A novel phenomenological model demonstrating the interaction between DC and homoeopathic medicines (NAM) has been proposed that cures the disease. Ion tunnelling, entropy and related information change (cells signalling) taking place during the healing process appeared to be associated with biological phenomena, yet to be fully developed.

Keywords: Cell–cell communication, Dilute homoeopathic medicine, Electrostatic interaction, H-bonded nano clusters, Quantum tunnelling

Introduction

Most of the criticism is levelled at Homoeopathy on the absence of any active medicinal molecule in high-diluted homoeopathic remedies. There is practically no acceptable mechanism for understanding the disease-curing process using dilute homoeopathic medicine. This is the long-standing point of concern for sceptics of Homoeopathy.[1-4] The healing capacity of Homoeopathy in human clinical trials is often disregarded as placebo effects or self-healing.[3-6] To put forward a plausible mechanism how a Homoeopathic medicine with practically no chemical might cure a disease, it was demonstrated earlier[5] that hydrogen-bonded nano and micro clusters (NAM) were formed in the Homoeopathic medicine during their preparation from the extract of raw medicine (or chemicals) by a process, known as succussion. It might be conjectured, in the microscopic sense, copious such NAM structures are formed even in water or alcohol after mechanical stirring. This means, the stirred water or alcohol (with changes of H-bond ordering) is no longer the initial pure water or alcohol. Formation of water structures in Homoeopathic medicine was proposed earlier.[6,7] However, it was argued[6,8] that such water structures, if present in water, would not be stable for more than a few picoseconds (10^{-9} s) and hence, these structures could not account for the long-term effects reported by homoeopathic dilutions. The nano clusters of H-bonds, proposed by us, might be associated with aqua electrons are stable charged bodies and they can break or join with other clusters-forming new H-bonded clusters.[5]

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***Address for correspondence:** Prof. Bijay Krishna Chawdhuri, Centre for Rural and Cryogenic Technologies, Jadavpur University, Kolkata - 700 032, West Bengal, India.
E-mail: sspbkc23@gmail.com

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Tunnelling of H^+ ions (or protons) from NAM to the enzymes and other small molecules secreted by the diseased cells (DCs) takes place to stabilise the DC and cure the disease. In fact, one might think of some kind of very complicated quantum biological mechanism (tunnelling)[9] to explain the potency of homoeopathic medicine. NAM are not the complex water structures, but they are formed with H–O bonds in the Homoeopathic medicine [Figure 1]. Other heavier metallic ions might also be associated with NAM. The interaction between the H-bonded NAM present in diluted Homoeopathic medicine and the DCs are responsible for the cure of the diseases where quantum tunnelling of protons or other ions play an important role.

It is to be noted that even for self-healing (Homeostasis[10,11] and cell–cell communication, cell movement (~10^{-9} m/sec, changing entropy of the system) takes place and the cells secrete several small-molecule proteins[12] such as cytokines, chemokines (signalling molecules) and growth factors which act in a peregrine or endocrine manner to repair the cells. Cells which secrete molecules facilitate angiogenesis, anti-inflammation and anti-apoptosis.[12,13] It was proposed earlier[5] that the NAM interacted with these enzymes and other chemicals secreted by DCs acted favourably to cure the disease. To describe this interaction process, we consider electrostatic interaction between the charges around the H-bond NAM and the charges associated with the secreted enzymes around the DCs. Such interaction stabilises the asymmetric charge distribution around the DCs along with other parameters (such as pH and entropy) and cure DC. The H-bonded structure and behaviour of NAM consisting of the O^+, H^+ or other ions depend on the different symmetries and patterns of charge distributions around the NAM created by different medicinal molecules having different characteristic properties. Each such pattern of charge distribution associated with the H-bonds in a typical NAM is either at micro or macro level, and each NAM carries the signatures of certain physicochemical properties borrowed from the raw medicinal materials (or chemicals). That is, the H-bonded NAM structural patterns signify their interconnectedness with the raw chemicals used to make Homoeopathic medicines. On the other hand, the charge distribution pattern (CDP) composed of different proteins and other cellular materials secreted by DC are asymmetric in nature and are quite different from that of the normal cells. The equilibrium condition (state) represents a balance between opposite interacting forces.[14,15]

