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Distribution of 86 Rubidium and 75 Selenium and Electrophysiological Parameters after Moderate Hyperbaric Oxygenation

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Abstract

In recent years, in the medical world the number of studies related to certain biophysical characteristics of biologically active points (similar to acupuncture points) - BAP, antenna and electromagnetic radiation effect of the body is increasing. As a product of nature, organisms come into simpler or more complex relationship with the various forms of manifestation of natural energy and particularly the electromagnetic one. Aim of this study was to identify changes in the antenna effect, electromagnetic radiation and resistance and semiconductor effect in BAP of experimental animals under oxidative stress response to hyperbaric oxygenation. The general impression from the results obtained from the model, is that changes in biophysical parameters studied, with few exceptions in parameters and in varying degrees of variability are one-way and statistically significant. The increasing of antenna effect and electromagnetic radiation from one side and reducing resistance and of semiconductor effect in acupuncture point Ying-Tang considered for “basic energizer of the organism” at the other, in wide physical aspect are proof for an increase of communicative

opportunities of animals under moderate hyperbaric oxygenation. To build on the findings of experimental study it is necessary to extend the number of animals in the respective groups, and conduct further experiments with other stressful conditions.

Keywords: hyperbaric oxygenation, stress, antenna effect, electromagnetic radiation, resistance, semiconductor effect, biologically active point, energetic communication.

Introduction

Reports on the change of bioenergetic relationships of organisms with the environment are scarce the scientific literature. According to ancient Chinese medicine, the body communicates with the energy of nature and that communication depends on many reasons, from the organism itself and the environment – for example the stars, the moon and the sun.

A type of thinking which is empirical and unexplained from scientific point of view. With the advancement of human knowledge, especially the knowledge regarding electromagnetic waves possibilities are opened for an explanation of these communication features. Being a product of nature, the human being enters in certain simpler or more complex relationships with various forms of manifestation of energy. It is proved that one can be an antenna for electromagnetic radiation in the frequency range of 30 cm to 30 m wavelength. In this sense, from a purely philosophical and theoretical point of view, adopting such broadcasts to spoke with the nature on an energy level, the body almost certainly radiate electromagnetic waves in the same or at least similar, probably resonance range. Evidence for such a hypothesis, albeit with a certain arrangement is known as Kirlian effect. Biologically active points (BAP) according to the literature are characterized by: reactance, capacitance, inductance, conductance, thermal radiation and semiconductor effect (direct and reverse resistance).

Biophysical changes in the point largely characterized processes in a body or system finding a concrete expression in this point. For example, reduction of reactance and the temperature increase in BAP compared to surrounding tissue have important diagnostic significance. Among these parameters, the measurement of electromagnetic radiation, and the antenna effect in a radio frequency range can be used to obtain additional information about the general state of the organism.

In recent decades, the global medical practice is gaining oxygen as a therapeutic agent in various hypoxic conditions, including diseases, which at first glance are not directly related to the oxygen balance in the body such as brain edema, diabetes, ulcers and more. The basis of

the hyperbaric oxygen lies direct correlation between the pressure of oxygen in the inspired mixture and raising the pressure in the aqueous environment of the body, thereby creating certain extreme conditions for stress (reactivity stimulating) effects. Particular interest from a therapeutic point of view, is the ability for targeted impact on the body in order for it to be placed in a state of high alert and susceptibility to certain physiotherapy effects, particularly acupuncture.

Purpose

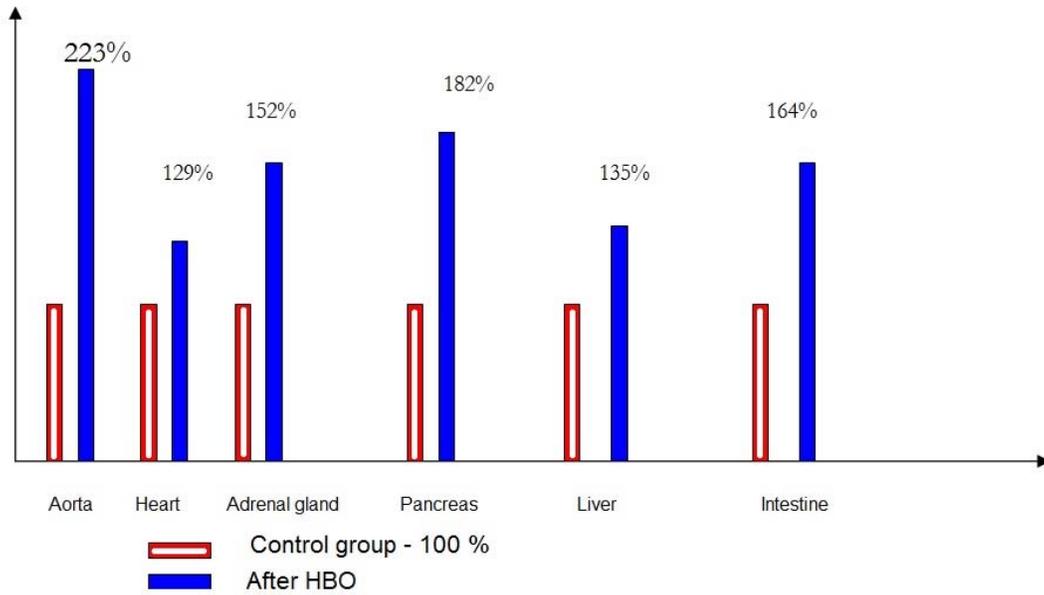
Our goal was to observe changes in distribution of ⁷⁵Selenium - Methionine (a marker for the state of protein metabolism), Rubidium ⁸⁶ (a marker for the level of blood circulation) and the changes in certain biophysical parameters: antenna effect and electromagnetic radiation in certain frequency bands, resistance of BAP in forward and reverse direction and semiconductor effect.

