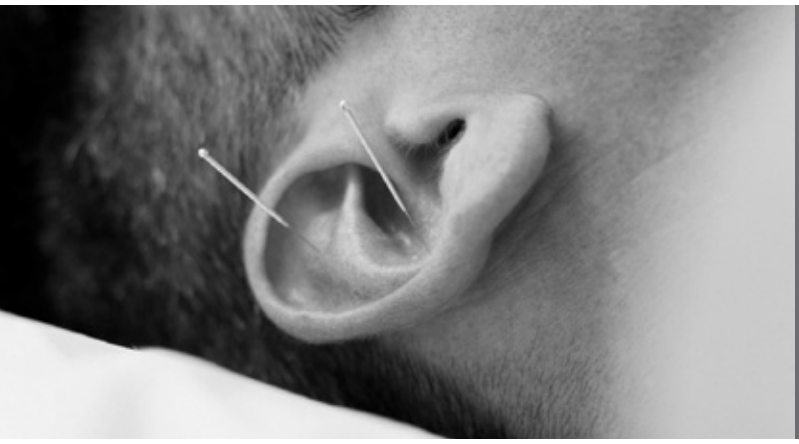

The Lasting Effects of Using Auricular Acupuncture to Treat Combat-related PTSD: A Case Study

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Abstract

Post-traumatic stress disorder (PTSD) is a condition of certain psychological symptoms occurring long term after a traumatic event or series of such events. The condition is especially prevalent with combat veterans. Research suggests that acupuncture can be a low-cost and highly effective treatment for a variety of psycho-emotional issues, including PTSD. In this case study, acupuncture treatment was performed over a six-month period on a 60-year-old male Vietnam veteran with longstanding symptoms of PTSD. The auricular treatment protocol, created by and named after the National Acupuncture Detox Association (NADA), was used. The treatments provided relief to a variety of symptoms including chronic fatigue, depression and grief, general anxiety, headaches, insomnia, nightmares, irritability, and panic attacks. Treatments were given over a six-month period, and a follow-up survey was conducted seven months after treatment ceased in order to ascertain if the therapeutic effects from the treatment were retained. The seven-month follow-up survey indicated that some level of relief was retained for a majority of the reported symptoms and that some of the symptoms were completely resolved. Results of this case indicate that auricular acupuncture may be a viable treatment option for veterans suffering from mental "dis-ease."

Keywords: auricular acupuncture, PTSD, NADA protocol, veterans

"Acupuncture affects the same part of the brain that is affected in those who are suffering from PTSD[4, 5] and studies indicate that acupuncture may be very effective for treating PTSD.[6, 7]"

Introduction

Biomedical Perspective:

Post-traumatic stress disorder (PTSD) is a state of long-term stress resulting from exposure to a traumatic event or series of events.[1] The condition is classified as a combination of three categories of symptoms: intrusive memories that may include flashbacks and recurring dreams, symptoms of avoidance and emotional numbing that can include hopelessness, depression and concentration problems, and symptoms of increased arousal that can include irritability, anger, substance abuse and insomnia.[1] In total, there are six diagnostic criteria for PTSD, listed A-F,[2] that involve a combination and recurrence of specific symptoms per the *Diagnostic and Statistical Manual of Mental Disorders*. (see Table 1)

Table 1: Criterion for PTSD Diagnoses

Criteria	Symptoms
Criterion A Stressor	Exposure to a traumatic event or stressor that elicits a response of "fear, helplessness or horror" [2]
Criterion B Intrusive Recollection	At least one instance of re-experiencing the event as one of five types of an intrusive memory such as a nightmare or flashback
Criterion C Avoidance/Numbing	The occurrence of at least three out of seven listed avoidance and/or numbing responses
Criterion D Hyper-Arousal	The experience of at least 2 out of 5 listed hyper-arousal responses
Criterion E Duration	The disturbance symptoms in Criteria B-D have occurred for a period of at least one month's time
Criterion F Functional Significance	An impairment of some level of functioning in social, occupational or other areas

The National Institute of Mental Health standard of care for PTSD includes psychotherapy that may include talk therapy combined with another modality such as cognitive behavioral therapy (CBT) and psychotropic medications including, but not limited to, antipsychotics, benzodiazepines, and antidepressants.[3] The Mayo Clinic recognizes that acupuncture may be beneficial for PTSD in conjunction with Western biomedical treatments.[1]

TCM Perspective:

Acupuncture affects the same part of the brain that is affected in those who are suffering from PTSD[4,5] and studies indicate that acupuncture may be very effective for treating PTSD.[6,7] In traditional Chinese medicine (TCM), PTSD and its symptoms can be diagnosed as many different patterns, depending on the presentation of the various symptoms. In a recent study of 21 patients suffering from PTSD, 12 different TCM diagnostic patterns were identified.[8]

In general TCM terminology, PTSD falls under a basic classification as a disturbance of the *shen* or spirit. There is also often an impediment to the flow of life-force energy, or *qi*, which manifests as irritability, frustration, and possibly anger. Diagnoses with components of *shen* disturbance and stagnation of *qi* were the most common in one recent study treating 16 different PTSD patients.[9] There may be associated meridian and organ system involvement, depending on the types of emotions which the patient presents.

