

Research Article

THE IMPORTANCE OF THE PHYSICS OF MAGNETISM IN MEDICAL THERAPY

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Received 15th June 2020; Accepted 20th July 2020; Published online 24th August 2020

ABSTRACT

Medical therapeutic processes are increasingly developing parallel to subspecialized high-performance medicine and are increasingly losing the advantage of integrative therapy. Magnetism as a basic physical force is the basis of life and thus the basis of biological processes, processes of chemical, biochemical and physiological processes in general. It is shown that the effect of magnetism develops in its manifestation of diamagnetism and affects biological molecules. Pulsating magnetic field resonance therapy is therefore an ideal adjuvant therapy option.

Keywords: Pulsating Magnetic Field Resonance Therapy, Background physics, Integrative medicine, Aspects of magnetic field technology.

INTRODUCTION

The specialization in medicine is connected with the effort to develop subtle forms of treatment. The idea of integrative medicine is getting lost more and more. That is unfortunate. Using the example of pulsating magnetic field resonance therapy, it should be shown that basic processes, laws of physics, describe and justify the therapeutic benefit and thus recommend its use.

DISCUSSION

The understanding of supportive therapeutic procedures is often subject to lethargy, indolence and often a lack of interest, so that therapeutic content is sometimes underestimated. Without a doubt, the enormous increase in knowledge brings with it the problem of confusion. This does not release the scientifically thinking person from disregarding fundamental relationships. The focus is on the maintenance and care of the human organism. The human body appears to stand above things as a highly complex system, and the conceptual connection to the laws of nature as the basis of life is largely ignored. The definition of the term life is difficult (2) and there is no general definition. Depending on the specialty, one is guided by criteria that describe a living being. The difficulties of definition can be seen in many attempts, three of which are examples. The space agency NASA based the definition of G. Joyce, 1995: "*Life is a self-sustaining chemical system, which has the ability of Darwinian evolution*". The Canadian information theorist St. Kauffmann, 1996 stated: "Life is an expected, collective assets, catalytic polymers for self-organization". And the physicist E. Schroedinger, in 1944, explained that "living beings can produce well-ordered patterns of molecules, whereby they create a greater disorder in their surroundings". In his opinion, the evolution of molecular structures is thus compatible with the Second Law of Thermodynamics. This points to the fact that life and its processes, like human physiology and pathophysiology, exist on the basis of the laws of nature. The laws of nature determine the sequence of processes and controls, or to put it the other way around, using natural law physical forces biological processes can be influenced. Seen in this way, the legalism goes beyond the attempt of the autopoiesis involved in systems theory and leads to the idea of making to influence these system-theoretical processes fundamentally.

If you restrict yourself to the concept of biological evolution and understand it as the gradual change of inheritable characteristics of living organisms or only organic structures, you have to bear in mind that evolutionary biology is a multidisciplinary field of science (3). Conversely, one can also say that biological processes are subject to a wide variety of influences. Only through them, as the fundamental and lasting factors, can there be a stable dynamic of life. If one can separate oneself from the term alternative forms of treatment in medical parlance and can better turn to integrative therapy, one finds a wide field of application in connection with the natural force of magnetism. The descriptive definition of magnetism seems rigid at first. It is the description of properties of substances and bodies that are related to magnetic fields, whereby these are either magnetic fields themselves or react in a certain way when they are introduced into such fields. Electromagnetism is responsible for the chemical properties of matter. It binds the electrons to the atomic nuclei and regulates the connection of atoms to molecules. With regard to the medical-therapeutic importance, diamagnetism plays the basis of the magnetic effect on large molecules (1). These diamagnetic fields can influence the chemical / biochemical interactions and the speeds of chemical processes as well as structural reaction mechanisms. The energetic fluctuations based on magnetism are explained by mechanisms that can be explained by quantum mechanics. The magnetic moments of the molecules and the external magnetic field cause an orbital angular momentum, a reaction circle, which is defined as magnetic susceptibility. But in addition to the orbital angular momentum of the molecules, there is an angular momentum due to the rotation of the electrons around its own axis. Its former meaning is defined as spin. Physically speaking, it is a vector directed quantity. This quantity characterizes the properties of diamagnetism. These factors, orbital angular momentum and spin, have a regulating and stimulating influence on biological matter due to the changing influences of the varying external magnetic field. The magnetic field effect is therefore a physico-chemical process as a prerequisite for biological processes and thus a fundamental prerequisite for life. The magnetic field does not simply determine its effect, but is to be defined by frequency, amplitude and intensity and, in its therapeutic effect, primarily by the organism's ability to resonate and the different sensitivities of the specific organ and tissue components. The therapeutically effective frequency spectrum of the magnetic field fluctuations lies in the low frequency range. The frequency spectrum generally covers the range from <1 - approx. 20,000 Hz, the fluctuation density 2 - 400 micro-Tesla. The different natural resonance properties of the tissues make an adaptation of the

