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A Case of the Successful Application of a "Device to Remote Transfer of Information from a Drug to the Human Body" in the Treatment of Multiple Sclerosis

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Case Study

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ABSTRACT

Laser therapy is a type of physiotherapy based on the use of optical radiation, the source of which is a laser. The average powers of physiotherapeutic lasers are most often in the range of 1-100 mW and they are used in almost all areas of modern medicine. According to the Spanish World Laser Therapeutic Association, the optimal energy parameters of low-level laser radiation are recommended for its application. We could not find data on using a "device for remote transfer of information from a drug to a human body," where the light source is a laser device with an extremely low energy level in treating severe neurological disease -multiple sclerosis. This report describes the results of a study using a "device to remote transfer of information from a drug to the human body"(Russian patent), where a laser with a power of up to 5 mV was used as a light source, and the drugs erythromycin and acyclovir were used to treat a 52-year-old Caucasian female musician with Multiple Sclerosis (MS). The applied exposure has led to the suppression of the activity of the disease, preventing the growth of neurological manifestations of the disease and reducing the appearance of demyelinating lesions in the patient's brain with MS.

Keywords: Multiply sclerosis; Medicament testing; Device for remote transfer of information from a drug to a human body; Erythromycin; Acyclovir

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INTRODUCTION

Multiply Sclerosis (MS) is a chronic autoimmune inflammatory disease characterized by demyelination and central nervous system axonal degeneration [1]. The MS treatment has two aspects: Immunomodulatory therapy for the underlying immune disorder and therapies to relieve or modify MS symptoms. These agents appear to slow disability progression and reduce the accumulation of lesions within the brain and spinal cord [2,3]. Low-Level Laser (light) Therapy (LLLT) is traditionally used to reduce pain, inflammation, and edema, to promote wound, deeper tissues, and nerve healing, and to prevent tissue damage [4].

Animal experiments using low power lasers with experimental MS are being conducted and have shown a promising result [5]. However, we were unable to find data on the use of the unusual application of laser radiation with an extremely low energy level for the treatment of a patient with MS, and this is the first case of treating a patient with MS using the drugs erythromycin and acyclovir placed in a field generated by low-level laser radiation transmitted through a spiral light guide-emitter, which led to the suppression of activity disease, preventing the growth of neurological manifestations of the disease and reducing the occurrence of the appearance of demyelinating lesions in a patient with MS.

CASE PRESENTATION

In January 2017, a 52-year-old Caucasian female musician presented with complaints of fatigue that increased throughout the day, weakness when walking, constant headaches, dizziness, stiffness in the arms and legs, mainly on the right side, unsteadiness of gait, tingling, and numbness in four limbs, inability to play the piano, problems with bladder control and insomnia.

In 2009, the patient began to complain for the first time of weakness in the left arm and leg, sudden dizziness attacks, severe fatigue, and a tingling sensation in the palms of both hands. In December 2013, during her subsequent hospitalization with complaints of paralysis of the right arm and severe weakness in the right leg, taking into account MRI data of the brain and based on the criteria of McDonald, the diagnosis of multiple sclerosis, relapsing-remitting form, was made for the first time.

According to the EDSS disability scale, the patient's condition was rated 7,5 points. The high-dose cortisone treatment (methylprednisolone 1 g intravenously for five days) was initiated with progressive symptom reduction. In 2014, the patient received Copaxone (Teva Pharmaceutical Industries, Israel) 1.0 ml twice during the year for 54 injections. She continued to take oral prednisolone at the dose of 10 mg every day.

In January 2017, she was admitted to the Out-Patient Department of the Institute of Virology with above-described complaints. Her medical history included chronic tonsillitis and paranasal sinusitis with frequent exacerbations from early childhood. Her family history was unremarkable.

Upon examination, the patient’s vital signs were typical. The neurological examination revealed horizontal gaze-evoked nystagmus and smoothness of the left nasolabial fold. The patient had upper-level motor weakness in her four extremities scale scores of 3.0 b proximally and 3.0 b distally with spasticity, hyperreflexia, and pathological reflexes of Babinski in both lower limbs. She had the following cerebellar signs: Incoordination (dysdiadochokinesia, problems with heel-to-shin test), rapid repeating movements, ataxic gait, loss of balance, and following sensory

impairments: Paresthesia, numbness, positive Romberg's test. Cognitive and emotional abnormalities in our patient included a fluctuating hyperactive state with mild agitation.