The heart is known as the "house of the *shen*" in TCM, and disturbances of the *shen* are often treated by use of points associated with the heart.[10] In TCM there are 12 primary meridians, or channels, that correspond to one of five primary elements as well as an associated emotion.[11] For example, both the kidney (KD) and urinary bladder (UB) meridians are said to belong to the element of water. Deficiencies in this area can contribute to fear.[11] Anger, often associated with the liver meridian, can be due to a disturbance of the wood element.[11] While anger is the primary emotion associated with the element of wood, many mental and emotional disorders fall under the domain of this element and are diagnosed as a binding depression of the liver *qi*, more commonly referred to as liver *qi* stagnation.[11] These emotional correspondences provide clinicians with tools to fine-tune diagnoses and treatment strategies.

This case study reports the treatment outcome of a Vietnam War veteran who had suffered for almost 40 years with the symptoms associated with PTSD. Not only were his symptoms significantly relieved by the auricular acupuncture protocol, but his relief continued long after he discontinued his treatments.

Case History

Mr. H, a veteran of the Vietnam war, is a biracial, Caucasian and Native American 60-year-old male. He presented to the acupuncture PTSD clinic on November 11, 2010, referred by his wife. The requirement for treatment at this clinic is an official diagnosis of PTSD, which he received from the Veterans Administration hospital (VA) five years previously. At the time of the initial clinic visit, the patient was not in psychotherapy or taking any psychotropic medications. The patient reported type 2 diabetes, ringing in the ears, some hearing loss, occasional nasal congestion, occasional throat itchiness and soreness, shortness of breath and asthma, borderline high blood pressure, and palpitations/irregular heartbeat.

The patient filled out a PTSD checklist reporting on symptom prevalence at his initial visit (see Table 2). The patient reported having previous problems with drugs and alcohol but at the time of intake was clean and sober for 22 years. The patient also reported symptoms of chronic fatigue/lack of energy, chronic pain, depression/grief, general anxiety, headaches, insomnia, irritability, quick temper and other anger issues, nightmares, skin rashes and other skin problems, occasional panic attacks, and stomach/intestinal problems.

Table 2: PTSD Checklist (Baseline responses at the initial interview)

Symptom	Yes	Sometimes	No
Alcoholism/Substance abuse			X
Chronic fatigue/Lack of energy	X		
Chronic pain (circle) back, neck, pelvis (note: patient circled "pelvis")	X		
Depression/Grief	X		
General anxiety	X		
Headaches	X		
Insomnia	X		
Irritability, quick temper, other anger issues	X		
Nightmares	X		
Panic Attacks		X	
Skin rashes and other skin problems	X		
Stomach/intestinal problems		X	
Weight gain or loss			X

The patient chose not to discuss his nightmares or lack of sleep; his response was "Let's not even go there." He described the chronic pain (circled "pelvis" on the checklist in Table 2) as being in the coccyx area. He also reported diabetic neuropathy in his extremities. He indicated the "skin rashes and other skin problems" from the questionnaire checklist above to be a rash on the upper chest and back that he attributed to Agent Orange exposure. The majority of the symptoms have been affecting his quality of life for 38 years since the end of his active duty in Vietnam (1968-1972).

Diagnostic Assessment and Treatment Strategy

Normally, an individual undergoes a complete intake, including a variety of questions designed to assess the entire individual. The question topics cover diet and bowel function, sleep quality, energy level, aches and pains as well as emotions and quality of life. Tongue and pulse diagnosis is also performed by inspecting the color and coating of the tongue and palpating the pulse at three distinct locations on each wrist each at three different depths in order to ascertain both the location and the depth of any given illness; after this process, an individual treatment is prescribed accordingly.

