



Immunomodulatory Effect of the Consciousness Energy Healing Treated Novel Test Formulation

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Abstract

The study objective was to evaluate the immunomodulatory activity of The Trivedi Effect®-Consciousness Energy Healing based new proprietary test formulation and the Biofield Energy Treatment *per se* on male rats. The test formulation was divided into two parts, one part was denoted as the untreated formulation, while the other was treated with the Biofield Energy by Mahendra Kumar Trivedi and denoted as the Biofield Energy Treated test formulation. Besides, three group of animals were also received Biofield Energy Treatment under same conditions. Immunomodulatory action was evaluated using estimation of CSF biomarkers, cellular immune response, immunoglobulin identification, hematology, biochemistry, and analysis of testosterone level. The experimental groups included normal control (G1), disease control (G2), positive control; levamisole hydrochloride (G3), untreated test formulation (G4), Biofield Energy Treated test formulation (G5), Biofield Energy Treatment *per se* to animals at day -15 (G6), Biofield Energy Treated test formulation from day -15 (G7), Biofield Energy Treatment *per se* to the animals along with Biofield Treated test formulation from day -15 (G8), and Biofield treatment *per se* to animals with untreated test formulation (G9). CSF biomarkers such as serotonin and dopamine levels were significantly increased upto 85.46% (G8) and 97.84% (G8), respectively; while corticosterone level was decreased by 58.75% (G7) as compared to the G2. Biofield Treatment *per se* improved the level of immunoglobulin E (IgE) by 28.82% in G6 than G2. Biofield Energy Treatment significantly increased the percentage of cellular biomarkers like CD4⁺, CD8⁺, and CD28⁺ by 24.45%, 22.78%, and 28.37%, respectively in the G5; while increased by 29.43%, 25%, and 30.82%, respectively in the G9 as compared to the G2. Neutrophils and total leukocyte count (TLC) were significantly increased by 59.52% and 16.66%, respectively in G5 group compared with the G2 group.

The percentage of triglycerides was significantly decreased by 22.39% and 16.46% in G5 and G7 groups, respectively, while very low density lipoprotein (VLDL) level was significantly decreased by 22.84% and 16.50% in G5 and G7 groups, respectively as compared with the G2. Hepatic biomarkers, serum glutamic oxaloacetic transaminase (SGOT) and serum glutamic pyruvate transaminase (SGPT) were decreased by 7.61% and 14.10%, respectively in G5 group. However, level of creatine kinase myocardial band (CK-MB) was reduced by 11.34% and 20.55% in G5 and G9 groups, respectively as compared with G2 group. However, significant increased testosterone level was found by 28.71% in G7 as compared with the G2 group. Overall, data suggest that Biofield Energy Treatment *per se* (The Trivedi Effect®) and Biofield Treated test formulation have significant immunomodulatory effect, as compared with the untreated formulation in order to improve and boost the immune system. Therefore, this therapy could be useful for the management of stress and various immune-

related disorders like Rheumatoid Arthritis, Myasthenia Gravis, Systemic Lupus Erythematosus, Aplastic Anemia, Addison Disease, Pernicious Anemia, Reactive Arthritis, Graves' Disease, Multiple Sclerosis, etc.

Keywords: Consciousness Energy Healing; Immunomodulation; The Trivedi Effect®; CSF Biomarkers; Cellular immune response; Testosterone

Abbreviations: CAM: Complementary And Alternative Medicine; NS: Normal Saline; TLC: Total Leukocyte Count; DLC: Differential Leukocyte Count; TG: Triglycerides; TC: Total Cholesterol; HDL: High Density Lipoprotein; LDL: Low Density Lipoprotein; ALP: Alkaline Phosphatase; VLDL: Very Low Density Lipoprotein; SGOT: Serum Glutamic Oxaloacetic Transaminase; SGPT: Serum Glutamate-Pyruvate Transaminase; CSF: Cerebrospinal Fluid; CPCSEA: Committee for the Purpose of Control and Supervision of Experiments on Animals

Introduction

Inflammation plays a central mechanism and play vital role in most of the existing chronic illnesses, such as neurodegenerative, cardiovascular, pulmonary, metabolic, autoimmune and neoplastic diseases. However, inflammation is a kind of localized protective response which elicited by any injury or tissue destruction that helps to destroy, dilute or sequester the source of injurious agents and the injured tissue. Inflammation is the complex reaction and is closely related with the repair process through native parenchymal cells regeneration, by filling the defect with the fibrous tissue. Immunomodulators are the agent which regulates the immune system in various dysfunctions, while most of them are based on various medicinal plants and minerals. These minerals based formulations are believed to improve the immune system by sustaining the body self-defense mechanism and re-establish the body's equilibrium. Literature data suggest that most of the immunomodulatory formulations are based on medicinal plants, minerals, and organic matter. Herbal based products have wide activity due to its lavish chemical and structural diversity with broad spectrum activities. Besides, minerals and plant based products have reported with limited and low toxicity that make them ideal moieties for drug formulations. Herbal based medicines, trace minerals like selenium, zinc, copper, magnesium, etc. have been reported for important role in immunomodulation. Due to continued scientific research on immunomodulatory effect of traditional medicines, a new proprietary formulation was designed for immunomodulatory activity. The test formulation contained nanocurcumin, zinc chloride, magnesium (II) gluconate hydrate, sodium selenate, ascorbic acid (vitamin C), cholecalciferol (vitamin D₃), iron (II) sulfate,

