
A Review Of Cayce-Based Energy Medicine For Chronic Neurologic Disease

ABSTRACT

Anecdotal evidence has accumulated suggesting that a mild form of energy medicine may contribute to reversal of symptoms in a variety of chronic neurological syndromes. This article reviews cases involving a number of different neurological conditions supportive of a therapeutic model advocated by Edgar Cayce, an important figure in the field of holistic medicine. Specific therapeutic techniques for nervous system regeneration based on the Cayce approach are explained. Conceptual and methodological issues are discussed within the framework of complementary and alternative medicine as it is typically applied to chronic neurologic illness.

INTRODUCTION

Historically, interest in nerve regeneration dates to the writings of Galen 1800 years ago [1]. Although the subject has received only sporadic attention over the intervening centuries, the past few decades have produced significant advances in peripheral nervous system (PNS) regeneration in humans [2]. Several approaches to peripheral nerve regeneration are currently being pursued. The three primary approaches are the use of electric fields, the manipulation of Schwann cells, and treatment with neurotrophic factors. [2, 3, 4]

In contrast to peripheral regeneration, central nervous system (CNS) repair is problematic. Although CNS regeneration in certain fish, amphibians, reptiles and invertebrates has been documented, CNS regeneration in humans is not generally regarded as possible with existing technology [5a]. However, future approaches to CNS healing may open up new vistas on the old CNS regeneration barrier in humans [5b].

A REVIEW OF CAYCE-BASED ENERGY MEDICINE FOR CHRONIC NEUROLOGIC DISEASE

Edgar Cayce (1877-1945), identified in a JAMA editorial as a primary influence in the development of the modern holistic medicine movement in America [6], has also influenced the evolution of complementary and alternative (CAM) applications in the field of energy medicine. Cayce was an intuitive diagnostician described by one biographer as the “sleeping prophet” [7]. For over 40 years, Cayce would lay on a couch, present information and respond to questions from a sleep-like state. Most often, these “read-

ings” addressed health problems for individuals seeking his help. Virtually the full spectrum of medical disorders were covered, including numerous cases of neurological illness.

Perhaps the most fascinating aspect of such readings, apart from the explanations of etiology and pathophysiology, was the insistent claim by Cayce that the nervous system (both PNS and CNS) could be regenerated using simple technologies applied patiently and persistently with the proper mental and spiritual attitude. For example, in a reading describing nervous system regeneration for brain disease, Cayce asserted:

“The PRINCIPLE [of using electrotherapy with gold or silver] being that these change the vibratory forces ... as has been given with gold and silver in their varied conditions as may be applied to the system.... for WITH the proper manipulations to PRODUCE coordination WITH drainage in the system, as may be given through manipulation osteopathically, or neuropathically given to the system under various stages, may create for a body almost a new brain, will the patience, the suggestion, the activities in the system BE carried out according to the conditions as necessary to be met.” [8]

Cayce’s treatment plan recommendations for nervous system regeneration were fairly consistent with the formula cited above in prescribing certain forms of electrotherapy, most often a simple chemical battery (wet cell battery) used in conjunction with medicinal solutions incorporated into the circuitry. Other therapeutic modalities, such as massage, spinal manipulation, hypnotic suggestion, prayer and meditation, and diet were usually recommended as adjuncts to the electrotherapy for systemic and holistic effects.

The wet cell battery is a chemical battery consisting of

a two gallon container with copper and nickel rods suspended into a solution of distilled water, copper sulfate, sulfuric acid, and zinc. The battery circuit (Figure 1) typically incorporates a “solution jar” containing substances such as gold chloride, silver nitrate, spirits of camphor, or iodine. Copper and nickel plates attached to the battery by wires are placed on the body at specific points along the spinal column and abdomen (Figure 2). The type of solution and location of attachment varied for depending upon the nature of the illness and its manifestation in the body. Cayce stated that the such an arrangement would allow the “vibration” of the medicinal agent in the solution jar to enter the system “vibratorially.” Thus, the principle is to introduce energy and medicinal vibrations directly into the body (bypassing the normal digestive and assimilative processes of the alimentary canal). Edgar Cayce stated that medicines taken vibratorially in this manner are safer with fewer side-effects than direct methods such as oral administration.