RESULTS

The blood test revealed positive results for Cytomegalovirus (IgG Ab) and HSV ½ (IgG Ab). The pharyngeal swab revealed the presence of β-hemolytic *Streptococcus*. Due to objective causes, we could not perform an evoked potential test and Cerebrospinal Fluid (CSF) examination for the presence of oligoclonal bands.

Considering the patient's condition and the lack of effect from traditional therapy, the patient was offered non-invasive Electropuncture diagnostics (EAV) to conduct Medicament Testing (MT) and the subsequent use of the "device for remote transfer of information from a drug to the human body" (DTI) [6]. The study was conducted following the principles of the Declaration of Helsinki and was approved by the Ethical Committee of the Ministry of Health of R. Uzbekistan (№ 12/8-1500 from 01/03/2017). The patient signed the informed consent to participate in the study.

To measure the level of electrical impedance at the Acupuncture Points (AP), we selected the following acupuncture points (measurement points (MP), Voll): Ly1, Ly3, Kr8a, Ne1, Ne1b*, Ne2, Ne3, Ne4. Abbreviations of the meridians are the Ly-lymphatic system, the Kr-circulation meridian, and the Ne-nervous system [7]. For medicament testing, taking into account the medical history of our patient and the results of the pharyngeal swab, the nosode of *Streptococcus* spp. in 30 C dilution was selected and erythromycin (100 mg tablets) was chosen. A detailed description of the method has been described previously [6]. The results of EAV readings are presented in (Table 1).

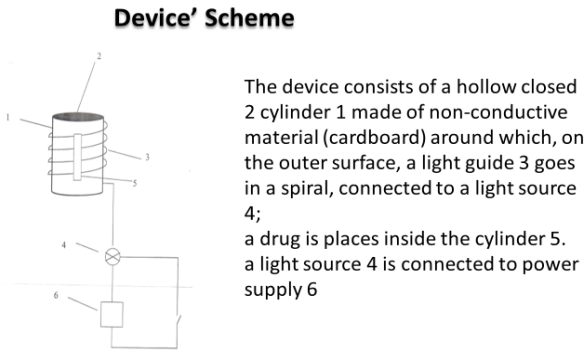
Table 1. Results of medicament testing before the first session of exposure.

MPs	EAV pre-test readings(units)	Indicator drop (units)	EAV post-test readings (units)	Interpretation of the data obtained
Ly1	38	12	60	Positive response
Ly3	40	10	62	Positive response
Kr8a	42	12	60	Positive response
Ne1	58	abc	46	Positive response
Ne1b*	46	8	36	Positive response
Ne2	60	abc	48	Positive response
Ne3	36	14	62	Positive response

Note: *The data are given in absolute values of the EAV device's readings (units).

Pre-test readings are given as the final result of the EAV device readings obtained after the indicator drop [6]. EAV post-test readings reflect the results obtained after medicament testing using the nosode of *Streptococcus* spp. and Erythromycin at the specified measuring points. As can be seen from the presented data, a positive response to medicament testing was obtained at four measuring points: Ly1, Ly3, Kr8a, and Ne3. To carry out therapy for the patient, it was suggested to use a DTI in the field in which erythromycin tablets would be placed. Figure 1 shows the device's scheme used in the study (Patent of the Russian Federation) [8].

Figure 1. Scheme of the device used in the study.



According to the recommendations of Dr. Voll, the measurement points with a positive response to medicament testing are associated with the following internal organs [7]:

1. Ly1-palatine tonsil, including peri- and retro-tonsillar space with lymph drainage to the deep lymph nodes of the neck.
2. Ly3-lymph drainage from the mucous membranes of the nasal cavity and paranasal sinuses.
3. Kr8a-deep cervical lymph nodes.
4. Ne3-brain stem and cerebrum.