and copper chloride. It might be expected that all the constituents in the formulation may interact with coordinated fashion with the immune cells that can evoke an appropriate immune response. All the constituents have been reported to have different biological activities such as antioxidant, anti-inflammatory, anti-viral, and immune modulating activities. Besides, curcumin has been reported with its inhibition on the cellular proliferation and cytokine production by inhibiting the NF-kappaB target genes with respect to immune parameters. It plays an important role for the treatment of inflammation and metabolic diseases [1-6].

The Biofield Energy Healing Treatment as a Complementary and Alternative Medicine (CAM) has been reported with an improved immune response with several benefits in various forms [7]. Researchers reported on the basis of reports and clinical trials, the importance of biofield energy healing on immune system such as in case of improved immune function in cervical cancer patients after therapeutic touch [8] and massage therapy [9]. However, energy can exist in various forms that can be harnessed and transmit it into living and non-living things by the process of Biofield Energy Treatment. The Trivedi Effect® had been expansively reported with significant results in different scientific fields like cancer research [10, 11], microbiology [12-15], genetics [16-17], pharmaceutical science [18-21], agricultural science [22-25], skin health [26-28], nutraceuticals [29, 30], and materials science [31-34]. Thus, the study has been designed to evaluate the impact of the Biofield Energy Treated test formulation and Biofield Energy Treatment *per se* on major immunomodulatory biomarkers such as cellular immune response, immunoglobulin levels, hematology, biochemistry, and testosterone.

Material and Methods

Chemicals and reagents

Cyclophosphamide, carboxymethyl cellulose sodium was purchased from Sigma Chemical Co. (St. Louis, MO). Nanocurcumin (with purity greater than 40%) was procured from Sanat Products Ltd., India. Zinc chloride and magnesium (II) gluconate hydrate procured from TCI, Japan. Sodium selenate procured from Alfa Aesar, USA. Levamisole hydrochloride, ascorbic acid, cholecalciferol and iron (II) sulfate were procured from Sigma, USA.

Copper Chloride was purchased from VETEC (Sigma-Aldrich), USA.

Laboratory animals

A total number of 72 apparently healthy male *Wistar* rats (8 animals in each groups), weighing between 200-275 grams, were used for the study. The entire animal was housed under standard experimental conditions, with room temperature and relative humidity maintained as $22 \pm 3^\circ\text{C}$ and 30 to 70% respectively. The animals were acclimatized prior to the experiments, and all were accessed once daily for clinical signs, behaviors, morbidity and mortality. The animal care was complied with the Regulations of Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Ministry of Environment and Forest, Govt. of India. The test facility was registered for experiment of animals. The animals were procured using Animal Ethics Committee approved protocol) and the husbandry conditions maintained as per CPCSEA recommendations.

Consciousness energy healing treatment strategies

The test formulation was divided into two parts. One part of the test formulation was treated with the Biofield Energy by renowned Biofield Energy Healer (also known as The Trivedi Effect®) and coded as the Biofield Energy Treated formulation, while the second part of the test formulation did not receive any treatment and was defined as the untreated test formulation. The Biofield Energy Healing Treatment was provided by a renowned Biofield Energy Healer, Mr. Mahendra Kumar Trivedi for ~3 minutes through the Healer's unique Energy Transmission process remotely to the test formulation present in the research laboratory of Dabur Research Foundation near New Delhi, India. Besides, three group of animals were also received Biofield Energy Treatment under same laboratory conditions. Further, the control group was treated with a "sham" healer for comparative purposes. The "sham" healer did not have any knowledge about the Biofield Energy Treatment. After that, the Biofield Energy treated and untreated samples were kept in similar sealed conditions for experimental study.

Antigen (Sheep RBC)

The blood was withdrawn from jugular vein of a healthy sheep and transferred aseptically to the heparinized tube. The erythrocytes were isolated from plasma by centrifugation (800 *g*, 10 °C, 10 minutes), washed two-times and then diluted with normal saline (NS) and analyzed using Hematology analyzer (Abbott Model-CD-3700). Depending on the number of erythrocytes in the

samples was further diluted using NS prior injecting to the rat [35].