The wet cell battery itself produces a small electric current typically in the range of 20-35 millivolts [9]. Interestingly, this is the average range of electrical potential that can be measured across the epidermis. [10] Cayce insisted on such a “low electrical vibration” that would work at the same energy level as the body rather than overwhelming it. Essentially, the battery operation can be viewed as an information system intended to carry a signature pattern into the body [11].

Another subtle energy device called the “radial appliance” was also sometimes recommended for neurological disorders, although less frequently than the wet cell battery. According to Cayce, this device can be used to balance circulatory and nervous system functioning via subtle energies of the body. A double-blind study with this appliance suggested that regular use of the radial appliance could improve circulation to the extremities [12]. McMillin and Richards [9] have described the theory, construction and application of the radial appliance and wet cell battery in

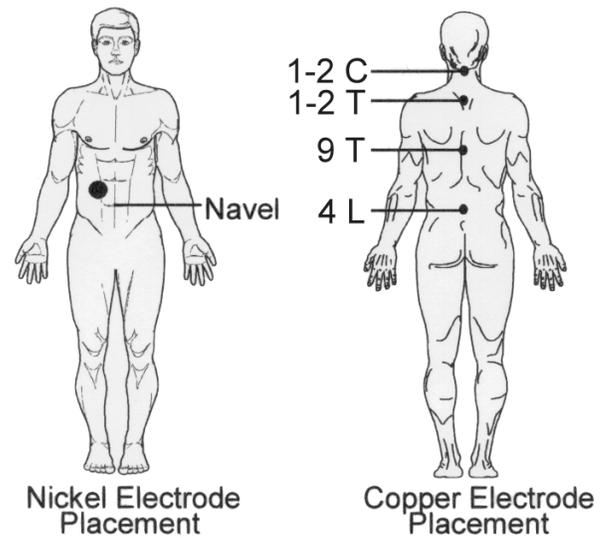


Figure 2: Attachment locations of wet cell battery electrodes on the body.

detail.

Although several individuals appear to have benefited from application of Cayce’s approach during his lifetime, the documentation is often minimal. Likewise, in the decades since Cayce death in 1945, numerous individuals have claimed therapeutic efficacy using Cayce-based regimens. However, most of these anecdotes have not been published. This review will focus only on the anecdotal reports that have been published. A later discussion will address methodological issues with regard to this anecdotal evidence.

AMYOTROPHIC LATERAL SCLEROSIS

Amyotrophic lateral sclerosis (ALS) is a progressive, adult-onset motor neuron disease of unknown causation characterized by a relentless loss of motor capabilities. Also known as Lou Gehrig’s disease, ALS usually leads to death from respiratory failure within 2 to 5 years. There is no cure at this time. Standard medical treatment and management are directed at symptomatic relief and extension of survival to a modest degree [13, 14].

Baar reported significant reversal of symptoms in two cases of ALS [15]. For confidentiality, the cases were assigned numbers:

Case # 2113

This man experienced onset of symptoms during 1992 at age 44. Symptoms included dragging of right leg, gait instability, loss of strength in right arm, spasticity, and extreme fatigue. A diagnosis of amyotrophic lateral sclerosis

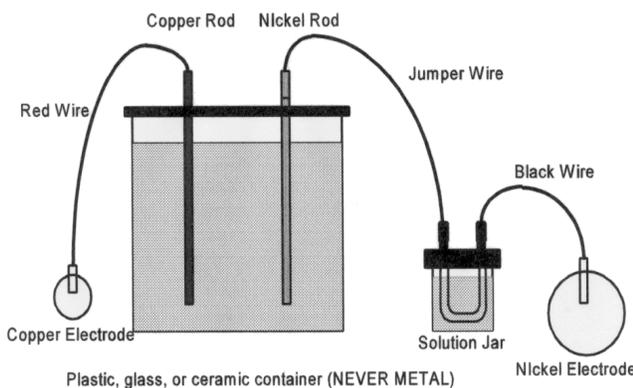


Figure 1: Wet Cell Battery Components

was made in 1993 by a neurologist. Electrodiagnostic examination was consistent with the diagnosis [15]. According to the patient, a prognosis given in 1993 was that "I would probably be in a wheelchair in one year. That I had better than a 50% chance of being dead in two years, and that he would [the neurologist] would eat his shoes if I was alive in five years." [15, p.8]

This man used a wet cell battery for twenty-four months (45-60 minutes each day) between 1994-1996. Other alternative therapies were also used, primarily nutritional supplementation, chelation therapy and removal of amalgams. The disease progressed for approximately one year after the diagnosis in 1993 and the individual began to notice a diminishing in the progression of the symptoms in the spring of 1996 with complete reversal of symptoms after two years of following this treatment plan.

