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Bioelectrical Stimulation for People with Patterns Consistent with Certain Chronic Infections

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ABSTRACT

The purpose of this pilot trial was to determine whether there may be any efficacy to combining the use of bioelectrical stimulating units with nutritional interventions for people with patterns consistent with chronic fungal, bacterial, viral, or parasitic infections. This trial was a pretest-posttest, natural control-group design where subjects were assessed before and after bioelectrical stimulation was introduced by the use of a device, most commonly referred to as a ?zapper?. 140 of 143 (97.9%) participants reported improvement within 45 days, P<.01; 48.2% improved substantially and 49.7% improved minimally. Thus, it appears that combining bioelectrical stimulation with nutritional interventions may have efficacy and deserves further study.

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INTRODUCTION

Reports of infections are on the increase [1-4]. Within the past two decades, at least twenty new infectious diseases (or new presentations of old infectious diseases) have become universally recognized as problems for humans [3,4]. Increases of infections are believed to be caused by changes in lifestyle, diet, agricultural practices, travel, and medical interventions [2-4]. Regarding medical interventions, the excessive use of antibiotics has led to an increase of bacteria which are resistant to antibiotics [5]. This, in turn, has led to the development of stronger antibiotics, which then has led to an increase of the amounts of strains of bacteria which are resistant to antibiotics [5,6]. There is even a strain of staphylococcus aureus that was initially described as ?a deadly bacterium that can resist every drug in science's infection-treatment arsenal? [7]. Approaches other than antibiotics are needed to deal with these and other infections [2,5].

One approach, as advocated by Hulda Clark (Ph.D., N.D.), involves the use of bioelectrical stimulation (which she terms ?zapping?) combined with herbal interventions [2]. Dr. Clark believes that all invading organisms are parasitic and can be destroyed by zapping or by being exposed to an electronic field at a frequency taken from its own bioradiation band width, and that devices exist which can generate the proper frequencies. Similar to my hypothesis that all matter appears to emit some type of electro-magnetic energy [8], Dr. Clark has hypothesized that all living matter emits some type of high frequency energy (which she terms as ?bioradiation?). Dr.

Clark believes that a particular frequency range for each form of living matter can be identified and that a lethal effect can be obtained through a device she refers to as a ?zapper? [2]. Others have made units which predate her comments, even back in the 19th Century [9,10].

Actually, instructions on how to make such devices are now nearly universally available from a variety of copyrighted sources (and these devices are often made and used by the lay public without any type of supervision) [2,9,11,12]. Dr. Clark has stated that a zapper can selectively electrocute parasitic organisms without adversely affecting humans because humans are not harmed by such a low voltage (9v) and that the frequencies that affect parasites are sufficiently far removed from those that could bother humans [2]. A clinical trial was performed to determine if such interventions may have any efficacy when combined with nutritional interventions.

MATERIALS AND METHOD

Non-HIV infected adults were eligible for inclusion in this pretest-posttest trial if they resided in California, came to our office, agreed to provide (and did provide) feedback, signed a consent agreement, had evidence of a pattern of chronic infection consistent within the scope of this trial, had not completely responded to previous nutritional interventions, were not pregnant, did not wear a pacemaker, underwent at least one zapping session, and followed the nutritional recommendations. The natural control group met the same criteria, except that they did not undergo a zapping session.

This report includes every subject who met these criteria during the twelve month time period of this trial. 158 people were eligible, but 15 failed to provide the required feedback. Of the 143 actual participants, 41 of the participants were male and 102 were female. Ages ranged from 5 to 84 years. 34 were in the natural control group, but 3 failed to provide the required feedback. Of the 31 actually in the natural control group 9 of them were male and 22 of them were female; ages ranged from 4-82. All were interviewed for approximately 30 minutes. Signs and symptoms associated with their possible infections were noted. Five categories of infection were considered without regard to specific species, strains, or varieties. All continued with their nutritional recommendations (taking commercially available vitamin, herbal, and glandular combinations), including dietary restrictions when involved. As the nutritional interventions, have been written about extensively elsewhere by this investigator [8,13-15] and are not the independent variable being tested in this trial, they are not detailed in this paper. Subjects then underwent one or more zapping sessions. Subjects were re-interviewed approximately three weeks later to determine any change.

