

## CASE REPORT

# Significant Neurological Improvement in Two Patients with Amyotrophic Lateral Sclerosis After 4 Weeks of Treatment with Acupuncture Injection Point Therapy Using Enercel

Shan Liang 1, David Christner 2, Stephanie Du Laux 2, Dariel Laurent 2,\*

Available online Oct 19, 2011

Received: Feb 22, 2011 Revised: Jun 22, 2011 Accepted: Jul 6, 2011

#### **KEYWORDS**

Acupoint injections; ALS; energy medicine; homeopathy; neurology

#### Abstract

Amyotrophic lateral sclerosis (ALS) is a progressive, uniformly fatal, degenerative disorder of the upper motor neurons that does not currently have an effective treatment regimen. Here, we report two patients with ALS who were treated with 4 weeks of acupuncture injection point therapy using Enercel. These patients were administered 0.25-0.5 cc Enercel Plus IM to specific acupuncture points for 5 days per week for 4 weeks. Patient #1 presented with flaccid paralysis of all four extremities and impaired speech and swallowing. By Week 4, she demonstrated significant improvement in her motor strength in all four extremities (R > L) and improved speech and swallowing. However, she did not continue to receive the Enercel acupoint injections, and she subsequently demonstrated a slow, progressive loss of neurological function during the ensuing 3 months, as shown on follow-up examinations. Patient #2 had significantly impaired speech and mild motor loss in the upper extremities and the left leg. After 4 weeks of treatment, his voice had significantly improved to the point where his speech was understandable and his motor functions had returned to normal. He continued receiving Enercel acupoint injections during the 3-month follow-up period and his clinical improvements were maintained. Thus, these two patients with ALS showed clinical improvements after 4 weeks of Enercel acupoint injection therapy. Follow-up data suggests that ongoing therapy may be necessary in order to maintain these positive effects. This preliminary study merits further study and confirmation.

### 1. Introduction

Amyotrophic lateral sclerosis (ALS) is a progressive and fatal neurodegenerative disease that is characterized by the loss of motor neurons (i.e., the nerve cells that control voluntary muscle movement) [1]. The disorder causes muscle weakness and muscle wasting throughout the body as both the upper and lower motor neurons degenerate.

<sup>&</sup>lt;sup>1</sup> Center for Acupuncture and Oriental Medicine, Sarasota, FL, USA

<sup>&</sup>lt;sup>2</sup> World Health Advanced Technologies Ltd., Nassau, Bahamas/Sarasota, FL, USA

<sup>\*</sup> Corresponding author. World Health Advanced Technologies, 2477 Stickney Point Dr., Suite 200A, Sarasota, FL 34231, USA. E-mail: what2000@juno.com

258 S. Liang et al.

ALS is one of the most common neuromuscular diseases worldwide. One or two out of every 100,000 people develop ALS each year. ALS most commonly strikes people between 40 and 60 years of age, but younger and older people can also develop the disease. Men are affected slightly more often than women [2]. The cause of ALS is unknown [3].

ALS usually advances to progressively more severe motor neuron disease, and eventually death, within 2–5 years. The pharmaceutical drug Rilutek has been shown to prolong survival for up to several months and may slow the time required to reach respiratory failure [4]. However, no available medication can reverse motor neuron degeneration or provide a cure.

Enercel (World Health Advanced Technologies, Nassau, Bahamas) is a combination of various homeopathic medicines, as defined by the Homeopathic Pharmacopoeia of the United States (HPUS). The ingredients include *Cactus Grandiflorus* (4X), *Aloe Socotrina* (4X), *Abies Nigra* (4X), *Arnica* (6X), *Lachesis* (11X), calcium carbonate (6X), *Pulsatilla Vulgaris* (6X), distilled water, and alcohol (5–8% by volume). Enercel has been shown to be completely nontoxic and has not demonstrated any negative side effects in clinical trials or general use [5]. Enercel supports immune system functions by stimulating energy production in the cells and modulating their activity. Anecdotal reports have reported that Enercel is beneficial for patients with neurodegenerative disorders, although it has never been formally studied in this population.