Case # 7761

This man experienced onset of symptoms in December, 1996 and was diagnosed with ALS in August, 1998 by a neurologist. Initial symptoms included fasciculations in the upper left arm and shoulder. The fasciculations then became noticeable in the calves of the left and then the right leg. He became increasingly immobile and marginally functional with severe atrophy of muscles in the left arm and shoulder.

In September, 1998 he began using the wet cell battery once per day (30-35 minutes) followed by massage (30-45 minutes). Other adjunctive therapies included the radial appliance daily (30 minutes), and ultraviolet treatment (bi-weekly), improved diet, and nutritional supplements.

Although the patient began using Rilutek and Neurontin late in 1998, he stopped taking these medications in December of that year due to side-effects. The patient reported that the illness stopped progressing in January, 1999. By March, 1999 reversal of symptoms were noted with regard to "muscle recovery, increased strength and additional flexibility." [15, p. 22]

SPINAL BULBAR MUSCULAR ATROPHY

Spinal bulbar muscular atrophy (SBMA) is a rare, progressive, inherited motor neuron disorder characterized by proximal muscle weakness, atrophy, and muscle contractions. SBMS can mimic ALS and is clinically misdiagnosed as such in two percent of sporadic cases [16].

Apparently David Atkinson was among this two percent when he was misdiagnosed with ALS in 1991, which was changed in 1997 to SBMA following a definitive test conducted at the Pennsylvania School of Medicine [17]. At the time of the initial diagnosis, he had to wear a neck brace to hold his head upright and was on a liquid diet because he could not swallow solid foods. He also experienced difficulty walking.

Atkinson followed a Cayce-orient treatment plan based on a single reading given for a person with symptoms of motor neuron disease. In addition to the wet cell battery, massage and spinal manipulations, and mental/spiritual healing (positive thinking, prayer and Bible study), Atkinson took small amounts of chloride of gold solution orally as specified by Cayce in the designated reading [18].

After 14 consecutive months on the Cayce-based regimen Atkinson noted significant reversal of symptoms and stopped the wet cell treatments. Currently, he travels widely, presenting his story and assisting others who wish to apply the Cayce approach for motor neuron disease (Atkinson, 1998). Additional information on Atkinson's case is contained in Baar's report as Case # 114 [15].

MULTIPLE SCLEROSIS

Multiple sclerosis (MS) is an incurable neurological illness involving chronic inflammation and demyelination in the CNS resulting in symptoms including balance and coordination problems, weakness (especially in the legs), visual disturbances, fatigue, bladder and bowel problems, and cognitive and emotional disturbances. The majority of MS patients experience a relapsing course and progressive functional disability [19].

Several individuals have reported improvement in MS symptoms and quality of life that they attributed to application of the Cayce approach. Dudley Delaney is the most prominent, having published a book about his recovery [20]. Delaney states that he first became aware of the illness in 1991. His symptoms included numbness, blurred vision, difficulty swallowing, tremors, muscle spasms, depression, fatigue, failing memory, slurred speech, and bladder dysfunction. Within a few months he began a Cayce-based regimen involving vibratory gold with the radial appliance, massage and close attention to diet. Within two years he claimed to be symptom-free [20].