As the State of California does not allow naturopaths to order medical tests, changes in health in this pilot trial was based upon subject reports of improvement. A zapping session consisted of having the participant hold a zapping unit (two different ones were used in this study) three times for between 7 to 15 minutes each time, with a break of between 10-20 minutes (time varied depending upon the zapper used).

Two different zappers were used: A commercial model and a specially engineered model. The commercial model used was a SyncroZap Pulse Generator Model B3 from Self Health Resource Center, Imperial Beach, California; it is operated by a 9 volt battery and produces a 32KHz output. The engineered model was based upon the same design as the commercial model (was

also operated by a 9 volt battery), but due to an extra integrated circuit, its output sweeps the frequency in steps of 2 KHz from 20 - 40 KHz (this sweeping is believed by the developer to generate an output at 10 times as many frequencies than the commercial model). The commercial model was normally held for 7 minutes with 15-20 minute breaks, while the engineered model was normally held for 15 minutes with 10 minute breaks.

RESULTS

Reflex assessment, combined with the interview process, suggested that the average participant had 1.1 chronic infections (note that reflex assessment is not diagnostic [8]). 48.2% reported substantial symptomatic improvement (between 75% improvement to complete remission), whereas 49.7% reported minimal improvement (less than 75% improvement); total with any improvement was 97.9%. In the control group, the average control also had 1.1 chronic infections; 12.9% reported significant improvement, whereas 48.4% reported minimal improvement; total with any improvement was 61.3%. Improvement (from both groups) was reported for symptoms including bloating, diarrhea, constipation, flatulence, fecal incontinence, congestion, fatigue, lethargy, skin rashes, itching, abdominal pain, indigestion, and coughing. Analyzing the results utilizing Chi-square, comparing the two groups for total improvement and any improvement revealed $P < .0.1$ and $P < 0.01$ respectively.

The improvement by possible infection type for the participants is shown below.

Type	%	Substantially Improved	% Minimally Improved
Strep	2.8%	75.0%	25.0%
Staph	10.5%	60.0%	33.3%
Viral	21.7%	35.5%	61.3%
Fungal	33.6%	39.6%	60.4%
Parasitic	42.7%	59.0%	37.7%

The commercial zapping model seemed to require more repeated sessions than the engineered model to get similar results: this could be because the engineered model was designed differently (with an extra circuit) and/or because it was held by the participants longer. When long-term staphylococcus infections were present that did not clear-up with conventional antibiotic treatments, the engineered model seemed to be substantially more effective than the commercial model. 97.9% of participants reported symptomatic improvement; with 97.4% zapped with the commercial model and 98.4% with the engineered model (both combined with supplementation) reporting improvement. Neither age nor gender were found to have any significant impact on improvement.

Temporary (lasting less then one hour) adverse reactions to zapping, specifically dizziness or a near intoxicating feeling, were noted from three (2.1%) of the participants; all of which stated that benefits associated with the zapper exceeded the temporal adverse reactions. (A recent monograph by Dr. Robert Beck regarding the use of a similar device states ?if subjects ever feel sleepy, sluggish, listless, bloated or headachy, or have flu-like reactions, they may be neglecting sufficient water intake? [16]. Dr. Clark advises that those who are pregnant or wearing a pacemaker should not use a zapping unit [2]) A more commonly heard comment was that some participants (5.1%) felt refreshed or relaxed after undergoing the zapping sessions. Temporary

adverse reactions to supplementation included increased itching (in subjects who had previously complained of itching), increase of various reported symptoms, and mild intestinal discomfort: these complaints were only temporary when they occurred (generally less than one week).

DISCUSSION

This trial did not include anyone who completely responded to previous nutrition-only interventions. My previous research has clearly shown that nutritional interventions can, on their own, result in symptomatic improvement when chronic infections are present [14,15]. This trial attempted to see if adding the intervention of bioelectrical stimulation could result in symptomatic improvement to greater degrees for people with chronic infections. Many of the participants were greatly impressed by the effectiveness of the zapper; some who improved, however, felt the zapper had no effect and improvement was entirely due to the continued use of supplementation.

Although most understand that bacterial and viral infections are common [1-4], many health practitioners do not seem to understand that yeast/fungal infections and parasites are often found in humans [17,18]. Although one major study found parasites in 20.1% of stool samples [18], many of these parasites appear to not always cause detectable symptoms [1]. In humans, most parasites are believed to live within the digestive tract [1,18] (though Dr. Clark has implied that this may not be the case [2]). Parasites, by nature, must be able to live in an organism for a long-time without killing the host organism or getting killed by it [19]. Thus, it is not surprising that the highest percentage of the participants had this type of infection.