Treatment regimen

After acclimatization of animals for seven days of grouping was done based on their body weight. Normal control group (G1) received oral suspension of 0.5% carboxymethyl cellulose-sodium (CMC-Na). All the animals except G1 group received cyclophosphamide (25 mg/kg; *i.p.*) on day 9 and 16. G1, G2 and G6 were treated with 0.5% w/v CMC-Na in distilled water. G3 animals received reference item, Levamisole hydrochloride at a dose of 50 mg/kg from day 1 to 22. G4 and G5 groups received the untreated and Biofield Energy Treated test formulation (624.115 mg/kg, *p.o.*). G6 and G8 groups included Biofield Energy Treatment *per se* to the animals at day -15). After 15 day pre-study period (G7 and G8 animals received test formulation from day -15), while G9 group animals were treated with Biofield Energy Treatment *per se* along with untreated test formulation for 22 days. On day 7, all the animals except G1 were challenged with sheep red blood cells (sRBC) ($0.5 \times 10^9/100 \text{ gm}$; *i.p.*), as the antigenic material to sensitize them for immunological parameters. On day 14th, serum was separated from collected blood from retro-orbital plexus and subjected to evaluate the cellular immune response.

Determination of CSF biomarkers

Serotonin (REF No: BA E-5900, LDN), tau protein (Cat No: K11-2685, Kinesis Dx), corticosterone (Cat No: K014-H1, Arbor assays) and dopamine (REF No: BA E-5300, LDN) were quantified in cerebrospinal fluid (CSF) samples using ELISA kits as per manufacturer recommended standard procedure.

Cellular immune responses

Cellular immune response identification includes IgG, IgE, and IgM estimated using Mini Vidas, Biomeurix (French) from serum, using commercially available kits. For the evaluation of CD4⁺, CD8⁺, and CD28⁺ cells count and its ratio in blood flow cytometry was used as a measure of the cellular immune response. The mean values were calculated for each group. The percent change in the Biofield Energy Treated test formulation group was calculated as compared to the vehicle control group.

Hematology

The blood was withdrawn from retro-orbital plexus using capillary tubes for the evaluation of hematological parameters such as total leukocyte count (TLC) and differential leukocyte count (DLC) like neutrophil,

lymphocyte, monocyte, and eosinophil using Hematology analyzer (Abbott Model-CD-3700).

Lipid Profile and hepatic enzymes

Serum biochemical parameters like triglycerides (TG), total cholesterol (TC), high density lipoprotein (HDL), low density lipoprotein (LDL), alkaline phosphatase (ALP), very low density lipoprotein (VLDL), serum glutamic oxaloacetic transaminase (SGOT), and serum glutamate-pyruvate transaminase (SGPT) were analyzed in the test formulations.

Measurement of testosterone

The level of testosterone was analyzed in serum using commercial kit.

Statistical analysis

The experimental data were represented as mean \pm standard error of mean (SEM). For between two groups comparison Student's *t*-test was used as statistical significance. For more than two group's comparison, one-way analysis of variance (ANOVA) was used followed by post-hoc analysis using Dunnett's test. Statistically significant values were set at the level of $p \leq 0.05$.

Results and Discussion

Evaluation of CSF Biomarkers

The biomarkers such as serotonin, total tau protein, dopamine and corticosterone were evaluated in

cerebrospinal fluid (CSF) samples (Figure 1). A slight increase (1.23%) in total tau protein levels was observed in G2 group when compared to G1, whereas slight decrease (0.82%) was observed in G3, levamisole hydrochloride in comparison with G2. A decreased level (24.21%) of dopamine was observed in G2 group when compared to G1 group. There was a significant increase in dopamine levels in G3 ($p < 0.05$, 399.17%) and G7 group (-15 days) ($p < 0.001$, 4529.68%) when compared to G2 group. The dopamine level was significantly increased by 1608.37% in G7 group and slightly increased by 27.29% in G5 group when compared to G4 (untreated test formulation). In addition to, marked increase in corticosterone levels was observed in G2 when compared with G1; whereas a trend towards decrease is observed in G3 (16.9%) when compared to G2. G7 group showed a marked decrease (52.27%) in corticosterone levels by 58.75% and 52.27% in comparison with G2 and G4 group, respectively. The serotonin level was increased by 53.99%, 67.12%, 85.46%, and 82.83% in G6, G7, G8, and G9 groups, respectively as compared to the diseases control group G2 in Figure 1(A). The dopamine level was increased by 80.34%, 63.28%, 72.09%, 45.80%, 97.84%, 38.56%, and 5.73% in G3, G4, G5, G6, G7, G8, and G9 groups, respectively as compared to the G2 group as shown in Figure 1(C). The tau protein level was not altered in G3 and G4 groups as compared to the G2 group, while the corticosterone level was decreased by 16.90%, 13.58%, 11.19%, 58.75%, and 11.67% in G3, G4, G6, G7, and G8 groups, respectively than G2 as shown in Figure 1 (B and D).