Enercel activates the energy pathways of tissues throughout the body [6]. This energy enhancement results in improved functioning, health, metabolism, and resistance to infection and stress. Once the cellular energy is normalized, particularly in the immune system, health can be restored and patients are able to carry on their normal activities. Furthermore, because all of the tissues in a localized area are affected in the same way, homeostasis between cells is restored as well. When cells have sufficient and regulated energy, their functions are normalized [7].

Acupuncture is a technique used in traditional Chinese medicine, whereby a number of very fine metal needles are inserted into the skin at specially designated points [8]. The conventional Chinese explanation of the effectiveness of acupuncture is based on the Taoist philosophy that explains that good health depends on the free circulation of *chi* (*qi*), or life force energy, through all of the organs of the body. The *chi*, in turn, depends upon the balance of the two opposing energies: yin (negative, dark, feminine) and yang (positive, bright, masculine). Meridians are the main channels of this flowing energy. When energy flow is impeded at any point (e.g., because of a diseased organ or stress), illness in other organs may result. Piercing the channels at the proper points is believed to correct imbalances by modulating energy flow.

Energy medicine is based upon the belief that changes in the "life force" of the body—including the electric, magnetic, and electromagnetic fields—can affect human health and be manipulated to promote healing. Alternatively, a new concept in energy medicine incorporates the network of underdifferentiated, electromagnetically sensitive cells in the body that can be "triggered" by energetic substances to induce tissue repair and regeneration [8].

The notion of the life force or energy is shared by people around the world. Since ancient times, traditional cultures have believed that a special energy vitalizes all life. This energy is known by many other names. It is intriguing to consider that this ancient concept of bio-energy may now be in the process of being defined by science by stem cell-like, electromagnetically sensitive cells in the body that are capable of cellular reconstruction and restoration.

Over the course of the last three decades, energy medicine has moved from being a marginal area of research to gaining a considerable amount of mainstream acceptance. Despite the publication of over 300 studies over the past 40 years that report the efficacy of energy healing, these findings are still ignored or rejected by many scientists due to nonreproducible or inconsistent results [9].

The injection of liquids into acupuncture points—either pharmaceutical or natural—is called acupuncture injection point therapy. This treatment is based on the concept that products that enhance energy channels may work synergistically with acupuncture. Animal trials have validated this process in several models, including acupoint injections of bee venom to treat adjuvant-induced arthritis [10]. Although few clinical trials are available, extensive community experience—especially in China—has yielded results beyond what may be achievable by acupuncture or drug supplementation alone. This practice is a recognized procedure in several states, including Florida, Arkansas, Colorado, New Mexico, and Washington.

The administration of Enercel into acupuncture points has been named enerpuncture. This procedure has proved to be beneficial for treating patients with a variety of illnesses, most commonly those affecting the musculo-skeletal system [11]. Clinical experience suggests that acupoint injection with Enercel may improve the clinical outcomes of many disorders compared to acupuncture alone. This report describes neurological improvement in two patients with ALS who received 4 weeks of enerpuncture therapy.

