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Research Article

Analysis of the Influence of Osteopathic Procedures on the Psychophysiological State of Patients

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Abstract

Introduction: Published data support the hypothesis that osteopathic procedures influence not only the musculoskeletal structure but also all of a person's internal organs and systems. For further development of this claim, it is important to develop methods for analyzing the influence of osteopathic procedures on the general psychophysiological state of the patient.

Goal of the Study: To investigate the change of psychophysiological parameters of patients undergoing osteopathic procedures from 2022 to 2023 compared to the control group of healthy people who did not have osteopathic treatment.

Methods: Gas Discharge Visualization (GDV) method was used to study the psychophysiological state of 25 people of both sexes, with an average age of 43 ± 13 years. Periodically, at least ten times, they underwent osteopathic procedures from 2022 to 2023 by doctor Shakirov A. M. It is shown that the GDV method (Bio-Well device) allows you to monitor the result of osteopathic procedures. The data are stored on the server and can be accessed at any time.

Results: A comparison of GDV parameters for 25 people, regularly, over several years, undergoing osteopathic procedures demonstrated a statistically significant improvement in parameters over time: the stress and fractality coefficient decreased, and photon emission energy increased. These changes were observed for the whole organism and individual organs and systems. In the control group of 15 healthy people of the same sex and age composition, no significant changes in GDV parameters were observed over the same period.

Conclusion: The data obtained confirms the hypothesis that osteopathic procedures affect the psychophysiological state of the patient and the functioning of all organs and systems. Analysis of individual patient data indicated that a regular series of procedures was required to achieve a sustainable effect.

Keywords: *Osteopathic Treatment; GDV Method; Bio-Well; Psychophysiological State*

Introduction

The concept of modern integrative medicine states that the organism is an open energy-information structure in which the transfer of energy and information with the participation of the neurohumoral system and the exchange of energy and information with the environment constantly takes place [1-3]. The mechanism of this process is considered in detail in the paper [4]. It was shown that the main reservoir of free energy in biological processes is electron-excited states of complex molecular systems. Communities of delocalized excited π-electrons in protein macromolecules are the basis of this energy reservoir. Specific structural-protein complexes within the

mass of the skin provide channels of heightened electron conductivity, measured at acupuncture points on the surface. These excited states are continuously supported at the expense of electron circulation in the biosphere. The main "working substance" is water, and the energy source is the sun.

A part of these electron-excited states is expended to support current energy resources in the organism. A part can also be reserved for the future, as it happens in lasers after the absorption of the pump pulse. In [5], the hypothesis was proposed that connective tissue functions as a mechanosensitive signaling system on a whole-body scale. Studies of living tissue (rather than dead tissue. as in classical histology) using confocal laser endomicroscopy revealed fluid-filled spaces in connective tissue, which were much more extensive than previously thought. These results confirm that the extracellular matrix is the body's largest organ, linking the other organs into a unified whole [6]. Organ-specific cells have no direct contact with nerve conductors and the vascular network. All their neurohumoral connections are mediated through the matrix surrounding them. As noted in [6], "vessels and nerves are located in connective tissue layers and fascias and when the structure of connective tissue is disturbed the movement of blood through the vessels may be disturbed, as well as the conduction of nerve impulses along the nerves and their trophic function. With the prolonged existence of postural imbalance, chronic stress, or impaired motor synergies, connective tissue structures are gradually remodeled, mobility in the joints and spine is reduced". The above ideas play a fundamental role in understanding the influence of osteopathic procedures on the human body. For further development of these hypothesis, it is necessary to develop methods for analysing the influence of osteopathic procedures on the general condition of the patient.

Materials and Methods

Contingent

The psychophysiological state of 25 people of both sexes was analyzed. 13 men and 12 women, with an average age of 43 ± 13 years. Periodically, not less than ten times, they underwent osteopathic procedures from 2022 to 2023 by doctor Shakirov A. M. As a control group, 15 people of similar gender and age were chosen and measured by the GDV method, who did not have osteopathic correction.

At the initial examination, the following dysfunctions in all patients under study were found:

- Cervical, thoracic, and lumbar spine dysfunctions in the form of subluxations (functional blocks) of various localizations;
- Sacrum dysfunction in the form of various torsions. more often S/S;
- Iliac dysfunction. more often in the form of anterior and posterior rotations;
- Coccyx dysfunction. more often as subluxations;
- Ankle joint dysfunctions, subtalar joint, and joints of the foot;
- Physiologic SBS (skull) dysfunctions with craniosacral rhythm disturbances;
- Respiratory (non-kinetic) dysfunctions of the ribs of various localizations;
- Inspiratory dysfunctions of the diaphragm;
- Ileocecal valve dysfunction, sphincter of Oddi. gallbladder and liver;
- Hyoid dysfunction.

In addition to these dysfunctions, the following dysfunctions have been found in some people:

- Hip joint dysfunction - 12 people;
- Knee joint dysfunctions - 12 people;

- Temporomandibular joint dysfunctions - 7 people;
- Sternoclavicular and acromial-clavicular joints dysfunctions - 7 people.

