Novel Nanotechnology in Diversified Medical Management

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Abstract

This presentation offers a new approach to diversified medical problems using nanotechnology. We used 2x2 cm Silicon Patches infused with Titanium Salt (SPTS) and imprinted with Extremely Low Electromagnetic Frequency (ELEMF), placing them on the acupuncture points. SPTS, being doped semiconductors, are passive ELEMF products. SPTS is activated by a Human Biofield when in contact with the skin. Skin acts as a capacitor. SPTS were researched in a phase I double-blind study on experimentally injured hairless rats. Phase II study in the ELEMF patch group supports findings that SPTS is an excellent adjunct in postsurgical pain management and can extend the impact of acupuncture needling pain management. The studies and their results utilize the same technology, but different ELEMF blends in supporting the treatment of Autism, Attention Deficit Disorders Spectrum, skin regeneration and rejuvenation, and hormonal support for menopause in women are presented here.

Keywords: Extremely Low Electromagnetic Frequency; Nanotechnology; Silicon Patches

Introduction

AURA, a biofield, has been known in traditional medicine for thousands of years. Paintings of highly spiritual individuals are always shown with a halo or aura surrounding them. About a century ago, Kirlian proved its existence with his photography. At the same time, cellular signaling was described [1-2]. It was not until 1970 that Fritz Popp photographed light emitting from the plant and proposed the term “biophotons and biofield” [3]. That subject became a significant booster for cellular research [4], leading to the development of Systems Biology [5] as defined by NIH: “Systems biology is an approach in biomedical research to understanding the larger picture—at the level of the organism, tissue, or cell—by putting its pieces together. It starkly contrasts to decades of reductionist biology, which involves taking the pieces apart.” Reductionist biology has been looking for biochemical changes in the organism’s pathophysiology. System biology shows us that all the changes appear on the energy level in the atomic structures, creating the background for the development of the biochemical changes. Quantum Physics was brought into biology, creating Quantum Biophysics and Nanobiotechnology. By the end of the last century, Evidence-Based Quantum Medicine was born. Term biofield was proposed in 1992 by an ad hoc committee of Complementary and Alternative Medicine (CAM) practitioners and researchers convened by the newly established Office of Alternative Medicine (OAM) at the US National Institutes of Health (NIH). The committee defined biofield as: “A massless field, not necessarily electromagnetic, that surrounds and permeates living bodies and affects the body.” (“Biofield Science and Healing: History, Terminology, and Concepts”). Biofield was accepted as a Medical Subject Heading term at the National Library of Medicine. The term biofield fills the need for bringing together traditional and contemporary medicine. It provides a common language for clinical practice and scientific research focusing on the body’s energy fields. Biofield is biophoton-induced energy. Biophotons are coherent and nonlinear. Every cell in our body emits its biophotons and has a biofield. Internally, this ELEMF is created by quantum fields of atomic action in the protoplasm caused by the piezoelectric ability [6] of connective tissue, cell membranes, and cell tubules. Uninterrupted, free flow of ELEMF through the human body is essential for cell signaling and maintenance of normal homeostasis. The composition of the energy of all 37.2 trillion human body cells creates a human biofield engaged in the generation, maintenance, and regulation of biological hemodynamics [7]. Biofield can be measured utilizing a Bio-Well device. That device can calculate through the algorithmic bioenergy of the organs [8]. The human body depends on the uninterrupted energy supply and the free flow for normal homeostasis. Without it, cells will malfunction and develop a disease. By applying an outside source of ELEMF identical to the emission of the normal ELEMF of the tissue, which has the disruption of the normal energy, we can restore the normal homeostasis of that tissue, creating the cell and its structure to resonate with the outside ELEMF. That can be measured by RRM, defined as: “Resonant Recognition Model (RRM) can be used as a universal tool in predicting protein, RNA, and DNA electromagnetic resonances in the wide frequency range. Keeping in mind that earlier predictions with tubulin molecules have been experimentally proved, the RRM could be used as a powerful universal method for predicting the electromagnetic resonances in biological macromolecules that could be used in experimental planning and in conjunction with experiments to minimize time and expenditure in exploring such complex macromolecular systems.” (“Science Tuning Element”) [9,10]. Using outside source to change biofield has
Proteins control complex processes of opening and closing ion channels function is based on energy frequency on an atomic and molecular level. Ion channels in the cells’ plasma are made of several proteins. Growth Factor.