#### 2. Presentation of cases

#### 2.1. Case #1

A 59-year-old Caucasian female presented with a medical history of osteoarthritis, hypertension, and depression, all of which were well controlled. She presented with a 1-year history of progressive weakness in all four extremities, fasciculations, poor gait, and 5 months of wheelchair dependence. These symptoms first began to present about 1 year prior when she noted difficulty getting in and out of her SUV and difficulty rising from a seated position. She initially attributed these symptoms to osteoarthritis, but she began to have progressive problems with mobility and experienced frequent falls. These problems advanced to the point that she completely lost movement in all four of her extremities. She had an initial clinical examination in December 2009 that revealed spinal stenosis; she underwent a laminectomy on January 19, 2010 to treat this. Despite the surgery and subsequent rehabilitation, her neurological condition continued to worsen. She was readmitted in March 2010 for a physical examination that indicated significantly diminished motor strength in all four extremities, diffuse hyperreflexia, and a bilateral positive Babinski's reflexes. Laboratory values were as follows [normal values are shown in brackets]: normal blood chemistry panel; negative for antibodies to human immunodeficiency virus (HIV) 1-2; erythrocyte sedimentation rate (ESR), 32 mm/hr [0-20 mm/hr]; C-reactive protein (CRP),  $2.34 \,\text{mg/dL}$  [0–1 mg/dL]; copper level,  $219 \,\mu\text{g/dL}$ [80–155  $\mu$ g/dL]; white blood cell count (WBC), 10.09 k/ $\mu$ L [4.5–11 k/ $\mu$ L]; red blood cell count (RBC), 3.70 m/ $\mu$ L  $[4.2-5.5 \text{ m/}\mu\text{L}]$ ; hematocrit (HCT), 34.4% [37–47%]; platelet count, 419 k/ $\mu$ L [150–400 k/ $\mu$ L]; vitamin B12, 376 pg/mL [200-900 pg/m-]; thyroid stimulating hormone (TSH),  $2.16 \mu IU/mL$  [0.55-4.78  $\mu IU/mL$ ]; T4, 0.8 ng/dL [0.8-1.8 ng/dL]; methylmalonic acid, <0.10  $\mu$ mol/L [0-0.4 µmol/L]; Urinalysis (UA) within normal limits (WNL); urinary lead and arsenic,  $< 0.10 \,\mu\text{g/L}$  [ $< 0.10 \,\mu\text{g/L}$ ]; urinary mercury, 3 µg/dL [0-10 µg/dL]; cerebrospinal fluid (CSF) protein, 35 mg/dL [10-50 mg/dL]; glucose, 57 mg/dL [40-70 mg/dL]; WBC, 3 per cmm [0-5 per cmm], RBC, 233 per cmm [0-1 per cmm]; nonreactive Venereal Disease Research Laboratory (VDRL); negative cytology; negative gram staining; slightly elevated IgG synthesis, 4.39 mg/day [-9.9+3.3 mg/day].

Imaging studies were also performed. MRI of the cervical spine showed mild degenerative changes; however, brain MRI, pelvic MRI, and CT of the abdomen were all negative. Abdominal ultrasound was unremarkable and pelvic sonogram was normal except for a 3 cm cyst in the left ovary. Pulmonary function tests revealed mild restrictive lung disease. Doppler studies of the lower extremities were WNL. Electromyogram/Nerve conduction velocity (EMG/NCV) tests showed patchy denervation in both legs and arms with fasciculations in the proximal right arm and left leg muscles. The tongue was normal. The thoracic paraspinous muscles were not studied. Conduction studies indicated that the legs were nonconductible due to distal atrophy and denervation. Proximal right peroneal NCV was normal and the right median was also normal. A diagnosis of amyotrophic lateral sclerosis was made based on these findings.

Patient #1 presented on July 12, 2010 with flaccid paralysis of all four extremities (some fasciculations were noted but strength was 0/5 in all extremities). Her speech was impaired and her swallowing was minimally impaired. The neck paraspinal muscles were in spasm and their strength was 3/5. Her hands and fingers had severe contractures. She had 3+ pitting edema in both legs through the knees and 1+ in both arms (L > R). Her prescribed medications included the following: 50/25 mg qd Atenolol/HCTZ; 100 mg bid Colace; 20 mg bid Lasix; 10 meq bid potassium chloride; 300 mg tid Gabapentin; 2 mg qd Estradiol; 0.5 mg bid/prn Lorazepam; 20 mg Omeprazole; 20 mg bid Oxycodone; 25 mg qd Sertraline; and 50 mg bid Rilutek. All of her medications were continued throughout the course of this study.

Patient #1 began acupuncture injection point treatments with 0.25–0.5 cc of Enercel Plus IM that was administered to each point for 5 days per week, as specified in the protocol (Table 1). The practitioner was free to vary and/or add acupuncture points as the study progressed. She also received intramuscular injections of 3 cc Enercel Plus IM 5 days per week, 20 drops of Enercel Max administered

Table 1 Initial acupuncture points used in this study.