Regional postural imbalance of the following muscles was also found:

- Iliopsoas muscle - 14 people;
- Quadratus lumborum muscle - 12 people;
- Rectus femoris muscle - 12 people;
- Pectoralis major - 9 people;
- Pectoralis major muscle - 7 people;
- Small pectoral muscle - 7 people;
- Gluteus maximus - 7 people;
- Trapezius muscle - 7 people;
- Scapula lifting muscle - 7 people;
- Deltoid muscle - 5 people.

All problems were successfully corrected during the course of treatment with chiropractic and osteopathic correction methods. Patients were recommended to undergo a regular course of osteopathic corrections.

Gas discharge visualization method (GDV)

Bio-Well GDV method is a revolutionary, non-intrusive instrument for preventive health care and Integrative medicine. It brings the powerful technology known as the gas discharge visualization (GDV) technique to market in a more accessible way than ever before. The product comprises a desktop camera and accompanying server software, allowing users to conduct human energy scans quickly and easily. When a scan is completed, a weak electrical current is applied to the fingertips for less than a millisecond. The object responds to this stimulus by emitting electrons and photons. This "glow," invisible to the human eye, is captured by the unique camera system and sent to the server, where robust software processes data and then translates and transmits it back in graphical representations to show Energy, stress, and vitality evaluations for the whole body and all organs [7,8]. The image we create in the Bio-Well instrument is based on traditional Chinese medicine and modern neurophysiology ideas and verified by 20 ± years of clinical experience by hundreds of medical doctors with many thousands of patients [9-19]. The scanning process is quick, easy, and non-intrusive. FDA registers technology as medical (registration N 3014299556), and the device has EU and UL certifications. The system is based on 12 patents by Dr. Korotkov. Bio-Well is used by thousands of doctors, practitioners, and researchers in more than 65 countries. More than 200 papers were published on medical applications, and 12 books were translated into different languages. Bio-Well software operates in 13 languages. Bio-Well test was performed at rest using a device by Bio-Well Co (www.bio-well.com). The GDV technology was successfully applied to analyze the effect of osteopathic procedures in [20,21]. The present work continues the research in this direction.

Study procedure

All subjects were aware of the research and signed the relevant documents.

Results

Table 1-3 and figure 1 and 2 present a range of GDV parameters averaged across groups. The stress coefficient estimates the level of physiological stress of a person.

	Before treatment	After treatment	T-test, p value
Stress coefficient	4.02 ± 1.15	3.33 ± 0.30	< 0.001
Photons' Energy, mJ	37.98 ± 4.71	61.57 ± 7.26	< 0.001
Fractality coefficient	3.69 ± 0.95	2.47 ± 0.24	< 0.001
Partial Energy, mJ			
Spine - cervical	2.75 ± 0.39	5.01 ± 0.80	< 0.001
Spine - thoracic	2.28 ± 0.71	4.44 ± 0.78	< 0.001
Spine - lumbar	2.74 ± 0.79	5.06 ± 0.87	< 0.001
Sacrum	4.07 ± 1.03	7.77 ± 1.29	< 0.001
Coccygeal area	4.68 ± 1.05	8.86 ± 1.52	< 0.001
Nervous system	3.86 ± 1.16	6.62 ± 2.29	< 0.001
Immune system	2.54 ± 0.54	4.62 ± 0.82	< 0.001
Coronary vessels	3.06 ± 0.62	5.51 ± 0.95	< 0.001
Gastrointestinal tract	3.20 ± 0.59	5.81 ± 0.81	< 0.001
Jaws	2.66 ± 0.77	5.47 ± 0.93	< 0.001
Cardiovascular system	2.88 ± 0.57	5.34 ± 0.84	< 0.001
Respiratory system	4.10 ± 0.83	7.10 ± 1.09	< 0.001

Table 1: *Values of stress coefficient, total and partial energy, averaged over the group at the beginning and after the osteopathic therapy.*

	Before treatment	After treatment	T-test, p value
Overall Balance	76.89 ± 3.43	91.96 ± 4.96	< 0.05
Cardiovascular system	82.47 ± 4.21	91.68 ± 6.46	< 0.05
Coronary vessels	87.94 ± 2.86	90.88 ± 6.48	< 0.05
Respiratory system	84.14 ± 5.08	88.73 ± 5.25	< 0.05
Spine - Cervical	82.62 ± 2.07	84.62 ± 2.17	< 0.05
Spine - Thoracic	71.85 ± 5.20	81.85 ± 2.01	< 0.001
Spine - Lumbar	75.11 ± 2.23	83.01 ± 4.03	< 0.001
Sacrum	78.67 ± 5.73	84.18 ± 8.19	< 0.05
Coccygeal area	85.73 ± 3.99	91.26 ± 7.47	< 0.05
Colon - descending	99.83 ± 8.42	100.00 ± 4.00	< 0.05
Liver	68.68 ± 8.36	84.13 ± 3.80	< 0.001
Pancreas and spleen	84.14 ± 7.50	91.17 ± 6.21	< 0.05
Genitourinary system	86.24 ± 2.40	88.92 ± 7.20	< 0.05
Kidneys	79.61 ± 2.84	89.88 ± 7.75	< 0.001