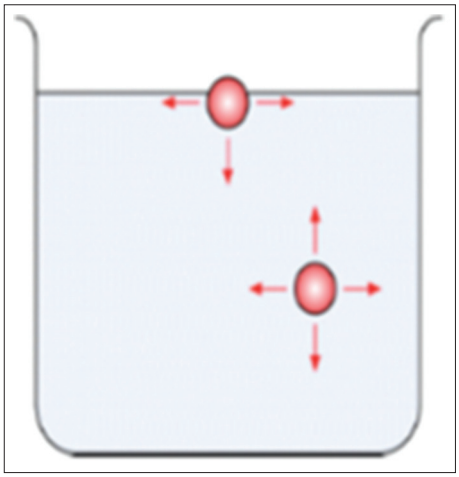

Figure 1: A schematic representation of the H-bonded nano or micro clusters (as indicated by arrows and spheres) produced and embedded in a highly diluted homoeopathic medicine. Arrows are attached to the positive or negative ions, H^+, O^+, etc., forming the nano clusters. The H-bonded nano or micro cluster molecules are transiently hydrogen bonded to their neighbours (water molecules). A H-bonded nano or micro cluster or water molecule in contact with the cell walls has fewer neighbours with which to form hydrogen bonds, so its energy is higher to stimulate the cell

In the present article, our plan is mainly to suggest a probable electrostatic interaction between the charge distributions around NAM and those around DCs, which is considered to be responsible for curing the disease by Homoeopathic medicine. Due to this interaction, mentioned above, hydrogen ion or proton tunnelling[9,16] takes place between NAM and the DC, which stabilises the CDP around the DC (minimizing the entropy). As mentioned above, such proton tunnelling from NAM to the DC is considered to be a quantum mechanical process,[17] which has to be discussed elsewhere in detail. This interaction process associated with the charge or ion ordering around DC corresponds to change of entropy.[14,15,18] Such change of entropy leads to information change[18] for communication from cell to cell (equivalent to cell signalling process and transferring signals to the brain through neurons). As the surrounding thermodynamic conditions (temperature, entropy, pH, etc.) are also involved in this process,[11,15,18] we also briefly discussed the healing mechanism involved with the thermodynamics of dynamic living cells (associated with dynamic entropy (S) and information (I)) (responsible for cell signalling and DC–NAM communication), which executes the overall remediation process. The CDPs around DCs are disease specific, different for different diseases. Therefore, different Homoeopathic medicines embedded with different NAM are necessary to cure different diseases.

Methods

Proposed NAM–Diseased Cell Interaction Mechanism for Curing a Disease using Homoeopathic Medicine

There are several possible ideas (starting from water memory effect,[6] nano crystals,[19] etc.) to explore the mechanism of how a Homoeopathic medicine works in the body to cure a disease as discussed.[5] Recently, Sukul,[20] Mahata, Khudabukhsh[21-23] and Nandi[19] also made several suggestions to explain Homoeopathy. These ideas or suggestions did not touch upon the incipient microconcept of NAM formation, as discussed above. The water structure model proposed by Mahata is not stable[6] as discussed above. The model proposed by Sukul[20] associated molecular biology with the

cure of homoeopathic medicine, which is significant but still far away from the incipient mechanism of Homoeopathy. We not only need a model or suggestion for homoeopathic medicine, but it is also important to show how the model works in the body's neurology and associated thermodynamics to cure the disease (i.e., how human cells accept the medicine to cure the DCs). Therefore, our concept of dynamic nano/micro H-bond cluster formation (NAM) used to develop a phenomenological mechanism,[5] is different from any other existing model or suggestion. The H-bonded ionic NAM created in a Homoeopathic medicine have different patterns and considered to be responsible for the cure of a disease;[5] the H-bonded NAM are shown schematically in Figure 1. NAM can restore the tolerance of DCs by interacting with it (through ion transfer), leading to disease cure. It is considered that a DC differs from that of the normal one mainly in its disordered CDPs related to different proteins and the environment (temperature, entropy, pH, etc.).[5] For curing the disease, cell signalling process is also involved in case of DC–NAM interaction. The NAM interact with DCs through quantum tunnelling of H ions (or protons, tunnelling of other ions might also be possible) between NAM and DC,[13] which stabilises the charge distribution around DC. The NAM, when come in contact with the above-mentioned diseased (with disordered ions and H-bonds) cells, receive the desired healing information through electrostatic interaction and proton transfer.[16] As a consequence, remediation of the disease begins. There is probability that the NAM due to proton transfer can regulate the immune system, that is, immunoregulatory T-cells. It had not probably been tested if there was an increase and improvement in regulatory T-cells after the intake of Homoeopathic medicine by a patient. This process follows the principle of Homeostasis.[10,11] Homeostasis is a term that refers to psychological and physiological balance achieved when human body (cells or organs) needs and desires. The principle of Homeostasis is to bring the diseased (disordered) cells equilibrium common to the normal cells where there are changes of entropies with change of different charge pattern around the DC.

As mentioned earlier,[5] the NAM consisting of H-bonds are ionic in character with unique CDPs, and they are different for different Homoeopathic medicines and potencies. The aqueous fluid media of the cell carry a multitude of charged groups (both cationic and anionic groups), for instance, negatively charged Glu− and positively charged Lys^{+}, which may penetrate the cell wall and interact with the ionic NAM. The chemical signalling molecules (first messengers) provide the major means of intercellular communication; they include ions, gases, small peptides, protein hormones, and steroids. A charge distribution on the NAM is schematically represented in Figure 2a and b. As different kinds of proteins are secreted[9] by DC (different from the normal cell), the CDP surrounding the DC [Figure 2c] is non-uniform with quite different distribution (disordered with higher entropy) pattern compared to that of the normal cell or the NAM.