Another prominent MS case involves a medical doctor diagnosed with the disease. Ray Bjork used a complementary and alternative medicine (CAM) model for treating his MS over a period of 40 years. While utilizing all the medical treatments available for symptomatic relief of MS, Bjork also applied a variety of alternative therapies including the Cayce wet cell battery regimen followed by massage and other Cayce-based modalities such as Atomidine (iodine supplement) and abdominal castor oil packs. In particular, Bjork observed notable success combining two alternative approaches. The Shearer Regimen involved intramuscular and oral supplementation, diet, energy conservation and stress management. With the addition of the Cayce therapies Bjork reported, "Although I still have multiple sclerosis, the symptoms have disappeared. This happened as insidiously as the MS developed. There was no dramatic change in either case. Using the Shearer and Cayce meth-

ods side by side gives me energy enough to still keep working and to be active otherwise.” [21, p.65] Bjork provided excellent clinical documentation of remission of symptoms and improvement in quality of life [21, p.67-69].

In addition to these individual case reports, Meridian Institute conducted a small pilot study of MS (n = 9) using the Cayce model. Participants spent 10 days in a live-in treatment and training program in September, 1996. Then they went home to continue the treatment protocol. Of the original nine, seven returned six months later in March, 1997 for a follow-up weekend to assess progress. Of the two who did not return, one person never began the protocol, due to illness immediately following the initial program. The other partially followed the protocol, reporting some success, but was unable to return for the follow-up. One of the seven people who did return had been unable to begin with the protocol until two months before the follow-up.

The treatment protocol included daily use of the wet cell electrical appliance with gold and Atomidine, massage, diet, and mental/spiritual healing. Physical symptoms were assessed both by physiological measurements of the autonomic nervous system (galvanic skin response and heart rate variability) and by subjective questionnaires. Mental/emotional/spiritual states were assessed by subjective questionnaires.

Subjects who followed the protocol consistently (but none completely or perfectly) averaged moderate improvement in MS symptoms over six months, on both subjective symptom checklists and questionnaires, and objective measurement of GSR. Three out of the seven reported major improvement. This rate of improvement was consistent with the typical Cayce prognosis. At three year follow-up, one individual continued to follow the protocol, reporting good response to the treatments [22].

PARKINSON'S DISEASE

Parkinson's disease (PD) is a chronic incurable neurological disorder of the basal ganglia characterized by tremor, muscle rigidity, slowness of movement, and gait instability. Although symptoms of the disease can be effectively managed for several years with medication, the syndrome is progressive and the efficacy of standard drugs decreases with time [23].

Meridian Institute also conducted a small pilot study of PD using the Cayce model. The format was very similar to the previously described MS project. Ten participants took part in the project beginning in November, 1996. Of the original ten, nine returned four months later in March, 1997 for a follow-up weekend to assess progress.

Physical symptoms were assessed both by physiological measurements of the autonomic nervous system (galvanic skin response and heart rate variability) and by subjective questionnaires. Mental/emotional/spiritual states

were assessed by subjective questionnaires. Subjects who followed the protocol consistently (but none completely or perfectly) averaged slight to moderate improvement in Parkinson's disease symptoms over four months, based on observation by the researchers and by subjective questionnaires. Many minor symptoms showed interesting improvement. For example, two people reported regaining their sense of smell, and one had improved color vision. Several people had more facial emotional expressiveness, and reported reduced tremors. At three year follow-up, only one person had continued to follow the protocol consistently and reported significant symptomatic improvement [24].

ALZHEIMER'S DEMENTIA

Alzheimer's disease (AD), the most common form of senile dementia, accounts for approximately two thirds of all cases of dementia in the United States. AD is characterized by a marked deterioration in memory and all cognitive functions, as a result of a progressive degeneration and loss of cortical and limbic neurons [25].

For persons suffering with from dementia, Edgar Cayce typically recommended electrotherapy utilizing gold and silver. The readings stated that these metals acted to stimulate the glandular system to rejuvenate the nervous system. In one reading, Cayce actually provided a formula for “rebuilding the brain” [8] which has been elaborated in the context of the various therapies recommended [11, 26]. This formula (see excerpt above) included gold and silver delivered vibratorily (wet cell battery or radial appliance), osteopathic manipulations, suggestion, and patience.

Richards [22] and Smith [23] reported improvement in a eighty-two-year old man with third-generation, early-onset Alzheimer's disease. In reviewing his progress, his wife observed: “... the Wet Cell is the backbone of the treatment that we've used. In June, 1999 we will have used the Wet Cell for five years... Our quality of life on a scale of one to ten would certainly be 9+ which I consider excellent and we together lead a very busy active life.” [22, pp. 12-13] This man regularly plays bridge, drives a car and engages in numerous other normal activities of daily living. In addition to the Cayce-based modalities, this man has used nutritional supplementation and various other alternative therapies.