The patient received a full explanation regarding the DTI, as well as regarding the procedure itself: She is placed on a couch in the supine position and a cylinder (emitter) with erythromycin (tablets) put into it is settled on the body surface (non-invasive access) over the projection of some organs. At first, the laser device is switched on. The duration of the procedure is up to 30 minutes (the time is set individually, for the time established according to the exposure table; if necessary, under the control of the dynamics of the relevant physiological or biochemical indicators (pulse rate, blood pressure, etc.)). After the completion of the exposure, the laser device is switched off. Thus, the patient does not receive the drug traditionally, but with the help of DTI, the properties of the drug placed in the DTI area at the time of exposure are transferred into her body. In her case, this effect makes it possible to freely and safely reach certain areas of her body where traditional access for medications is complex and requires special conditions (for example, the brain).Thus, the following organs were planned to be exposed: Palatine tonsils (D, S), paranasal sinuses (D, S), deep cervical lymph nodes (D, S), and brain (D, S).

The procedure began on 02.02.2017. During the first session of exposure, the erythromycin (100 mg) was placed into the emitter and above the projection of the palatine tonsils (D, S, sequentially). Then, the emitter was closed with a cover, and the laser apparatus was switched on. The procedure lasted 30 minutes, and the laser apparatus was switched off. The patient did not feel the moment the device was turned on and off and was not warned about this. On the patient's next visit in 10 days, we repeated the procedure described above and applied an emitter of the DTI above the projection of the paranasal sinuses (D, S, sequentially). The procedures were repeated every ten days, and on her last visit on March 3, 2017, the emitter of the DTI was located above the brain projection. For this purpose, the patient was placed in a lying position on her side (D, S), and the exposure was carried out separately over the projection of different parts of the brain: Frontal lobe, temporal zone, parietal zone, occipital zone, and cerebellum. The patient continued to receive prednisolone at a dose of 10 mg daily. On March 23, 2017, the patient's condition improved significantly: Fatigue and weakness when walking disappeared, headache and

dizziness stopped, and gait improved. The neurological examination data did not change. She ceased taking prednisolone in May 2017.

At the time of stopping prednisolone, the following complaints were presented: Slightly expressed stiffness in her arms and legs, tingling (pins and needles) sensation in four limbs, problems with bladder control and insomnia. In December 2017, the patient came for a routine check with her complaint of tingling (pins and needles) sensation in her four limbs and insomnia. Neurological examination revealed a horizontal gaze-evoked nystagmus. There was smoothness of the left nasolabial fold. The patient had upper-level motor weakness in her four extremities scale scores of 4,5b proximally and 4,5b distally with mild spasticity, hyperreflexia and pathological reflexes of Hoffmann in the left hand and Babinski in both lower limbs. She had problems with the heel-to-shin test, loss of balance, and following sensory impairments: Paresthesia, numbness, and positive Romberg's test. Cognitive and emotional abnormalities in our patient included a fluctuating hyperactive state. The results of the data on EAV readings with erythromycin (100 mg tablets) placed into the honeycomb of the EAV device in December 2017 are presented in (Table 2).

Table 2. Results of medicament testing after the fourth session of exposure.

MPs	EAV pre-test readings(units)	Indicator drop (units)	EAV post-test readings (units)	Interpretation of the data obtained
Ly1	58	4	46	Negative response
Ly3	60	abc	52	Negative response
Kr8a	56	abc	42	Negative response
Ne1	58	abc	42	Negative response
Ne1b*	58	abc	46	Negative response
Ne2	60	abc	52	Negative response
Ne3	54	4	42	Negative response
Ne4	56	abc	46	Negative response

As can be seen from the presented data, a negative response to erythromycin tablet testing was recorded at all tested measurement points.

On her next visit on 17.03.2018, she experienced an exacerbation of the disease over the last week. She recalled that one month ago, she got sick with influenza after contact with the diseased child. That time, she complained of weakness in her left leg, which drastically increased over three days and unsteady gait. Neurological examination showed a horizontal gaze-evoked nystagmus. The patient had upper-level motor weakness in her four extremities scale scores of 3,0b proximally and 3,5b distally with mild spasticity, hyperreflexia, and pathological reflexes of Hoffmann in the left hand and Babinski in both lower limbs. She had problems with the heel-to-shin test, ataxic gait, loss of balance, and following sensory impairments: Paresthesia, numbness, and positive Romberg's test. Cognitive and emotional abnormalities in our patient included a fluctuating hyperactive state with mild agitation.