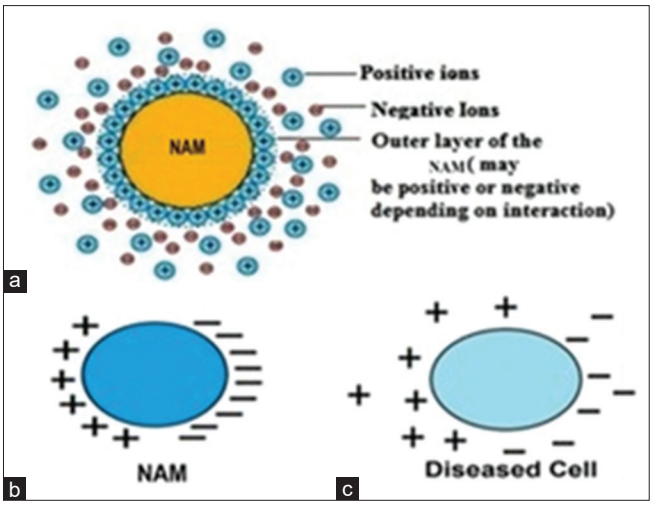

Figure 2: Schematic representations of the proposed charge distribution pattern around H-bonded nano or micro clusters (a). Just before interaction, ordered representation of positive (+ve) and negative (−ve) charges around the H-bonded nano or micro clusters (b) and the corresponding disordered distribution around the diseased cell (c). As the diseased cell secretes more small-molecular-weight proteins, the disordered charge density is higher around diseased cell and more polar in character as a consequence, H-bonded nano or micro clusters are attracted towards the diseased cells. Due to the electrostatic interaction, the diseased cell charge distribution is rearranged due to H^{+} (proton) tunnelling

It is to be noted that entropy changes (or information changes) with every change of CDP. Temperature (related to entropy) and pH around the DCs are also higher compared to those of the normal cells. Before interaction between a NAM and the DC, the uniform charge distributions on the surfaces of NAM and the non-uniform charge distribution around DC are shown schematically, respectively, in Figures 2b and c. The initial (disordered) and the final (ordered) states of charge redistributions, around DC, are caused by the DC–NAM interaction and proton tunnelling. That is, there are many possible states of gradual remediation of the DCs with continuous changes of CDPs around DC as shown schematically in Figures 3 and 4. In this process, there is also complicated cell–cell communication and entropy change (related to every change of the CDPs around DC), leading to information change which is transmitted to the brain through neurons (as electrical or electrochemical signals).

In Figure 3, the initial DC was represented (extreme left) by blue colour. During NAM–DC interaction, DC was gradually surrounded by NAM and proton tunnelling cures it to bring it back to the normal state (pink-coloured cell). Here, NAM–DC communication occurred following cell signalling process, which was triggered by the entropy change associated with the charge or ion ordering around DC. Entropy and information change is related and occurs spontaneously.[16,24-27] The whole remediation process is represented by different steps as shown in Figures 3 and 4 [steps 1–4 and steps I–IV, respectively, in Figures 3 and 4].

In the above mentioned electrostatic interaction, the NAM changes gradually surrounded the DC as shown in Figure 3 and tunnelling protons occurs to normalize and symmetries (by proton tunnelling process[28]) the asymmetric charge distribution pattern around DC. This means that the interaction process symmetries or normalizes the DC charge distribution pattern and as a consequence DC becomes cured. Different remediation states are considered to be associated with gradual changes of electrostatic interactions patterns between DC and NAM. The NAM, as mentioned above, gradually transfer protons to the DC through tunnelling[28] which gradually orders/stabilizes the surface charge around DC and regenerate new symmetric charge distribution pattern corresponding to that of a cured cells (states 4 and IV in Figures 3 and 4, respectively). The whole process of remediation is schematically represented in Figure 4.