Solution Sprays imprinted with ELEMF, which resonate with estrogen and progesterone receptors, and Colloidal Silver. Harmony Patches are imprinted with ELEMF, which resonate with skin resistance can be cross-referenced. That includes the colloidal silver solution. Presently 3 Tuning Element patches are commercially available. Recovery Patches, imprinted with ELEMF blend, support resonance with the pain channels, enhance wound healing and support endurance. Presently 3 Tuning Element patches are commercially available. Recovery Patches, imprinted with ELEMF blend, support resonance with the pain channels, enhance wound healing and support endurance and general well-being. Be Well.

Materials and Methods

This presentation represents a review of all studies done on Tuning Element products. We researched all commercially available patches and tuned a colloidal silver solution. We will present an overview of published data for pain and neurotransmitter patches and colloidal silver solutions. We will also introduce new unpublished data for the hormonal patches.

Phase one study

Phase 1, a double-blind study on post-surgical wound healing using experimental hairless rats. This study concluded in 2016 that TERP is harmless and may enhance surgical wound healing. [Personal communication].

The mode of action as a part of the phase 1 study was done by RMIT University, Melbourne, Australian Centre for Radiofrequency Bioeffects Research, and AMALNA Consulting, Melbourne, Australia. The research concluded, “When different modalities of charge transfer through protein backbone are introduced, the resonant frequencies for opening and closing function of pain-related sodium and calcium ion channels could then be in different frequency ranges. These frequencies also resonate with frequency imprinted within Tuning Element Relief/Recovery Patches (TERP).” The cell’s primary function is based on energy frequency on an atomic and molecular level. Ion channels in the cells’ plasma are made of several proteins. Proteins control complex processes of opening and closing ion channels utilizing frequency vibratory resonance. “All these findings can explain mechanisms of TERP remedying pain through resonances with pain-related ion channels.” (“AMALNA Report: Influence of Tuning Element Relief Patches on Pain ...”). This would mean that TERP mimics the similar activity as toxin-based pain killers but without side effects and particularly avoiding negative drug effects” [13]. In short, TERP frequencies through ion channels and cytoskeleton resonance plays a role in cellular regulation through frequency modulation of spontaneous oscillatory patterns (Figure 1).

Phase two study

Recovery Patches [14]: The TERP for acute pain, a double-blind clinical study, was done on 20 postsurgical abdominal hysterectomy and abdominoplasty patients. That is the most extensive and painfullcombined gynecologic and cosmetic surgery procedures. The study was IRB approved. Each patient was counseled before the process, and informed consent was obtained. There was no financial gain for the researcher or the research subjects in this or any other Tuning Element clinical study. Strict HIPA rules were observed. The patients were divided into two groups. Group 1 of 10 patients received, after the surgery, before the application of surgical dressing, six TERPs, and group 2 of 10 patients did not receive patches after surgery. The bandage covered surgical site, so patients were not aware if they had or not had pain patches (Figures 2 & 3).
Patients were discharged after 23 hours of observation. Each patient in both groups received a postsurgical Rx for 40 pills of oxycodone/acetaminophen 10/325 mg. We measured two parameters: Pain intensity and opioid use. The pain was measured and recorded using the pain assessment scale from The National Initiative on Pain Control (Wong-Baker algorithm scale 0 to 10) every eight hours while awake. Opioid use was measured by the number of pills used, and patients were required to bring back the prescription bottle for the pill count. Patients were seen seven days later for the surgical dressing and staple removal, and dairy booklets and opioid prescription bottles were collected. The number the pills of opioid medications used by patients was calculated daily and summarized.

In group 1 (with patch) pain scale never went over 5 in 7 days, and opioid usage was less than ten pills (25%) (Figures 4 & 5).

In group 2 (no patch) pain scale averaged 8 to 10, and the use of opioids was 40+ (100%) ... Our study concluded that ELEMF in TERP increased pain tolerance thresholds in postsurgical pain management, thus requiring significant reduction (75%) in the usage of opioid medication [14].

In conclusion, for this study, we found that an increase in the pain threshold and drop in usage of prescribed opioids in group 1 was significant, contrary to the control group 2 [15].

The TERP for chronic pain: Modulation was a double-blind study for prolonging the acupuncture chronic pain treatment result. This was a noninvasive, no-risk double-blind study, so IRB was excluded. Informed consent was obtained from all participants.