Taking into account the patient's medical history and the presence of HSV1/2 IgG Ab, it was decided to conduct MT at the same measuring points using the nosode of DNA polymerase in 30 C dilution, nosode of Herpes simplex in 30 C dilution, and acyclovir (200 mg, tablets). The results of EAV readings made at that time are presented in Table 3.

Table 3. Results of medicament testing before the fifth session of exposure.

MPs	EAV pre-test readings(units)	Indicator drop (units)	EAV post-test readings (units)	Interpretation of the data obtained
Ly1	56	abc	48	Negative response
Ly3	58	abc	48	Negative response
Kr8a	62	abc	52	Negative response
Ne1	58	abc	46	Negative response
Ne1b*	56	abc	42	Negative response
Ne2	62	abc	48	Negative response
Ne3	42	10	62	Negative response
Ne4	56	abc	48	Negative response

Note: *The data are given in absolute values of the EAV device's readings (units).

Pre-test readings are given as the final result of the device readings obtained after the indicator drop. EAV post-test readings reflect the results obtained after medicament testing using the proposed drugs at the specified measuring points. As can be seen from the presented data, a positive response to medicament testing for the proposed drugs were obtained only at measuring point Ne3. We decided to use acyclovir for the exposure to the patient and performed the procedure described above. The procedure was carried out during which the emitter of the DTI with the drug acyclovir (200 mg) placed inside it was placed over the projection of various parts of the brain. Her condition improved within one week of the procedure: All described complaints disappeared. There were no visible changes in her neurological status. The results of the data on EAV readings with acyclovir (200 mg, tab) placed into the honeycomb of the EAV device in April 2018 are presented in Table 4.

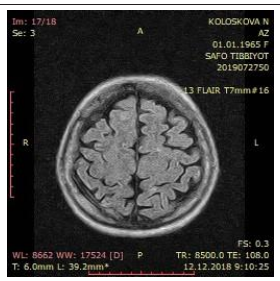
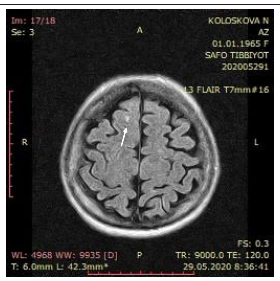
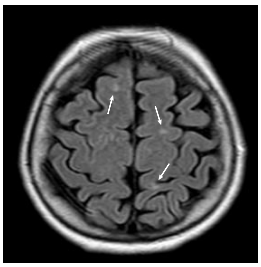
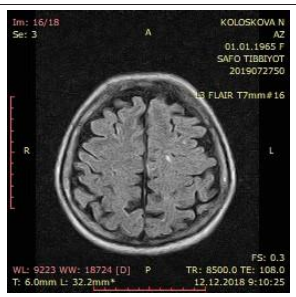
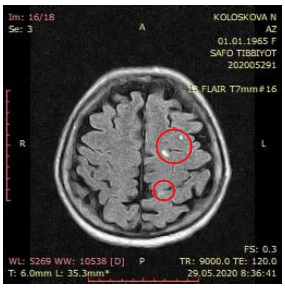
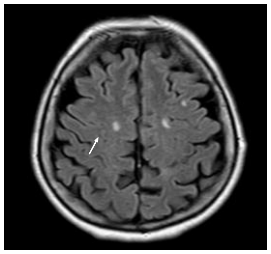
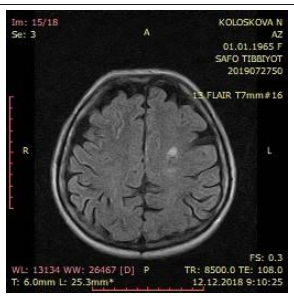
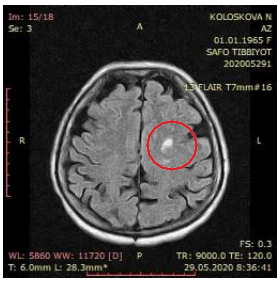
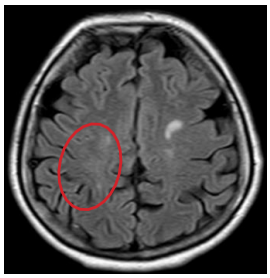
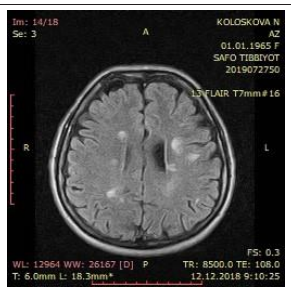
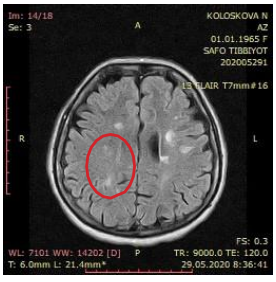
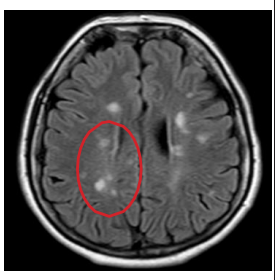
Table 4. Results of medicament testing after the fifth session of exposure.