NAM–Diseased Cell Interaction is Favoured

It was mentioned earlier that macromolecules secreted by DC (including proteins and nucleic acids) are associated with H-bonds and ionic character. These molecules carry a multitude of charged groups (both cationic and anionic groups), for instance, negatively charged Glu − and positively charged Lys^+, as mentioned above, which took part in the interaction process with the ionic H-bonded NAM. It should be noted that the NAM–DC interaction was favoured compared to those of the DC–DC or NAM–NAM interactions. This is because of the fact that the DCs secrete many small molecules along with K^+, Ca^-, Na^+ or similar ions and as a consequence, DC's surface charges are more polar as the concentrations of these ions are different (which means the difference of positive and negative charges is not uniformly distributed over the DC and it is asymmetric). There is large ionic concentration of disordered charges around DC compared to those of NAM or a normal cell. As a consequence, proton (H^+) around NAM is attracted towards DCs (even if the DC's surrounding is highly positively charged which is similar to a small magnetic N pole attracted by an N pole of higher strength). The strong and spontaneous dipolar interaction between the DCs and the NAM is depicted schematically in Figure 5. Due to ordering of the charges around DC by interaction with those around NAM, there were entropy changes, which, in turn, are related to information change and the cell signalling process. It is to be noted that the disordered charges possessed higher entropy. The mechanism of how entropy and information are related is a quantum biological phenomenon,[18,28] which will be discussed in our subsequent communications. The disease-curing process is also related to the thermodynamics of the dynamic living cells, briefly discussed in the subsequent paragraph.

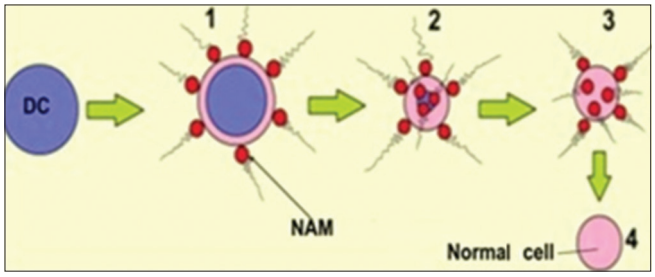

Figure 3: A suggested mechanism of transformation of diseased cell (blue) to normal cure cell by H-bonded nano or micro clusters due to proton tunnelling from the H-bonded nano or micro clusters and gradual remediation of diseased cell through different intermediate stages.[1-3] The final cured cell (pink) is represented by step 4 in Figure 3 and step IV in Figure 4

Thermodynamics of the Living Cell

Temperature, pressure and entropy of the living cells are dynamic variables. Therefore, the disease curing process is also involved with cell thermodynamics, energy, heat (entropy) which controls the above mentioned DC-NAM interactions.

The thermodynamics of a dynamic (time dependent) living cells is quite different from that of usual static thermodynamics of our surrounding environmental systems.[18] In living system, we are concerned with open-system thermodynamics or no-equilibrium thermodynamics[23] because the concepts of energy flow (associated with entropy which is erg/T, temperature in Kelvin), growth and change are not static, far from equilibrium. Here, it should be mentioned that entropy is a concept that even though it is well described physically and mathematically (statistical mechanics), there are still mysterious features. Entropy is related to the measurement of disorder and in our universe, in all irreversible processes, it is always positive[12,22] which cannot even be zero. Entropy can be defined macroscopically as well as microscopically, being the last one by means of the statistical mechanics. Macroscopically, the entropy (S) for a thermodynamically reversible process is defined by the following equation as a function of heat (Q) and uniform temperature (T as $S = Q/T$). Thermodynamics of the living organisms is associated with the entropy production or destruction (minimisation) in the cell. The change in entropy is

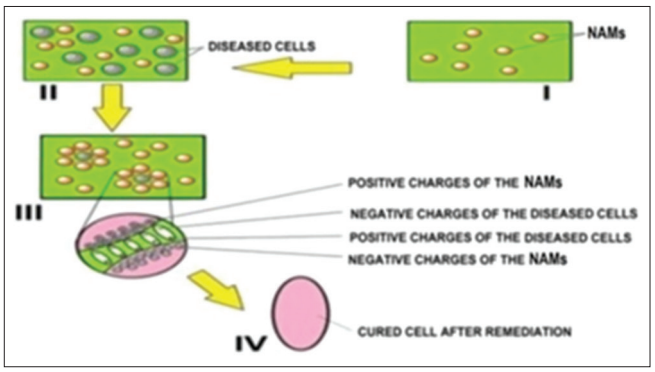

Figure 4: Schematic representation of different intermediate stages [mentioned in Figure 3] of remediation of diseased cell due to H-bonded nano or micro clusters–diseased cell interaction: (i) H-bonded nano or micro clusters approaching towards the diseased cells. (II) H-bonded nano or micro clusters surround the diseased cells to repair with transfer of proton and energy. (III) Electrostatic interaction takes place between H-bonded nano or micro clusters and diseased cell to order the charge distribution pattern of the diseased cell. (IV) Repaired alive cell (after remediation) with uniform charge distribution like normal cell