How does zapping work? Dr. Clark has written, ?Any positively offset frequency kills all bacteria, viruses and parasites simultaneously given sufficient voltage (5 to 10 volts), duration (seven minutes), and frequency (anything from 10 Hz to 500,000 Hz)? [2]. A positive offset frequency is one which alternates between positive and zero voltage. I am not at all certain that zapping actually kills any invading microorganism. This trial suggests that since only 48.3% improved substantially, zapping probably did not kill ?all bacteria, viruses and parasites? (according to Dr. Clark's book, the reason could be that possibly the current did not access all body regions, specifically the bowel contents [2]).

There are several reasons to believe that there may be scientific justification for the use of zappers. First, it needs to be understood that precisely how the body combats parasitic infections is not fully known [20]; this may be because many of the disease causing parasites have the ability to turn off immune responses [20]. (Both immune and non-immune responses are involved in the body's defenses against pathogens of all types [20].) It is possible that the body produces additional acid, has an IgG response [1,21], or has other actions to deal with intestinal parasites [20]. Second, it needs to be understood that both the colon and the small intestine produce electrical spike bursts [22]. Third, animal studies support the hypothesis that electrical stimulation has various effects on the body, including the inactivation of muscle acetyl CoA carboxylase and increasing AMP-activated protein kinase [23]. The inactivation of muscle acetyl CoA carboxylase may temporarily increase pyruvic acid [24] or decrease the effectiveness of normal portions of the immune system [25]. It has been reported that researchers from the Albert Einstein College of Medicine found that passing a current of only 50 microamps can prevent certain viruses (including HIV) from replicating [26]. It is of interest to note that a technique

recently developed at the Royal London Hospital uses gracilis muscle augmentation combined with electrical stimulation to improve sphincter control in individuals with fecal incontinence [27] (some of the subjects in this trial had this symptom).

It may be possible that some of the body's defense mechanisms against pathogens include electrical activity or that electrical activity may improve nutrient absorption. This last hypothesis is consistent with work performed by Dr. J.C. Weaver. Dr. Weaver performed a study in which he found that electrical stimulation appeared to make the body's cell walls more permeable so that its response to infection after ingesting supplemental nutrients was enhanced [28]. It is also consistent with a similar hypothesis written in 1924 by Dr. E.W. Cordingley that ?electrotherapy? increases ?local nutrition? [29].

Why does a subject undergo three zappings? Dr. Clark and this investigator have different opinions. Dr. Clark has written that the first zapping ?kills viruses, bacteria, and parasites. But a few minutes later, bacteria and viruses (different ones) often recur. I conclude they had been infecting the parasites, and killing the parasites released them. The second zapping kills the released viruses and bacteria, but soon a few viruses appear again. They must have been infecting some of the last bacteria. After a third zapping, I never find any viruses, bacteria, or parasite, even hours later?[2]. This investigator does not agree, however, because often the same infection remains. It appears that repeated zappings are needed because it takes that long for the proper portion of the immune system to be properly stimulated into action. And I should add, for some people it only seems to be needed one or two times (some many more).

There are at least 130 different parasites [2,17], many different bacteria and viruses [4-7], and at least 150 medically significant yeast/fungi (Candida albicans is only 1 of them) [17,30]. Is the solution to the multiple infectious agents, as has been proposed by some [6], new antibiotics? With deadly infections that do not respond to ?drug-based? treatments [4-7], should not other avenues be explored? The results of this study suggest that zapping combined with nutritional interventions may have helped most of the participants improve. Nutritional interventions give the body substances which it can use to improve immune responses [18]. Although this is not certain, it appears that either nutrient absorption is somehow improved [28,29] or IgG (immunoglobin G) [1,19], some T cell (T-lymphocyte), biochemical acid, or some other defense mechanism is somehow stimulated through zapping and thus some segment of the immune system, but not the zapper, destroys the invader. Regardless of which (or whose) hypothesis is correct, it can be concluded that zapping and nutritional interventions can be helpful adjuncts for people with various forms of chronic infection and does deserve additional study.

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