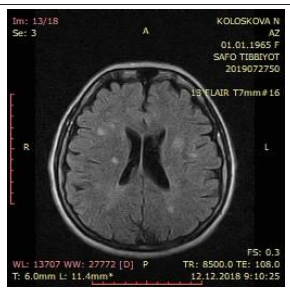
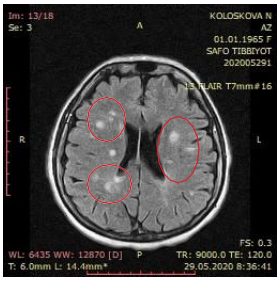
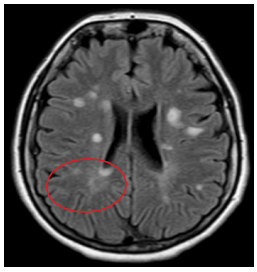
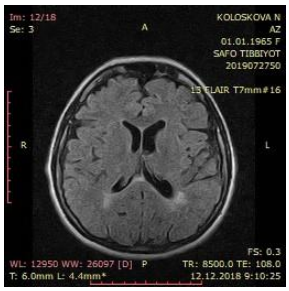
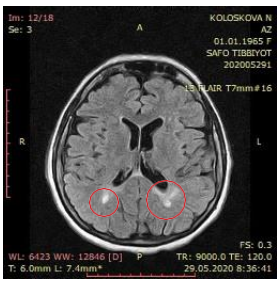
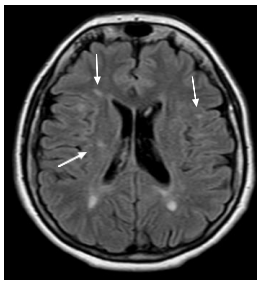
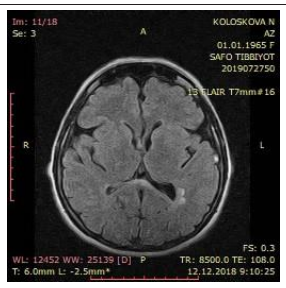
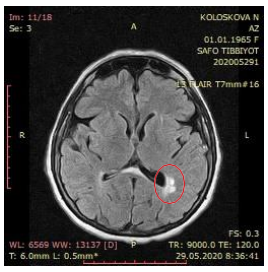
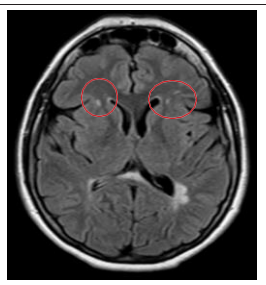
MPS	EAV pre-test readings(units)	Indicator drop (units)	EAV post-test readings (units)	Interpretation of the data obtained
Ly1	58	4	48	Negative response
Ly3	60	abc	54	Negative response
Kr8a	62	abc	42	Negative response
Ne1	56	abc	42	Negative response
Ne1b*	58	abc	46	Negative response
Ne2	60	abc	52	Negative response
Ne3	60	4	42	Negative response
Ne4	56	abc	46	Negative response

