RESONANCE PHENOMENA OF AN ULTRA HIGH DILUTION OF THYROXINE - PRELIMINARY RESULTS

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SUMMARY

Resonance phenomena between serially diluted agitated thyroxine and a coil fed by a laboratory oscillator were investigated. By testing different frequencies, a distinct pattern of frequencies that caused resonance leading to biological reactions (microtremor) in a human tester was found. Each succeeding step of dilution and agitation added two further and higher frequencies of resonance.

ZUSAMMENFASSUNG

Es wurden Resonanzphänomene zwischen „homöopathisch" zubereitetem verdünntem Thyroxin und der Spule eines Labor-Oszillators untersucht. Indem verschiedene Frequenzen getestet wurden, ergab sich ein bestimmtes Frequenzmuster, das Resonanzen, die zu biologischen Reaktionen (Mikrotremor) führten, hervorrief. Jeder der aufeinanderfolgenden Verdünnungsschnitte führte zu zwei weiteren (höheren) Resonanzfrequenzen.

INTRODUCTION

Our contribution on multicentered zoological experiments described the biological activity of an agitated high dilution of thyroxine on amphibia (see the contribution of Endler et al.). In this paper, a method standardized at the laboratory of C.W.Smith was applied to test the biological reaction (microtremor) of a test person exposed to what we think are resonance phenomena between the dilutions of thyroxine and the field from a coil fed by a laboratory oscillator. The range of frequencies from 0.01 Hz to 9.1 MHz for the agitated dilutions 10^{-5} to 10^{-30} was applied.

METHODS

Preparation of test solutions, precautions, transport

The dilutions of thyroxine (unsuccussed dilution log 4; succussed dilutions log 5 - log 30: D5 - D30) were prepared in Austria as described in the contribution of Endler et al. As a precaution, the water was pre-treated by heating it up to 75° C and then allowed to cool to room temperature in a site without electric equipment or wiring. The dilutions were prepared in hard-glass bottles. The 26 bottles containing the dilutions were each wrapped in aluminium foil and layers of paper to avoid external influences during transport through the mail.

Electrical device for exposure of test substances

In sequence, each of the dilutions (D5 to D30) was exposed to the field of a coil that was fed by an oscillator at a distance of 20 cm. The frequency generated by the oscillator was varied from 0.01 Hz to 10 MHz during the experiment. For investigation of frequencies up to 1 kHz, a toroid was used which prelimary generates a magnetic vector potential and, above this, a solenoid was used which generates both a magnetic field and a magnetic vector potential. These coils were chosen for experimental convenience. The oscillators were ordinary laboratory oscillators.

P.C. Endler and J. Schulte (eds.), Ultra High Dilution, 203–207.

Sensitive living measuring system

The coil, the dilution and the hands of the testing person are on a north-south axis. The trained test person, situated with his chest towards the dilution, placed his hand between the coil and the bottle containing the dilution. When the frequency was shifted from 0.01 Hz upwards, at certain distinct frequencies, the living organism showed a reaction in muscular microtremor (Smith 1991) at frequencies at which there obviously was a resonance interaction between the field emitted from the coil and the respective test substance. This reaction in muscular microtremor was amplified by a 2-Hz resonant hand pendulum held between the subject`s thumb and forefinger. When the frequency was slowly varied, this microtremor-amplifier began to show pendulum oscillation when certain frequencies were reached. The frequencies were scanned for each of the 26 samples.

RESULTS

Control

When the test person was exposed to the frequency range from 0.01 Hz to 10 MHz as described in the methods section, with the test dilutions replaced by pure water heated to 75°C and cooled, no typical microtremor reactions occurred.

Exposure to the interaction between the field of the coil and the test dilutions

For all test substances from thyroxine D5 to D30, a reaction of the biological sensor occurred at 0.07 Hz. In addition, for the substances D6 to D30, a reaction was found at 0.107 Hz and 0.230 Hz. In addition, for D7 to D30, at 0.490 Hz and 0.700 Hz, for the remaining 23 test substances in addition at 1.3 Hz and 2.6 Hz and so on. Thus, the exposure of every test dilution to the field of the coil provoked all the reactions also occurring at the previous (lower) dilution, and two more (Fig. 1 and Tab. 1).