Acupuncture Point	Enercel dose*	Duration <sup>†</sup>
Baihui Du-20	none	4 wk
Huatuojiaji EX-21	0.25 cc	4 wk
Dazhui DU-14	0.25 cc	4 wk
Quchi LI-11	0.25 cc	4 wk
Waiguan SJ-5	0.25 cc	4 wk
Yanglingquan GB-34	0.25 cc	4 wk
Zusanli ST-36	0.25 cc	4 wk
Dicang ST-4	0.25 cc	4 wk
Jianche ST-6	0.25 cc	4 wk
Liangmen ST-21	0.25 cc	4 wk
Tianshu ST-25	0.25 cc	4 wk
Guilai ST-29	0.25 cc	4 wk
Genshu UB-17	0.25 cc	4 wk
Qimen LIV-14	0.25 cc	4 wk
Pishu UB-20	0.25 cc	4 wk
Weishu UB-21	0.25 cc	4 wk
Hagu LI-4	0.25 cc	4 wk
Jianyu LI-15	0.25 cc	4 wk
Yanglao SI-6	0.25 cc	4 wk
Huantiao GB-30	0.25 cc	4 wk
Shangjuxu ST-37	0.25 cc	4 wk
Jiexi ST-41	0.25 cc	4 wk
Kunlun UB-60	0.25 cc	4 wk

<sup>\*</sup>Injects were delivered to each acupuncture points using a 27-gauge needle. The dose could be raised to 0.5 cc during the study at the acupuncturist's discretion.

sublingually twice daily, and 10 drops of Enercel® Max in 16 oz of water twice daily.

Approximately 4 days into the study, she developed some grip in both hands (R > L) and 2/5 movement in her right arm. Her speech and neck strength improved. A day later she developed a "detoxification reaction," which is characterized by severe fatigue, muscles aches, light headedness, increased edema, and complaints of feeling feverish (although her body temperature remained normal). Her Enercel-containing water was withheld because of the increased edema. Her urine became cloudy, which is consistent with the detoxification process, but the dipstick analysis was negative for leukocytes. She was started on a detoxification regimen of Zeolite drops (Metagenics, Gig Harbor, Washington) (10 drops administered sublingually three times per day) and AdvaClear (Metagenics, Gig Harbor, Washington) (two capsules administered three times per day).

She continued to have detoxification reactions, but another neurological examination performed 4 days later (Day 8) revealed increased movement in her right arm and some movement in her left arm. Her grip strength had improved bilaterally. She could now wiggle her toes some. Up to this point, her nutritional status was poor. She was started on protein shakes supplemented with powdered greens mixture twice per day, but her oral intake was still poor. She was also severely constipated, which was resolved

<sup>&</sup>lt;sup>†</sup>Patients were treated Monday through Friday with the weekends off. The acupuncturist was free to add or subtract new points during the course of the 4-week treatment period based on his clinical evaluation at each visit.

260 S. Liang et al.

by administering herbal laxatives (senosides) and the intermittent use of oral magnesium sulfate (Epsom salts).

The detoxification symptoms became so severe and constant that her acupoint injections were decreased, primarily by withholding the injections to her legs. Despite that, by Day 12, she continued to show improvements in speech, arm and hand strength, and toe and foot movement compared with her condition on Day 8. Her neck strength had improved to 4/5 and the spasms were resolved.

Laboratory tests were performed after 14 days, revealing a potassium level of 2.0 mEq/L. This is thought to be secondary to the two potassium-voiding diuretics that were prescribed (Lasix and HCTZ). HCTZ was discontinued and the patient was briefly hospitalized for intravenous potassium replacement. After obtaining a potassium level of 3.7 mEq/L, she was released.

The detoxification reactions decreased and she restarted full acupoint treatments. After 3 weeks on this study, her neurological improvements were as follows: speech had improved by 50%; right grip strength was 4+/5; lower arm strength was 3+/5; upper arm strength was 3/5 (she was somewhat able to grip and manipulate her wheelchair controls); left grip strength was 3/5; lower arm strength was 3/5; upper arm strength was 2/5; she was able to wiggle the toes of both feet; raised foot and lower leg movements were both rated as 3/5; some movement of the proximal muscles was noted (2/5); and neck extensors and flexors were now rated as 5/5.

After about 3 weeks, her appetite began to improve and she was able to eat three full meals per day up to the end of the initial 4-week study period. Her ability to swallow had significantly improved.

At the end of the initial 4-week study period, her muscle strength was similar to that measured at 3 weeks, but her coordination in her right hand had improved enough that she was able to easily manipulate the controls of her wheelchair for mobility and positioning. Her speech had also improved. She was now able to push up on her elbows, buttocks, and thighs in order to assist during transfers.