MYOTONIC MUSCULAR DYSTROPHY

Myotonic muscular dystrophy (MMD) is inherited as an autosomal dominant disease characterized by multisystem disease, including myotonia, muscle-wasting, weakness of all muscular tissues, and endocrine abnormalities [28].

Linda Caputi reported significant reversal of symptoms after one and a half years of therapy following a Cayce-based treatment plan for MD [29]. Symptoms of MMD began to appear at age 30 but she was not diagnosed by a

neurologist as suffering from myotonic muscular dystrophy until age 48. Her symptoms included myotonia (temporary rigidity after muscular contraction), decreased strength and stamina, and ptosis (drooping eye and difficulty opening eye). Her condition had progressed to the point where she could not walk very far without getting out of breath and her legs locked trying to get out of a chair. She also experienced significant “mental fog and lethargy.”

The therapeutic regimen included daily sessions with the wet cell battery followed by massage, a basic diet recommended by Cayce and applied spirituality. Caputi observed, “... within one month the mental fog began to clear. Within two months the choking episodes subsided and I was able to walk a bit farther without tiring.” She also noted less difficulty breathing. After one and one half years on the regimen, she estimates that she is “about 70 percent improved.”

CHARCOT-MARIE-TOOTH SYNDROME

Charcot-Marie-Tooth (CMT) disease is the most frequent inherited peripheral motor and sensory neuropathy. CMT is characterized by a slowly progressive degeneration of the muscles in the foot, lower leg, hand, and forearm, and a mild loss of sensation in the limbs, fingers, and toes. Estimates of the prevalence rate are 1 in 2500 [30].

Ann Jaffin experienced symptoms of CMT as a child and was formally diagnosed in 1968 at age 20 at the NIH. The hereditary link was through her father who also had CMT. Jaffin ignored the condition until 1983 when she underwent a series of electromyograms at Johns Hopkins University Hospital. The prognosis was that she “would probably wind up in leg braces.” [31, p. 17] Motivated by a report of positive outcome in a CMT case using the Cayce model [32], Jaffin then began using Cayce-based therapies including the wet cell battery, massage and manipulation, and diet.

Significant increase in symptoms in 1984 (difficulty walking) and 1986 (foot drop) further motivated her to closely follow the Cayce regimen. In 1988 she returned to the NIH for nerve electrical conductivity tests. Jaffin reports that a letter compared these test results to the earlier ones at Johns Hopkins, stating “The size of the motor response has not deteriorated, if anything, it has increased in size...” [31, p.18] Jaffin has continued the Cayce therapies for CMT regularly over the years and reports favorable outcomes with regard to quality of life. More recently Jaffin made the following observation:

“I’ve used the Cayce wet-cell battery regularly for more than 15 years in my battle against Charcot-Marie-Tooth Disease. Recently I became aware of a feeling of weakness in my right lower leg, foot, and instep. I had not been using the wet-cell as much as usual because of being away on vacation, then returning to work, and also helping my mother

who is ill. This weak feeling gave me the incentive needed to quickly return to serious battery use. (I alternate daily gold and silver and am currently attaching the copper electrode to the “low” spinal position.) In the past I would be hooked up for 30 minute sessions daily. Because of this weak feeling, I increased the time to 45 minutes. I could feel an improvement — that is, decrease in the weak feeling — after the first use (gold for 45 minutes). The weakness was so much less bothersome that I was able to forget about it for long periods the next day.” [33]

DISCUSSION

This discussion will focus on two primary areas relevant to Cayce-based approaches to nervous system regeneration: (1) the *conceptual* basis for the model and (2) *methodological* issues associated with researching Cayce’s ideas.

The *concept* of nervous system repair and regeneration via electromedicine has been explored by numerous authors, historical and modern. In an exhaustive review of historical development and application of electrotherapy for various disorders including neurological disease, Licht cites numerous forms of energy medicine, such as chemical batteries similar to Cayce’s wet cell [34].