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frequency and intensity output by the therapy system imperative. The pulsating magnetic field resonance therapy is, as the name expresses it, only effective in the area of the resonance capacity of the respective tissue. The response is equivalent to effectiveness. If the amount of the magnetic field application exceeds this effective range, toxic reactions, changes or disturbances in the metabolic processes occur, quasi damage. Although they are reversible at the limit of resonance, they can be classified as a side effect. The classic example is the hyperpolarization with the reversal of the nerve polarization of the pain-guiding nerves. This effect can also be used therapeutically, but the hyperpolarization characterizes the transition into the toxic sphere of influence.

The magnetic field effect in the medical field can basically be divided into two effective directions. On the one hand, the pulsating magnetic field acts directly on the biochemical processes of the tissue in the form of the quantum mechanical processes described. On the other hand, it has been shown that the earth's magnetic field influences the vegetative environment, because it has been proven that the loss of the earth's magnetic field leads to death in plant and animal life. Conversely, this means that with the use of suitable technology, the magnetic field effect can be linked to the vegetative part by means of pulsating magnetic fields in such a way that influencing the tissue via the vegetative nervous system can increase its effectiveness. From a technical point of view, fundamental vibrations are generated in the area of the earth's magnetic field, on which the applied organ-specific frequency bands are applied as harmonics. That is a significant advance. This gives an indication of the technical level of the application system (4), which has a decisive influence on the effectiveness of the therapeutic successes. As a consequence of the therapeutically useful application, one can summarize that the pulsating magnetic field resonance therapy is used to condition the body. It increases performance within the framework of the inductive possibilities, creates stability in the defense against disease-causing influences by increasing the oxygen supply and immune defense. Affecting the metabolism is associated with the elimination of toxic noxa, the reduction of inflammatory reactions and the acceleration of wound healing likewise a stabilization of bone metabolism. The body's own physiological functional processes of the neuro-endocrine system (5) are positively influenced, combined with vegetative and psychological stability.

The difficulties of defining life mentioned at the beginning cannot and will not be able to describe more fundamentally with the explanations on pulsating magnetic field resonance therapy. This is not intended either, but this therapeutic method proves that life is controlled by physical laws. These physical laws have led to the development of life and these relationships can be found again in the course of the evolution of the most diverse forms of life. The physical dynamic is an energy transfer. In this respect, pulsating magnetic field resonance therapy is understood as a valid therapy for integrative medicine.

CONCLUSION

The pulsating magnetic field resonance therapy is a physical process on a scientific basis. Its advantages can be used in the sense of integrative medicine. The effectiveness and usability depend on the validity of the application devices, although basic properties of the technical variants are currently preserved. The energetic stimulation is complex, but free of side effects, since the physiological processes are only strengthened but not changed. Magnetic energy is an elementary energy on which life depends. This corresponds to the principle that energy determines matter.

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