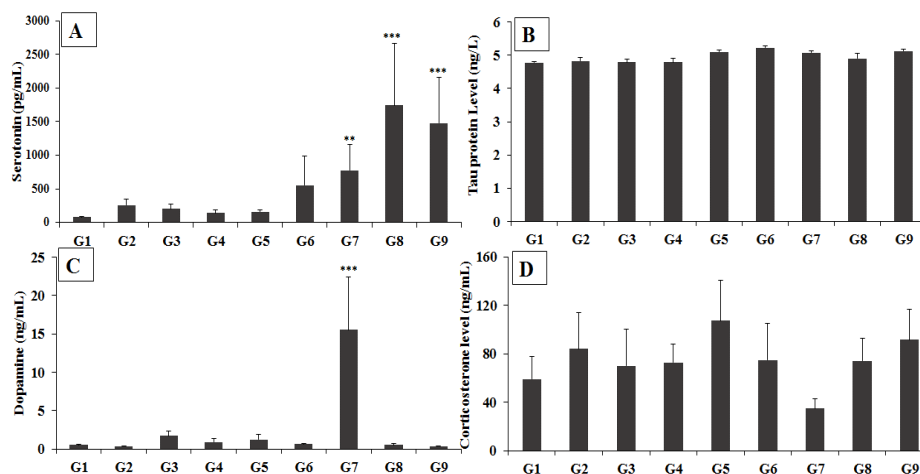


Figure 1: Effect of the administration of test formulation on CSF markers, (A) Serotonin, (B) Tau protein, (C) Dopamine, and (D) Corticosterone level. G1: Normal control; G2: Disease control; G3: Levamisole Hydrochloride; G4: Untreated test formulation; G5: Biofield Treated test formulation; G6: Biofield Treatment *per se* to animals (-15 days); G7: Biofield treated test formulation from day -15; G8: Biofield Treatment *per se* to animals with Biofield Treated test formulation from day -15; and, G9: Biofield Treatment *per se* to animals with untreated test formulation. *** $p \leq 0.001$ and ** $p \leq 0.01$ statistical comparison with respect to G2 group using one way ANOVA (Dunnett's test).

Oxidative stress is the major cause of inflammation that involves direct change in biochemical inside the brain [36]. CSF biomarkers such as corticosterone, dopamine, serotonin, and tau protein symbolize the inflammation and oxidative stress biomarkers [37]. However, the experimental data suggested that Biofield Energy Treated test formulation and Biofield Energy Treatment *per se* significantly changed the level of CSF biomarkers, which suggest the direct implication of The Trivedi Effect® against many neuropathological conditions such as amyotrophic lateral sclerosis, Parkinson's, Alzheimer's, and Huntington's disease [38].

Measurement of immunoglobulin levels

The effect of Biofield Energy Treated test formulation on immunoglobulin levels (IgG, IgE, and IgM) are demonstrated in the Figure 2. The results suggest that the level of IgE was increased by 28.82% and 7.01% in the G6 and G8 groups, respectively than G2. Besides, slight change was observed in the levels of IgG and IgM in the Biofield Energy Treated test formulation groups when compared to the G2 group. Immunoglobulins such as IgE, IgG, and IgM are defined as the major immunoglobulin, which are considered as important role in complement activation, opsonization, neutralization of toxins, etc.

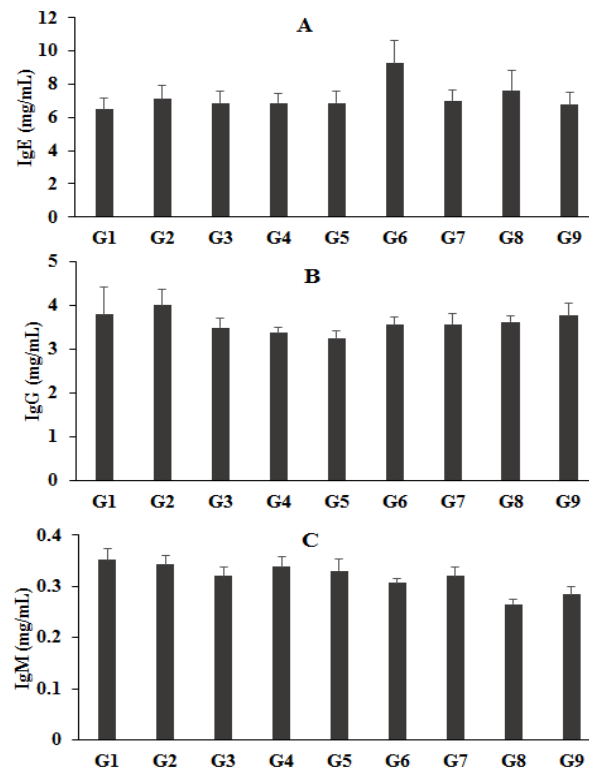


Figure 2: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on immunoglobulins, (A) IgE, (B) IgG, and (C) IgM after 24 consecutive days of in male SD rats by oral route estimated in serum sample.

On the basis of improved level of immunoglobulins the Biofield Energy Treated test formulation group, elevated level of IgE suggest that Biofield Energy Treatment *per se* showed better response as compared with the Biofield Energy Treated test formulation. IgG and IgM are the most abundant antibodies and generally involved in attacking bacteria and other foreign antigens, while their high level indicates some current or past infections, but after treatment with Biofield Treatment *per se* and Biofield Energy Treated test formulation, the level of IgG and IgM

were decreased. However, Biofield Energy Healing Treatment *per se* showed increased level of IgE by 28.82% and 7.01% in the G6 and G8 groups, respectively. The test formulation is the combination of nanocurcumin and the minerals, so it can be concluded that experimental results showed a significant alteration in immunoglobulin production in different groups due to the Biofield Energy Treatment. The data showed a significant immunomodulatory action of Biofield Energy Treated test

formulation and Biofield Energy Treatment *per se* to animals.