The patient returned home where she was followed via telephone conversations for 3 months. No follow-up testing was performed by her private physicians—she was only evaluated using clinical and neurological examinations. State restrictions on acupuncture injection point therapy prevented her from continuing this therapy; instead, she was treated 2—3 times per week with standard acupuncture. She intermittently used intramuscular, oral, and sublingual Enercel. Her clinical status slowly worsened over the following 3 months, although at the end of the follow-up period her condition was still improved compared with baseline (Table 1).

#### 2.2. Case #2

A 49-year—old, Caucasian, male, Gulf War without a significant past medical history who reported a 16-month history of progressive dysphagia and dysarthria and an 8-month history of worsening bilateral upper arm twitching and clumsiness of gait and grip. His daily activities were minimally impacted, although it was difficult for him to verbally communicate.

The patient occasionally have trouble holding objects and sometimes lost his balance, although he did not suffer any falls. He had an extensive clinical examinations in March 2010 that revealed the following findings [normal laboratory values are included in brackets]: slurred, nasal speech that was moderately intelligible; tongue fasciculations; slightly decreased motor strength left upper extremity (LUE); fasciculation of both shoulders and upper extremities (UE); chemistry panel, WNL; TSH, 1.40 µIU/mL [0.55-4.78 µIU/ mL]; free T4, 0.84 ng/dL [0.8–1.8 ng/dL]; prostate specific antigen (PSA), 1.16 ng/mL [0-4 ng/dL]; WBC,  $4.4 \text{ k/}\mu\text{L}$ [4.5–11 k/ $\mu$ L]; RBC, 4.84 m/ $\mu$ L [4.2–5.5 m/ $\mu$ L]; HCT, 42.7% [37–47%]; platelet count, 194  $k/\mu L$  [150–400  $k/\mu L$ ]; vitamin B12, 247 pg/mL [200-900 pg/mL]; ESR, 9 mm/hr [0-20 mm/ hr]; serum protein electrophoresis (SPEP), WNL; CRP, 0.553 mg/dl [0-1 mg/dL]; total cholesterol, 187 mg/dL [120-200 mg/dL]; UA, WNL; rapid plasma reagin (RPR) (-). EMG/NCV showed widespread motor neuron disease affecting the tongue and bilateral upper limbs but sparing the thoracic paraspinal muscles. Patchy denervation of both of the lower extremities was evident, but no evidence of peripheral neuropathy or significant neuromuscular transmission defects were noted. Pulmonary function tests (PFT) showed mild restrictive disease. MRI of the lumbar region was normal. Mild spondylosis was noted on cervical magnetic resonance imaging (MRI). The diagnosis of amyotrophic lateral sclerosis was made based on these findings.

When patient #2 began treatment on July 19, 2010 his clinical status was as follows: severe dysarthria to the point of being only very minimally intelligible; tongue, bilateral shoulder, and upper arm fasciculations; mildly decreased LUE motor strength and left-hand grip; mildly decreased left leg strength; mildly decreased right deltoid, brachioradialis, hand grip, and tibialis anterior strength; mildly impaired toe-to-heel gait and left-leg clumsiness. Reflexes were all normal. His medications included the following: 10 mg qd Loratadine; 20 mg qd Omeprazole; and 50 mg bid Rilutek. All medications were continued through the course of this study.

He began acupuncture injection point treatments with 0.25–0.5 cc Enercel Plus IM at each point for 5 days per week, as specified in the protocol (Table 1). The practitioner was free to vary and/or add points as the study progressed. He also received 3 cc Enercel Plus IM administered intramuscularly 5 days per week. He received 20 drops of Enercel Max sublingually and 10 drops of Enercel® Max in 16 oz of water twice daily.

After 1 week, his speech was somewhat improved and more intelligible. His fasciculations were decreased and his motor strength was 5/5 throughout his extremities, except the LUE which were 4+/5. His toe-to-heel gait had improved slightly. He reported being able to handle objects in both hands better. AdvaClear (two capsules) and Zeolite (10 drops sublingually) were administered three times per day to avoid any potential detoxification reactions.