More recently, Becker’s work in the field of bioelectricity suggests that extremely small electrical currents have a variety of major biological effects. In researching healing of bones and limb regeneration, Becker found that there exists a skin potential which gradates radially from the spinal cord to the extremities, with natural voltages comparable to those produced by the wet cell battery [10]. Becker’s measurements of electrical skin potentials associated with certain spinal centers [10, p. 96] also parallels to some extent Cayce’s utilization of these centers (brachial and lumbar) as points of contact for the wet cell circuit (Figure 2).

The use of electrotherapy for nerve repair in the modern era has been described. In vitro, direct current-induced (DC) electric fields evoke neurite outgrowth that is significantly greater than controls and the growth is consistently oriented to the cathode [3]. However, using such technology to accelerate human nerve healing would require invasive surgery to implant electrodes.

In contrast to specific/local applications for nerve regeneration, the Cayce-based model is much more non-specific/systemic. The concept in the latter appears oriented toward the body as a self-healing entity that can be generally stimulated to promote regeneration in specific areas. Furthermore, the use of essentially the same technology for a diverse group of neuropathologies relies on nonspecific therapeutics characteristics of low electrical current and certain nervines (gold and silver). Richards et al [36] have provided an extensive review of the therapeutics uses of gold, including gold as a nervine.

Conceptually, Cayce's perspective recognizes an innate intelligence and vitalistic body energy system that can be therapeutically influenced to produce whatever specific healing is required for each individual case. Although such concepts have been invoked historically by various systems of healing (osteopathy, chiropractic, naturopathy, etc.), innate healing and vitalism are not generally recognized by modern researchers. Cayce's version of vitalism has fascinating spiritual implications: "Electricity or vibration is that same energy, same power, ye call God. Not that God is an electric light or an electric machine, but that vibration that is creative is of that same energy as life itself." [37] Thus the Cayce readings emphasize spirituality as a primary healing influence, even to the extent of prescribing subtle energy applications (such as the wet cell battery and radial appliance) that presumably work directly with an innate divine intelligence and vibratory energies within the body that are the basis for all healing.

The *methodological* issues associated with researching the Cayce-based approach to nervous system regeneration are considerable. We have briefly reviewed several anecdotal reports that have been published, usually authored by individuals who feel that they have been helped by applying a Cayce-based treatment plan for nervous system regeneration. One of the consistent themes noted in these reports is that the individual who reported being healed, also reported being rebuffed or ignored by their physicians and/or disease-oriented support group. Therefore, the reports that are given represent individuals with sufficient motivation and perseverance to follow a lengthy protocol, negative feedback from health professionals and peers, and who possess adequate writing skills to complete an article or book about their experience. In his book, Delaney lists three other individuals who claimed to be cured using the Cayce approach for MS (20, p. 54-55). Likewise, Atkinson states that he knows of 10 individuals who he has assisted in reversing the symptoms of ALS [38, p. 139]. Because of the factors cited above, it is difficult to determine how many individuals may have had positive, unreported outcomes from Cayce-based energy medicine.

Although there has been no systematic scientific study of the Cayce hypothesis on nervous system regeneration, the two small pilot studies by Meridian Institute cited above are examples of an attempt at more standardized research. These preliminary projects helped to standardize the protocols for working with specific diagnostic conditions and to identify problematic areas for future research. The results suggest that the Cayce treatments can help people with neurological disorders. However, many months of treatment may be required before results are seen, and most patients find the treatment protocol hard to continue in the long term. Support is a necessity. Daily use of the wet cell followed by a massage is the core of the therapy. Those who were able to continue usually reported notable improvement. The chal-

lenge now is to devise ways to help people continue with the Cayce treatments resulting in a larger group to evaluate for long term results. With regard to methodological issues that future research must address, the following areas of concern are noted:

Resources: The Cayce-based approach to nervous system regeneration requires substantial resources, especially with regard to support services. The financial burden of purchasing and maintaining the battery is an obstacle for many individuals. The additional resources for massage and other regular treatments is also prohibitive for persons with limited resources. Research resources must also be increased significantly. Presently, psychometric and simple physiological data have been used due to limited research funding.