Measurement of cellular biomarkers

The results of CD4⁺, CD8⁺, and CD28⁺ percentage in rats after oral administration of the test formulation are demonstrated in the Figure 3. However, significant improved percentage of cellular biomarkers was found in experimental treated groups by 24.45%, 12.38%, 16.24%, 17.48%, and 29.59% in the G5, G6, G7, G8, and G9 groups,

respectively as compared with the disease control G2 group. The improved percentage of CD4⁺, CD8⁺, and CD28⁺ reflects the healthy immune system to fight against various disease conditions. The experimental results suggest that Biofield Energy Healing Treatment significantly improves the percentage of all the tested cellular biomarkers, which indicated that The Trivedi Effect® might have the significant capacity to modulate the immune function in many autoimmune disease conditions.

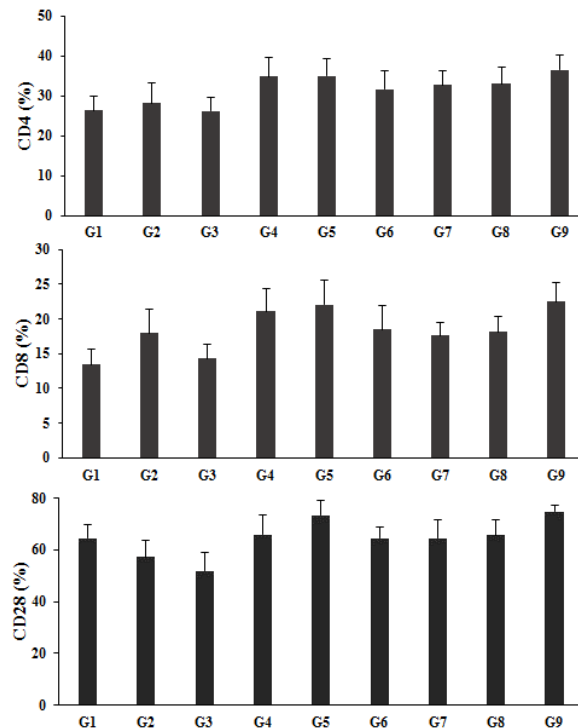


Figure 3: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on the percentage of cellular biomarkers (CD4⁺, CD8⁺, and CD28⁺).

Measurement of hematology parameters

The results of hematological parameters are summarized in the Table 1, which exhibited significant effect of the test formulation after Biofield Energy Healing Treatment. The total leukocyte count (TLC) was decreased in the G2 group as compared to the normal control group, while the percentage of neutrophils, lymphocyte, eosinophils, and monocytes was slightly changed in the disease control group (G2) compared with the normal control group (G1). However, the TLC and neutrophils were found to be increased by 59.52% and 16.66%, respectively in the Biofield Energy Treated test formulation (G5) group compared with the G2 group. Thus, overall results of the

blood profile concluded that the Biofield Energy Treated test formulation improved the hematological profile compared with the untreated test formulation. Many scientific reports support the beneficial role of minerals and vitamins such as zinc, selenium, and magnesium supplementation in order to improve the hematology parameters [39, 40]. Thus, it can be suggested that test formulation showed improved blood profile after treatment with the Biofield Energy Healing Treatment as compared with the untreated test formulation. It can be assumed that Biofield Energy Healer has significant capacity to improve the hematological activity of the formulated product.

Group (G)	TLC (Thou/mm ³)	Neutrophils (%)	Lymphocytes (%)	Eosinophils (%)	Monocyte (%)
1	7.35 ± 0.42	16.38 ± 1.30	80.00 ± 1.28	2.13 ± 0.30	1.50 ± 0.19
2	2.94 ± 0.18	16.50 ± 1.32	80.00 ± 1.24	1.75 ± 0.25	1.75 ± 0.31
3	3.28 ± 0.29	17.00 ± 1.69	79.50 ± 1.70	1.50 ± 0.19	2.00 ± 0.27
4	4.80 ± 0.40	19.50 ± 1.00	76.63 ± 1.27	1.63 ± 0.26	2.25 ± 0.37
5	4.69 ± 0.79	19.25 ± 1.16	76.88 ± 1.14	2.13 ± 0.30	1.75 ± 0.31
6	5.31 ± 0.57	20.63 ± 1.25	76.75 ± 1.39	2.00 ± 0.19	1.88 ± 0.30
7	4.13 ± 0.31	18.88 ± 1.39	77.75 ± 1.39	1.75 ± 0.25	1.63 ± 0.26
8	4.35 ± 0.40	17.13 ± 1.56	79.00 ± 1.44	1.63 ± 0.18	2.25 ± 0.37
9	4.26 ± 0.22	18.75 ± 1.10	78.88 ± 1.37	1.75 ± 0.25	1.88 ± 0.30

TLC: Total leukocyte count

Table 1: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on hematology parameters of male SD rats.