Materials and Methods

Twenty chronic pain patients were selected who were undergoing routine acupuncture treatment. After the completion of acupuncture, TERP was placed on the major acupuncture points used in the treatment. Ten patients received tuned patches with ELEMF, and 10 received placebo patches of the same appearance as the first group. Patients were retested after one week. Wong-Baker scale was used as a pain measurement. The patient registered it every eight hours during awake time (Group 1 Figure 6 and Group 2 Figure 7).

In Group 1, the effect of 5MRP showed a distinct significant statistical difference with the prolonged impact of pain modulation during the seven days after acupuncture, compared with Group 2, where no long effects on pain modulation were observed using placebo patches [16].

Using electromagnetic frequency in acupuncture is not new. However, using patches without an active electric supply that can emit EL-EMF is a novel approach. (“Acupuncture Modulation with Extremely Low Electromagnetic Frequency...”) These two pilot studies and thousands of anecdotal reports show that ELEMF plays a significant role in pain management. In addition, it offers an alternative for combating the present opioid epidemic.

Be-Well Patches [17]

Tuning Element Behavioral Wellness Patches are ELEMF patches embedded with a specific frequency blend that reacts with nerve cell synapsis. Autism Spectrum Disorder (ASD), as well as several neurological disorders, is associated with the malfunctions of proteins controlling the synapsis of the nerve cells [15].

Based on the hypothesis that Be-Well patches can affect the synapsis of the nerve cells, multicenter clinical studies were done at the MSU, Green Pediatrics Integrative Clinic, and Holistic Health...
RealitiesClinic. Thirty-three children aged 6 to 14 (22 boys and 11 girls) were enrolled in the study. All the children were evaluated initially (Basal score) before initiation of the patches using a “behavioral scoring system.” They were given BeWell patches to wear and a journal with a behavioral scoring system to be done by the parents weekly. The clinical study was for seven weeks. After seven weeks, the patches were discontinued, and the evaluation was done after seven days without patches.

Professor Covic investigated the possible mode of action for BeWell patches utilizing the RRM model. She analyzed synaptic proteins and found that the “frequency for developing synaptic pathways is $f_0=0.4155$. This numerical RRM frequency relates to electromagnetic wavelength $\lambda=484$ nm. Thus, Titanium Salt and any other conductive particles in the Be-Well patches that are in a diameter of about $D_{sc}=484$ nm, $D_{sc}/2=242$, and $D_{sc}/4=121$ nm can resonate with synaptic proteins influence the development and normal Functioning of the nerve synapses...”[17].

Most participants (97%) continued the Be-Well patch therapy without further testing. Four months later (6 months in treatment), two families decided to stop using patches on their children. To their astonishment, children continued to do well in school and socially with minimal symptomatology of ASD without any medication. That brings us to thoughts about epigenetics. The epigenome for the difference of the genome is changeable with prolonged exposure to the environment[18]. That brings the question: can ELEMF prolonged exposure change epigenome in ASD? Future research will give us the answer.

**Colloidal Silver Solution (CSS)** [19]

Skin rejuvenation and regeneration, as well as a therapy of Solar Lentigines (SL), was addressed in this clinical observational pilot study. Structured water was infused with homeopathic concentrations of CSS and embedded with ELEMF to apply to the left hand’s dorsal part, while the right hand’s dorsal part was used as a control. Ten subjects with SL were treated with the CSS for three weeks. The results are highly encouraging that CSS successfully achieves this study’s objective.

Solar Lentigines (dyschromia) “Liver Spots = Age Spots.” Seen in 50% by the age of 64yo. It is considered benign. Manifests with brown macules on chronically exposed skin include the dorsum of the hands, forearms, and face—no seasonal color discoloration as seen in the freckles”[20]. The solution was applied as a spray to the skin of the left hand of the subjects in AM and PM before sleep. The subjects were asked not to wash their hands for two hours after the application. The subjects were reassessed after three weeks. Observations of the skin were recorded, and a photograph was obtained. Thickness and turgor were measured by physical examination and graded on a scale of 0 to 10, and dyschromia was measured by observation and subjectively assigned scores of 0 to 10.

As shown in the following photograph, the difference in the appearance of the skin of the left hand was significant (Figure 8 A). The dorsum of the left-hand skin appeared on the observation younger. The thickness and turgor were much better than the control, and dyschromia lesions almost disappeared (Figure 8 B). The control’s skin (the right hand’s dorsum) showed no improvement (Figure 8 C) [19].