Compliance: We have found that treatment compliance is a major challenge in researching the Cayce-based approach. Although most of the therapies can be done at home by a layperson, this places a tremendous burden on support persons. Unwillingness to make life-style changes required by daily therapies such as the wet cell battery and massage can bring the regimen to a quick halt.

Multimodality: The simultaneous use of numerous therapeutic modalities vastly complicates research methodology. With regard to the Cayce-based model for nervous system regeneration described in this article, multimodal treatment plans utilizing energy medicine, manual therapy, diet, mind/body healing and spirituality makes it difficult to determine the effect of any specific intervention.

Another complicating aspect of multimodality is the simultaneous use of complementary modalities, whether standard medicine or alternative. In desperation, individuals with progressive neurological disorders often use many therapies, sometimes going from one to another in rapid succession. When asked to participate in a research format that may require many months or years to produce positive results, it is natural that people wish to keep their options open by trying any of the latest treatments, of whatever source. Regardless of its nature, multimodal treatment involving diverse therapies makes it difficult to sort out specific therapeutic effects. Some researchers believe that "alternative therapies include too many variables to be studied as a single entity in any type of controlled study" [39, p. 24].

Documentation: Inadequate documentation is a serious deficit in the anecdotal reports cited above. The preliminary attempts at standardization by Meridian Institute and improved data collection by Baar are indicative of a serious attempt to address this shortcoming in the data.

Scientific advancement is often initiated by chance observation or anecdotal reports leading to pilot studies and finally to larger scale investigations. Within this model of scientific progress, the relative weakness of anecdotal evidence could be viewed as part of the natural scientific process. The desired progression in this process is toward

more objective and substantial evidence-based methodologies such as randomized clinical trials.

CONCLUSION

A growing body of anecdotal evidence suggests that a nervous system regeneration model advocated by Edgar Cayce has been helpful for individuals with a wide diversity of neurological conditions. The anecdotal reports reviewed in this article are based primarily on cases where individuals have taken it upon themselves, often without physician knowledge or approval, to apply the Cayce regimen. Therefore the quality of the evidence is necessarily uneven and tentative. Standardized protocols and research formats that are now being developed may eventually lead to more substantial evidence-based methodologies.

