Integrative Medicine for Military Injuries Special Issue of *Medical Acupuncture*: Introduction

Eric Leskowitz, MD

THE VERY NAME OF THIS JOURNAL—*Medical Acupuncture*—makes clear that it is devoted to medical applications of the traditional Chinese therapy of acupuncture. Thanks in part to the professional backgrounds of its editorial board members, the journal has also had a strong focus on military applications of acupuncture. In no small part due to this focus, acupuncture has gained a high degree of acceptance in the military, with the Battlefield Acupuncture protocol developed by the journal's Editor-in-Chief, Richard C. Niemtzow, MD, PhD, MPH, having been adopted by U.S. forces in Iraq and Afghanistan, and in the Trauma Reset residential program at Fort Hood featuring acupuncture as a key integrative modality.

In that vein, this special issue of *Medical Acupuncture* addresses innovative approaches to combat injuries that spring from the same sort of holistic world view that birthed Traditional Chinese Medicine (TCM). These approaches are either direct outgrowths of acupuncture, or similar enough in terms of mechanism of action, to fall under the rubric of acupuncture-influenced integrative medicine. Because the scope of this issue will thus expand beyond the journal's normal focus, it is important for me to acknowledge my appreciation of the editorial board's flexibility in creating the space for this exploration of a wider-than-usual field of inquiry.

I am honored to have been asked to oversee this compilation, not only because of the topic's importance, but also because I am not an acupuncturist by training. I have been a holistically oriented psychiatrist at Spaulding Rehabilitation Hospital in Boston for more than 25 years, an academic medical center serving a civilian patient population that has suffered injuries similar to those suffered by combat veterans: brain injury, amputation, and the stress of trauma. My own clinical focus has been on in-

tegrative approaches to the management of chronic pain, and I have frequently seen the positive impact of a wide range of innovative and ancient modalities, often without there being a clear understanding of any operative mechanism of action. Working in an academic medical center requires a focus on evidence-based medicine, and my team has done so whenever possible. However, our prime directive has been the delivery of effective patient care, and sometimes the research literature has not yet caught up with the clinical skills of our holistically-minded multidisciplinary team.

Such is also the case with this collection of articles. Several of the techniques to be considered are solidly proven and well-accepted, while others are more speculative in nature and have not yet been thoroughly validated or widely accepted. Nevertheless, all are presented here under one "roof" with the hope of stimulating the development of a sound integrative protocol for the most effective treatment of three disorders that are the most clinically devastating nonfatal sequelae of combat: traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and phantom-limb pain (PLP).

The techniques to be considered are acupuncture, neurofeedback, energy psychology, functional medicine (FM), neuromodulation, yogic breathing, and cranial osteopathy. By way of introduction for readers who might be unfamiliar with these techniques, a brief overview follows:

- *Acupuncture*—No definition is needed for readers of this journal, and the military uses of this technique will be discussed by Niemtzow and Helms, two pioneers in the expansion of acupuncture into the medical arena. Additionally, Crawford et al. describe the Nellis Air Force Base experience in using acupuncture with veterans in a family practice setting.

Director, Integrative Medicine Task Force, Spaulding Rehabilitation Hospital, Department of Psychiatry, Harvard Medical School, Boston, MA.

- *Energy psychology*—Acupressure has been combined with the psychologic techniques of exposure and desensitization to create a psychotherapy known as energy psychology, also called “tapping” or Emotional Freedom Techniques (EFT). Substantial literature now exists—more than 100 published reports, including 12 randomized controlled studies and 3 meta-analyses—that documents EFT’s efficacy for addressing a range of disorders, in particular PTSD, as the article by Church et al. illustrates. Minewiser’s case report shows how direct and simple the application of EFT can be, even for PTSD in combat veterans.
- *CranioSacral therapy (CST)*—CST is a simplified version of osteopathic manipulation in the cranial field, a technique that is practiced by thousands of osteopaths and physical therapists, and that has been helpful to many people with mild and severe TBI. A recent pilot study of former professional football players who had suffered concussions is presented by Wetzler. The similarity of these injuries to the TBI suffered by combat veterans engenders hope that veterans could benefit someday as we learn more about this promising treatment option.
- *Functional medicine*—The use of supplements, antioxidants, and neuroprotective agents to improve cellular biochemical functioning is the focus of FM. FM is relevant here because it can directly alleviate the cellular deficiencies that arise in the metabolic cascades initiated by concussion. Richer’s article shows how intracellular metabolic enhancement may be able to ameliorate the impact of brain damage, whether from stroke or from improvised explosive device-induced concussion.
- *Neuromodulation*—The biofield or external electromagnetic field (EMF) that surrounds the human body has long been a focus of healing, from “energy healers” to modern devices such as repetitive transcranial magnetic stimulation (rTMS) and direct current stimulation (tDCS). These tools for neuromodulation are now being used to treat a wide range of disorders, ranging from chronic depression to phantom limb pain. By enhancing the brain’s neuroplastic reserves, neuromodulation has a growing range of applications, as Morales-Quezada illustrates with respect to PLP.
- *Yogic breathing*—Consciously regulated breathwork is an arm of yoga that is underappreciated in the West, but *pranayama*, as it is called, can have profound effects on psychologic and emotional states. The case series presented by Walker and Pacik demonstrates how controlled rhythmic breathing can impact the symptoms of PTSD profoundly.
- *Neurofeedback*—The principles of biofeedback can be applied to brain function as well as to traditional pa-