**Figure 8**: (A) The difference in the appearance of the skin of the left hand was significant. (B) The dorsum of the left-hand skin appeared on the observation younger. (C) The control’s skin (the right hand’s dorsum) showed no improvement.

**Harmony Patches**

**Non-Published Data**: Harmony Frequency Patches (HFPs) were developed in 2014 by Tuning Element, LLC, Branson, MO. Harmony Frequency Patches are imprinted with an extremely low electromagnetic frequency blend specific to resonate with estrogen and progesterone receptors, thus bringing the menopausal woman’s body toward normal hormonal homeostasis and with a broad spectrum of frequencies addressing general well-being.

**Materials and Methods**: This was a multicenter study between Biofield Care Research Department, Slovenia, EU, Holistic Health Realities, Crown Point, Indiana, USA, and Bio-Resonance Applied Systems, Valparaiso, Indiana, USA. The subjects were 50% EU and 50% USA. This was a non-invasive, no-risk study and was exempted from the IRB. The study was symptom-oriented, not a double-blind study. 100 women, a volunteer aged 55 to 62 with menopausal syndrome and no previous hormonal therapy, was treated with Harmony Patches. A total of 20 women were instructed to wear Harmony Patches (HFP) as a solo supportive system. All the patients were counseled, had a Gynecologic examination with the Pap smear, mammogram, and informed consent was obtained. Patients with abnormal mammogram findings were excluded, as well as patients with no, minimal or mild symptoms of menopause. The goal was to study the effect of the Harmony patches on the moderate, severe, and worst scale of menopause symptoms. The questionnaire used the North American Menopause Society guidelines [21] with a modified Wong-Baker scale. Symptoms were divided into six groups and graded 1 to 10.

- 0: no symptoms (None)
- 2: a few symptoms (Minimal)
- 4: a little more (Mild)
- 6: even more (Moderate)
- 8: a whole lot (Severe)
- 10: the worst (Very Worst)

None Minimal Mild Moderate Severe Very Worst

I(0) I(2) I(4) I(6) I(8) I(10)

Data were collected before the beginning of the study and after one month, three months, and six months.

HFP patches will be applied at the left lower and right lower quadrant abdominal wall at the acupuncture point ZgongEX-CA1 (on top of each ovary). The patches last 3 to 5 days. After applying two patches initially, participants were instructed to change one patch every 3 to 5 days, alternating between patches so they always have two patches on (Figure 9).

Before the beginning of the study, all the participants had symptoms averaging on a scale of 6 to 10. (34% Moderate, 48% Severe, and 18% Very Worst) Symptomatology improved (dropped on a scale of 1 to 4) in 96% for at least 1 degree, 88% percent of the studied subjects for at least two degrees of the questionnaire scale after three months, 70% of the participants had three or four degrees of questionnaire scale improvement; 4% had no improvement. However, no significant statistical changes were observed after six months compared to the three months. The least improvement was noticed in dyspareunia, vaginal and skin dryness. 1% compounding Estriol vaginal cream was added to those patients (1 ml daily for two weeks, then 2x a week), and all dyspareunia and vaginal dryness dropped after one month in severe group patients to less than 2% (Figures 10-12).

Harmony patches showed statistical significance in managing menopausal symptoms. We almost completely alleviated the very worst, most severe, and a significant number of moderate symptomatology. Symptoms shifted from 6 to 10 to 0 to 4 on the modified scale of the Wong-Baker level. The peak improvement was in 3 months. 6-month data did not show any improvement compared to 3-month data. We have over 5000 patients globally using Harmony patches with a similar success rate. Interestingly we have a significant number of anecdotal data where Harmony patches are used successfully in PMS, PCOS, and endometriosis management, as well as a supportive adjunct in reproductive endocrinology.

TEP frequencies resonate with the receptor proteins within cellular components and water molecules. Resonance with the receptors, in this case of the Estrogen and Progesterone, does not increase the Estrogen and Progesterone production. The hormonal blood levels will be low, as is typical for menopause. However, the patient will not have menopausal symptoms or hormonal side effects.

Harmony patches offer a new approach to the support of the management of menopause. There were no complications reported. There is no age limitation when to start or stop, as in HRT.

Conclusion

TEPs are the only wearable ELEMF medical device with a biofield as an electrical supply. TEP uses nanotechnology, thus introducing the nuovo method in approaching pathophysiology. TEP offers a nuovo nonpharmacological method for various medical problems without known side effects. The new wave of utilizing System Biology methods in medicine will bring a shift to Quantum Medicine as a paradigm change.
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