defined as $\Delta S = \int \delta Q/T$. In the modern microscopic interpretation, entropy is the logarithmic measure of the number of states (Ωi) with significant probability of being occupied: $S = k_B \ln\Omega_i$, with k_B being the Boltzmann constant = 1.38×10^{-23} J/K. In 1940, Shannon[18] developed a theory of communication where information (I) was shown to have the same expression as that of entropy (the information entropy $I = \ln 2$ where $\Omega i = 2$ and $k_B = 1$ in ΔS). Therefore, thermodynamic entropy is equivalent to Shannon information entropy I multiplied by k_B. The cell signalling which is information change is associated with the entropy change of the cell. One bit of information might be associated with $k_B \ln 2 \sim 10^{-16}$ erg/K. Since 1940, the concept of entropy was distinguished, when applied to life, from the other forms of inanimate matter organisation. Living organisms are highly organisational and therefore, it seems that it feeds from 'negative entropy'[15,25] or, by other words, maintaining and getting to a stationary condition where the entropy level is low. Nevertheless, it is necessary to understand that the proper definition of the second law of thermodynamics says that the entropy of an adiabatically isolated system never decreases. In this context, a living cell or organism is not an isolated system, as it gets the nutrients from the outside, that is, there is an exchange of energy (heat) or cellular matter with the environment, and by doing so, one has to consider the system as an open one, together with its environment, restoring the balance to the universe in an increase of entropy, or by other words, increase of disorder.[29,30]

Therefore, though entropy is a physical concept which can be applied in many non-living systems, entropy is quite complicated in a living cell where negative entropy might be possible as zero entropy is not possible, and here disorder becomes more and more organised. The negative entropy of the cell is also supported from the modern concept that the sum of entropy and information (in energy units) of the universe is conserved where increase of one corresponds to the decrease of the other (keeping in mind that I cannot be negative and S cannot be zero).

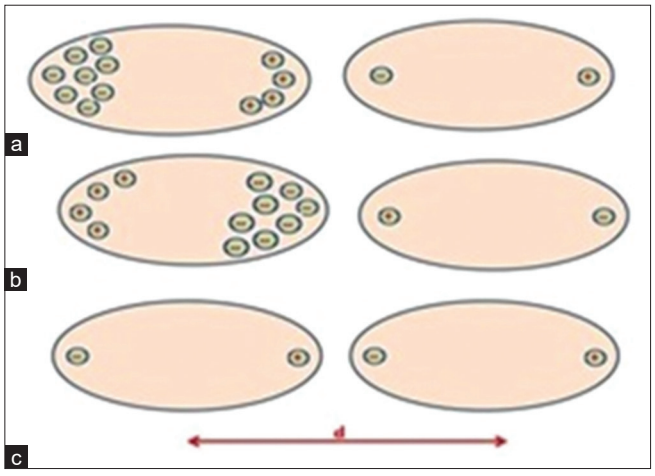

Figure 5: Dipole formation in the H-bonded nano or micro clusters (right) and the diseased cells (left). The positive and negative charges associated with H-bonded nano or micro clusters and diseased cell can move during remediation (a and b), and uniform charge distribution takes place between the H-bonded nano or micro cluster and the diseased cell (c)

Results

NAM–Diseased Cell Interaction Potential and Disease Remediation

It has already been mentioned that during cell growth and cell-to-cell communications, cells secrete some low-molecular-weight chemicals (proteins associated with different H-bonds), which changes the entropy of the system. Such molecules (or proteins) have different ionic charges which interact electrostatically with those around NAM [Figure 6]. NAM distinguishes DC from the normal cells due to the differences in gene expressions between DC and the normal cell structures. NAM receives different information from the said interaction process and rearranges the disordered and asymmetric CDP around DCs with transfer of protons (tunnelling from NAM to DC). As mentioned above, this ordering changed the entropy of the system, which, in turn, is equivalent to information changes (Shannon theory of information[18]). The said NAM–DC interaction depends on different types of DCs (i.e., different types of NAM created in different Homoeopathic medicines are to be used to cure different types of DCs). Different DCs have different CDPs and different entropies and information. A typical NAM in a Homoeopathic medicine might be used to repair only a particular DC or other DCs with similar charge distributions. The signals received by the NAM from the DC are electronic and/or electrochemical in nature (like that of photosynthesis), which help NAM proton to attract the DC to be cured.

The nature of classical DC–NAM interaction can be described by the Coulomb's type of laws. The electrostatic energy of interaction between two ions, one with effective

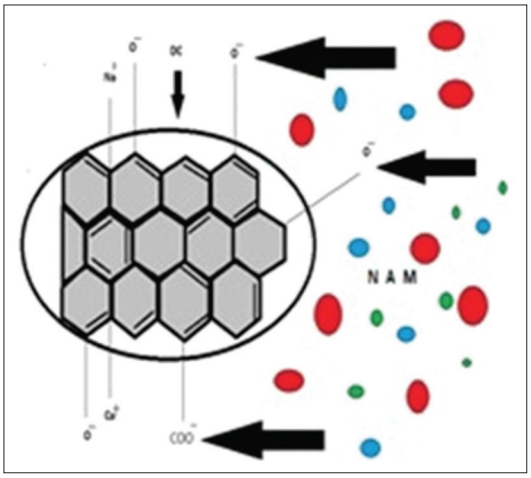

Figure 6: A schematic representation of electrostatic interaction between H-bonded nano or micro clusters and the diseased cell. Red: +ve ions related to nano or micro clusters and green and blue: Other ions related to the H-bonded nano or micro cluster