rameters such as muscle tension. Gray describes how brainwave biofeedback (also known as neurofeedback) can facilitate recovery from TBI and other forms of brain injury.

Now, a word about mechanisms of action. Even though we are currently unable to explain fully how or why many of these therapies work, they all share significant mechanistic factors. It is ironic that the strictly vitalistic perspective of TCM may have the greatest heuristic value here, especially if we consider that most of the world’s healing traditions invoke an invisible healing energy—*prana* in the Ayurvedic tradition of yoga, *ki* in Japanese martial arts, and, of course, *qi* in TCM. Aung’s commentary shows the value of this perspective in understanding disorders such as PTSD.

In contrast, Western medicine stands nearly alone in attempting to explain health and illness by reference only to processes and substances that are physically detectable, at the level of physiology, brain function, gene expression, and the like. This approach, known as materialism, has obviously yielded great advances in medicine and surgery and public health, but it has not yet provided convincing explanations for invisible healing forces that seem to underly such integrative medicine techniques as energy healing (Therapeutic Touch, Reiki, etc.), intercessory prayer, homeopathy, and acupuncture.

However, given recent research advances in the field of bioelectromagnetism, one could speculate that a common mechanism of action underlies all of these integrative medicine techniques, if we upgrade ancient talk of “life energy” to the language of EMFs and microcurrent gradients. In this revisioning, perhaps CST can activate EMFs that are piezoelectrically bound into the connective tissue matrix of the fascia and dura by stress or injury. Perhaps rTMS is, in fact, entraining and enlivening the resonant magnetic field or “aura” described by the mystics. Perhaps FM’s antioxidants revitalize patients by dissolving the energetic “rust” that clogs acupuncture meridians after exposure to chronic stress.

But speculation aside, we may have to wait years before we understand the energetic “how,” not to mention the physiologic mechanisms, of many integrative medicine therapies. Yet, in the meantime, as the clinical evidence continues to mount, we must find ways to make these approaches appropriately available to our veterans. The historical perspective provided in Pock’s Guest Editorial shows so clearly how our understanding of PTSD has changed over the course of history. That is why the Veterans Administration’s (VA) new commitment to an integrative medicine division, the Integrative Health Coordinating Center described in this special issue by its director, Benjamin Kligler, MD, is so important, and inspiring.

And that is the purpose of this special issue—to bring together current thinking on innovative approaches to the treatment of military injuries, approaches that deserve more attention and wider utilization. Having said that, I would like to finish this overview with a dedication to the members of a World War II veterans support group that I led for several years in the Boston VA Outpatient Clinic 30 years ago. Back then, the treatment of choice for PTSD, apart from some Valium®, was the shared retelling of combat stories—a process that engendered just the sort of catharsis that we now know can retraumatize the storytellers (at the same time that it can vicariously traumatize the well-meaning but combat-naïve civilian therapists who listened to those stories). Unfortunately, there were no integrative modalities to offer veterans in the 1980s, and I have often wished that I knew then what I know now. But I did not, of

course. So to Sully and Herb and Bill and Tank Man and Don—please know that I did my best with the limited tools at my disposal. It is in your memory that this series of articles is being offered.

Address correspondence to:

Eric Leskowitz, MD
Director, Integrative Medicine Task Force
Spaulding Rehabilitation Hospital
Department of Psychiatry
Harvard Medical School
Spaulding Neighborhood Clinic
101 Main Street, #101
Medford, MA 02155

E-mail: eleskowitz@partners.org