Measurement of lipid profile

The effects of the Biofield Energy Treated and untreated test formulations on the animal's serum lipid profile are presented in the Table 2. Among the estimated parameters; significant decreased level of total cholesterol (54.95 ± 2.96 mg/dL), triglycerides (38.30 ± 4.62 mg/dL), and VLDL (7.64 ± 0.93 mg/dL) were found in the Biofield Energy treated test formulation from day -15 (G7) as compared with the disease control group (G2). The level of triglycerides and VLDL was significantly decreased by 16.46% and 16.50%, respectively in G7 group as compared with the G2 group. However, the triglycerides level was significantly reduced by 22.39%, while VLDL level was decreased by 22.84% in G5 group compared with the G2 group. The reference standard levamisole (G5) group showed decreased levels of serum triglycerides and total cholesterol, and LDL as compared with the G1 group. With respect to serum lipids; there was a reduction in the HDL levels in the Biofield Energy Treated test formulation and Biofield Energy Treated *per se* group as compared with the disease control and untreated test formulation groups. Besides, the VLDL level was found to be decreased after Biofield Energy

Treatment on test formulation and animals as compared with the disease control and untreated test formulation groups. Scientific literature suggested that the all the active constituents in the test formulation were reported with the beneficial effect on blood lipid profile. Individual ingredients such as nanocurcumin, minerals and vitamins have been reported for significant decreased level of triglycerides, serum cholesterol, and altered LDL, VLDL levels. Nanocurcumin has been found to have beneficial role in improving the lipid profile [41]. Selenium supplementation was reported to have beneficial effect in lowering the serum total cholesterol, and LDL along with improved humoral immunity [42]. Similarly, zinc and magnesium supplementation were reported with improved lipid profile such as decreased total cholesterol and LDL level, while increased HDL, cholesterol, and triglycerides levels [43, 44]. Overall, the results suggest that the Biofield Energy Treated test formulation and Biofield Energy Treatment *per se* showed better profile of total cholesterol, triglycerides, LDL, and HDL as compared with the untreated test formulation group, which can be used as better hypocholesterolemic agent.

Group (G)	Total Cholesterol (mg/dL)	Triglyceride (mg/dL)	HDL (mg/dL)	LDL (mg/dL)	VLDL (mg/dL)
1	60.79 ± 2.24	47.39 ± 5.50	18.29 ± 0.67	32.39 ± 1.60	9.43 ± 1.10
2	56.40 ± 2.90	45.85 ± 5.26	16.91 ± 0.87	30.49 ± 2.11	9.15 ± 1.05
3	74.98 ± 2.49	48.01 ± 6.63	22.49 ± 0.77	42.91 ± 1.21	9.59 ± 1.33
4	60.73 ± 2.09	51.00 ± 3.24	18.14 ± 0.60	32.48 ± 1.62	10.18 ± 0.64
5	62.70 ± 3.41	35.58 ± 3.56	18.83 ± 1.02	36.80 ± 2.00	7.06 ± 0.71
6	68.24 ± 4.91	54.04 ± 4.99	20.44 ± 1.48	37.05 ± 3.25	10.79 ± 1.00
7	54.95 ± 2.96	38.30 ± 4.62	16.49 ± 0.87	30.74 ± 1.93	7.64 ± 0.93
8	64.24 ± 2.59	60.16 ± 8.51	20.04 ± 0.97	35.38 ± 2.24	11.99 ± 1.71
9	59.19 ± 3.49	45.50 ± 6.57	17.73 ± 0.98	32.53 ± 2.50	9.05 ± 1.32

HDL: High density lipoprotein; LDL: Low density lipoprotein; VLDL: Very low density lipoprotein

Table 2: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on lipid profile parameters of male rats.

Measurement of hepatic biomarkers

The effect of test formulation on hepatic parameters is presented in Table 3. The disease control group significantly changed the level of hepatic biomarkers, which were normalized by levamisole hydrochloride and Biofield Energy Treated Test formulation and Biofield Energy Treatment *per se* group. The levels of SGOT and SGPT were reduced by 7.61% and 14.10%, respectively in

G5 group as compared with G2 group. The level of CK-MB was reduced by 11.34%, 3.96%, and 20.55% in G5, G8, and G9 groups, respectively as compared with G2 group. However, the Biofield Energy Treated test formulation and Biofield Energy Treatment *per se* showed altered level of hepatic biomarkers as compared with the disease control group.