charge (e_1) associated with the CDP around NAM and the other (e_2) associated with that around DC, can be represented by $U = (e_1e_2/€_r)$, where r is the separation between NAM and DC and € is the dielectric constant of the cell medium. € is a measure of the extent to which a DC concentrates electric flux (number of electric lines of force per unit area of the DC) from the charges around the NAM. The dipolar interactions of the charges associated with the NAM and the DCs are schematically depicted in Figures 2 and 6. The effective dipole moment P of a small molecule or atomic group or ions is equal, in order of magnitude, to the product of the electronic charge (4.8×10^{-10} esu) by the length of chemical bond. The traditional unit for dipole moment is the Debye (D) and $D = 10^{-18}$ esu. The energy of orientational interaction between two dipoles associated with NAM and DC is inversely proportional to the cube of their separation: $U_{or} = (1/r^3)(p_1p_2 - 3\ [p_1r][p_2r]/r^3)$, where U is related to the potential (equivalent to tunnelling potential) a proton in the NAM has to overcome to interact with an ion around the DC. For adequate functioning of the NAM, the dipoles should line up in a tail-to-tail fashion i.e., all the three vectors p_1, p_2 and r are needed to be collinear, and then $U_{or} = -2\ (p_1p_2/r^3)$. It has already been mentioned that NAM, because of their specificity, can recognise the signature of the specific DC structure and interact with it to gradually cure the DC by rearranging the charge distribution around DC, similar to that of normal cell charge distribution with minimisation of entropy. This interaction and charge normalisation finally repair (cure) the DC as shown in Figure 4. However, the process depends on various factors including pressure, temperature and surrounding environment around DCs inside the body. The proposed mechanism only qualitatively demonstrated NAM (in a Homoeopathic medicine)–DC interaction process for the diseased remediation, which stimulates entropy and information changes as discussed in the previous section. A NAM is some sort of magic bioactive nano and micro cluster which might dissociate interacting with other NAM into smaller NAM clusters of different patterns. Stimulating or energizing the NAM clusters by mechanical, electrical or by other external means, disease cell might be cured more successfully and easily. There is also possibility of using the same energized NAM for the cure of different diseases. Elaborate investigation of the properties and control of the CDPs around NAM and DC by experimental methods are necessary for future development. Recent Total Reflection X-Ray Fluorescence (TXRF) technique can be utilized for the determination of ultra low quantity of various high Z elements present in a liquid or water based samples. X-Ray fluorescence spectroscopy,[31] Intermolecular zero quantum coherence NMR spectroscopy and a fast scan sub-micrometer spectroscopic techniques might be used to study the NAM properties.

Conclusion

A new phenomenological NAM–DC interaction model has been put forward, for the first time, to demonstrate how hydrogen-bonded nano or micro clusters (NAM), created in the diluted homoeopathic medicines, interact with the DCs and ultimately cure the disease. The hydrogen ion or proton tunnelling from NAM (different for different homoeopathic medicine and potentials) to DC takes place to order the disordered CDP around DC and cure the disease. These CDPs of the DCs are associated with different ionic charges of the small-molecular-weight chemicals which are different for different diseases. These CDPs of the DCs are associated with different ionic charges of the small-molar-weight chemicals (including proteins and other ions such as Ca^{2+}, K^+ and Na^+). The concentrations of these ions in the CDPs of different DCs are different. The modern concept of entropy and information relation (cell–cell communication) is to be invoked. Entropy changes are associated with the ordering of the CDP around the diseased cells. This entropy change leads to information change or cell signalling process, sending necessary communication to the brain through neurons to complete the disease remediation process. The complete healing process is complicated where entropy and information changes and tunnelling of hydrogen ions (from NAM) to the DC. The NAM–DC interaction is involved with the cell–cell communication process, entropy change and associated thermodynamics for healing the disease.

Elaborate investigation of the properties and control of the CDPs around NAM and DC by experimental methods are necessary for future development. A NAM is some sort of bioactive nano cluster which might dissociate interacting with other NAM into smaller NAM clusters. Intermolecular zero quantum coherence NMR spectroscopy and a fast scan sub-micrometre spectroscopic techniques might be used to study the NAM properties. Stimulating or energising the NAM clusters by mechanical, electrical or by other external means, the DC might be cured more successfully and easily. Thus, the homoeopathic healing process associated with proton tunnelling appears to be quantum biological phenomena. An elaborate discussion of this process applicable to Homoeopathy will be made elsewhere.

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Conflicts of interest

None declared.