After 2 weeks his speech was clearer and all motor functions were normal. He developed some fasciculations in his chest muscles, and the decision was made to add chest muscle and diaphragmatic acupoint injections. His toe-to-heel gait was normal. He reported the motor control in his hands to be 80% improved from baseline. He felt well and did not complain of any detoxification symptoms.

After 3 weeks, the chest fasciculations had improved and his clinical and neurological status were unchanged from that reported in Week 2. He reported increased energy and sense of well-being. His voice continued to improve to the point where his speech was completely understandable, though still moderately impaired. Fine motor control in both hands, as reported by the patient, was still 80% improved over baseline.

After 4 weeks, the chest fasciculations had improved by >50% and his neurological motor status continued to improve, except that the reported fine motor control of his hands remained at 80% over baseline. His voice and speech were slightly more improved. He reported a moderate return of fasciculations in both arms after vigorous exercise (jet skiing). The fasciculations were completely resolved by the next morning.

The patient returned home, where he was followed via telephone conversations for 3 months. No follow-up testing was performed by his private physicians—he was only evaluated by clinical and by neurological examinations. He continued to receive the Enercel acupoint injections 3–5 times per week; the intramuscular, oral, and sublingual Enercel were administered on the same schedule as during the 4-week lead-in period. His clinical status remained unchanged over the following 3 months. The positive effects achieved during the initial 4 weeks of treatment were maintained.

#### 3. Discussion

Two patients with ALS were treated with 4 weeks of acupuncture injection therapy using Enercel. These individuals demonstrated significant improvements in speech and muscle strength in the extremities after treatment. The patients were regularly contacted for 3 months after receiving treatment. Patient #1 did not maintain the Enercel acupoint injection treatments due to restrictions in her home state. She did not receive regular Enercel administrations via oral, sublingual, or intramuscular routes. She demonstrated a slow decline in neurological functioning over the following 3 months, although at the end she her

condition was still better than that recorded at baseline. Patient #2 continued regular Enercel acupoint injection therapy and Enercel use. The clinical improvements he achieved during the 4 weeks of intensive treatment were maintained during the 3-month follow-up period. It appears that persistent acupoint injection therapy with Enercel may be required in order to maintain the initial positive effects. However, these findings are preliminary. Additional, formal studies and controlled clinical trials are required to expand and confirm these results.

#### References

- National Institute of Neurological Disorders and Stroke. Amyotrophic lateral sclerosis fact sheet. Available from: http://www.ninds.nih.gov/disorders/amyotrophiclateralsclerosis/detail\_amyotrophiclateralsclerosis.htm. [accessed 18.09.2010].
- 2. Wijesekera LC, Leigh PN. Amyotrophic lateral sclerosis. *Orphanet J Rare Dis.* 2009;4:1—9.
- Maragakis NJ. Epidemiology and pathogenesis of amyotrophic lateral sclerosis. Available from: http://www.uptodate.com/ home/index.html. [accessed 21.09.2010].
- Bellingham MC. A review of the neural mechanisms of action and clinical efficiency of Riluzole in treating amyotrophic lateral sclerosis: what have we learned in the last decade? CNS Neurosci Ther. 2011;17:4—31.
- 5. See DM, Tilles JG, Bertacchini C. Immunomodulatory effects of a homeopathic agent. *Amer J Nat Med*. 1998;5(6):10–14.
- 6. Martin J. Etheric eiology. Exp Mol Path. 2005;78:221-227.
- Christner D. World Health Advanced Technologies. Amyotrophic lateral sclerosis. Available from: http://www.enercel.com. [accessed 2.01.2011].
- 8. Kaptchuk TJ. Acupuncture: theory, efficacy, and practice. *Ann Intern Med.* 2002;136(5):374–383.
- National Center for Complementary and Alternative Medicine. Energy medicine: an overview. Available from: http://nccam.nih.gov/health.htm. [accessed 24.07.2010].
- Kwon Y, Kim J, Yoon J, Lee J, Han H, Mar W, et al. The analgesic efficacy of bee venom acupuncture for knee osteoarthritis: a comparative study with needle acupuncture. Am J Chin Med. 2001;29(2):187–199.
- Du Laux S. Enerpuncture. World Health Advanced Technologies. Available from: http://www.enercel.com [accessed 19.10.2011].