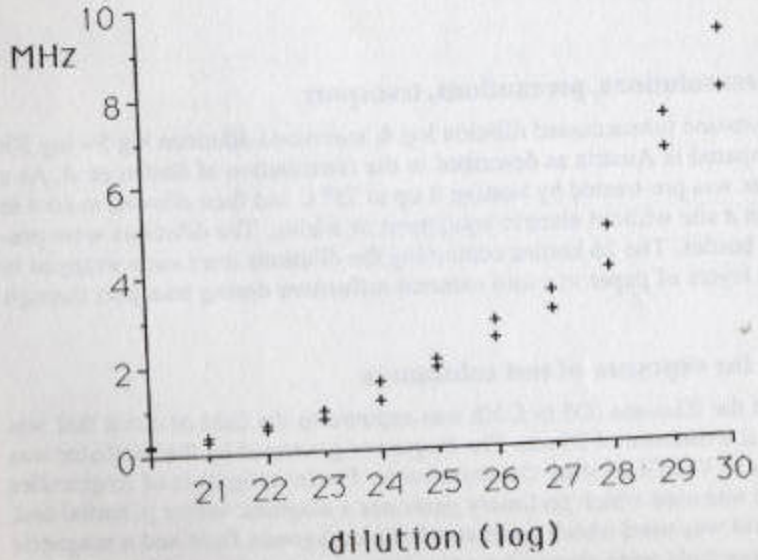

Fig. 1: Figure to Tab.1 from dilution D21 onwards. Ordinate: Frequency in MHz. Abscissa: Serial dilution of thyroxine in steps of 1 : 10. In the figure, only those frequencies that additionally occurred at each step of dilution are shown. For further explanation, see text.

Tab.1.:

Dilution log 4	basic frequencies (0.25 Hz), 0.04 Hz, 0.95 Hz	+ Frequency 1	+ Frequency 2
D5		-0.07 Hz	
D6	see D5 (= 0.07 Hz) +	0.107 Hz +	0.23 Hz
D7	D6	0.49 Hz	0.70 Hz
D8	D7	1.30 Hz	2.6 Hz
D9	D8	4.8 Hz	6.3 Hz
D10	D9	8.4 Hz	10.0 Hz
D11	D10	18 Hz	42 Hz
D12	D11	67 Hz	89 Hz
D13	D12	300 Hz	670 Hz
D14	D13	1.2 kHz	2.4 kHz
D15	D14	4.3 kHz	5.7 kHz
D16	D15	8.6 kHz	13.5 kHz
D17	D16	24 kHz	ca. 60 kHz
D18			155 kHz
D19			250 kHz
D20	D19	200 kHz	365 kHz
D21	D20	290 kHz	575 kHz
D22	D21	505 kHz	900 kHz
D23	D22	730 kHz	1.53 MHz
D24	D23	1.12 MHz	2.02 MHz
D25	D24	1.82 MHz	2.75 MHz
D26	D25	2.4 MHz	3.4 MHz
D27	D26	2.95 MHz	4.75 MHz
D28	D27	3.9 MHz	7.3 MHz
D29	D28	6.45 MHz	9.1 MHz
D30	D29	7.8 MHz	

Tab. 1: Typical (resonance) frequencies that were attached to dilutions of thyroxine by measurement of microtremor in a human living system. For explanation, see text.

For example, thyroxine D30 differed from D29 in provoking additional resonances at 7.8 MHz and 9.1 MHz.

DISCUSSION

The results presented in this preliminary communication show that there is a biological reaction (change in microtremor) of a test person when exposed to the field of a coil fed with distinct frequencies of an oscillator, when a homoeopathically prepared dilution of thyroxine is brought into that field between the test person's hands. The frequencies where this reaction occurs are typical for each test dilution from D5 to D30. The result seems to be reproducable, as typical frequencies have been found with great regularity. However, further repetitions of the experiment, also under blind conditions, and also including other test persons, are, of course, necessary.

In order to explain the effect observed, our speculation is that, apart from the reaction of the living system, there are resonance phenomena between the magnetic vector potential or electromagnetic field produced by the coil fed by the oscillator and the homoeopathically prepared test dilution. This might be compared to the resonance effects of an undamped amplifier in an empty auditorium. The fact that these effects are also found when dilutions above Avogadro's limit (D25 - D30) are used points toward a physical effect in the solvent itself (see the following contributions in this book: Smith; Anagnostatos; Berezin; del Guidice; Endler et al.; Schulte). A possible specific sensitivity of a human tester to information from an agitated high dilution is also discussed in the contribution of van Wijk et al. in this book.

We wish to point out that these scientific approaches were undertaken by well-trained, skilled investigators, and that these data should not encourage any irresponsible diagnostic use of pendulum phenomena in human medicine.

Apart from the simple measuring method of microtremor of the human organism used in this study, better standardized methods to determine the effect of exposure could also be used. Further, it also seems worthwile to take other living systems as test objects, and to investigate e.g. the spontaneous climbing activity of juvenile highland frogs when exposed to these resonance phenomena of thyroxine when generated electromagnetically.

To investigate homoeopathic remedies apart from a living system, it will probably be necessary to simulate the electromagnetic frequency and coherence characteristics of a living system and measure the effects on the feedback path. This might be done by intercorporating the remedy in the feedback path of an electronic amplifier or a polarographic amplifier with a broad-band frequency response. (For details, see Smith's contribution).

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For further information see the following contributions in this book: Anagnostatos, Berezin, Del Guidice, Endler et al., Popp, Schulte, Smith.