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तनुकृत होम्योपैथिक दवाओं में दवा और रोगग्रस्त कोशिका के बीच प्रस्तावित परस्पर विचार क्रियाविधि

पृष्ठभूमि: उच्च तनुकृत होम्योपैथिक दवाओं में व्यावहारिक रूप से कोई औषधीय अणु नहीं होते हैं। होम्योपैथिक दवाओं से रोगों का इलाज करने वाली क्रियाविधि को अभी तक पर्याप्त रूप से नहीं समझा जा सका है। होम्योपैथिक विज्ञान के निरतंर विकास हेतु इस क्रियाविधि का स्वीकार्य ज्ञान आवश्यक है।

उद्देश्य : इस लेख का उद्देश्य होम्योपैथिक दवाओं और रोगग्रस्त कोशिका के बीच बातचीत क्रियाविधि को समझने के लिए एक घटना संबंधी प्रतिरूप प्रदान करना है, जो एक वैचारिक ढांचे का निर्माण करने की दृष्टि से रोग को ठीक करता है व बाद की नैदानिक और सैद्धांतिक जांच की सुविधा प्रदान करेगा।

निष्कर्ष: रोगग्रस्त कोशिकाओं और होम्योपैथिक दवाओं (एनएएम) के बीच प्रस्तावित परस्पर विचार क्रियाविधि का प्रदर्शन करने वाला एक नया अभूतपूर्व प्रतिरूप प्रस्तावित किया गया है जो रोग का उपचार करता है। उपचार प्रक्रिया के दौरान होने वाली आयन सुरंग, एन्ट्रॉपी और संबंधित सूचना परिवर्तन (कोशिका संकेतन) जैविक घटना के साथ जुड़े प्रतीत होते हैं, जो अभी पूरी तरह से विकसित होना बाकी लाजमी हैं।

Mécanisme d'interaction proposé entre le médicament et la cellule malade dans les médicaments homéopathiques dilués

Contexte: Les médicaments homéopathiques fortement dilués ne contiennent pratiquement pas de molécules médicinales. Le mécanisme de guérison de la maladie des médicaments homéopathiques n'a pas encore été suffisamment compris. Une connaissance acceptable de ce mécanisme est essentielle pour le développement ultérieur de la science homéopathique.

Objectifs: Le but de cet article est de fournir un modèle phénoménologique pour comprendre le mécanisme d'interaction entre les médicaments homéopathiques et la cellule malade (CM) qui guérit la maladie en vue de construire un cadre conceptuel qui faciliterait les investigations cliniques et théoriques ultérieures.

Méthodes: Nous avons proposé la formation de Clusters nano et micro (NAM) liés à un atome d'hydrogène lors de la préparation (succession) de médicaments homéopathiques. Les NAM sont composés de schémas de distribution (CDPs) de charge ionique efficace (comme O^+, H^+ et d'autres ions). Pendant l'interaction électrostatique entre le CDP autour du NAM et celle autour du CM, l'ion H^+ (proton) ou un autre tunnel ionique a lieu, ce qui normalise l'état hautement désordonné (entropie supérieure) du CDP autour du CM pour le ramener à l'état normal.

Résultats: le NAM est dépendant des cellules malades. Le changement d'entropie autour du DDP conduit à un changement d'information qui est transmis au cerveau par des neurotransmetteurs pour compléter le processus de traitement de la maladie. Le tunnelage protonique ou ionique du NAM au CM est de nature mécanique quantique.

Conclusion: Un nouveau modèle phénoménologique démontrant l'interaction entre CM et les médicaments homéopathiques (NAM) a été proposé pour guérir la maladie. Le tunnelage ionique, l'entropie et les changements d'informations connexes (signalisation des cellules) qui ont lieu pendant le processus de guérison semblaient être associés à des phénomènes biologiques, mais n'étaient pas encore complètement développés.

Mecanismos de acción propuestos entre el medicamento y la célula enferma en medicamentos homeopáticos de alta dilución

Fundamentos: Los medicamentos homeopáticos de alta dilución prácticamente no contienen moléculas medicinales. Todavía no se conoce completamente el mecanismo de curativo de los medicamentos homeopáticos en las enfermedades. Es esencial disponer de un conocimiento aceptable de este mecanismo para el desarrollo ulterior de la ciencia homeopática.

Objetivos: El objetivo de este artículo es proporcionar un modelo fenomenológico para conocer el mecanismo de interacción entrelos medicamentos homeopáticos y la célula patológica (CP), el cual cura la enfermedad. De este modo, se podrá construir un marco conceptual que facilite las posteriores investigaciones clínicas y teóricas.

Métodos: Hemos propuesto la formación de nano y micro (NAM) *clusters* unidos a átomos de hidrógeno durante la preparación (sucusión) de los medicamento homeopáticos. Los NAM están compuestos por patrones de distribución (PD) de carga iónica (como O+, H+y otros iones) eficaces. Durante la interacción electrostática entre los PD de carga iónica alrededor de los NAM y los alrededor de las CP, se produce una tunelización del ion H+ (protón) u otros iones que normalizan el estado altamente alterado (mayor entropía) de las CP alrededor de los PD de carga iónica para reestablecer el estado normal.