Table 2: *Organs and systems balance, averaged over the group, at the beginning and after the osteopathic therapy.*

	Initially	At the end of the study	T-test, p value
Stress coefficient	3.29 ± 0.50	3.95 ± 1.93	0.81
Total energy. mJ	58.23 ± 5.32	51.95 ± 6.93	0.56
Fractality coefficient	2.37 ± 0.27	2.44 ± 0.17	0.92
Total Balance	93.48 ± 5.16	95.32 ± 2.80	0.88

Table 3: *Values of the GDV coefficients averaged over the control group.*

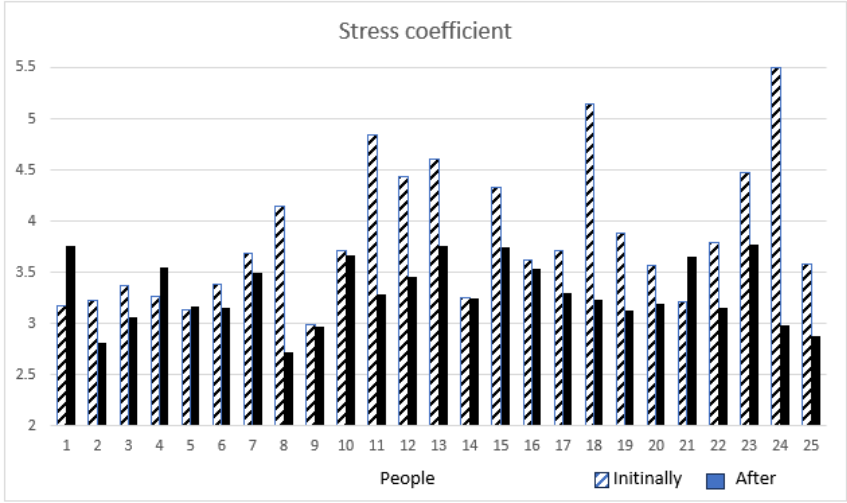

Figure 1: *Stress coefficient for 25 people before and after osteopathic therapy.*

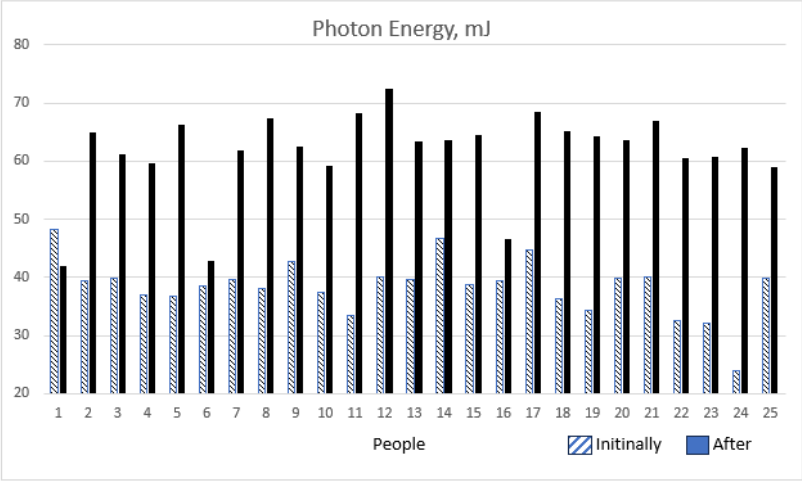

Figure 2: *Total photon energy for 25 individuals. Before and after osteopathic therapy.*

The energy parameter is the sum of the energy of photons emitted by all fingers of the hand. The partial energy is the photon energy of the corresponding organ.

The fractality coefficient characterizes the inhomogeneity of the image contour averaged over all fingers of hands.

Balance - the ratio of energies of a body's right and left parts.

Discussion

As can be seen from the data of table 1 and 2, in all examined patients after regular osteopathic procedures, there was a statistically significant improvement of parameters: stress coefficient and fractality coefficient decreased, and photon emission energy increased. These changes were observed for the whole organism and individual organs and systems. Thus, these data support the hypothesis that osteopathic procedures have a positive effect on all organs and systems of the body. It should be considered that the analysis was performed on a group of randomly selected patients.

The data in table 3 shows that there were practically no changes over the same period in the control group. It should be noted that this group included people who do not have chronic diseases and led a healthy lifestyle.

Conclusion

Based on the results of the analysis, the following conclusions can be drawn:

1. The bio-well device allows you to quickly monitor the results of osteopathic procedures. The data are stored on the server; access to them can be carried out at any time without restrictions from any computer.
2. Comparison of GDV parameters for 25 people, regularly, for several years, undergoing osteopathic procedures demonstrated a statistically significant improvement in the parameters: stress coefficient and fractality coefficient decreased, and photon emission energy increased. These changes were observed for the whole organism, as well as for individual organs and systems.
3. These data support the hypothesis that osteopathic procedures affect the psychophysiological state of the patient and the functioning of all organs and systems.
4. In the control group of 15 healthy people of similar gender and age composition, no significant changes in GDV parameters were observed for the same period.

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