As can be seen from the presented data, a negative response to acyclovir testing was recorded at all tested measurement points. Thus, the patient received five exposure sessions using a "device to transfer information to the patient's body" over the following years: 2017 and 2018. She had had no exacerbation of the disease from April 2018 till January 2024. The patient was subjected to an annual routine examination for possible exacerbation of the process, but the patient's condition and neurological status have gradually improved. In her last routine visit on 3.01.2024, the patient's only complaint was the slight tingling in her hands. The neurological examination revealed normal cranial nerve conditions. There were no signs of upper-level motor damage. She had a positive Hoffmann's reflex in the left hand. The Babinski sign was absent on both feet. There were no signs of sensory impairments as well as the cerebellar signs. The only sign was slight difficulty in performing a heel-to-toy walking

test. There were no signs of emotional instability. Our patient did not take prednisolone (tab) for the last five years. She continues to work as a musician and plays the piano. The patient teaches at a music school and leads an active social life. Figure 2 demonstrates the localization of the demyelinating lesions in different parts of the brain and the dynamic of changes accompanying the treatment according to the T2 weighted longitudinal MRI conducted from 2018 to 2023.

Figure 2. Localization of the demyelinating lesions in different parts of the patient's brain.

2018	2020	2023	Comments
			A comparison of MRI data shows that the intensity of the lesion identified in 2020 has decreased significantly.
			A comparison of the MTR data shows that the size of the lesions in the parietal region on the left shows no growth dynamics. Small hyperintense lesions in the same area that were identified in 2020 are not differentiated in 2023. Additionally, a new lesion is identified in the parietal region on the right
			In comparison of brain MRI data, one can note the preservation of the size of the lesions in the parietal region on the left, with a decrease in their intensity. In the parietal region on the right, mild lesions are identified
			When comparing the data in the dynamics of observation, it is clear that a decrease in intensity is determined by relative preservation or a decrease in the size of old lesions in the periventricular region on the left. In addition to the previously identified lesions, new lesions of a relatively pronounced nature are identified in the periventricular region on the right.

			Dynamically, an increase in the size and intensity of foci in the parietal region on the left is determined. The intensity and size of the lesions at the posterior horn of the right lateral ventricle decreased. Lesions located at the posterior horns of the right lateral ventricle without visible changes
			Existing lesions at the posterior horns of the lateral ventricles without visible changes in dynamics. A decrease in the volume of hyper- in- tense zones in the posterior horns of the lateral ventricles is determined. Additionally, new small, weakly hyperin-tense foci with unclear contours in the study area are determined.
			In the dynamics of observation, it is clear that the lesions at the posterior horn of the left lateral ventricle without visible changes. Additionally, new small, weakly hyperin- tense foci are identified in the anterior horns of the lateral ventricles.

DISCUSSION

The Russian patent describes the invention of scientists from the Siberian Branch of the Russian Academy of Sciences, which describes the cases of “Transfer of information from insulin to the human body” and “Transfer of information from an adrenaline solution to the human body” presented as information confirming the possibility of manifestation of this phenomenon. In both cases, drugs were used in liquid form (in ampoules) [8]. The monographs describe the results of *in vitro* and *in vivo* studies of the properties of the “device for transmitting information from the drug to the human body” [9,10]. A feature of the field formed inside the cylinder included in the described device is its deep penetrating ability. The nature of the physiological basis of the phenomenon of medicament testing has not yet been revealed. However, some scientists have expressed the idea that medicines in the human body realize themselves not only at the pharmacological level but also at the level of their inherent electromagnetic radiation [9]. The basis for such a statement was the achievements of quantum mechanics -the physical basis of which is wave-particle dualism, according to which any material object-particle or wave-has both wave and corpuscular properties [11]. According to the article’s author’s opinion, the mechanism for transferring information from a drug to the human body in a “device for transferring information from a drug to the human body” is very similar to the mechanism of medicament testing itself and can be explained as follows: Under the influence of a weak electromagnetic field formed inside the cylinder of the device, when the laser device is switched on, the molecules of chemical elements that make up the drug begin to activate [6]. The activation of the molecules causes them to vibrate and fluctuate. This, in turn, leads to the formation of a specific field inherent in the overall structure of the drug or, in other words, to the formation of an electromagnetic imprint of the crystal lattice of the chemical