Materials and Method

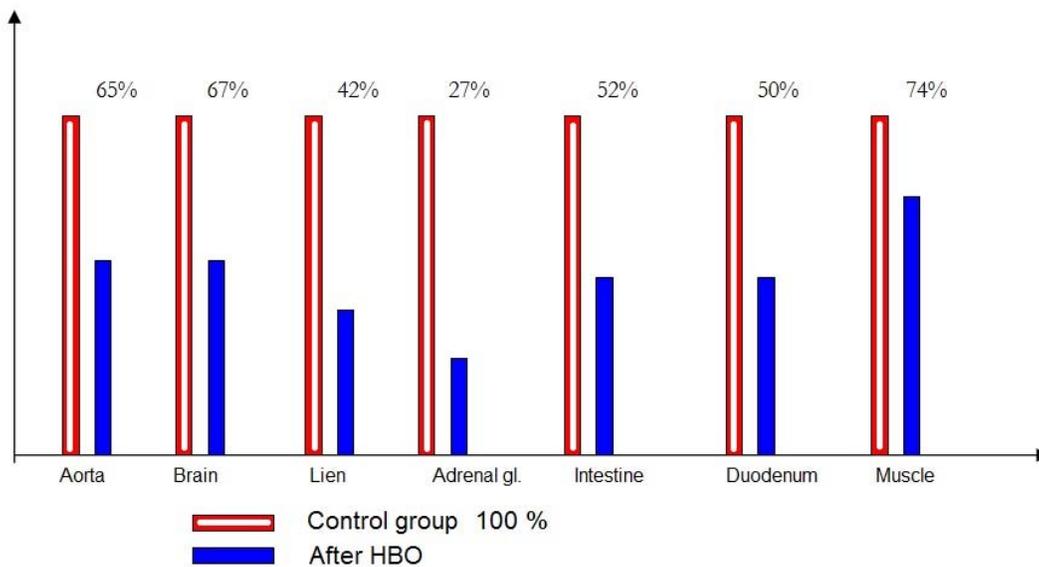
24 white breedless rats were used, divided into two groups.

Control group - 12 animals, untreated, were used to determine the normal distribution of ⁷⁵Selenium and ⁸⁶Rubidium. Dose - ⁷⁵Selenium 3 μ S / 100 g.b.m.; Rubidium 3 μ S ⁸⁶/100 g.b.m.; Methodology – Selenium was injected intramuscularly and 60 minutes after in V.Jagularis externa dextra using a catheter awns injected Rubidium. 45 seconds after the injection of rubidium a lethal dose of thiopental was used and organs for examination were extracted. After weighing, the organs were hydrolyzed and radiomeasured with one channel radiocounter. Two both isotopes are discriminated against in our methodology and results are defined as % activity per gram of tissue.

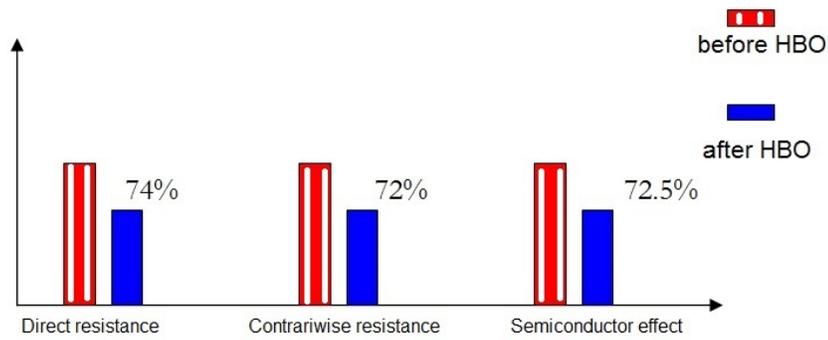
Experimental group - 12 animals. Before the treatment biophysical parameters were measured as follows: for the antenna effect and the electromagnetic radiation biosensor detector our development was used, the reading was done with analog multimeter according to the change of the electrical current flowing in the circuit; resistance in forward and reverse direction in BAP was reported analog with the same multimeter device and the semiconductor effect was represented as a mathematical difference between forward and reverse direction resistance (for BAP was used analogous to the Ying-Tang Chinese terminology point in persons). After measuring the initial parameters we subjected the animals to hyperbaric oxygenation with