REFERENCES

1. Terris DJ, Fee WE. Current issues in nerve repair. *Arch Otolaryngol Head Neck Surg.* 1993, 119:725-731.
2. Frostick SP, Yin Q, Kemp GJ. Schwann cells, neurotrophic factors, and peripheral nerve regeneration. *Microsurgery,* 1998, 18:397-405.
3. Sisken BF, Walker J, Orgel M. Prospects on clinical applications of electrical stimulation for nerve regeneration. *Journal of Cellular Biochemistry,* 1993,52:404-409.
4. Blackman CF, Bename SG, House DE. Evidence for direct effect of magnetic fields on neurite outgrowth. *Journal of the Federation of American Societies for Experimental Biology (FASEB),* 1993, 7:801-806.
 - 5a. Nickols J, Saunders N. Regeneration of immature mammalian spinal cord after injury. *Trends Neurosci.* 1996,19:229-234.
 - 5b. Stichel CC, Muller HW. The CNS lesion scar: new vistas on an old regeneration barrier. *Cell Tissue Res* 1998;294(1):1-9.
6. Callan JP. Holistic health or holistic hoax? *JAMA,* 1979,241:1156.
7. Stearn J. *Edgar Cayce: The sleeping prophet.* New York: Bantam Books, 1971.
8. Cayce E. *Edgar Cayce reading 1800-16; 1930.* The Complete Edgar Cayce Readings on CD-ROM. Virginia Beach, VA: A.R.E. Press, 1995.
9. McMillin D, Richards DG. The radial appliance and wet cell battery: Two electrotherapeutic devices recommended by Edgar Cayce. Virginia Beach, VA: Lifeline Press, 1994.
10. Becker RO. *Cross currents: The promise of electromedicine, the perils of electropollution.* Los Angeles: Jeremy P. Tarcher, 1990.
11. McMillin D. *Alzheimer's Disease and the Dementias: An Alternative Perspective.* Virginia Beach, VA: A.R.E. Press, 1994.
12. Richards DG, McMillin D, Nelson C, Mein E. Improvement of circulation using the radial appliance. *Subtle Energies & Energy Medicine,* 1994;7:71-88.
13. Sherman MS, Paz HL. Review of respiratory care of the patient with amyotrophic lateral sclerosis. *Respiration,* 1994;61(2):61-7.
14. Bromberg MB. Pathogenesis of amyotrophic lateral sclerosis: a critical review. *Curr Opin Neurol* 1999;12(5):581-8.
15. Baar B (ed). *Amyotrophic lateral sclerosis and motor neuron disease: Three cases of reversal of symptoms.* Downton, PA: Baar Publications, 1999.
16. Parboosingh JS, Figlewicz DA, Krizus A, Meininger V, Azad NA, Newman DS, Rouleau GA. Spinobulbar muscular atrophy can mimic ALS: The importance of genetic testing in male patients with atypical ALS. *Neurology,* 1997;49(2):568-72.
17. Smith R. Atkinson's ALS diagnosis changed. *Venture Inward,* 1998;14:13.
18. Cayce E. *Edgar Cayce reading 907-1; 1939.* The Complete Edgar Cayce Readings on CD-ROM. Virginia Beach, VA: A.R.E. Press, 1995.
19. Miller CM, Hens M. Multiple sclerosis: a literature review. *J Neurosci Nurs* 1993;25(3):174-9.
20. Delany D. *The Edgar Cayce Way of Overcoming Multiple Sclerosis: Vibratory Medicine.* Hampton, VA: Meridian Publications, 1996.
21. Bjork RO. *Multiple sclerosis and how I live with it.* Phoenix, AZ: Birchbark Press, 1978.
22. Richards DG. *Healing neurological disorders.* New Millineum, 2000;5(3):9-13.
23. Sian J, Gerlach M, Youdim MB, Riederer P. Parkinson's disease: a major hypokinetic basal ganglia disorder. *J Neural Transm,* 1999;106(5-6):443-76.
24. Richards DG, McMillin D, Mein E, Nelson C. Treatment of Parkinson's disease using the Cayce wet cell battery. *Subtle Energies & Energy Medicine,* 2002;11:151-166.
25. Roth ME. *Advances in Alzheimer's disease. A review for the family physician.* *J Fam Pract,* 1993;37(6):593-607.
26. McMillin D. *Principles and Techniques of Nerve Regeneration.* Virginia Beach, VA: A.R.E. Press, 1995.
27. Smith R. *Defying Alzheimer's.* *Venture Inward,* 2001,17:13-14.
28. Alberts MJ, Roses AD. Myotonic muscular dystrophy. *Neurol Clin,* 1989;7(1):1-8.
29. Caputi L. Remedies found to fight muscular dystrophy. *Venture Inward,* 2000;16:12-14.
30. Mendell JR. Charcot-Marie-Tooth neuropathies and related disorders. *Semin Neurol,* 1998;18:41-7.
31. Jaffin A. Outwitting a 'Disabler.' *Venture Inward,* 1991;7:16-19.
32. Haller G. Neurological disorder of the foot: CMT.

A.R.E. Journal, 1978;8:196.

33.A. Jaffin, personal communication to David McMillin, September 25, 1998.

34. Licht S. Therapeutic Electricity. In Stillwell, G.K. (ed.), Therapeutic electricity and ultraviolet radiation. Baltimore, MD:Williams &Wilkins, 1-64.

35. Becker RO. Cross Currents. Los Angeles, CA: Jeremy P. Tarcher, Inc., 1990.

36. Richards DG, McMillin D, Mein E, Nelson C. Gold and its relationship to neurological/glandular conditions. Intern J Neuroscience, 2002, 112:31-53.

37. Cayce E. Edgar Cayce reading 2828-4; 1943. The Complete Edgar Cayce Readings on CD-ROM. Virginia Beach, VA: A.R.E. Press, 1995.

38. Atkinson D. Hope springs eternal: Surviving a chronic illness. Virginia Beach, VA: A.R.E. Press, 1998.

39. Faar CH, White R, Maged M. Patient outcomes to alternative medicine therapies as measured by the SF-36 — preliminary report. Townsend Letter 1999;186:24-25.