Group (G)	TB (mg/dL)	SGOT (U/L)	SGPT (U/L)	ALP (U/L)	CK-MB (U/L)	TP (g/dL)	A (g/dL)	G (g/dL)	A/G ratio
1	0.11 ± 0.01	163.90 ± 22.47	48.66 ± 17.62	207.14 ± 6.73	129.83 ± 18.10	6.59 ± 0.11	3.29 ± 0.05	3.28 ± 0.07	1.01 ± 0.01
2	0.10 ± 0.00	132.35 ± 8.56	29.25 ± 3.24	160.61 ± 6.52	95.99 ± 11.81	6.43 ± 0.17	3.23 ± 0.05	3.11 ± 0.13	1.05 ± 0.04
3	0.09 ± 0.00	131.70 ± 7.47	38.25 ± 4.39	198.89 ± 10.59	104.01 ± 15.14	6.53 ± 0.19	3.24 ± 0.08	3.23 ± 0.12	1.01 ± 0.02
4	0.10 ± 0.00	138.53 ± 7.09	33.04 ± 4.27	186.95 ± 6.75	126.10 ± 10.96	6.58 ± 0.11	3.29 ± 0.05	3.24 ± 0.07	1.02 ± 0.02
5	0.12 ± 0.01	122.28 ± 2.24	25.15 ± 1.39	169.61 ± 13.37	85.10 ± 9.21	6.69 ± 0.17	3.35 ± 0.05	3.30 ± 0.15	1.03 ± 0.04
6	0.09 ± 0.01	134.06 ± 10.47	28.91 ± 1.29	182.75 ± 6.22	108.31 ± 19.92	6.66 ± 0.16	3.26 ± 0.02	3.35 ± 0.15	0.99 ± 0.05
7	0.11 ± 0.01	138.26 ± 6.05	29.08 ± 1.76	176.05 ± 12.46	149.04 ± 21.37	6.41 ± 0.14	3.26 ± 0.06	3.11 ± 0.10	1.05 ± 0.03
8	0.10 ± 0.01	130.29 ± 9.32	34.68 ± 6.00	190.94 ± 8.11	92.18 ± 8.47	6.53 ± 0.11	3.30 ± 0.05	3.23 ± 0.08	1.03 ± 0.02
9	0.11 ± 0.01	153.39 ± 18.45	46.49 ± 8.70	177.41 ± 6.45	76.26 ± 9.96	6.70 ± 0.13	3.34 ± 0.05	3.31 ± 0.09	1.01 ± 0.01

SGOT: Serum glutamic oxaloacetic transaminase; SGPT: Serum glutamate-pyruvate transaminase; ALP: Alkaline phosphatase; CK-MB: Creatine kinase-myocardial band; TB: Total bilirubin; TP: Total protein; A: Albumin; G: Globulin; A/G: Albumin/Globulin ratio.

Table 3: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on hepatic biomarkers of male rats.

The effect of the Biofield Energy Treated Test formulation on hepatic biomarkers of male rat's showed protective effect on the hepatic function. The hepatic enzyme identification and its alteration reflect the extent and type of damage to the hepatocellular damage, which is considered as useful quantitative biomarker. An increased level of enzyme reflects the damage in liver morphology and its function that results in increased level of enzymes in the blood [45]. However, experimental data suggest that administration of nanocurcumin has significant protective activity on the hepatic enzymes by normalizing the hepatic biomarkers [46]. In addition, the minerals and vitamins present in the test formulation have significance importance in liver protection, which could prevent the prognosis of liver disease by stabilizing the membrane activity and hepatic biomarkers [47]. Our experimental results exhibited that after Biofield Energy Treatment, the protective effect of test formulation on liver enzymes was improved as compared with the untreated test formulation group. This suggests that the Biofield Energy Treated test formulation showed better efficacy in terms of hepatic protection against many diseases.

Measurement of sex hormone

The effect of the Biofield Energy Treated test formulation on the levels of sex hormone, testosterone is presented in Figure 4. With respect to the normal and disease control data, experimental data suggest significant elevation of testosterone level in the Biofield Energy Treated test formulation groups and Biofield Energy Treatment *per se* to the animals as compared to the disease control (G2) and untreated test formulation (G4) groups. The value of testosterone (ng/dL) in the normal control (G1), disease control (G2), levamisole (G3), untreated test formulation (G4), Biofield Energy Treated test formulation (G5), and Biofield Energy Treated test formulation from day -15 (G7) were 258.5 ± 115.1, 177.6 ± 56.4, 75.0 ± 57.5, 28.0 ± 10.9, 104.0 ± 37.9, and 228.6 ± 115.7 ng/dL, respectively. Overall, the data suggest that the level of testosterone was increased by 28.71% in the G7 group as compared to the disease control group G2. However, as compared with the untreated test formulation (G4 group), the level of testosterone was significantly improved in the Biofield Energy Treated test formulation group.