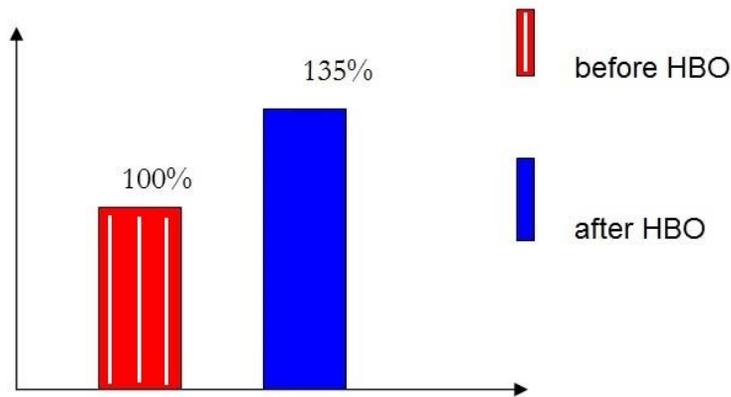
Graphics 1. Distribution of 86 Rubidium



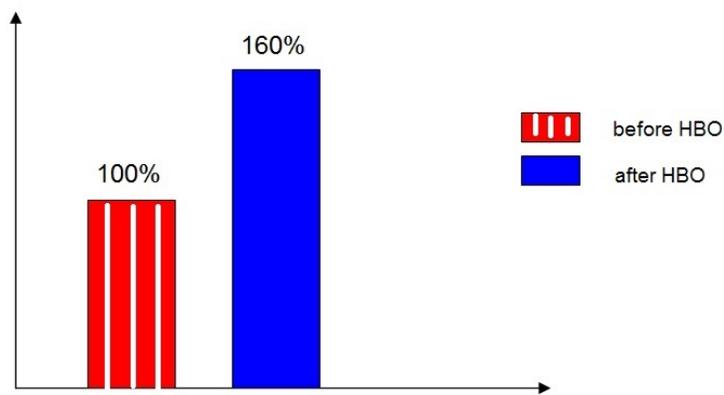
Graphics 2. Distribution of 75 Selenium after HBO



Graphics 3. Changes in the resistance after HBO



Graphics 4. Changes in antenna effect after HBO



Graphics 5. Changes in electromagnetic radiation after HBO

parameters of 2200 Hpa/O₂ for 30 minutes in a hyperbaric chamber MKBK - 42, our development. After removal of the animals from the chamber we measured the biophysical variables and isotopes were injected through mentioned in the control group methodology. Statistics. Obtained results were subjected to statistical treatment by the methods of variation analysis

Results and Discussion

Changes in the studied parameters are reflected in the graphics №№ 1, 2, 3, 4 and 5.

Distribution of Rubidium 86 - the results are informing for increasing of blood circulation due to hyperbaric load in the majority of internal organs, as aorta, adrenals, heart, intestine, liver and pancreas this increase is reliably from $P < 0.05$ to $P < 0.001$.

Distribution of 75 Selenium - the results speak for reducing isotope (or level of protein metabolism) due to hyperbaric load in most of the organs, such reduction is valid for the aorta, brain, spleen, adrenal, small intestine, duodenum and muscle with a confidence of $P < 0.05$ to $P < 0.001$. There is a statistically significant increase in the distribution of the isotope in heart and liver. The data obtained from the distribution of the two isotopes give reason to believe that in that regime of hyperbaric oxygenation impact stress is a condition of the animals.

Changes of biophysical parameters have to be considered extremely accurate because the measurements were carried out on the principle of autocontrol (every measurement is on the same animal and same BAP before and after the treatment in the chamber).

With respect to the antenna effect is present reliably increase after loading with 35%.

Electromagnetic radiation is increased by 60%. Forward and reverse resistance and the semiconductor effect showed a statistically significant decrease between 72% and 74%.

Changes of biophysical parameters indicate increased contactability of BAT with the energy sources in the environment, but also to increase the energy processes in the organism and the requirements in terms of radio range measurements.

Conclusion

The results give us reason to suspect that the studied level of hyperbaric oxygenation (2200 Hpa O₂ for 30 min enhances the Bioenergetics contact of the rats with the environment.

This in turn implies improving the possible effect of acupuncture after hyperbaric oxygenation.

For confirmation of this hypothesis further work is needed with different modes of action, and improve the methodology and implementation of new methods for conducting a more thorough and extensive research.

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