GEORGE EMIL PALADE" UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE AND TECHNOLOGY FROM TÂRGU MUREŞ

SCHOOL OF DOCTORAL STUDIES

Abstract Of The Doctoral Thesis

Bioresonance therapy in recurrent depressive disorder

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Introduction: Depression is the most common disease of affective disorders, which is part of the field of psychiatry. Depression is defined more as a mood disorder than as a thinking disorder, limiting the normal functioning of individuals, and ranging from an extremely mild to a severe form. This negative emotional state can persist for a short period of time or for a longer period, with mild, moderate or severe intensity, which can seriously damage one's health.

The aim of the study was to evaluate if bioresonance therapy can offer quantifiable results in patients with recurrent major depressive disorder and with mild, moderate, or severe depressive episodes.

Study hypothesis. The research studies were based on two hypotheses:

Null hypothesis (H0): Bioresonance therapy does not accelerate the healing process in patients with recurrent major depressive disorder, or in those with a mild, moderate or severe depressive episode, respectively.

Alternative hypothesis (H1): Bioresonance therapy accelerates the healing process in patients with recurrent major depressive disorder, and in those with mild, moderate or severe depressive episode, respectively.

Objectives: The first objectve of the study is to decrease the level of depression within five weeks of starting treatment. The second objective is to identify an optimal method of treating depression for patients with recurrent major depressive disorder with mild, moderate or severe depressive episode.

General methodology: The present study focuses on identifying an optimal method of treatment for patients with recurrent major depressive disorder, with a current episode of mild, moderate or severe depression following how bioresonance therapy can offer quantifiable results. The study compared the results of patients who received only bioresonance therapy with those who received only pharmacological treatment with antidepressant medication, and the results of patients who received combination therapy with bioresonance and antidepressant medication.

The study included 140 patients with recurrent major depressive disorder, divided into three groups. The first group (40 patients) received solely bioresonance therapy, the second group (40 patients) received pharmacological treatment with antidepressants combined with bioresonance therapy, and the third group (60 patients) received solely pharmacological treatment with antidepressants. Assessment of the level of depression was achieved by measuring the biorhythm with the bioresonance device and by applying the Hamilton Depression Inventory questionnaire, with 17 items, at the beginning and the end of five weeks of treatment.

The study was conducted between October 2017 and October 2018. Written consent was obtained from participants after they were informed about the study and its implications. Consent was also obtained from appropriate Romanian authorities. Data protection was ensured. The study was approved by the Institutional Ethics Committee of the Mures County Hospital from Targu Mures under the number 16462/16.10.2017. For statistical calculations, Graph Pad 3.6 (GraphPad Software, Inc.) was used. The Student's t-test was used to assess the differences between the means of continuous variables (expressed as mean ± SD), while differences between nonparametric variables (expressed as median, range) were compared using the Mann-Whitney test. We interpreted all tests against a P=0.05 significance threshold and statistical significance was considered for P-values below the significance threshold.

Results:

Study no.1: Evaluation of response to bioresonance therapy in patients with recurrent major depressive disorder.

The first group included 40 patients, having a baseline score between 12 and 24 (mean 16.9, standard deviation (SD) 3.23) and a final score between 8 and 21 (mean 13,80, standard deviation (SD) 3,18) on Hamilton Depression Rating Scale, with 17 items. The second group, included 40 patients having a baseline score on the Hamilton Depression Rating Scale, with 17 items between 14 and 25 (mean 21,88, standard deviation (SD) 2,56) and a final score between 7 and 23 (mean 18.08, standard deviation (SD) 3,81). The third group, included 60 patients having a baseline score on the Hamilton Depression Rating Scale, with 17 items between 22 and 24 (mean 22,81, standard deviation SD 0,79) and a final score between 18 and 23 (mean 20,49, standard deviation (SD) 1,12).

The study identified the existence of a statistically significant difference for the treatment methods applied to the analyzed groups (p=0.0001), and we found that the therapy accelerates the healing process in patients with depressive disorders. Improvement was observed for the analyzed groups, with a decrease of the mean values between the initial and final phase of the level of depression, of delta for Hamilton score of 3.1 (group 1), 3.8 (group 2) and 2.3 (group 3), respectively.

Study no.2: Impact of bioresonance therapy as an alternative method of treatment for patients with recurrent major depressive disorder.

By applying the ANOVA test between the averages of the initial and final sessions, in each batch the value of p is less than 0.0001, which indicates the existence of a statistically significant difference and that it rejects the null hypothesis and we accept the H1 hypothesis as true

The significant average difference for the comparison of the study groups is highlighted by comparisons between: the initial group 1 vs. final batch 1 (3,100), initial batch 2 vs. final batch 2 (3,800) and initial batch 3 vs. final batch 3 (2,300), they a statistically significant difference.The largest average difference is recorded in lot 2, between the initial lot 2 vs. final batch 2 (3,800).

The results of the biorhythm sessions were achieved by comparing the energy level of hyperreactive, hyporeactive and normal people, respectively. The comparison was made during each session before the application of the therapy, this being the initial phase, and at the end of the therapy, this being the real phase, respectively between the first session and the fifth session. Biorhythm of normal reactive patients between the first and last bioresonance therapy session shows a significant improvement for group 1 of 35% and for group 2 of 22.5%.

General conclusions: Bioresonance therapy has a significant impact on patients with a current episode of mild and moderate depression, respectively. Patients with a current episode of mild depression may be treated with bioresonance therapy, even if they are not being treated with antidepressants. In the conclusions we confirmed that bioresonance could improve the level of depression assessed with the Hamilton Depression Rating Scale with 17 items in patients suffering from depression, independently or as a complementary therapy to antidepressant medication.

The thesis's originality: The originality of the thesis is the use of a new method of treatment, used in patients with recurrent major depressive disorder, with a current episode of mild, moderate or severe depression. From the analysis of the studies present in the specialized journals, we found that bioresonance therapy has not been studied in patients with major depressive disorder, being an innovation in the medical field.