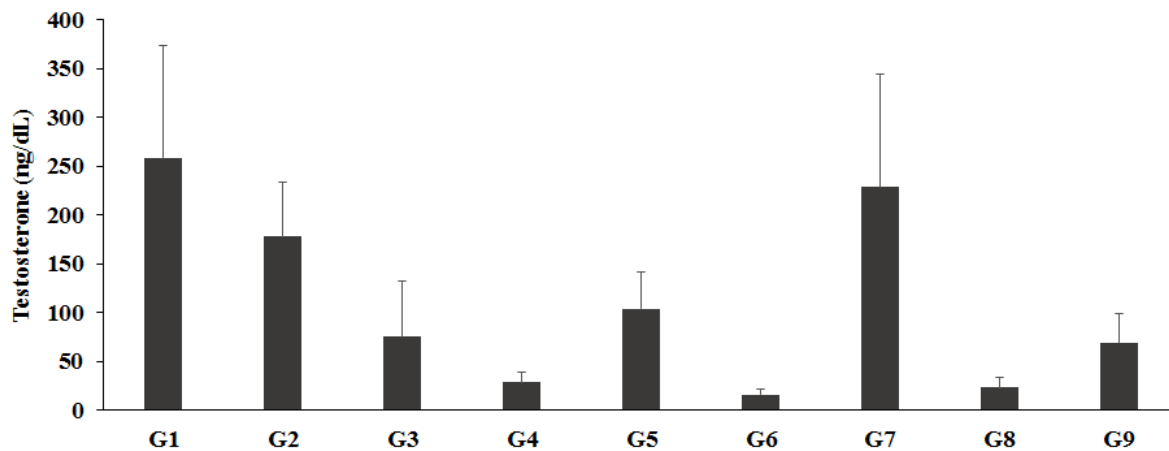


Figure 4: The effect of the Biofield Energy Treated test formulation (G5 to G9) except Biofield Energy Treatment to animals *per se* (G6) on sex hormone, testosterone.

The test formulation contained nanocurcumin and minerals, all are reported to have significant effect to improve overall health, due to the presence of biomolecules. Nanocurcumin results in greater production of the muscle-building hormone, testosterone [48]. Overall, the results showed that the Biofield Energy Treated test formulation and Biofield Treatment *per se* showed significant improved immune parameters as compared with the untreated test formulation. Biofield Energy Healing as a complementary approach has been reported worldwide against many clinical diseases [49-51].

Conclusion

The experimental results showed that The Trivedi Effect®-Consciousness Energy Healing Treatment *per se* and Biofield Energy Treated test formulation have significant immunomodulatory action. The level of CSF biomarkers like serotonin and dopamine levels were significantly increased upto 85.46% (in G8 group) and 97.84% (in G8 group), respectively however; corticosterone level was decreased by 58.75% (in G7 group) as compared to the (G2), diseases control group. Immunoglobulin levels were significantly altered after the Biofield Energy Treatment *per se*. The data showed an increased IgE level by 28.82% and 7.01% in the G6 and G8 groups, respectively as compared to the G2 group. The percentage of cellular biomarkers CD4⁺, CD8⁺, and CD28⁺ were increased by 24.45%, 22.78%, and 28.37%, respectively in the G5; while 29.43%, 25%, and 30.82%, respectively in the G9 as compared to the G2. Blood profile such as TLC and neutrophils were increased by 59.52% and 16.66%, respectively in the Biofield Energy

Treated test formulation (G5) group compared with the G2. Lipid profile after Biofield Energy Healing Treatment was improved such as triglycerides was significantly decreased by 16.46% and 22.39% in G7 and G5 groups, respectively, while VLDL level was significantly decreased by 16.50% and 22.84% in G7 and G5 groups, respectively as compared with the G2 group. In addition, SGPT level was reduced by 14.10% in G5 group, while CK-MB level was reduced by 11.34% and 20.55% in G5 and G9 groups, respectively as compared with G2 group. The level of testosterone was significantly increased by 28.71% in G7 group as compared to the G2 group. Overall, the Biofield Energy Treatment (The Trivedi Effect®) *per se* and Biofield Energy Treated test formulation showed improved immune response as compared with the untreated test formulation, which can be used to fight against infectious diseases with significant anti-inflammatory and immunomodulatory effect.

In conclusion, The Trivedi Effect®- Energy of Consciousness Healing Treated novel test formulation has enhanced the anti-inflammatory and immunomodulatory activity in immunosuppressive rat model. Therefore, the Biofield Energy Treated test formulation and Biofield Energy Treatment *per se* may act as an effective anti-inflammatory and immunomodulatory product. It can be used for various autoimmune disorders *viz.* Myasthenia Gravis, Aplastic Anemia, Systemic Lupus Erythematosus, Rheumatoid Arthritis, Addison Disease, Reactive Arthritis, Multiple Sclerosis, Pernicious Anemia, Graves' Disease, Psoriasis, Type 1 Diabetes, Vitiligo, and Alopecia Areata, as well as inflammatory disorders *viz.* Crohn's Disease, Vasculitis, Irritable Bowel Syndrome (IBS), Asthma, Ulcerative Colitis, Alzheimer's Disease, Parkinson's

Disease, Atherosclerosis, Dermatitis, Hepatitis, and Diverticulitis. Further, the Biofield Energy Healing Treated test formulation can also be used in the prevention of immune-mediated tissue damage in cases of organ transplants (heart, kidney, and liver), anti-aging, stress prevention and management, and in the improvement of overall health performance.

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