structure of the organic substance (drug) placed inside the emitter (cylinder). Since the direction of the waveguide located on the outer wall of the cylinder goes from top to bottom, then the vector of field motion inside the cylinder is also directed from top to bottom, which in turn leads to the transfer of the formed imprint downwards along the direction of the cylinder field vector. And then, apparently, the drug's resulting electromagnetic imprint interacts with the biological object's electromagnetic field characteristic over the projection of which the emitter (cylinder) is placed. This statement requires rigorous proof. The study of the spectral characteristics of the molecules of chemical elements included in the composition of pharmacological drugs is the basis of the method of IR spectroscopy in pharmacy. It is based on the absorption of electromagnetic radiation in the infrared range by the molecules of the drug under study, in which the vibrational and rotational states of the medicine's molecules are excited [12]. One of the reflections of the chemical processes occurring in cells is Ultra-weak Radiation (USR), which is inherent in all biological systems. The first data on the presence of weak ultraviolet radiation accompanying exothermic chemical reactions occurring both in various living tissues and *in vitro* were described in the works of Gurvich,1923 [13]. The presence of distant interactions has been demonstrated in cell and organ cultures of animals, plant tissues, bacteria, and embryos of lower vertebrates. Electromagnetic radiation from most biological objects has very low intensity, according to F.-A. Popp, the power of electromagnetic interaction of biological objects lies in the range of 10-17-10-15 W (equivalent to ~100-103 quantum/sec in the near UV-near IR range) [14-19]. It is known about the effects of low-level laser light on biochemical and cellular function include cellular metabolic activation and increased functional activity (ATP synthesis is increased by up to 150%), stimulation of repair processes as a result of increased cell proliferation, anti-inflammatory effects, microcirculation activation, and more efficient tissue metabolism; analgesic effects as a result of increased endorphin release; immune-stimulation with correction of cellular and humoral immunity, increased antioxidant activity in the blood, staining lipid peroxidation in cell membranes; stimulation of erythropoiesis, vasodilatation, normalization of acid-base balance in the blood, reflexogenic effects on the functional activity of different organs and systems and others [4]. The selection of the drugs in this study was based on the laboratory test data. Erythromycin belongs to the group of macrolides and is active against gram-positive microorganisms, which include β-hemolytic streptococcus. Acyclovir is an antiviral drug and is active (including) against herpes virus infection. Both drugs were tested in the process of medicament testing before application and the decision to use them was based on a positive response to medicament testing.

The positive result that was obtained suggested the transfer of information from drugs to the patient's body when using these drugs in the formed field of the DTI and showed the occurred interaction of the electromagnetic imprint of the crystal lattice of the chemical structure of the drug with the electromagnetic radiation, reflecting the wave characteristics of infections (β-hemolytic streptococcus and herpesvirus infection) in those tissues of the body that were exposed: Tonsils, paranasal sinuses, deep cervical lymph nodes: β-hemolytic streptococcus; and the brain: β-hemolytic streptococcus and herpesvirus infection. This statement requires further research. Previously obtained results on using the proposed device to treat various diseases were published and reported at conferences [20,21]. This message, for the first time, brings to readers' attention the successful results of studies conducted on a patient with a severe nervous system pathology, which is multiple sclerosis. According to the patient, this type of treatment compares favorably with previous therapy in terms of the speed of onset of the effect obtained, the absence of side and adverse effects, as well as the rapid resolution of almost all symptoms of the disease, which allows her to continue working as a musician and lead an active social lifestyle.

CONCLUSION

The results of the study demonstrated the positive effect of using a “device for remote transfer of information from a drug to the human body” in the form of cessation of disease activity, prevention of the growth of neurological manifestations of the disease and positive dynamics of demyelinating lesions in the brain of a patient with multiple sclerosis, which allowed the patient to continue working as a musician and lead an active social life. This type of exposure is characterized by rapidity of action, safety, and the absence of side effects from the therapy.

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