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Original Article

High Dilutions of a Drug of Covid-19 Origin Show Difference in Ranks as Revealed by Electronic and Vibrational Spectroscopy

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Abstract

Background: High dilutions (HDs) of drugs used in Homeopathy are identical in the composition containing ethanol and water. Yet they show specific therapeutic action on patients. **Aims:** HDs prepared by serial dilution and succussion are called potencies. Do the potency ranks show any difference from each other? Do serial dilution and succussion contribute to the difference in potency ranks? This study aims to address these two questions. **Methodology:** The throat swab of a Covid-19 patient was preserved and diluted with aqueous EtOH 90% to prepare the mother tincture(MT)and five different potencies of Covid named Covidinum 6, 12, 30, 200, and 1000cH.Electronic and vibrational (FT-IR) spectroscopy analyzed these potencies and their solvent media. **Results and Discussion:** Charge transfer (CT) and proton transfer interactions occur during the preparation of the potencies. After normalization, the FT-IR spectra of all the test samples show differences from each other concerning O-H stretching and bending (v2) bands. Serial dilution and succussion contribute to the observed difference in ranks and CT interactions. Covidinum is a new Homeopathic nosode, and its symptoms and therapeutic effect have not yet been ascertained. It is a preliminary study.

Keywords: High dilution, UV-spectra, FT-IR spectra, Charge transfer, Hydrogen bond.

Introduction

Following the standard preparation and dynamization, a new Homeopathic nosode Covidinum has been prepared [1-2]. Five centesimal potencies 6, 12, 30, 200, and 1000 cH have been prepared. These new potencies have not yet been tested on man, and their effect on healthy and diseased individuals has not yet been determined. The purpose of the experimental study is to see whether these potencies show any difference from each other by electronic and vibrational spectroscopy. This is a preliminary study. Appropriate statistics have analyzed the data.

High dilutions (HDs) of drugs have been used to treat human diseases for more than a couple of centuries. The German physician Dr. Samuel Hahnemann introduced this therapeutic system called Homeopathy in 1796 [3-4]. For the centesimal scale, these HDs are prepared by serial dilution of drugs in EtOH water mixture (1:100) followed by mechanical agitation or succussion in each serial rank. The succussed HDs are called potencies. The rank of a potency is denoted by a number like 6cH, 12cH, 30cH, 200cH, 1000cH (1M), etc. Do the potency ranks differ from each other? Do serial dilution and succussion have a scientific bearing? This study aims to address these two questions. The dilution of the 12th centesimal potency is 10^{-24} . Thus the 12 cH and higher potencies have crossed the Avogadro number and are expected to contain no drug molecules. For this, Homeopathy has not been