However, the design of this PTSD clinic was not to provide an individual diagnosis or treatment but to provide symptom relief for as many PTSD patients as possible utilizing an auricular acupuncture protocol named after the National Acupuncture Detox Association (NADA), referred to simply as the "NADA protocol." The NADA protocol was originally developed to treat drug addiction back in the early 1970s.[12] The protocol is a set of five acupuncture points needled bilaterally, consisting of the Shenmen, Sympathetic, Kidney, Liver and Lung points on the ear.[12] The Shenmen point is one of the primary points to calm the mind.[13] The Sympathetic point regulates both sympathetic and parasympathetic nervous systems and treats disorders stemming from disturbances of the autonomic nervous system.[14] The Kidney point treats the brain along with a variety of related symptoms, including nervousness, poor memory, and autonomic nervous system imbalances.[14] The Liver point treats the stagnation of liver *qi* [13] as well as a wide variety of emotional and mental disturbances.[11] The Lung point calms panting and treats chest pain, night sweats, spontaneous sweating, and many skin problems.[13] The actions of these points therefore make them an appropriate choice to treat PTSD and its associated symptoms. The correspondences of the Kidney, Liver and Lung meridians to the emotions of fear and panic, anger and irritability, and sadness and grief respectively,[11] also support these point selections, as these feelings are all potential emotional components of patients with PTSD.[2]

There is often substance abuse in veterans suffering from mental illness.[15] Since, as noted, the NADA protocol has been used since the early 1970s to treat a wide variety of chemical addictions,[12] this provides additional support for its use to treat combat-related PTSD. One recent study used the NADA protocol to treat refugees from all over the world suffering from PTSD. This treatment was found to be effective, providing "a considerable reduction in symptoms related to PTSD in 14 of the 16 patients."[9] The NADA protocol has also shown to be effective for other psycho-emotional issues, some of which may pertain to veterans suffering from PTSD, such as attention deficit hyperactivity disorder[16] and anxiety related to the withdrawal from psychoactive prescription medications.[17]

Course of Treatment

Over the course of a six-month period from 11/11/10 to 5/12/11, the patient received a total of 18 treatments. Treatment utilized 5 0.18 x 15mm, Spring type, DBC brand, Korea, needles inserted bilaterally and retained for 30 minutes. Again, points needled comprised the auricular acupuncture protocol commonly referred to as NADA- the Shenmen, Sympathetic, Liver, Kidney, and Lung points of the ear. The patient lay supine on the treatment table and rested or slept during treatments. The patient was given consecutive weekly treatments for the first seven treatments. He then received treatment on an as-needed basis every one to four weeks for the remainder of the six-month treatment period.

Results

One week after the first treatment the patient reported still feeling somewhat fatigued but had a noticeable increase in overall energy level. He reported no skin itching or irritation and no panic attacks. He also reported less irritability and anger. During the interview before the third treatment, the patient reported feeling markedly less stress, less irritability, less anger, and an increased energy level. He reported 3-4 total irritability/anger incidents over the entire week's time—down from the previously reported 3-4 per day.

During the interview before the fourth treatment, the patient reported that the past week had "gone well overall," allowing the

first full night of sleep in a very long time. Over the course of the remaining treatments, the patient continued to report improvements, saying that his sleep, mood, and fatigue had all improved significantly and that his nightmares were "less realistic" and "easier to get away from." He also reported more control over his mood and demeanor, stating that incidents that previously would have "set him off" passed more easily.

Four weeks passed between the twelve and thirteenth treatments. Although untreated for nearly a month, the patient reported only one extremely angry and irritable moment. Nightmares still reportedly occurred but with less frequency and an increased sense of "control." Several treatments later, the patient reported his sleep as "amazing" and stated that he could now sleep through the night, with nightmares reduced from nightly to once a week. On the last day of treatment, the patient reported that all PTSD symptoms from which he had previously reported relief continued to be improved.

In summary, over the course of eighteen treatments during a six month period, the patient progressed from reporting symptoms of irritability, anger, panic, physical fatigue, sleeplessness, nightmares, and nameless irrational fears to describing days with increased calm and improved moods, an ability to deal with stress, decreased anger, increased physical energy, nights of up to six hours of uninterrupted sleep, an improved relationship with his wife and teenage son, and a loss of irrational fears.

The patient agreed to a follow-up phone consult in December, 2011, which was over a year after his initial visit and approximately seven months after the patient discontinued care. During the call, the patient reported his current status. (see Table 3)

Overall, noticeable improvement of symptoms occurred in 4 out of the 11 reported initial symptoms with complete resolution of symptoms occurring in 5 out of the 11 reported initial symptoms. There was no change or negligible change in 2 out of the 11 symptoms on the PTSD symptoms checklist. In total, 9 out of 11 symptoms were improved or completely resolved.