Resultados: Los NAM dependen de las células patológicas. El cambio de entropía alrededor de los PD de carga iónica da lugar a un cambio en la información que se transmite al cerebro a través de los neurotransmisores para completar el proceso de curación patológica. La tunelización protónica o iónica de los NAM a las CP es de naturaleza cuántica.

Conclusiones: Se ha propuesto un nuevo modelo fenomenológico que evidencia la interacción entre las CP y los medicamentos homeopáticos (NAM) que cura las enfermedades. La tunelización iónica, la entropía y el cambio de información relacionado (señalización celular), que se produce durante el proceso de curación, está asociado a fenómenos biológicos que todavía no están completamente desarrollados.

Vorgeschlagener Wechselwirkungsmechanismus zwischen Medikament und kranker Zelle in verdünnten homöopathischen Arzneimitteln

Hintergrund: Hochverdünnte homöopathische Arzneimittel enthalten praktisch keine medizinischen Moleküle. Der Mechanismus der Heilung von homöopathischen Arzneimitteln ist noch nicht ausreichend verstanden worden. Eine akzeptable Kenntnis dieses Mechanismus ist für die weitere Entwicklung der homöopathischen Wissenschaft unerlässlich.

Zielsetzungen: Der Zweck dieses Artikels ist es, ein phänomenologisches Modell zum Verständnis des Wechselwirkungsmechanismus zwischen den homöopathischen Arzneimitteln und der kranken Zelle (DC), die die Krankheit heilt, bereitzustellen, um einen konzeptuellen Rahmen zu schaffen, der die nachfolgenden klinischen und theoretischen Untersuchungen erleichtern würde.

Methoden: Wir haben die Bildung von wasserstoffatomgebundenen Nano- und Mikro-Clustern (NAM) während der Herstellung (Nachfolge) homöopathischer Arzneimittel vorgeschlagen. NAM bestehen aus effektiven Verteilungsmustern (wie O+, H+ und andere Ionen) von Ionenladungen (CDPs). Während der elektrostatischen Wechselwirkung zwischen den CDP um NAM und denen um DC finden H+-Ionen (Protonen) oder andere Ionentunnelung statt, die den hochgradig ungeordneten (höhere Entropie) Zustand der CDP um DC normalisieren, um sie in den Normalzustand zu bringen.

Ergebnisse: NAM ist zellabhängig krank. Die Entropieveränderung um das DDP führt zu einer Informationsveränderung, die über Neurotransmitter an das Gehirn weitergeleitet wird, um den Prozess der Krankheitssanierung abzuschließen. Protonen- oder Ionentunnelung von NAM zu DC ist in der Natur quantenmechanisch.

Schlussfolgerung: Ein neuartiges phänomenologisches Modell, das die Wechselwirkung zwischen DC und homöopathischen Arzneimitteln (NAM) zeigt, wurde vorgeschlagen, um die Krankheit zu heilen. Ionentunnelung, Entropie und die damit verbundene Informationsveränderung (Zellsignalisierung), die während des Heilungsprozesses stattfindet, scheinen mit biologischen Phänomenen in Verbindung zu stehen, die noch nicht vollständig entwickelt sind.

順勢療法稀釋藥物與疾病細胞之間相互作用機制的擬議

背景：高稀釋度順勢療法藥物實際上不含任何藥物分子。順勢療法藥物的疾病治愈機制尚未得到足夠的了解。要順勢療法科學進一步發展，對這機制的基本認知至關重要。

目的：本文的目的是提供一種現象學模型，以了解順勢療法藥物與疾病細胞（DC）之間的相互作用機制，一個可治愈該疾病的機制，以期建立有助於後續臨床和理論研究的概念框架。

方法：我們建議在順勢療法藥物的製備（震盪）過程中形成氫原子鍵合的納米和微米（NAM）簇。NAM由有效的離子電荷（如O+，H+和其他離子）分佈模式（CDP）組成。在NAM周圍的CDP與DC周圍的CDP發生靜電相互作用期間，發生H+離子（質子）或其他離子隧穿，這使DC周圍CDP的高度無序（較高熵）狀態歸一化，從而使其變爲正常狀態。

結果：NAM是依賴疾病細胞性的。CDP周圍的熵變化導致信息變化，該信息變化通過神經傳導物質傳遞到大腦，從而完成疾病的修復過程。從NAM到DC的質子或離子隧穿本質上是量子力學。

結論：擬議提出一種新的現象學模型，該模型展現出DC和順勢療法藥物之間的相互作用（NAM）。在癒合過程中發生的離子隧穿、熵變和相關信息變化（細胞信號傳導）似乎與生物學現像有關，此模型有待得到更充分發展。