During this follow-up interview, the patient was now willing to elaborate on his sleep troubles previous to treatment and compare those un-restful nights to the markedly restful sleep he was now experiencing. He related that before treatment began he could sleep only 15-30 minutes at a time in "cat naps." The most sleep at any one time prior to treatment was one hour straight. He reported a tremendous fear of going to sleep prior to therapy and would try to force himself to stay awake. He continued these "cat naps" throughout the night and day, especially when seeing movies with his family. He further reported that he could never stay awake through a movie no matter how interesting he found it. Also, he said he would wake in the darkness and not know where he was or who was beside him and whether they were friend or enemy. It frequently took him a long time to "get out of a dream" and realize he was safe in his house lying next to his wife. He stated that it was not uncommon to suddenly awake with a start, wondering where his weapon was and feeling that he was still in the jungle.

At the follow-up interview, he reported that his sleep was now greatly improved and that he got 2-3 hours of good sleep before

Table 3: Comparison of PTSD Checklist Responses (Baseline/Intake, 11/11/10 vs. Follow-up 7 months post treatment, 12/17/11) **NOTE: IMPROVEMENTS AT FOLLOW-UP ARE INDICATED BY AN "I"*

Symptom	Yes (Baseline/ Intake)	Sometimes (Baseline/ Intake)	No (Baseline/ Intake)	Yes (7 mo. Follow-up)	Sometimes (7 mo. Follow-up)	No (7 mo. Follow-up)
Alcoholism/Substance abuse			X			X
Chronic fatigue/Lack of energy	X					I
Chronic pain (circle) back, neck, pelvis (note: patient circled "pelvis")	X			X		
Depression/Grief	X				I	
General anxiety	X					I
Headaches	X				I	
Insomnia	X					I
Irritability, quick temper, other anger issues	X				I	
Nightmares	X				I	
Panic Attacks		X				I
Skin rashes and other skin problems	X					I
Stomach/intestinal problems		X			X	
Weight gain or loss			X			X

waking either to urinate or from nightmares, although he now did not have any difficulty in going back to sleep after waking. Regarding the nightmares that he would have occasionally at the time of follow-up, he reported, "I'm more prepared to deal with them. They feel real but it then it takes a second and I realize I'm in the real world and not in the dream world." The patient also reported that he felt less stuck in the "dream world" in general and thought less about being in the jungle or under fire. Additionally, since he was more rested on a regular basis, he could watch movies all the way through and found it enjoyable to watch older movies that in the past he could not watch straight through without falling asleep. He noted he felt like he was "seeing these old movies for the first time." After almost 40 years of sleepless nights, Mr. H is now able to get a full night of sleep the majority of the time with only occasional nightmares.

Discussion

There is currently an increased need for safe and cost-effective ways to treat PTSD. A recent population-based survey of 30,000 veterans indicates that the number of Gulf War veterans who suffer from PTSD is more than double that of veterans of wars preceding the Gulf War.[18] A recent assessment of 88,235 troops returning from the Iraq War found that over 20% of active soldiers, and over 42% of reserve component soldiers required some form of mental health treatment.[19]

The NADA protocol may be an effective stand-alone treatment for PTSD patients or as a complement to the care PTSD patients receive from the VA. The current standard of care is palliative and includes prescribing multiple expensive and habit-forming pharmaceuticals, which, when treating chronic military service–related PTSD, may be no more effective than placebos.[20] This has become an issue of national interest. The *New York Times* recently published articles about the ineffectiveness of anti-psychotic drugs to treat combat-related PTSD[21] as well as reports of multiple veteran deaths in which coroner reports attributed the causes of death to toxic combinations of prescription drugs.[22] Acupuncture is safe, non-invasive, and non-addictive. Since the NADA protocol has been shown to be effective for PTSD without a lengthy intake process or diagnosis,[9] more veterans can be treated in less time with fewer resources. This protocol can be given in a group environment, which also saves time and money.

Conclusion

Mr. H reported relief to almost all of his symptoms more than seven months after ceasing treatment. Data collected during the initial interview compared to follow-up data indicates an improvement to the PTSD condition and symptoms. The outcome of this case study suggests that the auricular acupuncture NADA protocol can be an effective long-term therapy for PTSD. The same NADA protocol discussed in this article is currently provided as a free treatment for veterans, their families, and their caregivers at the Walter Reed Veterans Administration Hospital in Washington, D.C.[23] In the interest of all those suffering from combat-related PTSD, further evaluations are necessary in order to examine and compare treatment results from a larger patient base and to further research the long-term results and effectiveness of this care.

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